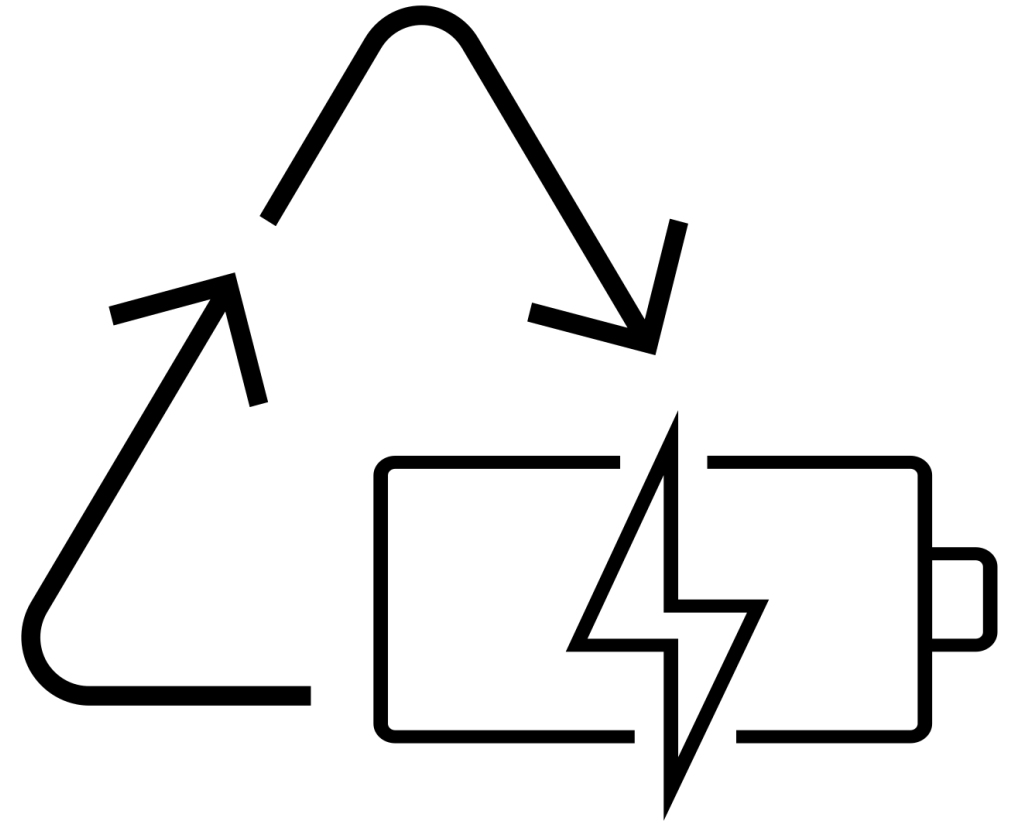




UpCycle Power

Energy storage you can feel good about.





The Problem

Achieving climate goals will require billions in costly energy storage to balance out intermittent renewables.

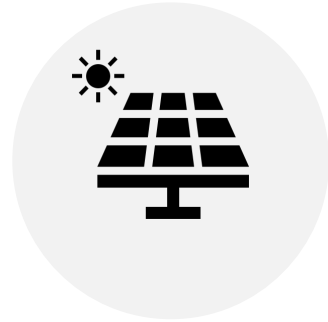
At the same time, electric vehicle batteries will create an enormous e-waste challenge as more enter and leave the market. But connecting this supply and demand is technically and logistically challenging.



