



# B2U STORAGE SOLUTIONS

## Overview

February 2025





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## Using patented EPS technology, B2U is commercializing a proprietary battery energy storage system (BESS) engineered to utilize EV batteries in large-scale storage applications.<sup>1</sup>



**B2U's energy storage facility in Lancaster, CA**

- B2U's patented EV Pack Storage (EPS) System deploys 2<sup>nd</sup> life batteries from EVs, reusing the entire battery pack, eliminating repurposing costs
- Uniquely engineered to achieve effective yields despite variance in capacity from large volumes of batteries
- Delivers a superior CapEx and Levelized Cost of Storage (LCOS) advantage
- EPS System is configurable for any EV battery; Nissan, Honda, Ford, GM, Tesla batteries operating at Lancaster facility
- 28 MWh capacity; operations began in May 2020, selling into CAISO wholesale market as a merchant resource

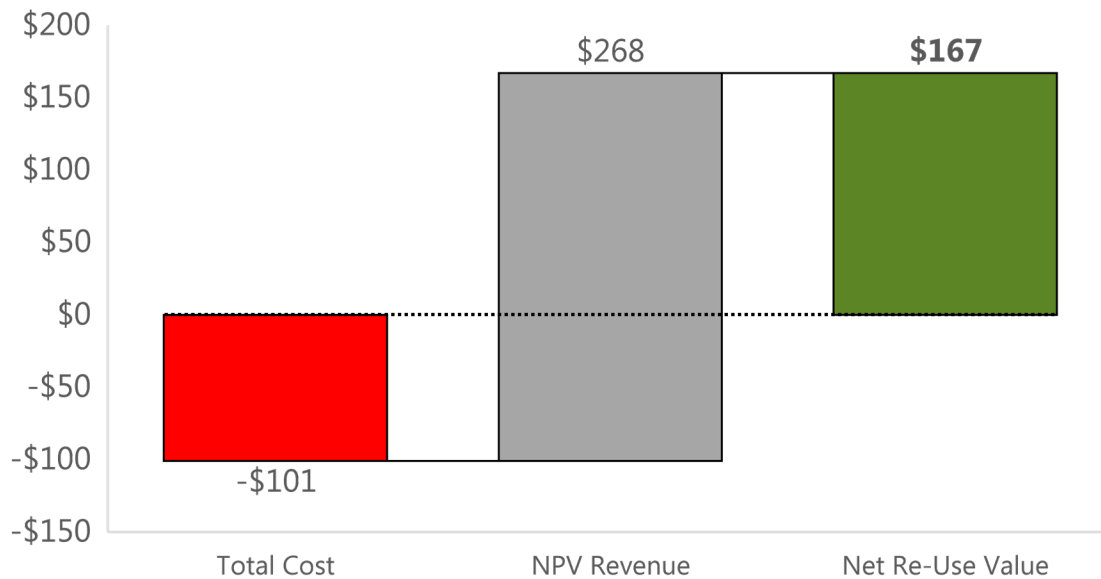
<sup>1</sup>*B2U-Battery 2<sup>nd</sup> Use; EPS-EV Pack Storage*

**Reuse before recycling generates substantially more value than direct recycling which is often a net cost depending on commodity prices of recycled materials.**

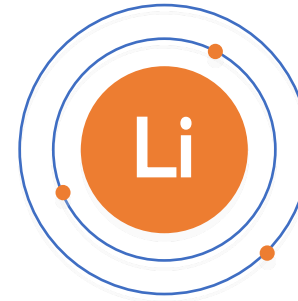


Reuse Generates Significant Value from the Remaining Energy Capacity

Battery Reuse Value (\$/kWh)

