

SHG | Schwartz Heslin Group, Inc.

Trusted Business Advisors Since 1985



Schwartz Heslin Group, Inc

Your American resource for
Investment Banking, Strategic Advisory and Valuation Services

www.shgggroup.com

Asian Advisor – jlonczak@shgggroup.com – 82.010.7423.5505

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INVESTMENT BANKING

- Mergers & Aquisitions
- Divestures & Sales Transactions
- Growth Capital Raising
- Recapitalization
- Leveraged & Managed Buyout
- Project Financing

STRATEGIC ADVISORY

- Business Plan Review & Formation
- Growth Planning & Analysis
- Strategic Marketing & Sales
- Change Management
- Organizational Restructuring
- Distressed Situations

VALUATION SERVICES

- Purchase Price Allocation
- Fairness & Solvency Opinion
- Estate Planning
- Perfromance Benchmarking
- Shareholder Buy/Sell Arrangement
- ESOP Structures

South Korea is around the same size as New York.

New York is approximately 122,283 sq km, while South Korea is approximately 99,720 sq km. Meanwhile, the *population* of New York is ~19.4 million people (31.8 million *more* people live in South Korea). We have positioned the outline of New York near your home location of Jeju City, 49, South Korea.



Other Similarities - Financial Center, Technology Center, Research Universities, Agriculture, Cultural Center, Business Accelerators, Climate
New York State - Leader in Environmental Action, Birthplace of EPA, ESD (Empire State Development) - Economic Initiatives, NYSERDA

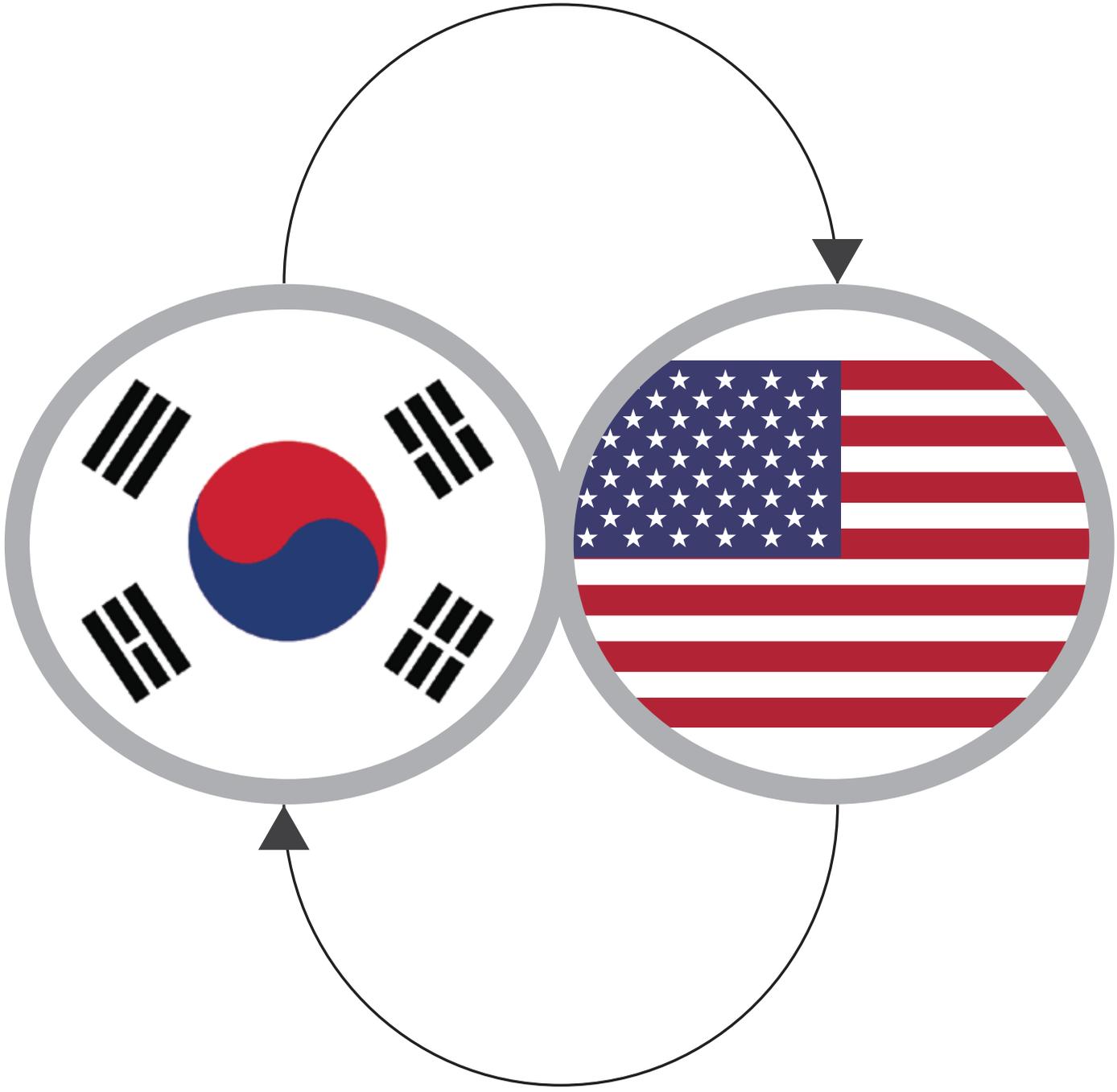
We believe:

