Long Duration Energy Storage Systems for a Cleaner Future
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Game Changing Technology

The Power Grid of the Future – Feasible Today

STABLE. SECURE. CLEAN.
Transaction Overview

**Category Catalyst in Long Duration Energy Storage Solutions**

ESS
- Founded in 2011 to enable the stable, decentralized and decarbonized power grid of the future

Offering Size
- ACON S2 (NASDAQ: STWO): a special purpose acquisition company
- $250 million cash in trust
- PIPE size of $250 million

Valuation
- $1,072 million pro forma enterprise value
- Attractive value, high-growth, genuinely sustainable business

Capital Structure
- ESS shareholders rolling 100% of equity
- $465 million net proceeds (assuming no redemptions)
- Fully funded to projected cash flow profitability

**Leadership**

- **Craig Evans**
  - President & Founder
- **Eric Dresselhuys**
  - CEO (March 2021)
- **Julia Song**
  - CTO & Founder
- **Amir Moftakhar**
  - CFO

- **Adam Kriger**
  - CEO & Director
- **John Roush**
  - CFO & Chairman
- **Alan Greenshields**
  - ACON Advisor

Note: For additional information, please refer to the Detailed Transaction Overview on p. 36 of this presentation.
Welcome
Our Goal: To be the leading provider of long-duration energy storage technology
Growing Market Momentum

ESS believes the potential for long-duration storage is stronger than ever

2. California PUC, June 20, 2021 (https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M085/K603/389603037.PDF)
“U.S. battery storage projects grow by 10 times beyond the 2019 figure between 2021 and 2023 to contribute 10,000 MW to the grid”
Investment Highlights

- First Long-duration Storage Company To Go Public
- Large Addressable Market + Macro Tailwinds
- Differentiated Technology With First Mover Advantage
- Strong Balance Sheet Positions Us For Growth
ESS: A Category Defining Investment Opportunity

1. **Large and Fast-Growing TAM:** ~$56bn by 2027 growing at a 33% CAGR¹

2. **Simple Yet Revolutionary Technology:** Iron, salt and water; strong patent portfolio

3. **Compelling Value Proposition:** Highest performance, lowest cost² and most sustainable

4. **Low Risk Expansion Plan:** Field proven³ technology with low-cost manufacturing build out

5. **$7bn of Identified Opportunities⁴:** $300m+ SoftBank Energy framework agreement through 2026

6. **Premier Management Team:** Founders and inventors supported by an experienced team

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3. Based on our Generation I products, which are no longer deployed.
4. Our $7.0 billion pipeline of visible potential opportunities for 2021 through 2027 was determined based on named projects with customers ESS has spoken to and signed non-disclosure agreements with in order to discuss the projects. We have assumed project volumes of eight, 10 and 12-hour energy storage durations and pricing based on our current 2021 pricing for our products. Actual pricing will be project specific. Our pipeline includes both Energy Warehouse and Energy Center projects and global opportunities. There is no assurance that we will enter into all of the markets that we have projected in our pipeline.
Market Opportunity
What Is Long Duration Storage?

Shift Supply to Meet Demand from 4 – 12 Hours

Low Cost to Enable Replacement of Alternatives (Peaker Plants)

Reliable (Grid Stability)
## ESS Transforms the Value Proposition for Long Duration Storage

### What Customers Demand

<table>
<thead>
<tr>
<th>Longer Duration</th>
<th>How ESS Transforms the Grid</th>
</tr>
</thead>
<tbody>
<tr>
<td>▪ Up to 12 hours</td>
<td>▪ Can replace coal and natural gas with solar and wind power</td>
</tr>
<tr>
<td>▪ Flexibility allows multiple revenue streams</td>
<td>▪ Greater resiliency to unexpected events</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Low Cost</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>▪ Lower LCOS than other technologies in the market</td>
<td>▪ Step function improvement in economics of storage</td>
</tr>
<tr>
<td>▪ Incremental cost of storage &lt;$20/kWh</td>
<td>▪ Enables multiple use cases</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Power On Demand</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>▪ &lt;1 second response time</td>
<td>▪ Improved grid resiliency and flexibility</td>
</tr>
<tr>
<td>▪ &gt;20,000 cycle life – $0 marginal cost per cycle</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Safety and Reliability</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>▪ Non-flammable, non-toxic, no explosion risk</td>
<td>▪ Can deploy in a wide range of geographies and climates</td>
</tr>
<tr>
<td>▪ Munich RE insures technology risk</td>
<td>▪ Customers can be confident in a long-term solution</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sustainability</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>▪ Easily sourced materials; recyclable components</td>
<td>▪ Environmentally sustainable</td>
</tr>
<tr>
<td>▪ “Plug and play” with 25-year operating life</td>
<td>▪ Accelerates clean energy transition</td>
</tr>
</tbody>
</table>
Renewable intermittency creates a massive problem for the grid, particularly >25% penetration.