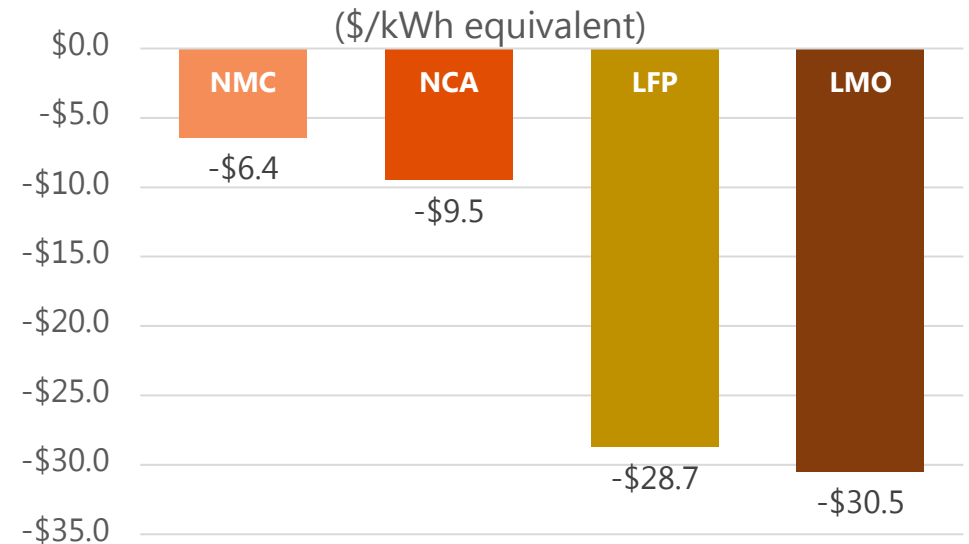


Source: KPMG analysis based B2U and CAISO data



Recycling value depends on battery chemistry

Net Value of a Recycled Battery (\$/kWh equivalent)

