EnSync Energy Systems
(NYSE MKT: ESNC)

November 2016
Forward Looking Statements

THIS PRESENTATION INCLUDES FORWARD-LOOKING STATEMENTS THAT ARE MADE PURSUANT TO THE "SAFE HARBOR" PROVISIONS OF THE PRIVATE SECURITIES LITIGATION REFORM ACT OF 1995. FORWARD-LOOKING STATEMENTS INVOLVE INHERENT RISKS AND UNCERTAINTIES WHICH COULD CAUSE ACTUAL RESULTS TO DIFFER MATERIALLY FROM THOSE IN THE FORWARD-LOOKING STATEMENTS, AS A RESULT OF VARIOUS FACTORS INCLUDING THOSE RISKS AND UNCERTAINTIES DESCRIBED IN THE RISK FACTORS AND IN MANAGEMENT’S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS SECTIONS OF OUR MOST RECENTLY FILED ANNUAL REPORT ON FORM 10-K AND OUR SUBSEQUENTLY FILED QUARTERLY REPORTS ON FORM 10-Q.

WE URGE YOU TO CONSIDER THOSE RISKS AND UNCERTAINTIES IN EVALUATING OUR FORWARD-LOOKING STATEMENTS. WE CAUTION READERS NOT TO PLACE UNDUE RELIANCE UPON ANY SUCH FORWARD-LOOKING STATEMENTS, WHICH SPEAK ONLY AS OF THE DATE MADE.

IN THIS DOCUMENT, WE REFER TO INFORMATION REGARDING POTENTIAL MARKETS FOR PRODUCTS AND OTHER INDUSTRY DATA. WE BELIEVE THAT ALL SUCH INFORMATION HAS BEEN OBTAINED FROM RELIABLE SOURCES THAT ARE CUSTOMARILY RELIED UPON BY COMPANIES IN OUR INDUSTRY. HOWEVER, WE HAVE NOT INDEPENDENTLY VERIFIED ANY SUCH INFORMATION.

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EnSync Energy

Distributed Energy Generation Systems and Services Company

Distributed Energy Systems from Design through O&M
- Power Purchase Agreements
- Straight System Sales

High-Performance Energy Storage Systems
- Systems
- Components

Internet of Energy (IOE) Control Platform
- Complete Solution for Distributed Energy Resource (DER) to Utility Connectivity
Market Opportunity
The Solar Market is Booming

30% ITC Extended through 2019 – Will Continue to Stimulate Growth

Yearly U.S. Solar Installations

Risk of Loss of ITC Drives “Pull-ins”

Return to Growth Trend Line

Huge Growth, But What Are the Problems?
Drivers for Energy Storage and Solar + Storage
Different Drivers and Motivations for Different Segments

**Utility Segment**

1. Government Driven Policies to Replace Carbon Emitting Energy Sources with Renewable Sources
   - **Result:** Intermittent Generation Replacing Stable Generation; storage can smooth intermittency

2. Solar (and Wind) Peak Generation is Not During Peak Demand Periods
   - **Result:** Disconnect in supply vs demand must be corrected by energy storage or expensive gas “peaker” plants (California)

**Commercial and Industrial (C&I) and Residential Segments**

1. Net Metering programs highly stimulative for solar market - excess production paid for by utility at retail rate until monthly bill goes to “zero” – funded by non-solar customers
   - **Result:** Net-Metering punishes non-solar customers and at some point must be scaled back or removed

2. Solar export to the grid is disruptive and can cause distribution issues and outages
   - **Result:** At some point excess export into grid must be stopped or managed by utility

3. Utility income decreases with more solar deployment
   - **Result:** Utilities looking for additional revenue – Demand Charges and Time of Use Rates, for example
Solar Penetration Creating Grid Problems
Hawaii Must Eliminate or Reduce Net-Metering

Not much room on Oahu’s solar grid for solar juice

By Kathryn Mykleseth
Posted September 08, 2016
September 8, 2016

STAR-ADVERTISER / 2010

Hawaiian Electric Co. said Wednesday that Oahu has nearly reached the capacity that the state Public Utilities Commission put on solar systems that export energy to the power grid.