- Carbon-free is the goal
- Intermittency and curtailment are barriers
- 4-hour storage does not efficiently bridge the duck curve
- Longer duration solutions enable peaker plant replacements

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1 BloombergNEF.
2 IEA, "The California Duck Curve", December 2019. % figures represent solar and wind power penetration in each year.
Strong and Growing Demand for Energy Storage

ESS has observed even greater demand from customers than these current analyst estimates.

### Cumulative Additions to Global Storage Capacity (GWh)

<table>
<thead>
<tr>
<th>Year</th>
<th>Front of the meter</th>
<th>Behind of the meter</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020</td>
<td>11</td>
<td>6</td>
</tr>
<tr>
<td>2021</td>
<td>39</td>
<td>13</td>
</tr>
<tr>
<td>2022</td>
<td>79</td>
<td>27</td>
</tr>
<tr>
<td>2023</td>
<td>130</td>
<td>47</td>
</tr>
<tr>
<td>2024</td>
<td>199</td>
<td>77</td>
</tr>
<tr>
<td>2025</td>
<td>287</td>
<td>168</td>
</tr>
<tr>
<td>2026</td>
<td>397</td>
<td>226</td>
</tr>
<tr>
<td>2027</td>
<td>534</td>
<td>301</td>
</tr>
</tbody>
</table>

+43% CAGR

### Global Total Addressable Market ($bn)

<table>
<thead>
<tr>
<th>Year</th>
<th>Front of the meter</th>
<th>Behind of the meter</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020</td>
<td>$11c</td>
<td>$4bc</td>
</tr>
<tr>
<td>2021</td>
<td>$39b</td>
<td>$17d</td>
</tr>
<tr>
<td>2022</td>
<td>$79a</td>
<td>$22e</td>
</tr>
<tr>
<td>2023</td>
<td>$130c</td>
<td>$27f</td>
</tr>
<tr>
<td>2024</td>
<td>$199b</td>
<td>$20y</td>
</tr>
<tr>
<td>2025</td>
<td>$287c</td>
<td>$19c</td>
</tr>
<tr>
<td>2026</td>
<td>$397d</td>
<td>$22e</td>
</tr>
<tr>
<td>2027</td>
<td>$534f</td>
<td>$28c</td>
</tr>
</tbody>
</table>

+44% CAGR

One Technology – Two Products of Different Scale

Energy Warehouse™
- Behind the meter solution
- 50kW – 90kW configurable range
- First commercial deployment in 2015
- Generation II launched in 2020
- Containerized design for turnkey delivery
- Fast to build and commission

Energy Center™
- Front of the meter solution
- Customizable configuration range
- Customer trials starting in 2022
- “Battery in a Building” platform
- Modular design for utility-class
## Validated by a Blue-Chip Customer Base

### Demand Drivers

- Peaker replacements
- T&D upgrade deferrals
- Wildfire resiliency
- Distributed energy services products

### Select Customers/Use Cases

- Engie
- San Diego Gas & Electric
- ČEZ Group
- Duke Energy
- Naturgy
- Grupo SAESA
- PacifiCorp

### Utilities

- EW
- EC

### IPPs/Developers

- Peaker replacements
- Resource adequacy & grid reliability
- 24/7 power supply
- Microgrids

- SB Energy
- Swordstone
- ConEdison Energy
- Starwood Energy
- Enel
- Grupo SAESA
- PacifiCorp

### Commercial & Industrial

- Energy cost savings
- Operational resiliency
- RE integration
- Carbon footprint reduction/ESG goals

- Applied Medical
- Pacto Energia
- Honeywell
- Idimax
- Marathon

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Note: “EW” refers to Energy Warehouse™, “EC” refers to Energy Center™.
ESS Wins on Performance

Compelling Performance

- Can cycle when needed with no impact to asset life
- Operates at peak efficiency independent of outside environment
- No heating/cooling systems needed
- Safe for deployment to urban areas or harsh and pristine environments