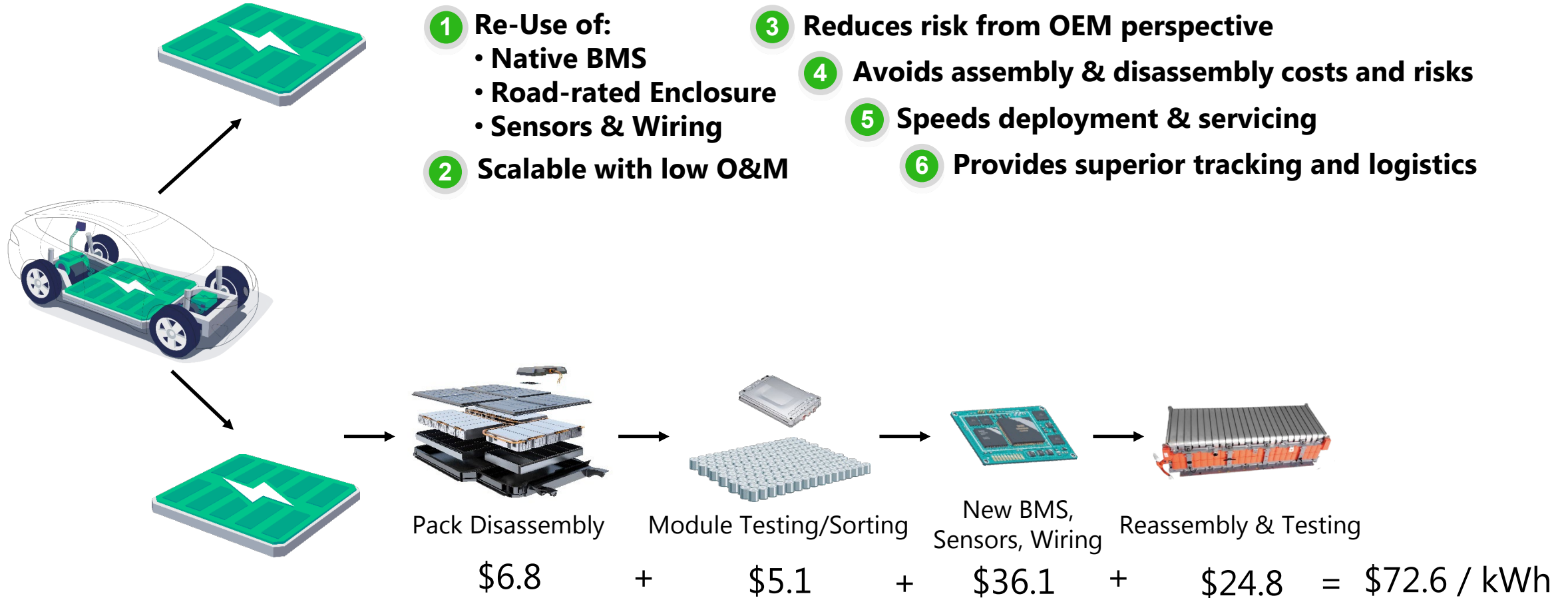


KPMG analysis based on Argonne National Lab; LMC database; Expert interviews; Company websites

B2U's EPS technology enables EV pack reuse that **AVOIDS** expensive repurposing costs.

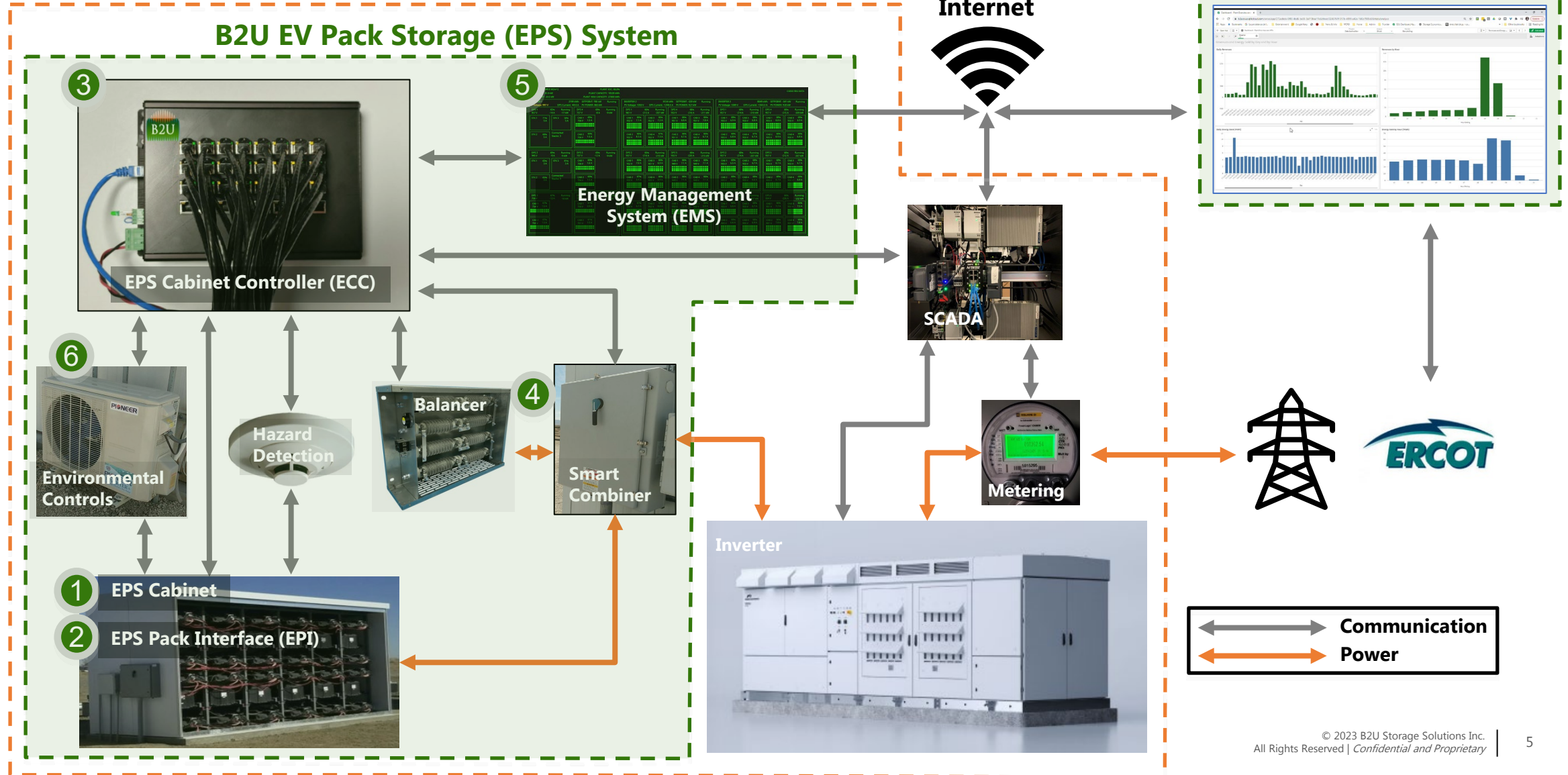
### EPS Enables Reuse of the EV Pack Avoiding Repurposing Costs