E-Waste



Outages



Intermittent
Renewables



**Energy Storage is
expensive**

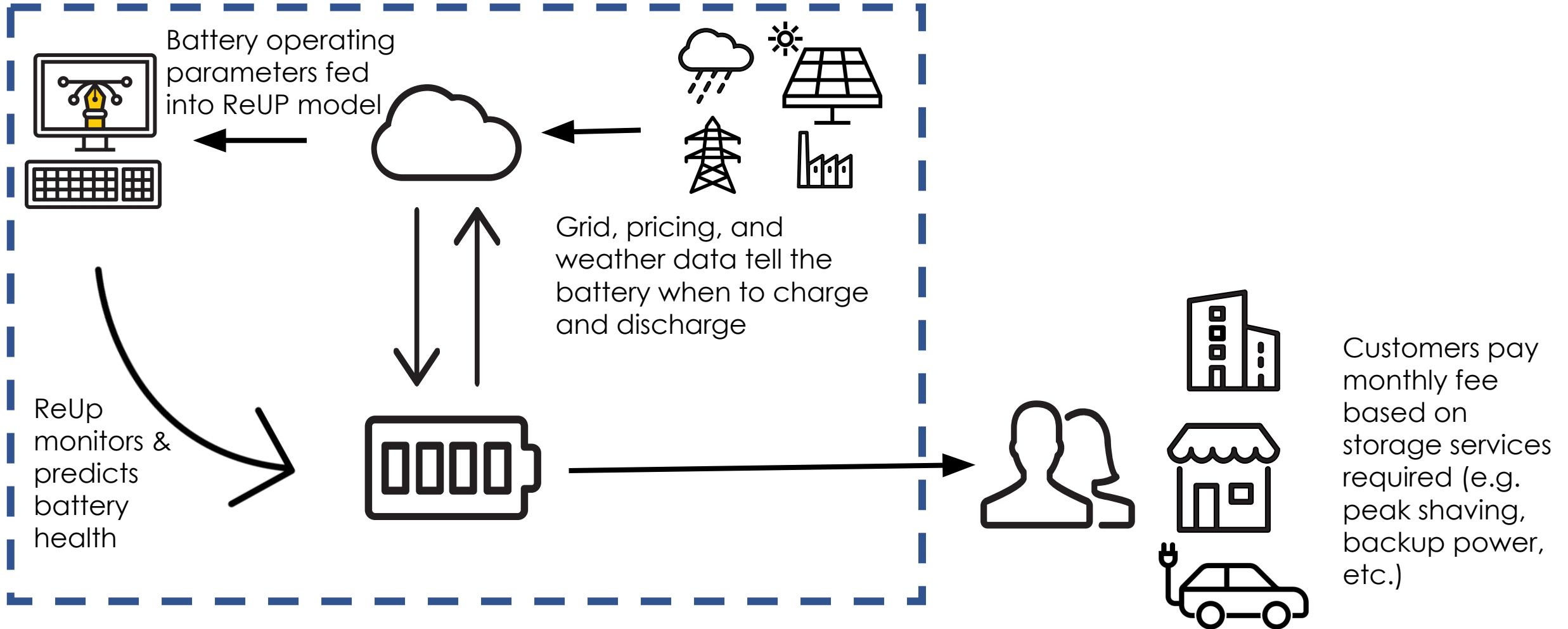


**Policy
Landscape**

Second-life batteries can be up to 30% cheaper and create 50% fewer carbon emissions than new batteries but deploying them safely requires technology designed for their aging chemistry.

The Solution

Deploy second-life batteries using Energy-Storage-as-a-Service (ESaaS), providing customers flexible, responsive energy storage with no up-fronts costs and little risk. ESaaS also allows for real-time monitoring of battery health so UpCycle can replace individual modules at their end of life.