1 Li-Ion cyclability from BYD energy storage system factsheets.
Flow Batteries are Scalable, Low Cost, Long Duration Storage

Iron Flow Battery Scaling

A theoretical 100KW/400KWh ESS battery contains:

<table>
<thead>
<tr>
<th>Component</th>
<th>Number</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fixed Equipment: i.e., power electronics, tank, structure/supports</td>
<td>1x</td>
<td></td>
</tr>
<tr>
<td>Power Module</td>
<td>1x</td>
<td></td>
</tr>
<tr>
<td>Electrolyte</td>
<td>4x</td>
<td></td>
</tr>
</tbody>
</table>

Increasing Storage Duration = Same System, More Electrolyte

- More electrolyte -> Longer duration
- ESS electrolyte is low cost – made from iron, salt and water
- Incremental cost of increasing storage duration is low

ESS Decouples Energy from Power
ESS Wins on Cost

Illustrative Cost Comparison Versus Li-Ion

Competitive with Li-Ion at 4 hours; ESS wins thereafter

How ESS’ Technology Delivers Superior Economics

Li-Ion

4 hours

No scaling

Marginal cost of $20/kWh

ESS INC

12 hours

Marginal cost of $80/kWh

lfCos at 4 hours vs. 12 hours

Li-Ion

$200/kWh

$200/kWh

$80/kWh

ESS INC

$0.07

$0.08

$0.02

$0.05

12 hours

4 hours

1 Figures shown are illustrative.
2 Superior economics based on Levelized Cost of Storage (LCOS).

LCOS = \frac{\Sigma \text{CapEx} + \Sigma \text{Installation} + \Sigma \text{Disposal} + \Sigma \text{O&M}}{\Sigma \text{Annual Usable KWh}}
Sustainability Focus Areas

Responsibly Sourced Materials
Raw ingredients of iron, salt and water are earth-abundant

Global Warming Potential (GWP)
67% lower CO₂ emissions than Li-Ion¹

Recyclability
Contains no toxic materials and requires no special permits for disposal²

Note: GHG impact is dependent on specific Li-Ion chemistry.
Noguera, E., Comparative LCA of stand-alone power systems applied to remote cell towers, 2014.
2 No hazardous materials compliance plan required.
ESS is a Category Defining Technology for Long Duration Storage

<table>
<thead>
<tr>
<th>Feature</th>
<th>Li-Ion</th>
<th>Li Metal</th>
<th>Vanadium, Zinc Bromine</th>
<th>Sodium Sulfur</th>
<th>Compressed Air</th>
<th>Pumped Hydro</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low cost at 4–12 hours</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Field proven¹</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Earth abundant materials</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unlimited cycling</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zero capacity fade</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wide operational temperature range</td>
<td></td>
<td></td>
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<tr>
<td>Environmentally sustainable</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>No fire/explosion risk</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Internally developed table based on company data and publicly available information.

¹ Based on our Generation I products, which are no longer deployed.
The ability to ensure battery performance is a key piece of the puzzle in decarbonizing our energy sector.”

–Peter Röder, Member of the Board of Management, Munich RE

<table>
<thead>
<tr>
<th>Munich RE</th>
<th>Aon</th>
<th>One Beacon</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Investment-Grade Warranty</strong></td>
<td><strong>Surety and Corporate Bonding</strong></td>
<td></td>
</tr>
<tr>
<td>10-year extended warranty covering battery modules</td>
<td>Growing project surety capacity</td>
<td></td>
</tr>
<tr>
<td><strong>Investment-Grade Project Insurance</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Warranty continuity insurance provides additional surety to customers and financiers</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**US Export-Import Bank Qualified**

Pre-qualified financing available for overseas buyers
Technology Overview
Iron Flow first conceived in 1970s

But "dirty" electrolyte caused rapid degradation

Technological breakthrough – Proton Pump eliminates power fade and limits on cycle life

Field proven; S200 shipping now

R&D roadmap for additional breakthroughs to extend technology advantage

Technological Success Proven Over Time

2011
Company formed
Developed lab scale battery

2012
Awarded ARPA-e grant for development of Iron based battery

2014
Demonstrated 10,000+ operating cycles in the lab

2015
First commercial deployment

2017
Gen I EW product line launched

2019
S200 commercial battery module launched

2020
Installed S200 automated assembly line
Energy Center™ product line launched

Innovative Technology

(+)_ELECTRODE:
High surface area carbon electrode

(-)_ELECTRODE:
Carbon composite substrate with polypropene spacer

SEPARATOR:
Porous polyethylene separator

ELECTROLYTE:
Ferrous Chloride in aqueous solution

Technological Breakthrough, Field Proven and Shipping Now

1 Based on our Generation I products, which are no longer deployed.
Robust Intellectual Property Portfolio

ESS Critical Technology

ESS IP Portfolio

125+ Patents Granted and in Pipeline Pending Applications

Undisclosed Number of Trade Secrets and Identified Patents

World-leading Iron Flow expertise, and roadmap to additional breakthroughs and advantages