- 1 Re-Use of:
  - Native BMS
  - Road-rated Enclosure
  - Sensors & Wiring
- 2 Scalable with low O&M
- 3 Reduces risk from OEM perspective
- 4 Avoids assembly & disassembly costs and risks
- 5 Speeds deployment & servicing
- 6 Provides superior tracking and logistics



# B2U's Patented EV Pack Storage (EPS) System

## Battery Energy Storage System (BESS)





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## B2U is transferring its portfolio of BESS projects into funds managed by B2U Capital Advisers.

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### *Fund I*

\$40mm closed fund offering 8% preferred dividends targeting a 20%+ IRR for investors

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### *Use of Proceeds*

Acquire 7 operational energy storage projects (3 California, 4 Texas) developed by B2U

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### *Geography*

California (CAISO) and Texas (ERCOT) wholesale electricity markets

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### *Fund I Portfolio*

Utility-scale energy storage projects totaling 146 MWh in capacity

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### *Timing & Exit*

Fundraising to close Q2 2025 and operate for 5 years before selling assets

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### *Management*

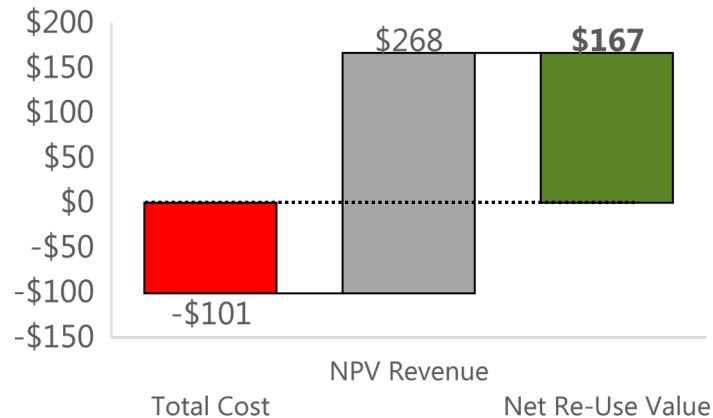
B2U Capital Advisers will manage the fund and operate the underlying assets



**B2U is uniquely positioned to generate value by safely reusing batteries in large scale 2<sup>nd</sup> life storage projects with its proven, patented technology which eliminates repurposing costs and automates processes, deploying solutions that scale as battery supply rapidly expands.**



**Battery Reuse Value**  
(per kWh)



Source: KPMG analysis based B2U and CAISO data

- ***B2U technology unlocks the value of 2<sup>nd</sup> life batteries and turns a waste stream into an asset***
- ***~50% less CapEx costs than new battery systems***
- ***Real time monitoring ensures safe operation***
- ***Process automation reduces operating expenses***
- ***Enables reuse within a closed loop resource circulation approach with superior risk mitigation; scaled deployment reduces logistics costs***
- ***Expertise in project development, deployment and operations***
- ***Dataset of reliability, performance and battery life reduces cost of capital and enhances financing opportunities***