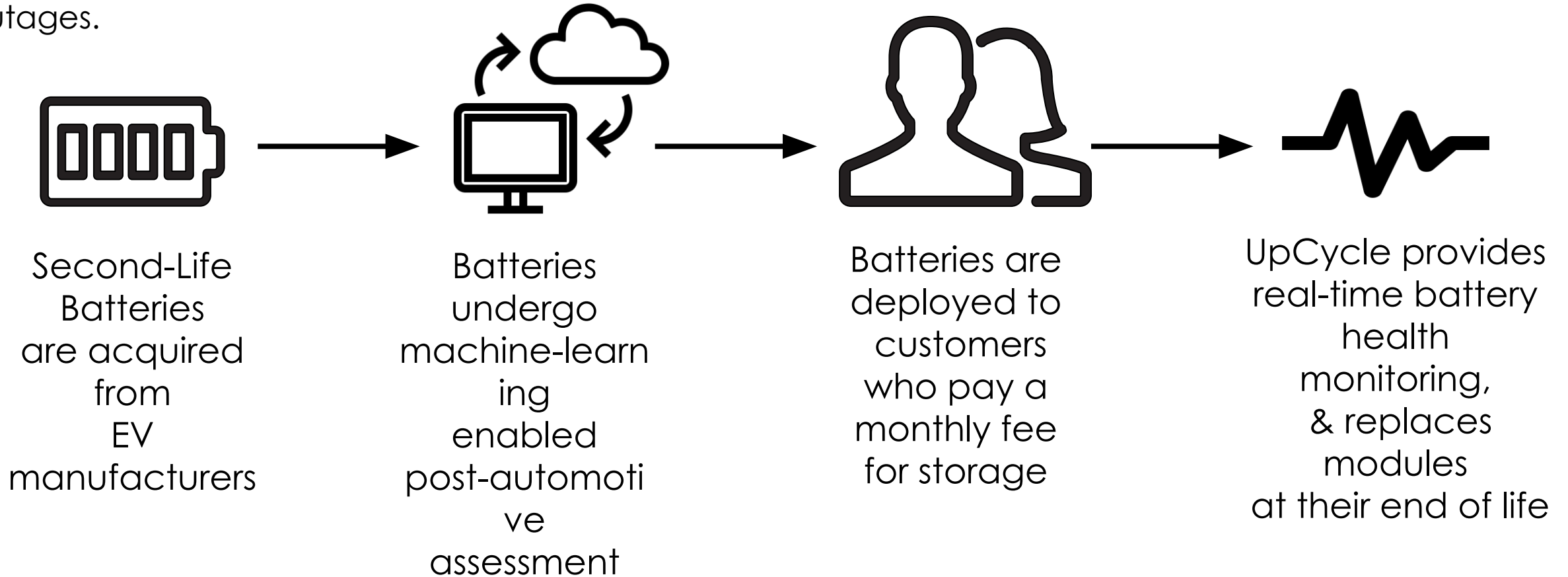


The Product

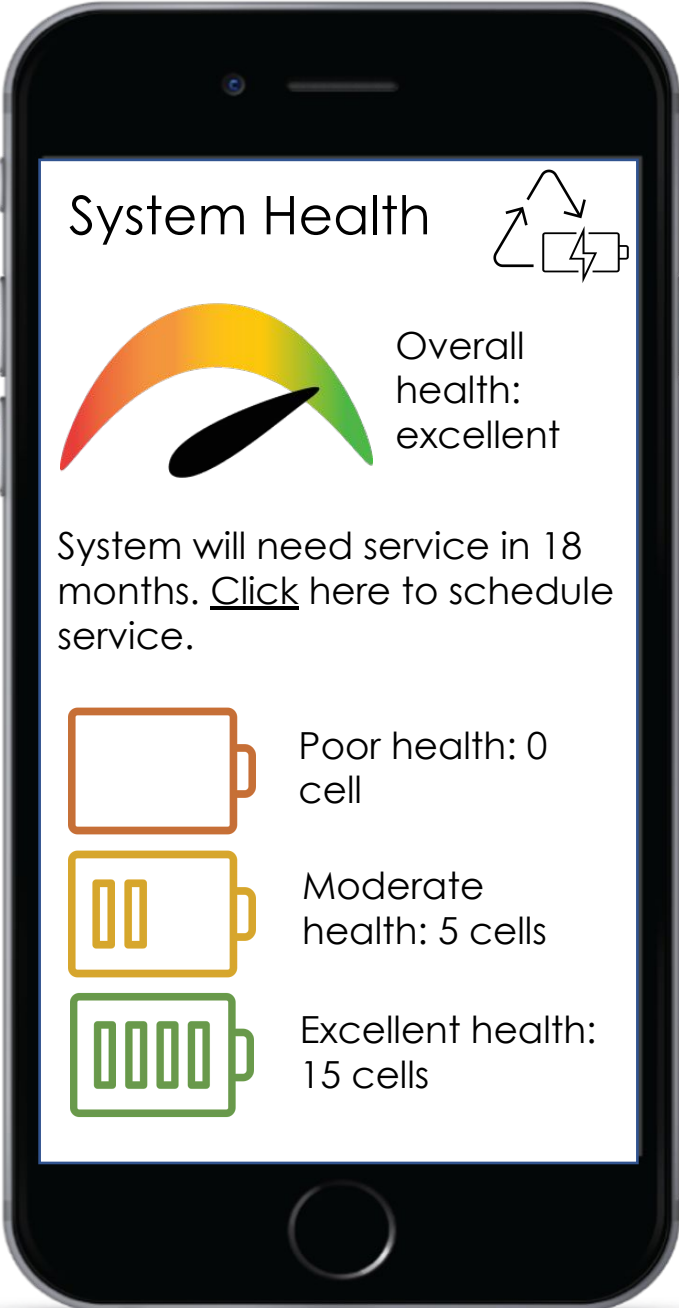
Affordable, second-life energy storage, assessed for functionality and safety, deployed for a monthly

