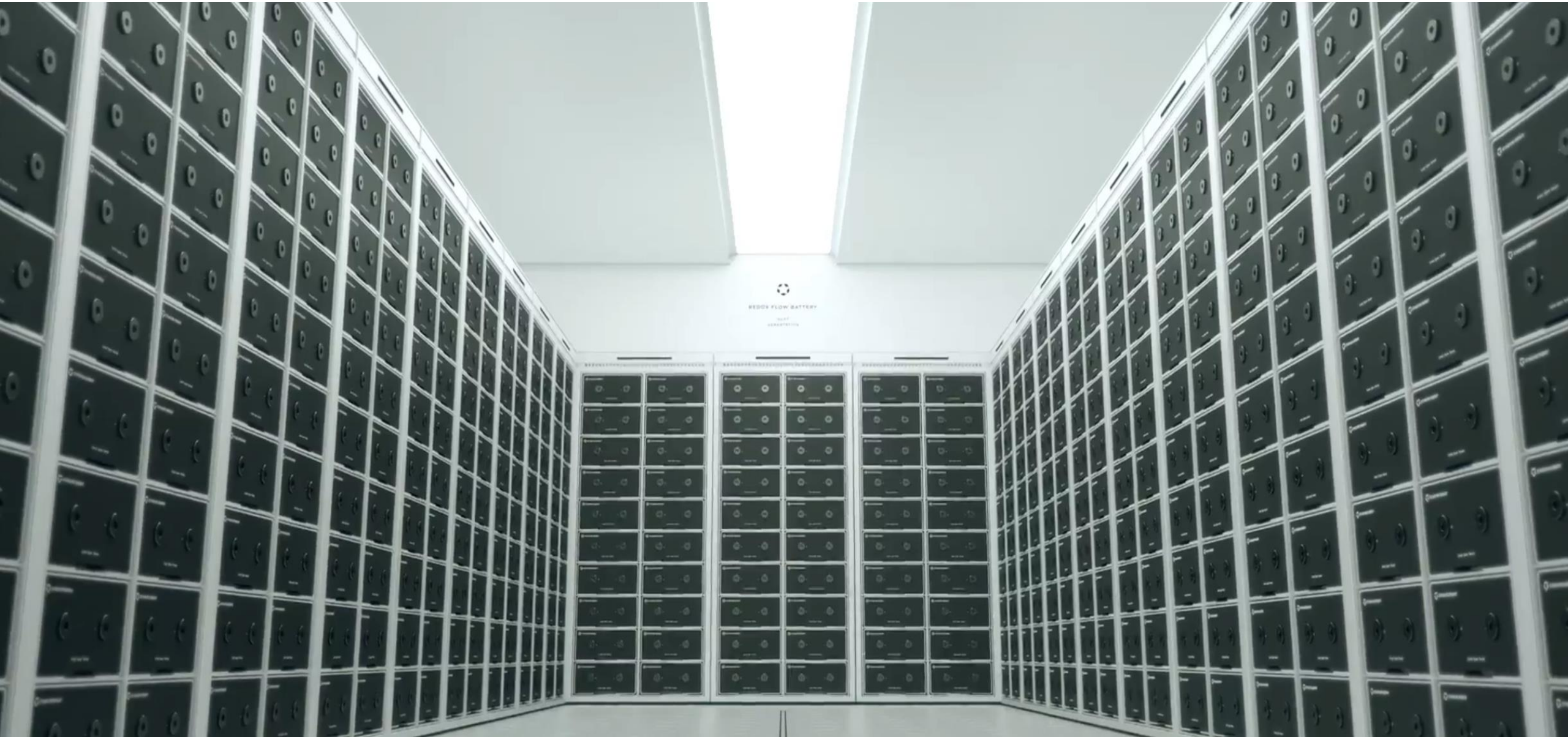
STANDARD ENERGY




STANDARD ENERGY

Storing More into Less, yet Safer, The Beginning of High Capacity Battery

Standard Energy began as a research group led by members from KAIST and MIT, young and full of remarkable potentials.