# B2U's Competitive Advantages

<b>Proven Expertise</b>	<ul style="list-style-type: none"> <li>• Dataset that proves reliability, performance, IRR</li> <li>• Decades of Industry Experience</li> </ul>	<ul style="list-style-type: none"> <li>• Extensive Biz Dev Connections</li> <li>• Deep Market Insight</li> </ul>
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<b>Project Development</b>	<ul style="list-style-type: none"> <li>• 100 MW of Project Development</li> <li>• Only Company to Deploy Operational 2<sup>nd</sup> Life Plant</li> </ul>	<ul style="list-style-type: none"> <li>• Full Range of Services</li> <li>• Customer Insight</li> </ul>
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<b>Technology</b>		
<b>Software</b>	<b>MOPD</b>	<ul style="list-style-type: none"> <li>• ISO Market Access</li> <li>• Bid Automation</li> </ul>
	<b>EMS</b>	<ul style="list-style-type: none"> <li>• Plant Management</li> <li>• Real-Time Visualization</li> <li>• Analytics &amp; Reporting</li> </ul>
	<b>ECC</b>	<ul style="list-style-type: none"> <li>• Yield Management</li> <li>• Pack Interface &amp; Isolation</li> <li>• Analytics &amp; Reporting</li> </ul>
<b>Hardware</b>	<b>Smart Cabinet</b>	<ul style="list-style-type: none"> <li>• Plug-and-Play Installation</li> <li>• Smart Controls</li> <li>• Wiring Matrix</li> </ul>
		<ul style="list-style-type: none"> <li>• Superior Economics</li> <li>• Revenue Optimization</li> <li>• Worry-free Operation</li> </ul>



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# Appendix

# B2U's patented EV Pack Storage (EPS) system enables the use of EV battery packs without reconfiguration in large scale energy storage.

Battery racks

EV battery packs

Wiring harnesses for power & data

DC combiner

B2U's EPS deployment at Lancaster has achieved UL9540 certification



## EPS Cabinet Controller (ECC)

- Manages and monitors Battery Packs
- Interfaces with system SCADA and CAISO market operations
- Interfaces with Power electronics
- Hub for intelligent controls of cabinet thermal management and hazard detection
- Coordinates pack balancing
- Easily configurable by battery type



Mike Stern  
COO, B2U Storage Solutions

HVAC environmental controls

**B2U's EPS system is configurable and scalable, with over 2,000 batteries deployed in EPS cabinets from Nissan, Honda, GM, Ford and Tesla.**