~57% Employees Have an Engineering Background

1 As of March 25, 2021.
Case Studies
### BTM Microgrid (Customer-Owned)

<table>
<thead>
<tr>
<th>Customer</th>
<th>TerraSol Energies, Inc.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Location</td>
<td>Sycamore, Pennsylvania</td>
</tr>
</tbody>
</table>

**Use Case**
- Behind the meter microgrid owned by customer
- Customer is an electronics recycling facility
- Energy shifting, load management
- Energy Warehouse™ product (75kW/400kWh)

**Project Benefits**
- <5 yr. payback on energy cost savings
- >$800K in resiliency benefits (over 10 yr.)

**Why ESS Won**
- Resiliency benefits of long duration storage
- Battery safety. Customer ruled out LIB due to safety and compliance concerns
## BTM Microgrid (Customer-Owned)

<table>
<thead>
<tr>
<th>Customer</th>
<th>Medical Device Manufacturer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Location</td>
<td>Southern California (multiple sites)</td>
</tr>
</tbody>
</table>

### Use Case

- Behind the meter microgrid owned by customer
- Customer is a vertically integrated medical device manufacturer
- Multiple project sites and generation sources (microturbines, solar)
- Energy Warehouse™ product

### Project Benefits

- Reduced energy costs
- Operational resiliency (PSPS events)

### Why ESS Won

- Lowest total cost of ownership
- Battery safety characteristics
- Ease in permitting
**BTM Microgrid (Utility-Owned)**

<table>
<thead>
<tr>
<th><strong>Customer</strong></th>
<th><strong>US Utility</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Project Location</strong></td>
<td>Western US</td>
</tr>
</tbody>
</table>

**Use Case**
- Standalone storage owned by utility in behind the meter application (DER)
- Customer energy shifting, load management, resiliency for critical loads
- Energy Warehouse™ product

**Project Benefits**
- Customer energy cost savings (during peak demand)
- Customer resiliency (year-round)
- Utility grid support services (year-round)

**Why ESS Won**
- Multi-use case versatility without compromising or degrading the battery
## FTM Microgrid (Utility-Owned)

<table>
<thead>
<tr>
<th>Customer</th>
<th>Domestic Utility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Location</td>
<td>California</td>
</tr>
</tbody>
</table>

### Use Case
- Microgrid solutions required to mitigate Public Safety Power Shutdown impacts
- Solar + storage microgrid
- Energy Warehouse™ product (540kW/3MWh storage)

### Project Benefits
- Multi-day resiliency for critical needs customers during PSPS events

### Why ESS Won
- Safety (non-flammability, non-explosive)
- Ability to participate in CAISO market
- Ability to provide distribution grid ancillary services during non-PSPS events

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**Site construction (June 2021)**
Green Hydrogen

<table>
<thead>
<tr>
<th>Customer</th>
<th>Siemens-Gamesa</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Location</td>
<td>Denmark</td>
</tr>
</tbody>
</table>

**Use Case**
- Wind + Solar + Storage + H2
- Energy Warehouse™ product

**Project Benefits**
- Flexible project package that can be optimized for sustainable resource availability and market conditions (for H2)

**Why ESS Won**
- No battery degradation due to cycling
- Operational flexibility enables any duty cycle (starts, stops, duration, etc.)
- Lowest total cost of ownership
### Use Case

**Customer**  
Utility

**Project Location**  
Chile

**Use Case**
- Remote grid served by RoR hydro and diesel gensets
- Storage systems will minimize genset usage
- Energy Warehouse™ product (300kW/2MWh)

**Project Benefits**
- $3.1M incremental savings over LIB
- Avoids 12 years of diesel genset emissions

**Why ESS Won**
- 3x greater savings over LIB
- Sustainability and environmental friendliness of IFB

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**FTM Microgrid (Utility-Owned)**
Strategy to Scale Globally