Timeline

- 2016.06 3rd Investment Attraction
- 2015.10 2nd Investment Attraction
- 2014.04 1st Investment Attraction
- 2013.08 Establishment of Standard Energy, Co., Ltd

Awards

- 2015.08 Crowd-Funding Competition at Creative Economy and Innovation Festival - 1st Place
  Creative Economy Grand Prize, Commendation from the minister of science
- 2014.12 Distinguished Intellectual Property Award, Commendation from the minister of science
- 2013.12 Technology Fair, sponsored by Daejeon City and Daejeon Business Agency - Grand Prize (1st Prize)


Office + Research Center


Office


Office


Office


Office

Factory

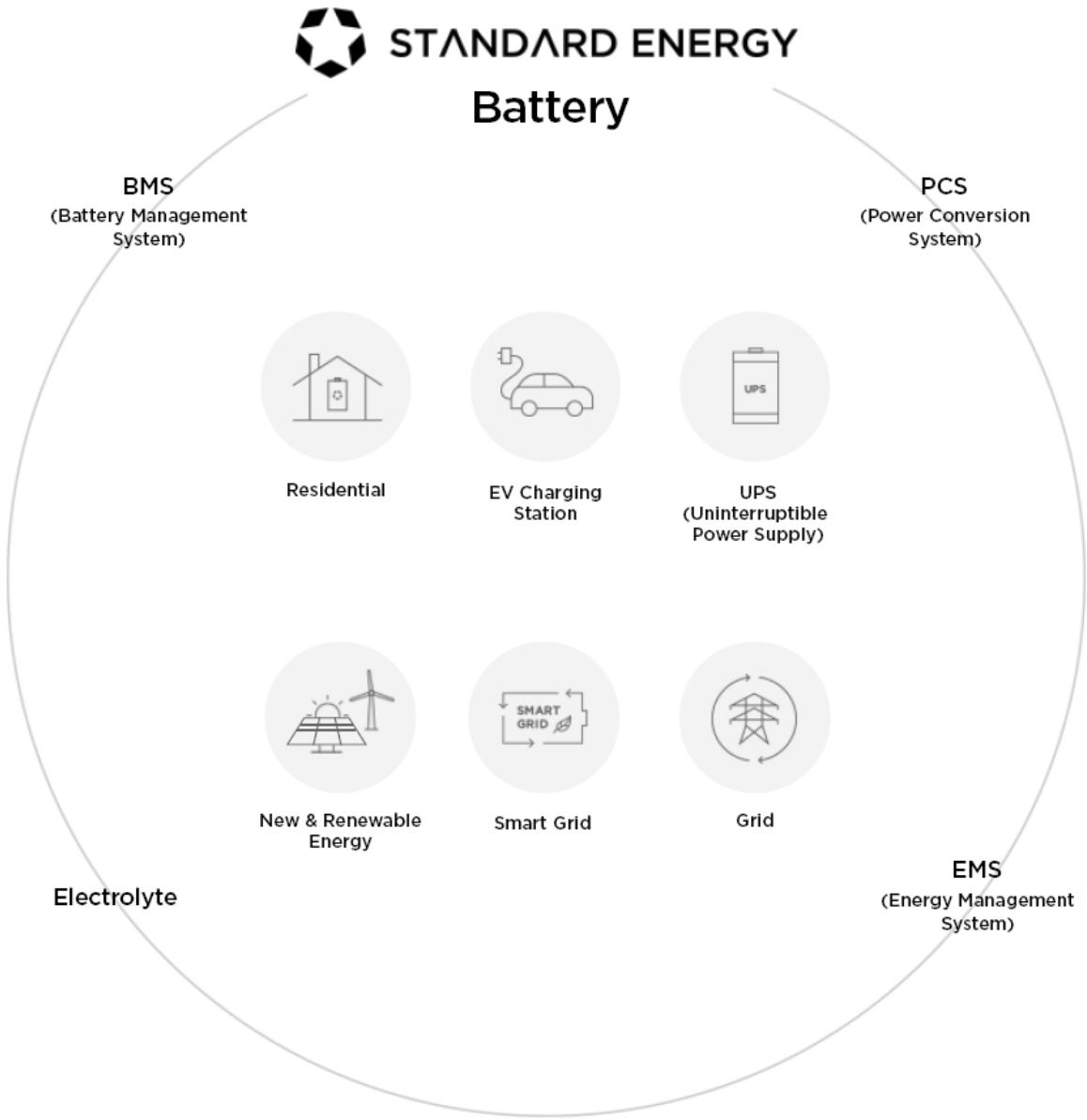
Target Market

ESS(Energy Storage System) Market

- $67 billion (2020)