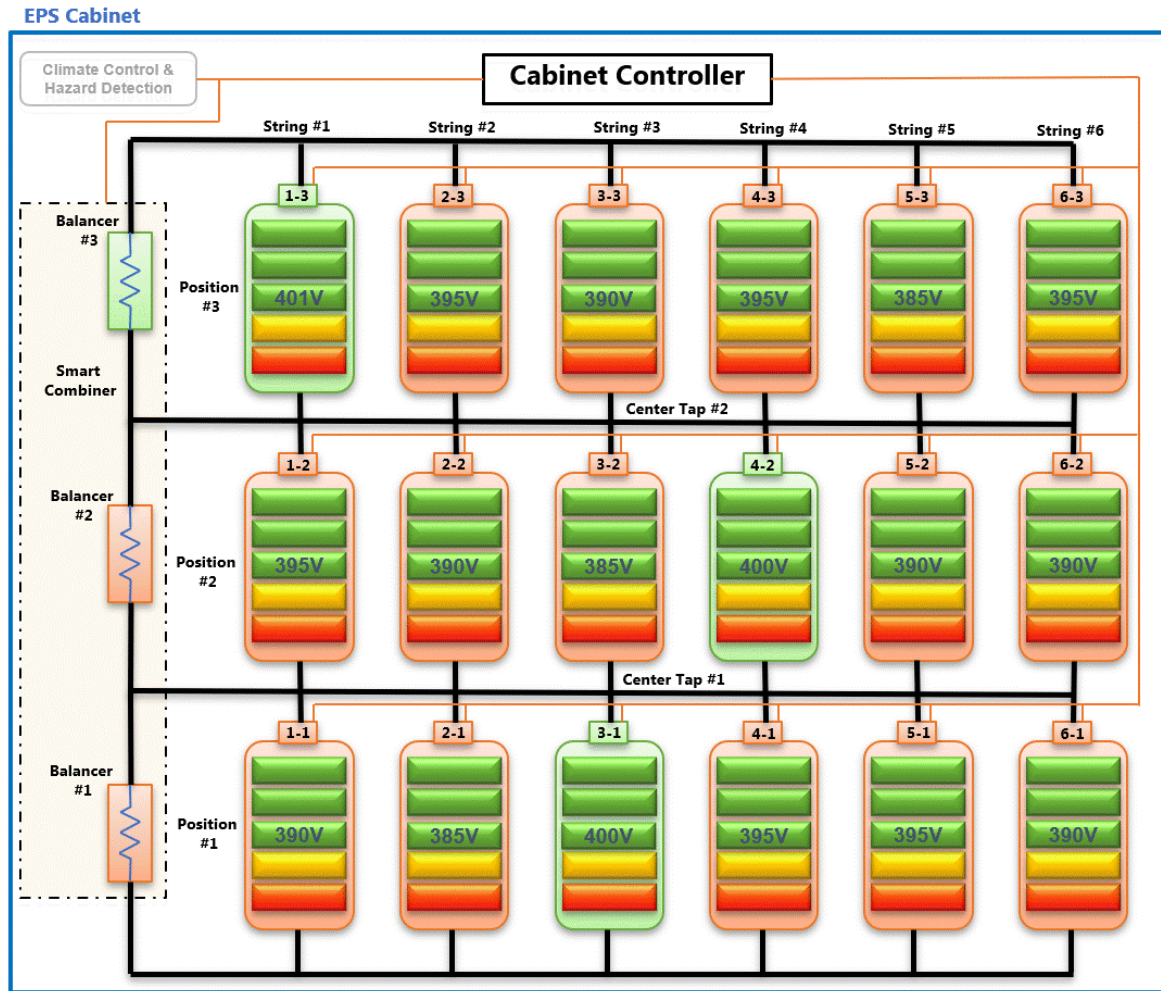


**EPS Cabinet with Honda Clarity Batteries**



# EPS Cabinet Controller enables “plug and play” performance, achieving high effective yield from strings of 2nd life batteries with significant capacity variance.

Illustrative EPS Cabinet with 3 batteries in series, 6 strings in parallel



## Yield Management with Capacity Variance

- EPS Cabinet Controller enables packs with different capacities to discharge efficiently.
- EPS Cabinet Controller improves system yields by both balancing and connecting/disconnecting individual batteries so that each string in the system can fully charge and discharge.
- Enabling the full system to operate in coordination and achieve a high effective yield, approaching the theoretical maximum yield (the sum of each battery capacity if discharged individually).
- Weaker batteries don't restrict performance of stronger batteries

## B2U's EPS demonstrates superior CapEx and LCOS.

### Significant Cost Savings from Proven Business Model

- Expanding supply of EV batteries in 2nd life applications reduces capital costs
- Proprietary software enables “as-is” battery pack installation, eliminating costly disassembly and manufacturing requirements
- Standardized system components enhance supply chain security, limit costs and expedite time to market