Oahu residents looking to get rooftop solar energy systems soon won’t be able to send their excess energy into the grid.
Policy Changes Drive Self-Generation and Solar + Storage Market Growth in USA

Market for C&I and Residential Solar + Storage Systems will be at Least $1.0B Annually by 2018

Forecast for C&I and Residential Before Solar ITC Extension

Source: GTM
EnSync Differentiated Products and Services

Leading Technology for Distributed Energy Generation Market

- Applications and systems expertise, from economic modeling to system design to deployment
- Proprietary “Auto-Sync” DC-Bus Control architecture for more efficient, cost effective and “future-proof” systems
- IP protected hybrid energy storage solutions
- Innovative business model – PPA’s with Solar + Storage, in C&I and microgrid applications, in addition to standard system sales

EnSync Systems Deployed in C&I Installations
Make or Save Money Every Day
Battery Portfolio and Hybrid Storage
EnSync Energy Storage Solutions Portfolio
Modular and Scalable – Small C&I to Large Utility

Flow Batteries
4-8 Hrs. Energy Applications

Li Ion Power Batteries
0-30 Min. Power Applications

Li Ion Energy Batteries
2-3 Hrs. Energy Applications

Aqueous Batteries
>8 Hr. Low Load, Energy Applications
C&I Solar + Storage Projects Have Many Possible Applications

Value of System Maximized by Doing Multiple Applications

End-Customer Benefits:

**Income Opportunity**
- DG Electricity Sales
- DR Revenues
- Renewable Smoothing
- Ancillary Services
  - Enable DG Market Participation (VPP, DER Marketplace)
  - Market DSM/DR Up/Down Flexibility
  - Access Higher PPA Prices
  - Volt/Var Support
  - Frequency Regulation and Load Following Services

**Cost/Risk Reduction**
- Time-of-Use Shifting
- Peak Demand Charges
- Improved Power Quality
- Reduce Generator Costs
- Resiliency for Outages
  - Shift Excess Solar Generation for Future Use at Higher Time-of-Use Tariff
  - Reduce Electricity Bill by 20% to 50% with Peak Demand Shaving
  - Improve Power Quality
  - Reduce Backup Generator Operation and Cut Fuel Costs (Natural Gas and Diesel)
  - Backup Generation
  - Islanding During Outages

Source: GTM, EnSync
EnSync Storage Portfolio Covers All C&I Applications with Hybrid Storage Systems

Enables All Applications to be Economically Addressed

- Li Ion Power Battery, <30 Min. Use Cases
- Li Ion Energy Battery, 1-3 Hrs. Use Cases
- Flow Battery, ≥ 4 Hrs. “Energy” Use Cases

Discharge Duration

- Power Quality
- Renewables Smoothing
- Freq. Reg.
- Load Following

Frequency of Use

- Peak Demand Charges
- DR Revenues
- Time of Use / Rate Shifting
- DG to Grid Electricity Sales
- Fuel Cost Savings
- Resiliency

Source: EnSync, SEIA, GTM
Matrix Energy Management System and EnSync Internet of Energy Platform
Matrix Energy Management Platform
Fully Differentiated C&I and Microgrid Solution

• Plug and play DC-AC and DC-DC “drawers” enable configuration for any building specific load, PV system, storage technology and storage size.
• Proprietary “Auto-Sync” DC-Bus Control Platform
• Active prioritization of grid, renewables and storage produces electricity based on most efficient and economic result, without fixed algorithms and a central controller.
• Efficient, simple, modular, scalable, reconfigurable and future proof
• UL1741 and Hawaii “Smart Inverter” spec compliant
Matrix Energy Management System

Synchronizes the Load, Distributed Generation and Utility Grid through the Proprietary “Auto-Sync DC-Bus” Control Platform

- Highest efficiency
- Leading economics
- Modular and Scalable
- “Internet of Energy Ready”
## Matrix Energy Management Platform