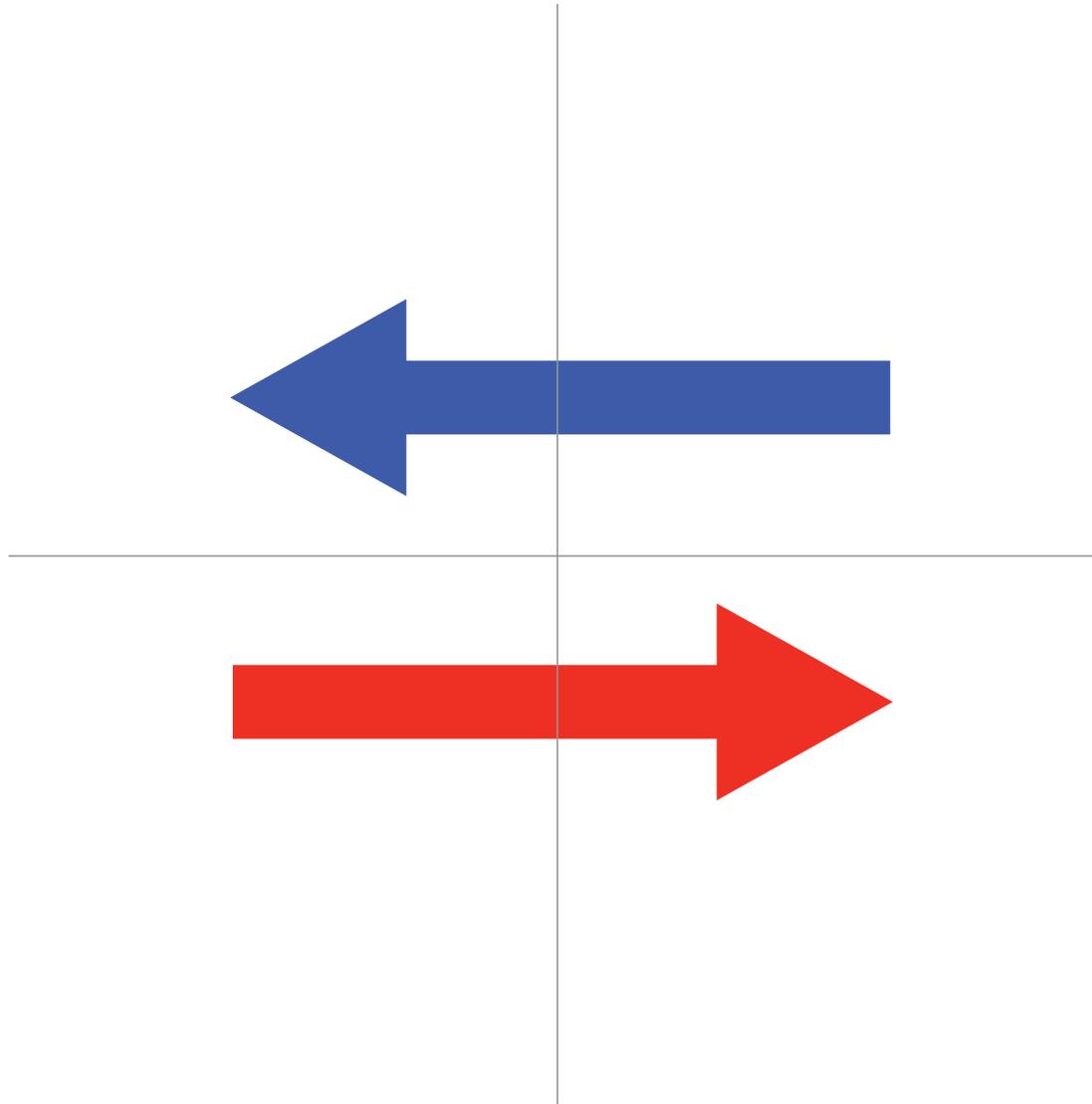
**Technology + Business Model + User Experience
+ Brand Pitch = Market Acceptance & Success**