fee to government, commercial and industrial, and microgrid customers built to adapt to changing

regulatory and market conditions to save our customers money and ensure grid resilience during outages.

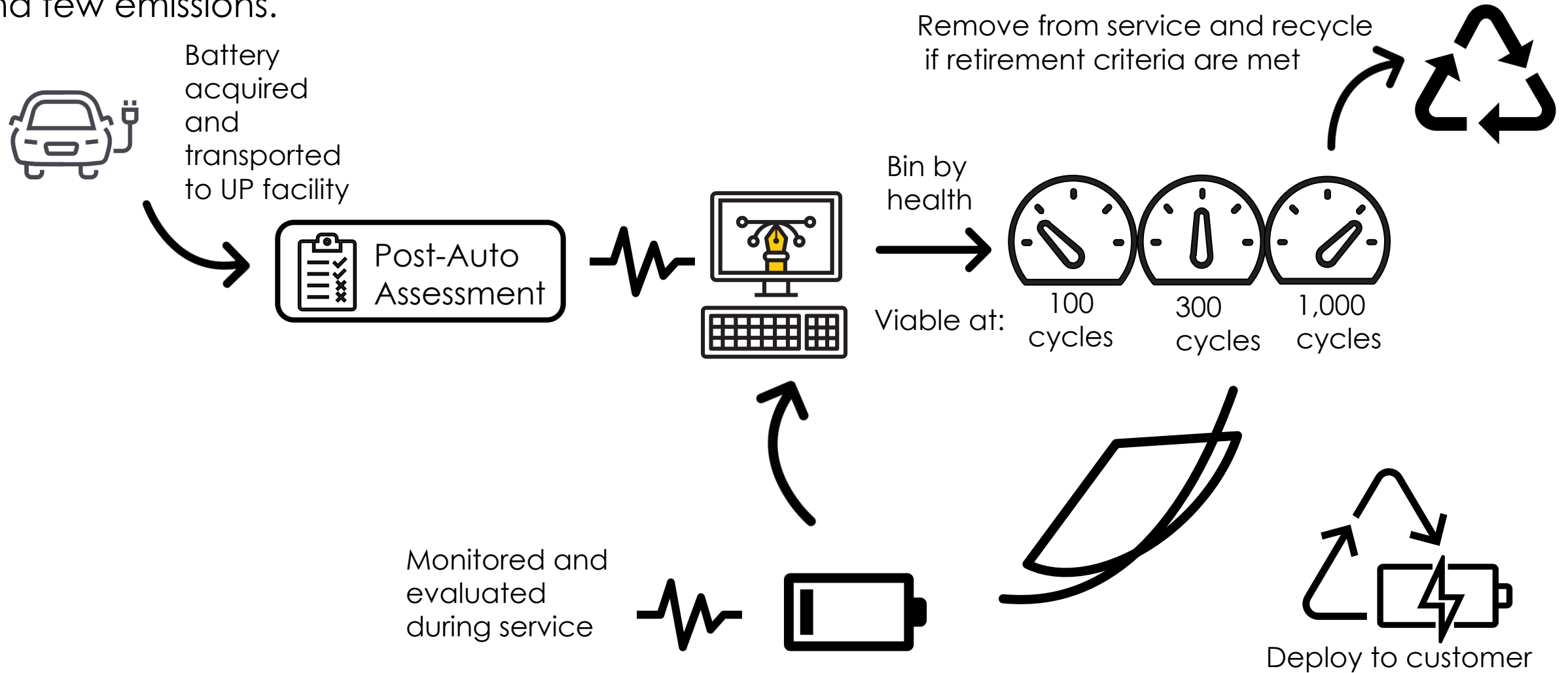


The Product

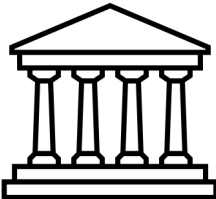


Business Model

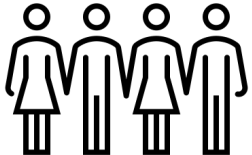
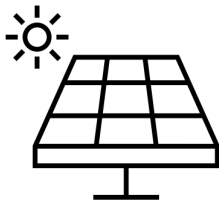
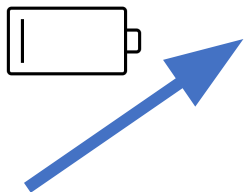
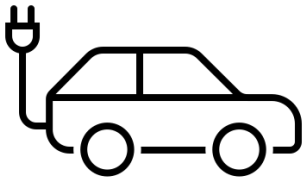
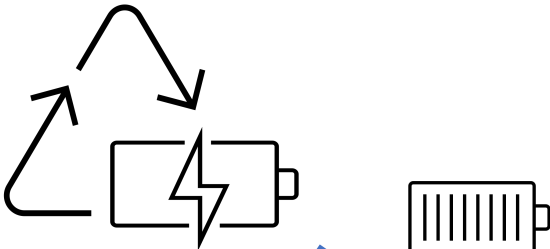
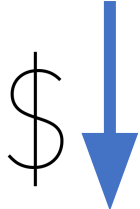
Energy storage and monitoring subscriptions that offers new battery performance at lower cost and few emissions.



The Customer



Customer: Government & non-profits aiming to address energy justice



Customer: EV makers looking to find value from used batteries and value signal to customers.

