



RENEWANCE

STEWARDSHIP OPERATIONALIZED

NAATBATT Member Update
February 2022

Company Overview

Established in 2015 by an experienced team from the Energy Storage/Battery Industry
HQ in Chicago

Lifecycle of Energy Storage Systems (Stationary & Motive)

	Planning	Operation	End of Life
Renewance Offering	<p>Consulting services</p> <ul style="list-style-type: none">• RFP Planning• Contract review for End of Life liabilities• Decommissioning plans & estimates	<ul style="list-style-type: none">• ESS Commissioning Services• ESS O&M services & Support <p>CATL North American Service Partner for Stationary Storage Systems</p> <p>Asset Management SaaS specifically built around Energy Storage / Batteries Stewardship</p> <ul style="list-style-type: none">• Warranty Mgmt• Compliance Mgmt• Monitoring & Analytics• ES Performance recording	<ul style="list-style-type: none">• Evaluate Recycle or Reuse of batteries through data on batteries and transactions• Recycle<ul style="list-style-type: none">• Turnkey decommissioning projects• Project manage & execute battery recycling via RC ESS Decommissioning (Turnkey projects) & recycling• Reuse<ul style="list-style-type: none">• Develop responsible reuse solutions• Application of reused batteries in energy storage augmentation

Renewance Connect™ Overview

1

Battery Asset Owners register their asset info in RC portal

- Install Base Mgmt
- Chemistry
 - Quantity
 - Form Factor
 - Application data
 - Location
 - Annual performance check/record keeping

Monitoring

Compliance Mgmt

Warranty Mgmt

2

Battery Asset Owners specify the priorities at EOL

3

Renewance Connect MP assesses the most cost effective, compliant and environmentally sound recycling or re-use options

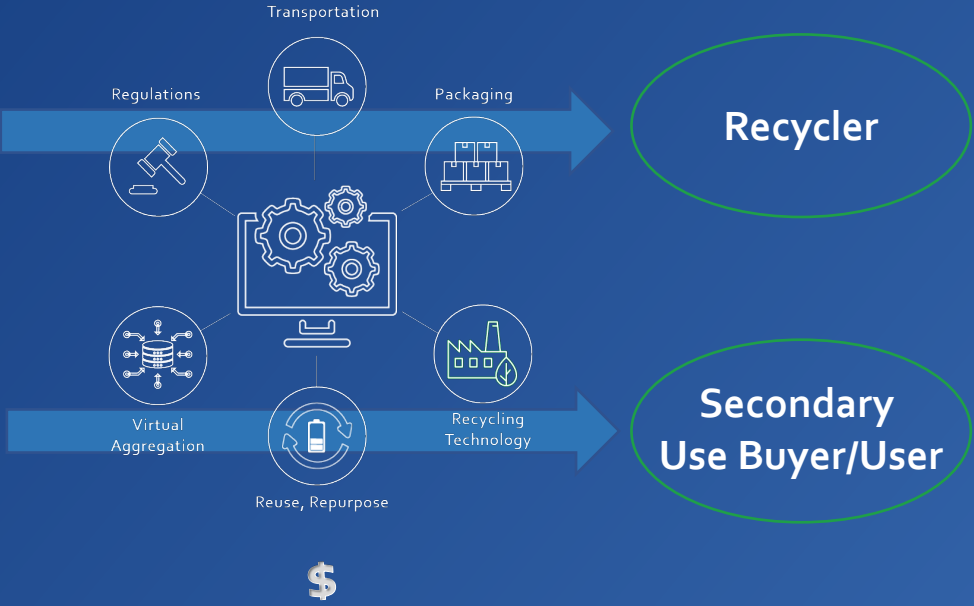
4

Renewance executes the project for the Battery asset owner



Recycling Cost

Reuse



RECOGNITION



U.S. DEPARTMENT OF
ENERGY

DOE Announces Phase 1 Winners of Battery Recycling Prize

Renewance selected as winner of Phase 1 and Phase 2 of Battery Recycling Prize.

The \$5.5-million, three-phased Lithium-Ion Battery Recycling Prize was announced by Secretary of Energy Rick Perry January 2019.