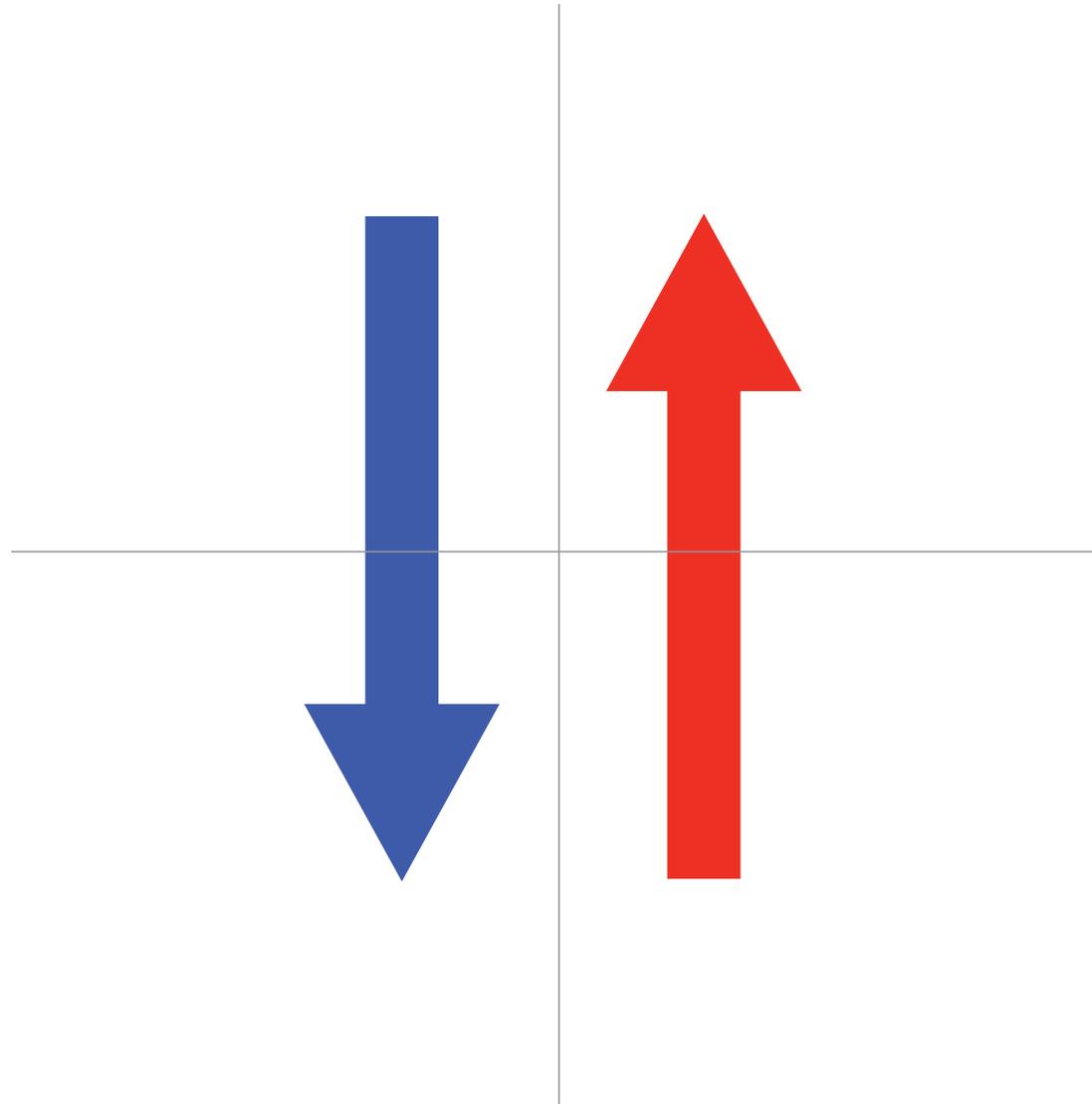
Why SHG/JAATEP

- Footprint in Jeju, New York & London
- Broad global network and capability
- Experience mentoring at leading incubators
- Association with academic institutions and investors
- Decades of consulting SME & Fortune 500's
- A global perspective of emerging technologies
- Over 900 business/investment assignments





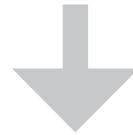
Targeting American - Korean Business Relationships



Pursue ASEAN Opportunitites

Triple Top Line

Friendship → **Dialogue** → **Opportunity**



Triple Bottom Line

People → **Planet** → **Profit**

2016 Move to Jeju-do - Explore Clean-Tech Opportunities on 2030 Carbon Free Island



Map/page design to be updated

JEJU's Allure:

- 2030 Carbon Free mandate, Sustainability Initiatives, UNESCO designation & Science, Health-Care and Education Centers
- Recognized test bed for EV's/Infrastructure, Energy Production/Distribution, Smart Grid, Bio & Agra Tech.
- Economic and ecological atmosphere, creates ideal situation of “demand, support and opportunity” for piloting advanced new sustainable technologies.
- Two hour air access to twenty major Asian markets, makes Jeju an accessible showroom to market clean technology.
- Economic incentives are generous and appealing

SHIG



Jeju as a Clean Tech:

Test Bed

Proving Ground

Showroom

Our Jeju Focus

EV, Energy, ESS, Smart Grid

EV Observations

Obstacles to EV Adoption:

COST

CHARGING

RANGE

Solutions to EV Adoption:

COST - Batteries as Energy - PPU

CHARGING - Wireless Charging

RANGE - Advanced Technologies

Battery, Vehicle, Cost Observations & Opportunities



KIA SOUL ICE

Aprox. \$25,000 Comparable Features to EV

Fuel Cost for 1000 miles = \$233



KIA SOUL EV

Aprox. \$35,000

Electricity Cost for 1000 Miles = \$66

Transportation Energy Cost Difference = \$167

60 month payback at 12,000 miles/year & no interest

Projected Pricing

**Is the current EV/Battery paradigm correct?
Are batteries a component of the vehicle?
Or are they part of transportation energy?
The smart grid? A new financial product?**

Will battery cost drop from \$250kWh to \$95kWh by 2025?... Or

Will material/chemistry cost escalation, recycling regulatory compliance and added energy density requirements push pricing back up to \$175kWh?