Battery Technology for ESS Market

- Lithium-Ion Battery
- Redox Flow Battery
- Sodium-Sulfur Battery



Cell & Electrolyte All Included Module

- High Performance
- Mass Production Design with Low Cost
- Quality Controlled Design
- Easy Installation & Maintenance

Integrated
Redox Flow Battery Structure

High energy efficiency, Compact size, Easy maintenance,
And Price competitiveness

1

Innovative electrolyte circulation technology differentiated from conventional pump system

Our electrolyte circulation technology does not need expensive and vulnerable pump system.
Thanks to this technology, our batteries are cheaper, smaller, less energy demanding, but with dramatically increased life-time and reliability

2

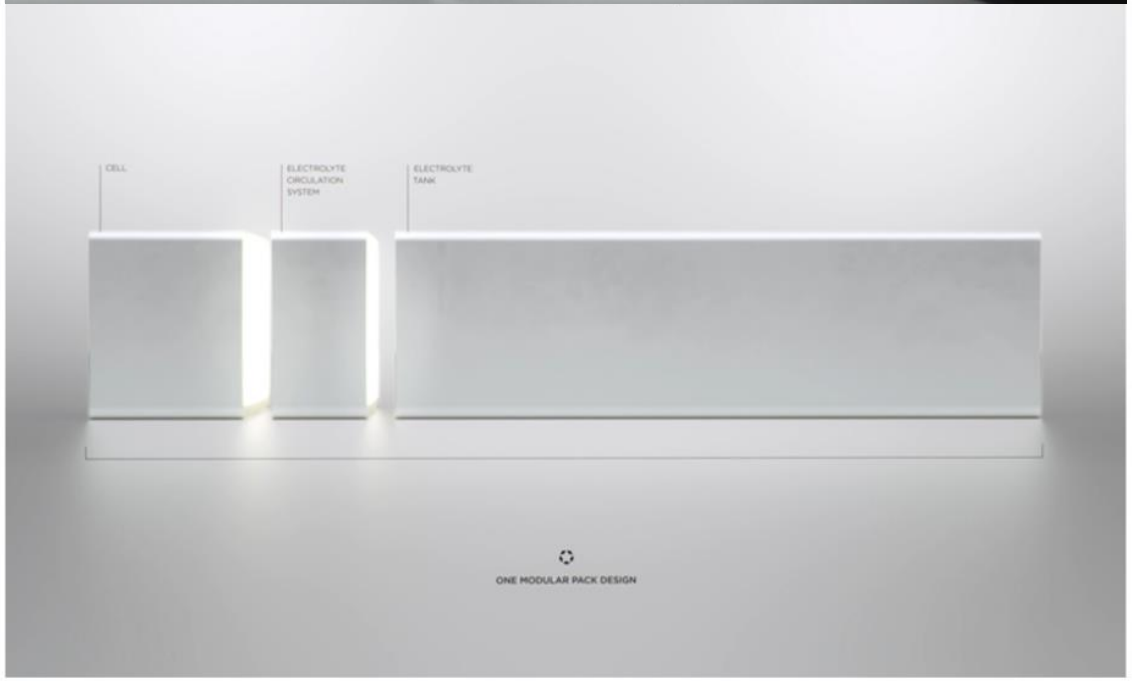
Novel cell structure and high power technology

High power and miniaturization technology can greatly reduce installation space.
Each battery can be individually installed and replaced, making maintenance and replacement more convenient.
Also, innovative leak-proof structure prevents any electrolyte leakage, and our unique cell stacking technology prevents energy loss from shunt current.