### B2U Delivers Industry-Leading Levelized Cost of Storage<sup>(1)</sup>

	B2U Sierra	Utility Scale	Wholesale (Standalone)	Wholesale (Standalone)	Wholesale (Standalone)	Commercial & Industrial	Commercial & Industrial
Storage System	PV + Storage	PV + Storage	Grid Charge	Grid Charge	Grid Charge	PV + Storage	PV + Storage
Storage / Nameplate Capacity	8.25 MW / 27 MWh	50 MW / 200 MWh	100 MW / 400 MWh	100 MW / 200 MWh	100 MW / 100 MWh	0.5 MW / 2 MWh	1 MW / 2 MWh
<b>Storage Expenses</b>							
Initial Capital Cost – DC (\$/kWh)	\$ 155	\$ 315	\$ 189	\$ 193	\$ 211	\$ 466	\$ 319
Initial Capital Cost – AC (\$/kW)	57	76	46	62	52	110	51
EPC Costs (\$/kWh)	32	30	29	25	30	50	50
Solar PV Capital Cost (\$/kW)	1,150	775	-	-	-	2,125	-
Total Initial Installed Cost (\$M)	9	154	91	50	29	4	1
Total Installed Storage Cost (\$M)	5.6	73	92	50	29	1	1
Total Installed Storage Cost (\$/kWh)	\$ 204	\$ 363	\$ 229	\$ 249	\$ 293	\$ 543	\$ 395
<b>Levelized Cost of Storage (\$/MWh)</b>	<b>\$ 94</b>	<b>\$ 122</b>	<b>\$ 182</b>	<b>\$ 202</b>	<b>\$ 220</b>	<b>\$ 285</b>	<b>\$ 543</b>

Notes: B2U Sierra battery prices ~\$30/kWh; Cost of capital for B2U's Sierra system assumed to be 15% compared to 12% for Lazard's examples

Source: (1) Lazard's Levelized Cost Of Storage Analysis – Version 7.0, Internal B2U data

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**The SEPV Cuyama project in Santa Barbara County was placed in service in Q4 2023. Similar to Sierra, it is a hybrid facility with 12MWh of storage capacity, selling power and grid services into the CAISO wholesale market.**





## B2U IP Portfolio

B2U has strong IP protection for its proprietary EV Pack Storage (EPS) technology that enables use of EV battery packs for storage projects without any reconfiguration, all the way to its overall plant design & operations software

### Three Core Areas of IP Protection:



*Technology to deploy EV batteries “as-is” in stationary storage in series and parallel strings (US Patent No. 11,289,921)*

- B2U’s patented EPS technology is based on its proprietary software embedded in custom designed controllers (ECC) that manage custom designed cabinets of battery packs. Using this technology, any EV battery can be deployed in “plug and play” fashion with B2U’s proprietary Pack Interface and battery communications software with extensive library of OEM CAN bus protocol translations



*Method to achieve effective yield using EPS Cabinet Controller (ECC) and Smart Combiner (US Patent Application 17,675,456)*

- ECC software’s Yield Management functionality enables the system to maximize both stored and delivered energy to the grid. ECC maximizes power yield from packs with different capacities, voltages and SOH by both balancing and connecting/ disconnecting individual batteries so that each battery in the system can fully charge and discharge approaching the theoretical maximum yield



*Automated system to deploy the overall energy storage system in wholesale power markets (US Patent Application 17,827,046)*

- B2U’s proprietary Wholesale Markets Operations platform (MOPD) automates and optimizes scheduling in wholesale markets. MOPD assimilates information from multiple data sources, analyzes opportunities, and produces bid curves through a dynamic process for updating system and market expectations, building and submitting bid curves for wholesale market operation

# B2U Management Team



**Freeman Hall**  
President

- 30 years industry experience, 5 with B2U Storage Solutions, 11 with Solar Electric Solutions



**Edward Becker**  
VP of Engineering

- 25 years industry experience, 4.5 with B2U Storage Solutions



**Michael Stern**  
Chief Operating Officer

- 40 years industry experience, 5 with B2U Storage Solutions, 11 with Solar Electric Solutions



**Justin Sacks**  
Software Engineering

- 15 years industry experience, 1 with B2U



**Christopher Swann**  
Managing Director, B2U Capital Advisors LLC

- 30 years industry experience



**Erich Vaden**  
Managing Director, B2U Capital Advisors LLC

- 20 years industry experience, 4.5 with B2U Storage Solutions



OUTFITTER VENTURES



**Greg Landreth**  
Power Market Operations

- 25 years industry experience, 4.5 with B2U Storage Solutions