How will automakers reconcile newer battery technologies with perfectly fine vehicles? Or rapidly depreciating EV's

How will battery manufacturers survive automakers pressure for lower pricing and the conflicting and increasing costs of R&D?

Are energy companies leaving a lot of transportation energy revenue on the table? \$66 vs \$233+ per 1000 miles?

Can government incentives continue to facilitate EV adoption? Can the Jeju Provincial Government provide \$10K/car incentives for 377,000 vehicles?

Globally we have seen a blip in EV sales that coincide with reduced incentives.

Or are there alternative market and business solutions to EV adoption?

We're looking at such things and have uncovered one alternative.

Battery as Transportation Energy

Battery as Service



Incorporating battery, communications and payment technologies, Talino EV has developed an “Innovative Finance Product” integrating EV Adoption, AQI Improvement and Investment Opportunities.

A Market Solution to EV Adoption

Removes Cost Of Batteries From Purchase Price

TALINO|ev
Seeking Financial
partners to realize
Jeju Pilot Market.



Treats Batteries As Fuel - Propulsion Energy

Makes EV'S Less Expensive to Buy Than Gas Vehicles!

- Talino’s “Pay-As-You-Go” battery technology enables auto-chemistry companies to maintain customer relationship and revenue as they convert from fuel to EV.
- Talino is for companies like SK who are engaged in all relevant technologies or an Electric Fleet Vehicle Manufacturer/Sales Co.
- Talino is for Finance and Banking companies seeking new investment product opportunities and access to emerging and underserved banking prospects in emerging economies.
- SPV (Asset company) projected IRR in 30-50% range.

TalinoEV is a Philippine-American Company Seeking South Korean Partnership & Licensors

Southern Strategy Ready!

TALINO|ev
Seeking Financial
partners to realize
S.E. Asian markets.

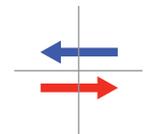


Integrates Partners:
Financial Institutions
EV Manufacturers
Battery Manufacturers
Cellular Providers
Energy Companies

2 & 3 Wheel Vehicles
\$200B Asian Market by 2025
1000 Vehicle Pilot in Antipolo Since 2016

Build Relationships - Emerging Markets

- **TALINO|ev battery finance**
- Lithium Ion Battery Management System (BMS)
- Imbedded Payment Gateway (PPU)
- Wireless Cellular Network
- Derisks Finance - Vehicle Location Known
- Replaces Government EV Adoption Incentive



Charging

Observations & Opportunities

**Charging is a hassle, especially
when you need to do it more often
than filling gas**

Early adopters of Hybrid and Diesel cars enjoyed enjoyed 500-600 mile range.

They cited the pleasure in going to a fueling station less often.

EV owners who switched back to ICE stated the hassle of charging as the reason.

Market is ready, but products aren't!

Why?