Users: Underserved & energy insecure communities

Market Opportunity

Stationary Storage

>\$111.8 billion by 2035



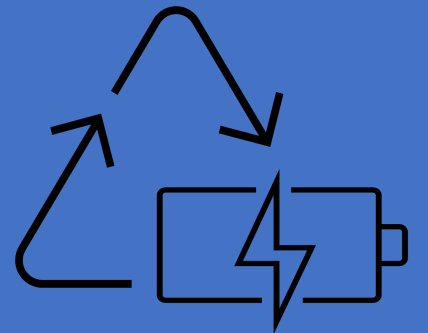
Second-life Storage

>\$30 billion by 2030

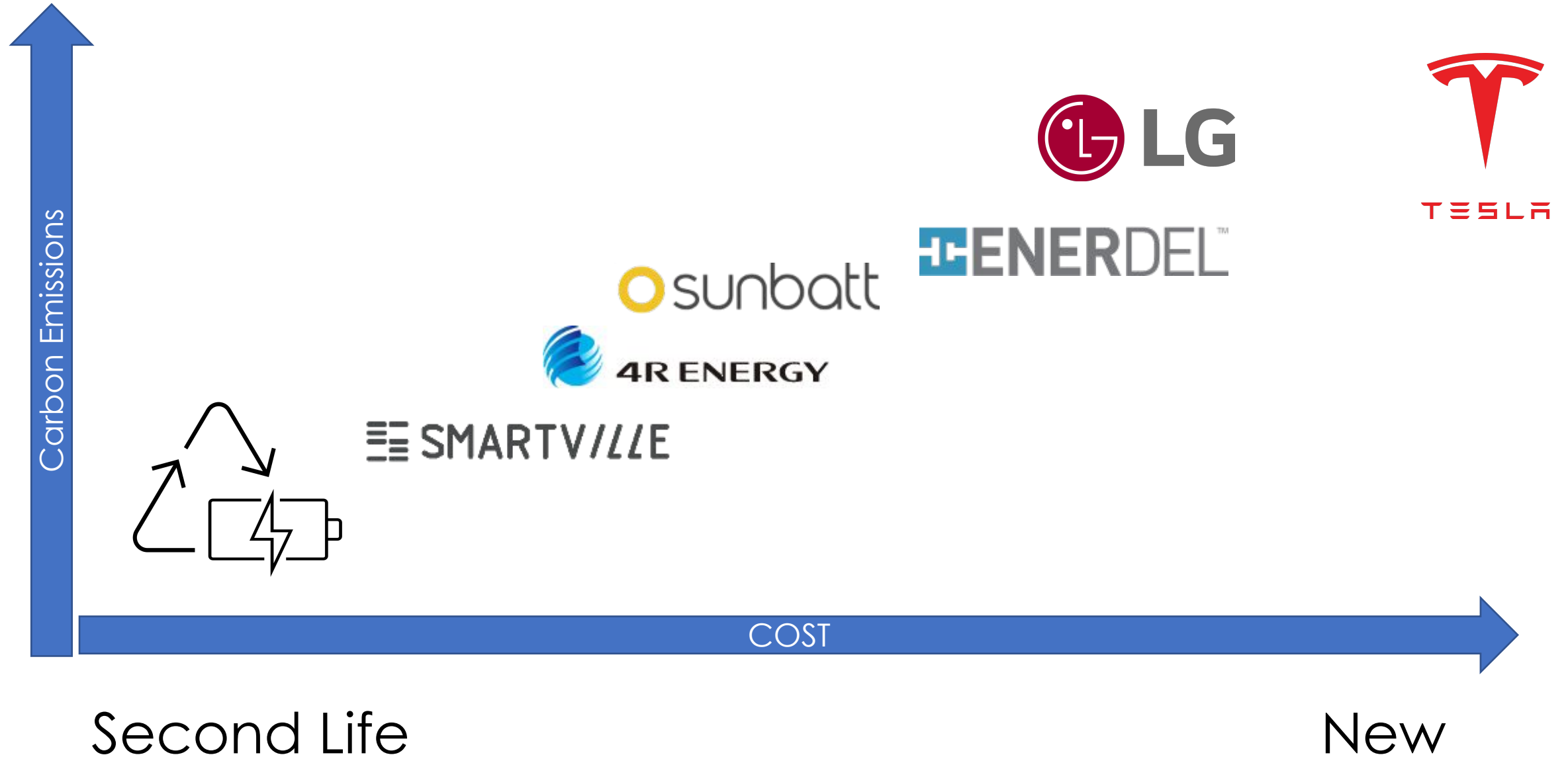


Second-life ESaaS

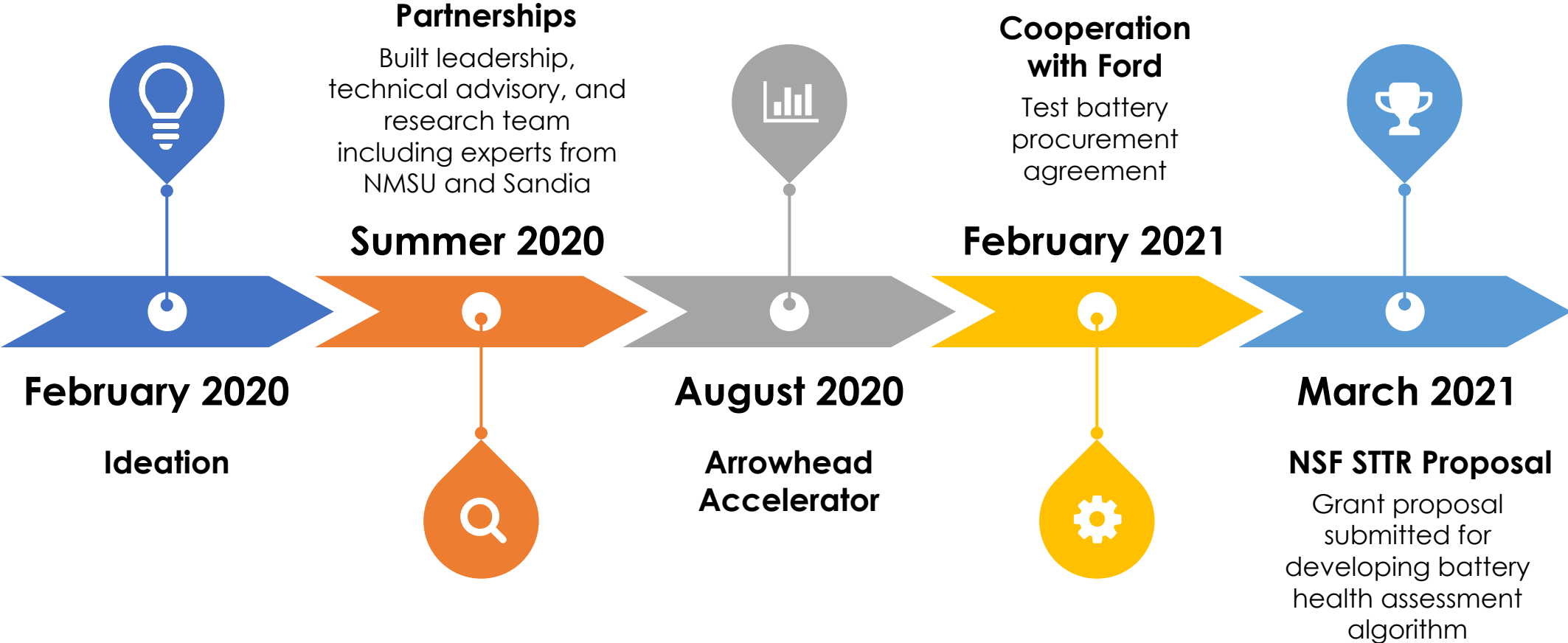
>\$1 billion by 2025



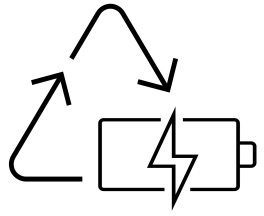
Competitive Landscape



Where we have been



Growth Strategy



Phase 1 2021

- Applying for NSF STTR Phase I to develop health assessment algorithm.
- Building brand identity and partnerships through web presence.

Phase 2 2022

- NSF STTR Phase II to build grid integration platform.
- Develop pilot project: storage for DC fast EV charger.
- Minimum viable product by year end.

Phase 3 2023

- First commercial product available.
- Second-life battery assessment facility built.