ESS’ ability to grow is supported by

✓ Relationships in Europe and Asia-Pacific
✓ Automated manufacturing process
✓ Supply chain of readily sourced components and raw materials

Manufacturing Capacity (MWh)

- 2021: ~150
- 2022: ~2,000
- 2023: ~5,000
- 2024: ~10,000
- 2025: ~16,000

- 150,000 sq. ft. manufacturing facility in Oregon
- Robotic automation cell designed and built by ESS
- Strategic investments in supply chain to grow capacity
- Roll out of redesigned automation cells (2x efficiency)
- Australia manufacturing go-live for EW with LOI on Brisbane facility
- Australia manufacturing go-live for EC and Power Module
- Europe manufacturing go-live for EC and EW
- Europe Power Module manufacturing go-live
- Vertically integrate power module comportments
Simple, Low-cost Production in the USA

$in millions/GWh of Battery Module Production Capacity

~$140

~$4

Li-Ion competitor

Simple, automated ESS manufacturing line

Expensive, complex Li-Ion battery manufacturing line

97% Less Capital Required – Ready to Scale Globally

Source: Lux Research.
Net Cash for Growth

$493M

Increase Manufacturing Capacity
Fully funds capital plan to increase capacity from >250MWh in 2021 to 16GWh by 2025

Launch Energy Center™
Deploy product that is optimized for the fast-growing utility-scale storage segment

Expand Sales Footprint
Hire new sales team members and expand production footprint into Europe and Australia

Strengthen Balance Sheet
Supports credit requirements to convert large projects in pipeline

Further Extend Technology Advantage
Higher performance electrolyte to enable an 85% reduction in cost per megawatt hour by 2025

1 PF 12/31/2020 net cash assumes funding of $27.5m of C-2 raise, of which $16m has yet to be funded; amount is expected to be funded prior to transaction close. Net cash also includes $1.5m of restricted cash. For additional information, please refer to the Detailed Transaction Overview on p. 36 of this presentation.
Financial Forecast
High Quality Pipeline

Projected Pipeline for Energy Center™ and Energy Warehouse™

- **Booked 100%**
  - 2021E: $2 Million
  - 2022E: $37 Million
  - 2023E: $300 Million

- **Negotiating 28%**
  - Awarded 66%
  - Booked 6%

- **Qualifying 40%**
  - Negotiating 40%
  - Awarded 20%

Deals continue to convert 2022E Update: Booked 20%, Awarded 52%, Negotiating 28%

Global Identified Opportunities

- Energy Center™ Opportunities
- Energy Warehouse™ Opportunities

$7+ Billion Pipeline for Continued Growth in Outer Years
Growth accelerates as Energy Center deployments start in 2023
- Forecast driven by identified pipeline of near-term opportunities
- ESS expansion into Australia (2023) and Europe (2024) supports continued growth
- Energy Franchise lease and Services revenue streams become bigger contributors as ESS expands

Note: Total addressable market value for the microgrid, distributed energy and utility industries from Guidehouse Insights.
ESS Delivers Compelling Profitability

Projected Gross Margin ($in millions)

- **2021E**: ($2)
- **2022E**: ($13)
- **2023E**: $47
- **2024E**: $217
- **2025E**: $508
- **2026E**: $950
- **2027E**: $1,332

Projected EBITDA ($in millions)

- **2021E**: ($20)
- **2022E**: ($43)
- **2023E**: $2
- **2024E**: $131
- **2025E**: $360
- **2026E**: $739
- **2027E**: $1,059

2021E Update*: COGS expensed
2022E Update*: (~$43M)
Drivers: Accelerating EC&EW supply chain & build

2021E Update*: (~$42M)
2022E Update*: (~$87M)
Drivers: Supply constraint challenges to developing manufacturing capacity

* As a result of developments subsequent to the date these projections were prepared, ESS' management believes actual operating expenses for 2021 may be higher than previously projected as a result of (i) higher general and administrative expenses related to public company readiness, (ii) expenses related to supply chain, parts and the launch of ESS' S200 batteries and (iii) higher research, development and ramp up activities. These additional expenses are expected to continue into 2022.
Potential Upside to Business Plan

- New US federal and state policies on infrastructure, decarbonization and national security
- Emerging mandates in EU and Asia-Pacific on decarbonization and storage
- Demand impact of USTDA, Power Africa, UNDP and World Bank targets
- Further economies of scale and technology enhancements
- Additional revenue streams (e.g., Storage as a Service, Warranty)