**Initial and final vehicle impressions
and pleasures are built around
opening and closing the doors.**

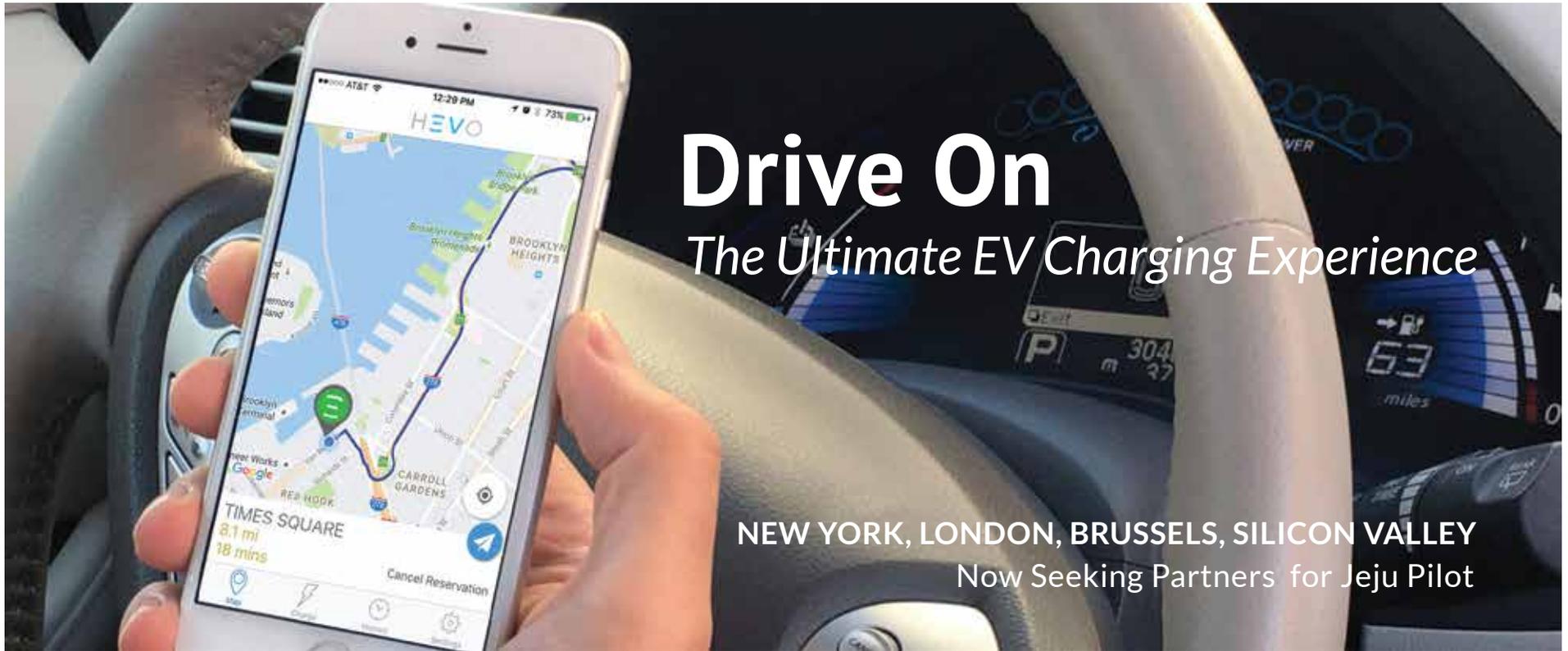
**Ingress & Egress ease and practicality
are big factors in automotive purchase**

Would consumers want to add inconvenience to this experience with the step of plugging and unplugging a charger? In rainy or cold situations?

**Charging Convenience & Safety
is key to adoption.**

No Strings Attached!