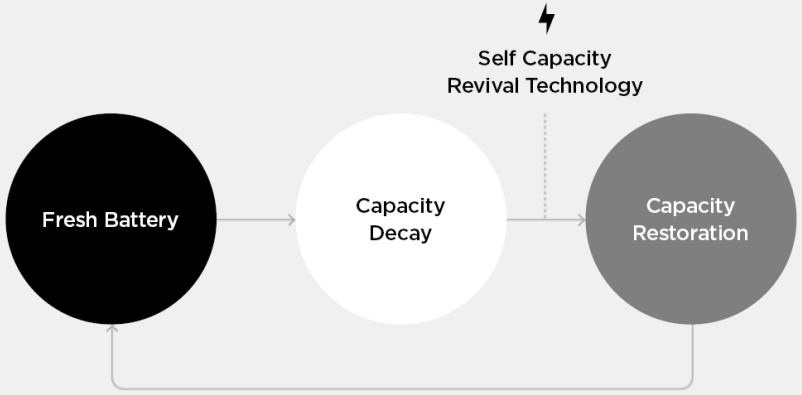
3

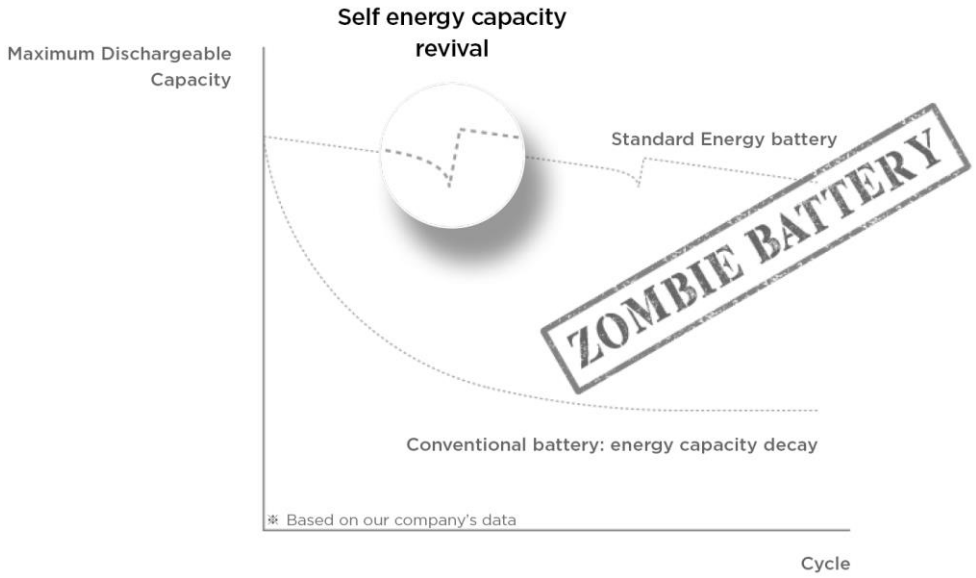
Ultra-thin, super-conductive fundamental material technology

The ultra-thin composite materials of Standard Energy enable integration of various components into small volumes.
Our materials also guarantee cost competitiveness from their high conductivity, chemical resistance, large area production, and consistent quality.



Self Energy Capacity Revival Technology





1

Maximum 99% Recovery of Energy Capacity (Maximum Dischargeable Capacity)

Standard Energy's redox flow battery recovers energy capacity up to 99% without replacing components or replenishing electrolytes.

2

Component life-time prolonging technology

The life-time of each component is significantly improved with minimizing electrochemical irreversibility and other factors that deteriorating component life-time.

3

Fundamental material technology and operational technology

Self energy capacity revival technology is the product of material and operational technologies.