**Significant Advantages Over Competition**

<table>
<thead>
<tr>
<th>Function or Application</th>
<th>EnSync Matrix</th>
<th>Product A</th>
<th>Product B</th>
</tr>
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<tbody>
<tr>
<td>Active Energy Synchronization for any or all DC and AC Inputs and Outputs without System Controller / Complex Algorithms</td>
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<td>Can manage every power and energy storage application under simultaneous operation</td>
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<td>Modular, Scalable, Efficient and “Future Proof” for 20 Year service life</td>
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<td>Demand Response</td>
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<td>Frequency Regulation</td>
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<tr>
<td>“Rate Shifting”</td>
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<td>“Peak Shaving”</td>
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<td>Demand Charge “Clipping”</td>
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<td>Renewable Firming</td>
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<td>Full Data Logging and Forecasting of Generation and Storage</td>
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<tr>
<td>“Supply Response on Demand” between Building DG and Grid Network</td>
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<tr>
<td>DC Output Management and Control (eg. DC lighting, Building DC)</td>
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<td>Microgrid Operation</td>
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<td>Max. Power Point Tracking</td>
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<tr>
<td>Power Factor Correction and AC Bus Voltage Regulation</td>
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<td>Islanding</td>
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Transformation of EnSync Energy

**Battery Sales**
- Technology dates to 1980’s (Exxon) and 1990’s (Johnson Controls)

**Integrated System Sales**
- Utility Storage and Energy Management Systems
- Commercial and Industrial Building Energy Management and Storage Systems
- Service Contracts

**Electricity Sales**
- Power Purchase Agreements, including EnSync products, EPC and 3rd Party Products (e.g. solar)
- Initial cash intake from sale of equipment and services into PPA
- Sale of the high yield PPA

**Internet of Energy**
- Move from Demand Response to “Supply Response on Demand”
- Spot Market Electricity Sales
- Fully connected DER networks

Pre-2013 2013 2015 2016 and Beyond
Distributed Energy Resource (DER) to Utility Marketplace

EnSync Delivers the Total Solution for the Energy Market of the Future

EnSync Provides Fully Differentiated Solutions for All Three Critical “Legs of the Stool”
EnSync “Internet of Energy” Platform

Enables DER to Utility and ISO Marketplace
Real-Time Dispatch Locational Marginal Price Utilized to Trigger Buying and Selling

CAISO Real-Time Dispatch LMP
Locational Marginal Price: $32.64/MWh
BAYSHOR2_1_N001
Partnership with OATI (Open Access Technology International)

Connecting the Utility to the Distributed Generation

- Bloomington, Minnesota
- Matrix Energy Management System and Agile Hybrid Energy Storage incorporated into the OATI Microgrid Demonstration and Data Center
- Matrix is a vital part of OATI’s utility control platform for utility to Distributed Energy Resources (DER’s) control
- Joint marketing to N. America Utilities (>90% market penetration)
Business and Financials
EnSync Business Targets

• Hawaii Market
  – All PPA projects in initial “Tranche” have been sold, with the final two turning revenue in Fiscal Q2
  – Strong pipeline to support the mid-2015 “2-year $50M C&I Market” forecast

• Pacific Islands and Caribbean
  – Similar fundamentals as Hawaii – Guam, Tonga, and locations in the Caribbean

• California, US
  – Sales office opened in Petaluma, CA
  – Opportunities to expand PPA model as well as systems business in 2017

• Northeast, US
  – Supportive programs in New York, New Jersey and others

• Canada
  – Secure utility partnership

• China
  – Take advantage of coming implementation for Energy Storage policy in 2017/2018

• Australia and Europe
  – Enter in 2018
EnSync Sells First Ever PV + Storage C&I PPA’s

EnSync Energy Sells Multiple Power Purchase Agreements to American Electric Power subsidiary, AEP OnSite Partners

EnSync Energy’s Project Portfolio Sale Includes First Solar + Energy Storage Projects Sold in Hawaii

MILWAUKEE, WI—(Marketwired – August 1, 2016) - EnSync, Inc. (NYSE MKT: ESNC), dba EnSync Energy Systems, a leading developer of innovative energy management systems for the utility, commercial, industrial and multi-tenant building markets, today announced the sale of multiple projects to AEP OnSite Partners, a subsidiary of American Electric Power (NYSE: AEP).