HEVO



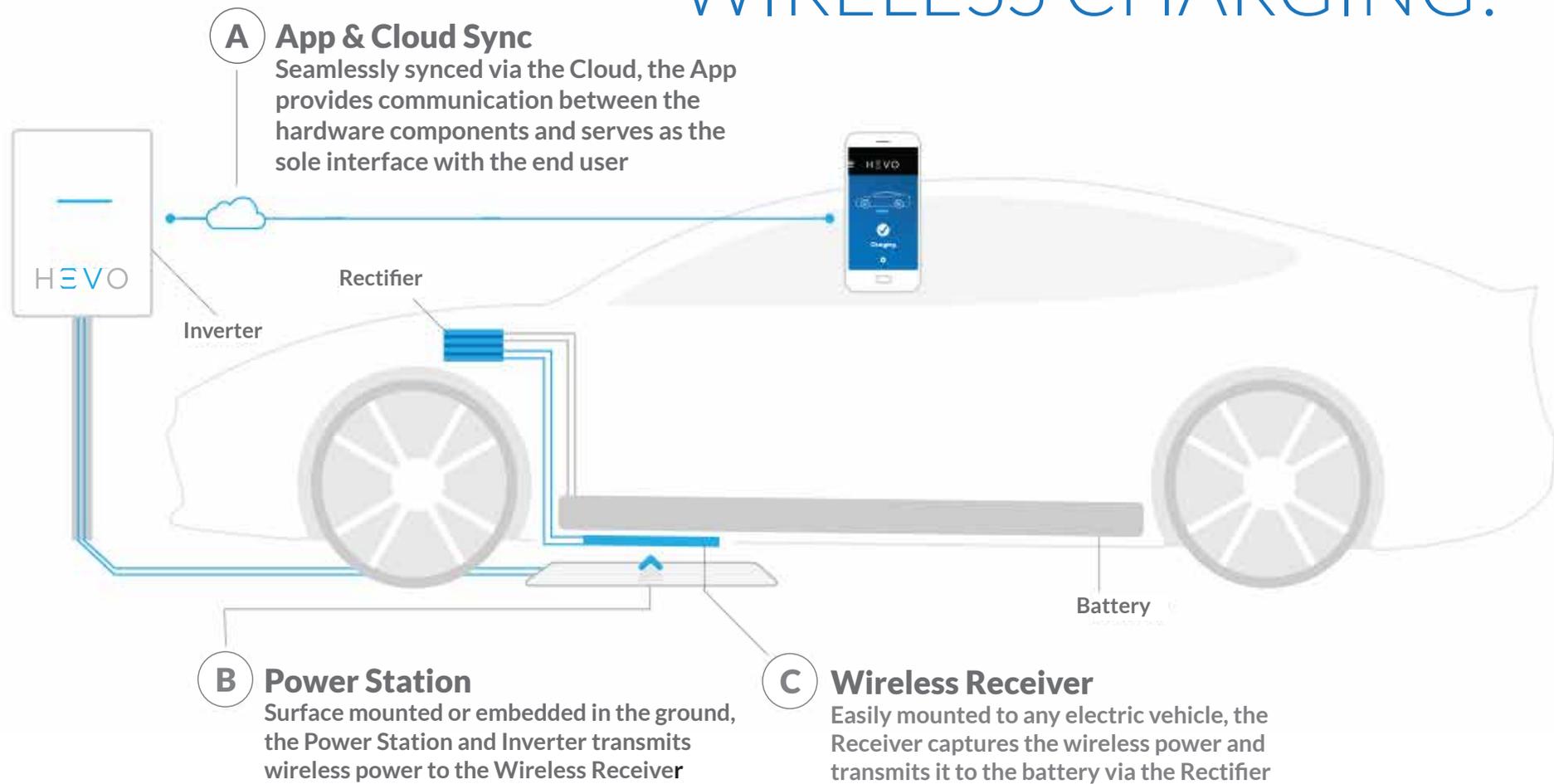
Drive On

The Ultimate EV Charging Experience

NEW YORK, LONDON, BRUSSELS, SILICON VALLEY
Now Seeking Partners for Jeju Pilot

HEVO

WIRELESS CHARGING!



HEVO



Charging and Autonomous Parking

Locating an available charging station only to find a fully charged vehicle occupying the charger, rendering it unusable, has been a repeated fault of current systems and common complaint of EV drivers.

Autonomous Parking in conjunction with Wireless Charging would solve this problem. Cars could cue up, pull into wireless charger space and move out after charging allowing another vehicle to park and charge.

RANGE

**Advanced Technical Materials
offer Weight Savings &
Performance Enhancements**

**Tech Materials hold a historic
niche in SHG's portfolio. We
are active with many companies
in this space.**

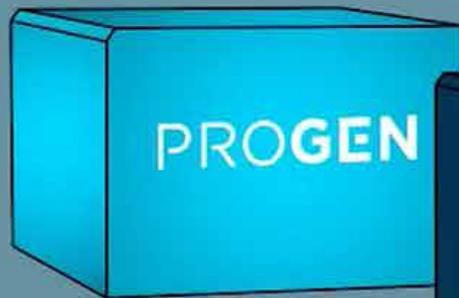
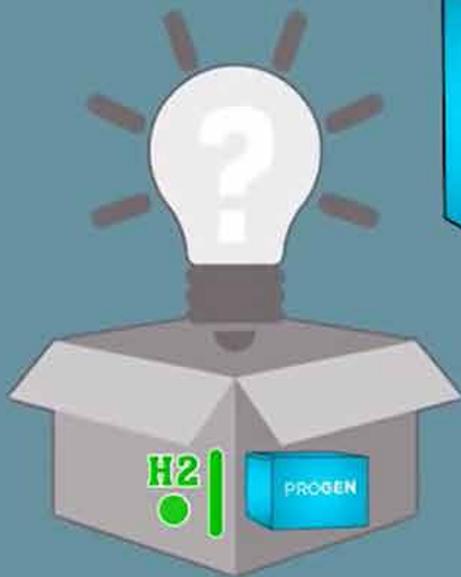
Other EV, Energy & ESS pursuits.



Logistic Vehicles
Aerospace/UAV
Ground Support

Robotics
Back-Up Power
Material Handling

SHG is working with Plug Power to participate in South Korea's Hydrogen Fuel Cell economy.





Hydrogen Fuel Cells

.5 - 250 kW units

+30,000 Units Sold

270 Million Hours Logged

Complete Fuel Cell Systems

- Distribution, Storage, Filling, Power

Currently the largest purchaser of Hydrogen

Powering

FED-EX

AMAZON

DHL

FAYAT

WALMART

CHARLOTTE



Zero Emission Airport Ground Support Equipment



FedEx Express has deployed a fleet of **hydrogen fuel cell** cargo tractors at Memphis SuperHub



Fuel Cell System Architecture

Power:
Fuel Cell /
Li-Ion Battery

Energy
Storage:
H2 Tank

Tractor
Traction:
Ballast



Specifications

- Towing Capacity: 50,000 lbs.
- Voltage: 80VDC
- Power: 22 kW
- 100% Outdoor Operation
- Energy Storage: ~54 kWh (3.6 kg H2)
- Hybrid PEM FC / Li-Ion Battery
- 4,000 lbs. for traction

Value Prop Drivers

- Energy efficiency: 45% FC vs. 20% diesel
- Energy recovery via regenerative braking
- Decreased maintenance costs
 - Oil changes eliminated
 - Brakes replacements eliminated
 - Starter replacements eliminated
- High Reliability / Availability
- Elimination of diesel idling



TECHNOLOGY

Arrecife's system is an advanced multi-turbine floating system, capable of efficiently capturing wave energy to produce electricity. 75 kW, 440kW & 2 MW Units. 75kW Unit currently testing offshore Spain.