*"This prize encourages American entrepreneurs, like these prize winners, to find innovative solutions to collecting, storing, and transporting discarded lithium-ion batteries for eventual recycling," said **Daniel R Simmons**, DOE's Assistant Secretary for the Office of Energy Efficiency and Renewable Energy.*



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Renewance Products & Solutions

Planning

Operation

End of Life

- Alerts programmed based on related regulations to ensure compliance over the life of the asset
- Other time-based alerts can be programmed (e.g. ongoing maintenance)



- 24 x 7 monitoring capabilities. Service team alerted
- First level of support via Call Center
- MODBUS interface or API connection from asset owner software system to Renewance

- Claim Management – Submission & Clearing of Warranty claims with Supplier (OEM/Integrator)
- Warranty Data Submission – if Modus connection in place, then battery logs can be attached
- Fulfillment - Turnkey execution of removal / replacement with new component



Install Base Management

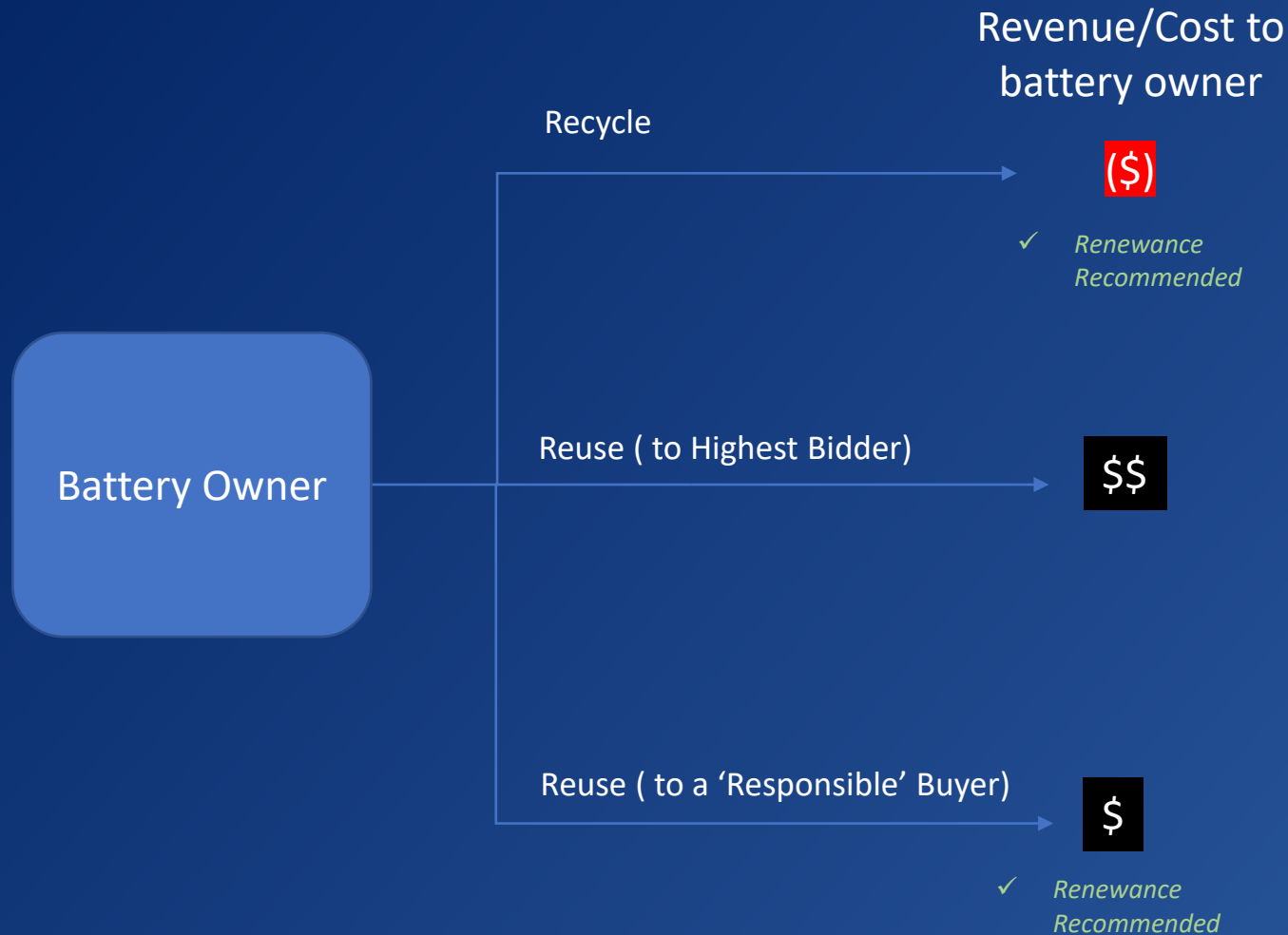
- Central repository of all assets (Batteries & other equipment)
- Dashboards to monitor status of all assets

Options for Lithium ion battery asset owner at End of Life

Planning

Operation

End of Life



Revenue/Cost to Battery owner

- Batteries will be recycled and not end up in landfills
- The final price will be determined by the testing the batteries
- Will be some logistics & time involved in testing the batteries to determine price
- Batteries will end up being sold on eBay
- Unlikely will be properly recycled and really no control on where they will end up EOL
- The final price will be determined by the testing the batteries
- Will be some logistics & time involved in testing the batteries to determine price
- Renewance can identify a 'responsible' buyer and contract with them to ensure proper recycling at EOL
- Will take some time to place the batteries since it will be project specific