The sale of these projects is EnSync Energy's first transaction of a portfolio of project Power Purchase Agreements (PPAs) and includes a major portion of EnSync Energy’s PPA backlog reported at the end of our third quarter. Three of the five portfolio projects include EnSync Energy storage, including Agile™ Hybrid Storage, and EnSync Energy's Matrix™ Energy Management systems. All of the systems are sited behind-the-meter at condominiums or university campus buildings on Oahu and the Island of Hawaii, and represent the first ever solar plus storage PPAs in Hawaii. EnSync will provide ongoing project services through a contract with AEP OnSite Partners.
Pioneer of PPA’s for PV + Storage for C&I

Sample of "Tranche 1" Power Purchase Agreement Projects

Century West, Oahu, Hawaii
Multi-tenant Condominium

Sunset Lakeview, Oahu, Hawaii
Apartments

University of the Nations, Kona, Hawaii
Private, Global University Chain

Honolulu Christian Church,
Oahu, Hawaii

Villages of Kapolei, Oahu, Hawaii
Community Center

7000 Bldg, Oahu, Hawaii
Apartments
PPA Model Tranche 1 Results

Summary

- (5) Projects Sold to AEP Onsite Partners
- (1) Project Completed a “Sale-Leaseback” with a Renewable Energy Services Company
- (2) Projects Sold to Other Investors
- Operations and Maintenance (O&M) Agreements in Place: >$25K per year in Year 1, with escalator through 20 years.
- Upside Revenue Potential from Demand Charge Reduction and Grid Services for the AEP projects.
Meineng Energy
China Market JV in Wuhu City, Anhui Provence

Agile Flow Batteries in Build

Matrix Production Area

Utility ESS Module

Sales, Supply Chain Management, Assembly, Test and Co-Engineering of EnSync Products
Experienced Management Team

Brad Hansen
CEO, President & Director
Applied Materials, Boeing, Meineng Energy

Rick Whisman
Vice President of Sales
Sunpower, Powerlight

Dan Nordloh
Executive Vice President of Global Business Development
Naviant Inc., TantaComm

Sherry Xia
Vice President of Asia Business and Operations
DuPont, 3M, Applied Materials

Fred Vaske
Chief Administrative Officer
Scatec Solar, Hanwha Qcells, Recurrent Energy, Sunpower

Ted Peck – CEO Holu Energy
Hawaii State Energy Administrator,
Booz Allen, Johnson Controls,
U.S. Navy

Kevin Dennis
Vice President of Engineering & Product Development
ABB

Simms Duncan
Vice President Structured Finance
Hanwha QCells, Solyndra, Applied Materials, Jeffries & Co., U.S. Navy
## Selected Balance Sheet Data

As of September 30, 2016

<table>
<thead>
<tr>
<th>($ in Millions, except per share)</th>
<th>As of 9/30/2016</th>
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<tbody>
<tr>
<td>Cash and cash equivalents</td>
<td>$19.9</td>
</tr>
<tr>
<td>Project Assets</td>
<td>$0.7</td>
</tr>
<tr>
<td>Inventory</td>
<td>$1.8</td>
</tr>
<tr>
<td>Total assets</td>
<td>$31.1</td>
</tr>
<tr>
<td>Deferred revenue</td>
<td>$13.7</td>
</tr>
<tr>
<td>Bank loans and notes payable, net of current maturities</td>
<td>$1.3</td>
</tr>
<tr>
<td>Total shareholders’ equity</td>
<td>$13.6</td>
</tr>
</tbody>
</table>
Company Financial Model

Targeted Performance

Q1’17 Revenue: $7.7M

Operational Break Even: Cash flow break-even run rate at end of calendar year 2017

PPA Tranches in FY2017: 2 additional tranches in FY2017

PPA Gross Profit Target: 10-20% on project sales

Systems Business Gross Profit Target: 20-35% of sales

Op Ex (Cash Expense Burn Rate): <$3.1M per quarter (excluding stock expense)

Headcount: 73 Regular, Full Time
Synchronization.
The game changer in energy technology