Inmersion System

Portable for maintenance

Simple & affordable mooring. Installable at deep sea

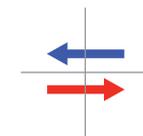
Constituted by turbines that oppose waves

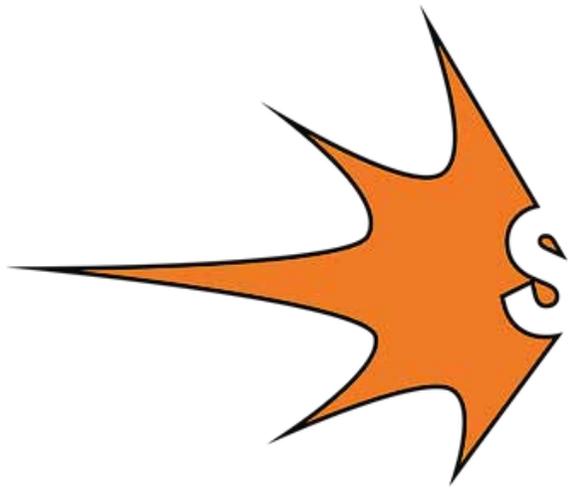
Energy-producer with most frequent waves 1-5 meters



arrecifesystems.com

Arrecife is seeking Asian energy company partners

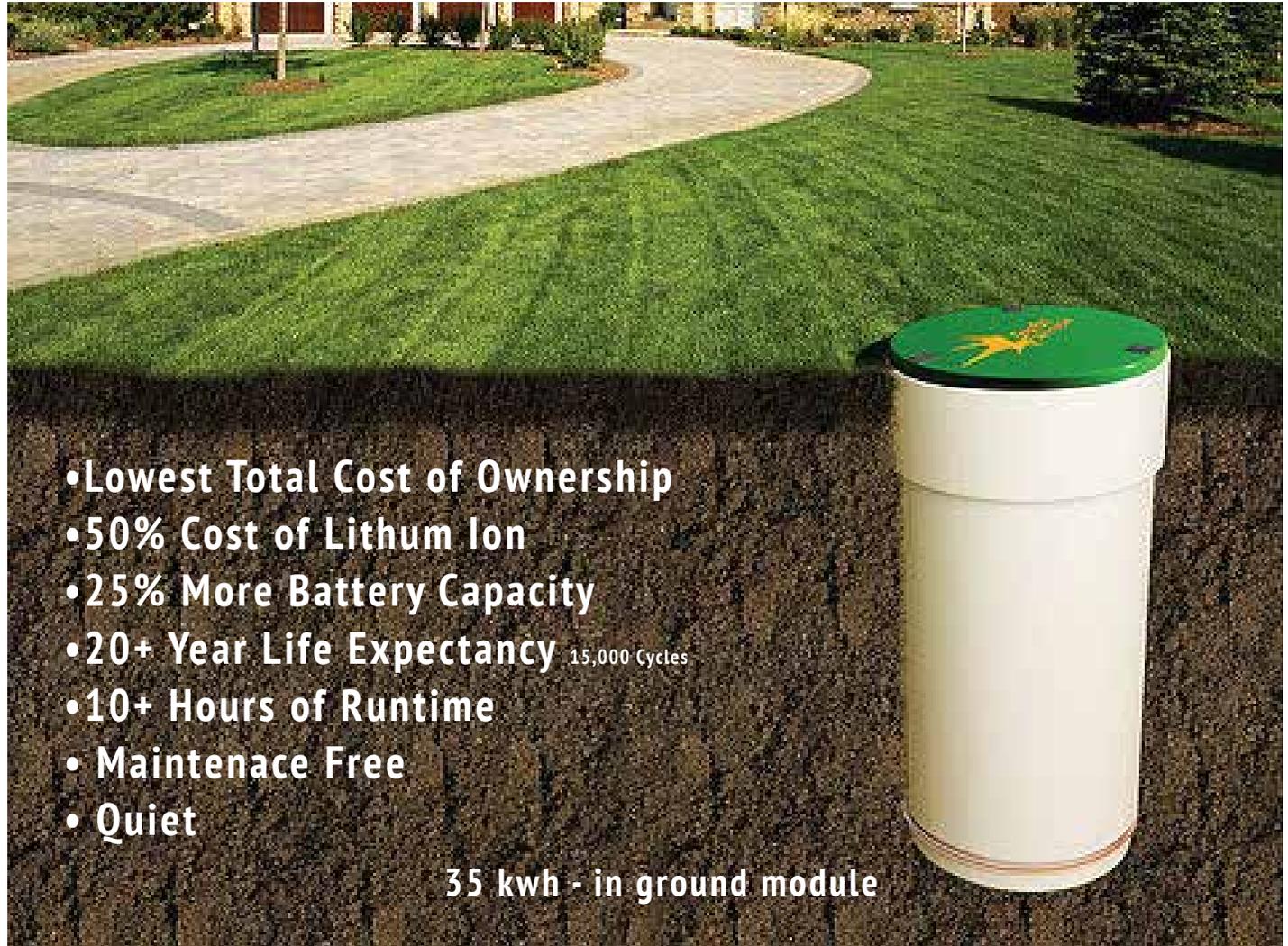




StorEn Technologies
Energy you can depend on

StorEn Technologies
Clean Energy Business Incubator Program
@ Stony Brook University
25 Health Sciences Drive, Suite 237
Stony Brook, NY 11790-3350
storen.tech