- Formalized relationship with OEMs to provide second-life battery supply.

Team



Sydney Lienemann, PhD

Founder

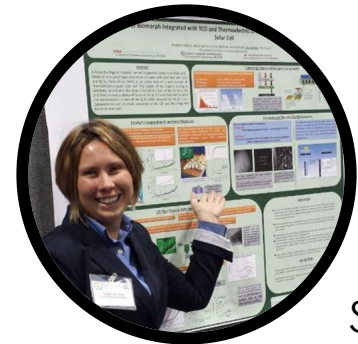
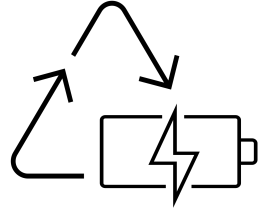
PhD in chemical physics with a decade of energy storage policy experience at the federal, state, and local level.



Kristen Mitchell, PhD

Business Development Advisor

PhD in chemical oceanography with a decade of experience in start up development and innovation policy.



Olga Lavrova, PhD

STTR Technical Partner

Assistant professor of electrical engineering at NMSU with a focus on power systems and smartgrids.



Satishkuma Ranade, PhD

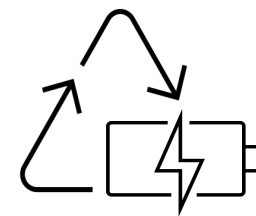
STTR Technical Partner

Professor of electrical engineering with a focus on power electronics and machine learning at NMSU.





Other Partners:

Thank You



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