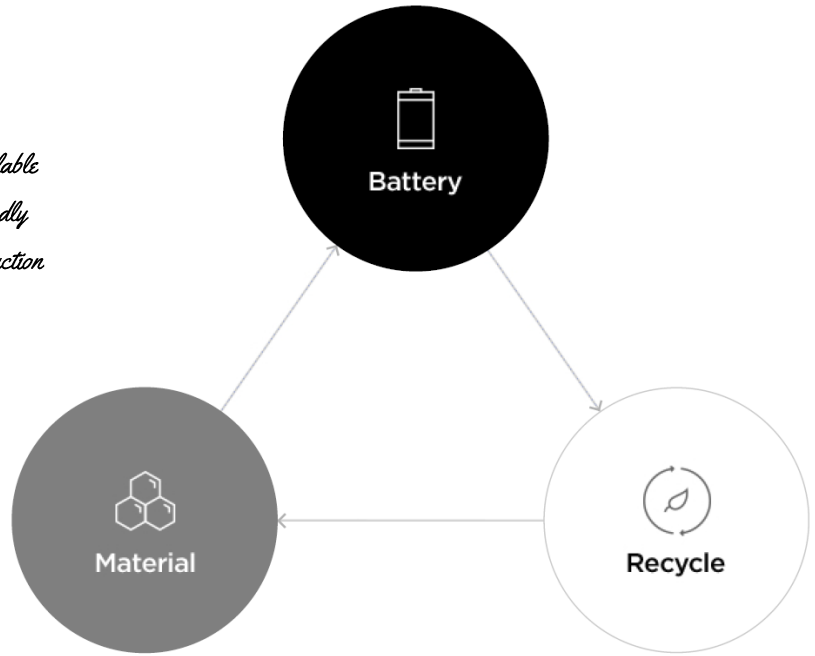
Sustainable Battery Recycle

This makes our battery truly the sustainable "Eco-friendly high capacity battery."

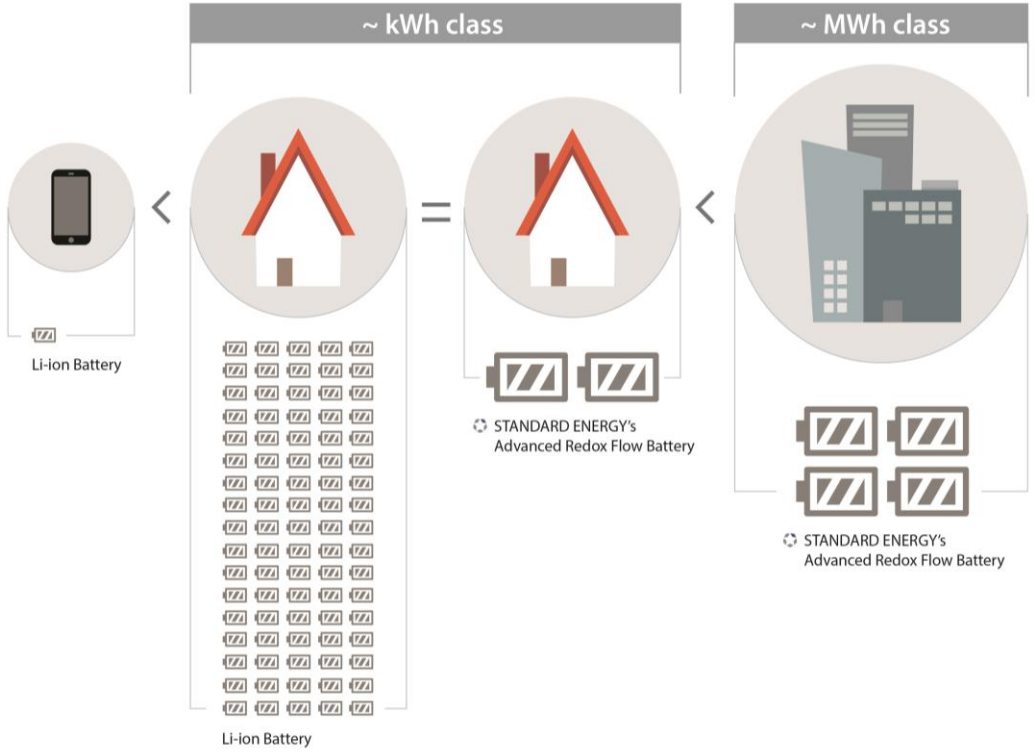
90% Recyclable

: Eco-Friendly

: Cost Reduction

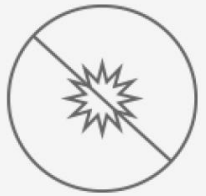


Why New Battery Technology?

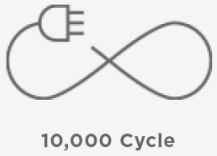


6 Strengths
of Standard Energy Battery

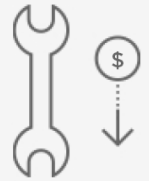
Standard Energy has been developing and thoroughly testing innovative material, structural, and operational technologies for the high capacity battery satisfying all the requirements.



Non-explosive



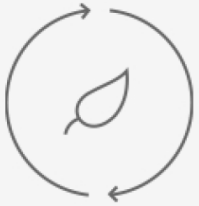
Long life-time



Low maintenance cost

Price competitiveness

Guaranteed high efficiency and capacity



Recyclable

STANDARD ENERGY www.stndenergy.com