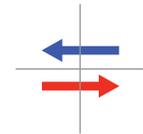
EVOLUTIONARY VANADIUM FLOW BATTERIES



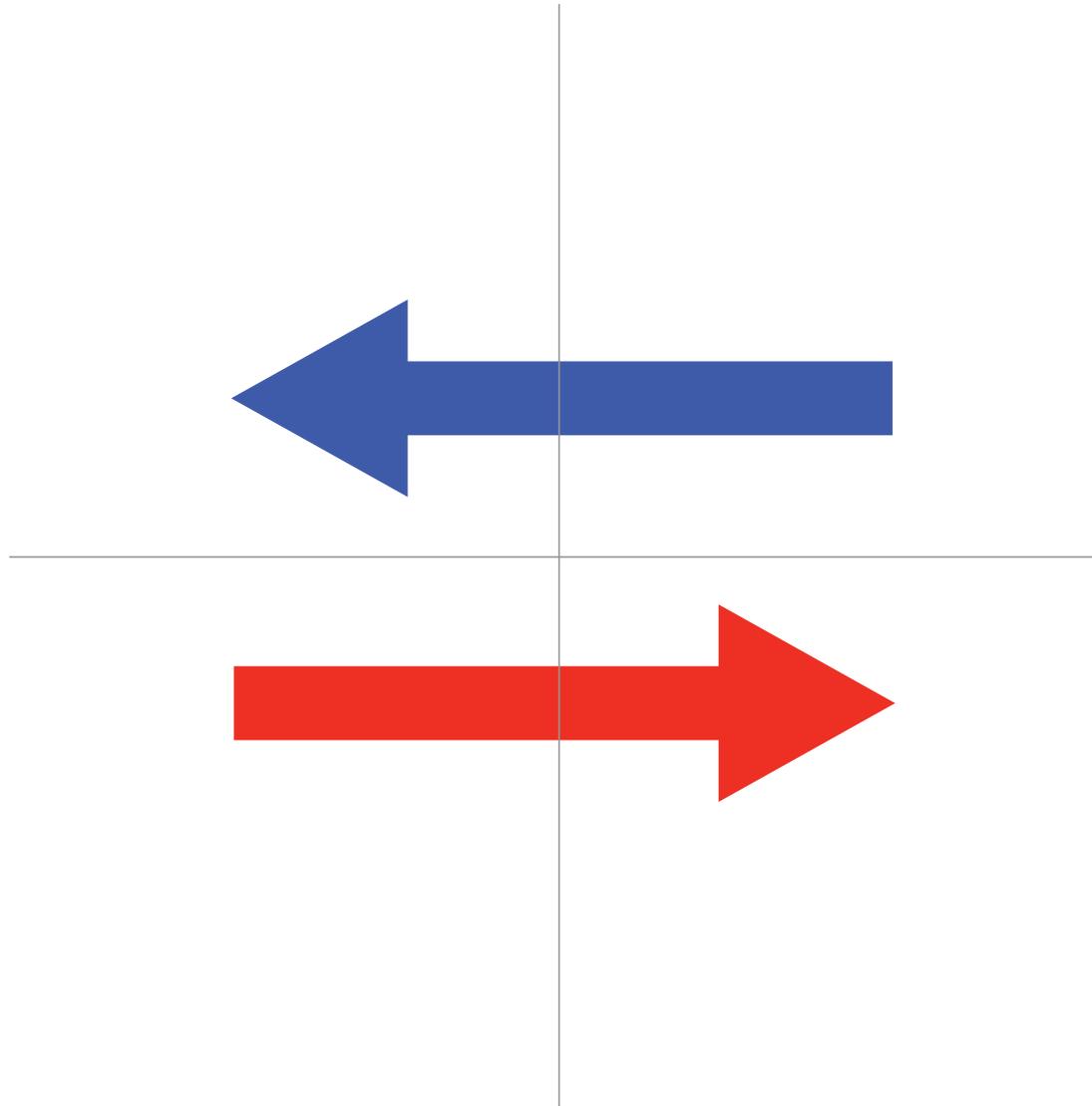
- **Lowest Total Cost of Ownership**
- **50% Cost of Lithium Ion**
- **25% More Battery Capacity**
- **20+ Year Life Expectancy** 15,000 Cycles
- **10+ Hours of Runtime**
- **Maintenance Free**
- **Quiet**

35 kwh - in ground module

StorEn filed four International PCT patents claiming priority from the existing US provisional patents:
MULTIGRIDS™ - Innovative plate structure (application number PCT/US18/24414) > higher power density
EQUILEVELS™ - Electrolyte rebalancing (application number PCT/US18/24531) > reduced costs and higher reliability
RESAFE™ - Leak elimination (application number PCT/US18/24483) > reduced service and maintenance costs
THERMASTABLE™ - geothermal design (application number PCT/US18/24512) > increased round-trip efficiency.



**Korean Technology
and Investment Partners
Wanted, Welcomed.**



FACILITATE “EAST - WEST” SME BUSINESS

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