
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM 8-K

CURRENT REPORT
Pursuant to Section 13 or 15(d) of the
Securities Exchange Act of 1934

Date of report (Date of earliest event reported): November 9, 2017

IDEAL POWER INC.

(Exact name of registrant as specified in Charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

001-36216
(Commission File No.)

14-1999058
(IRS Employee Identification No.)

4120 Freidrich Lane, Suite 100
Austin, Texas, 78744
(Address of Principal Executive Offices)

512-264-1542
(Issuer Telephone number)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the Registrant under any of the following provisions (see General Instruction A.2 below).

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b)).
- Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§240.12b-2 of this chapter).

Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Item 7.01 Regulation FD Disclosure.

Attached as Exhibit 99.1 to this Current Report on Form 8-K is an updated version of Ideal Power Inc.'s investor presentation, which is available on the Company's website and may be used in presentations to investors from time to time in the future. The information in this report shall not be treated as filed for purposes of the Securities Exchange Act of 1934, as amended.

Item 9.01 Financial Statements and Exhibits

| Exhibit No. | Description |
|--------------------|---------------------------------|
| 99.1 | Investor presentation materials |

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this Current Report to be signed on its behalf by the undersigned hereunto duly authorized.

Dated: November 9, 2017

IDEAL POWER INC.

By: /s/ Timothy Burns

Timothy Burns

Chief Financial Officer

EXHIBIT INDEX

| <u>Exhibit No.</u> | <u>Description</u> |
|----------------------|---|
| 99.1 | Investor presentation materials |

NASDAQ: IPWR



**Investor Presentation
November 2017**

Ideal Power Development Lab, Austin, Texas

Forward Looking Statements

All statements in this presentation that are not based on historical fact are "forward looking statements." While management has based any forward looking statements included in this presentation on its current expectations, the information on which such expectations were based may change.

These forward looking statements rely on a number of assumptions concerning future events and are subject to a number of risks, uncertainties and other factors, many of which are outside of our control, that could cause actual results to materially differ from such statements.

Such risks, uncertainties, and other factors include, but are not limited to, whether the patents for our technology provide adequate protection and whether we can be successful in maintaining, enforcing and defending our patents, whether demand for our products, which we believe are disruptive, will develop and whether we can compete successfully with other manufacturers and suppliers of energy conversion products, both now and in the future, as new products are developed and marketed.

Furthermore, we operate in a highly competitive and rapidly changing environment where new and unanticipated risks may arise. Accordingly, investors should not place any reliance on forward looking statements as a prediction of actual results. We disclaim any intention to, and undertake no obligation to, update or revise forward looking statements.

Ideal Power at Glance



Investment Highlights

Disruptive Technology Platform for Power Conversion

Early Entry Into Growing Solar + Storage and Microgrid Markets

Executing on Commercialization Strategy

Experienced Leadership

We Make Power Converters

- Power converters change the “flavor” of electricity



- We sell into three main markets



Solar + Storage



Microgrids

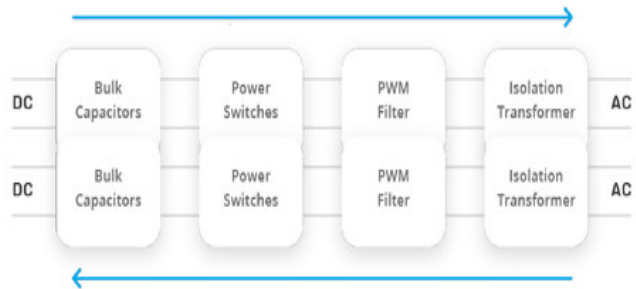


Storage-Only

Reinventing Power Conversion

Conventional Conversion

- Continuous one directional power flow
- Passive components add size, cost and weight & reduce efficiency
- Doubles the hardware needed for bi-directionality



The "Ideal" Solution for the New Energy Economy



Power Packet Switching Architecture (PPSA™)

- Power flows in either direction
- Eliminates most passive components
- Software-enabled to convert and route power

Data Router



Just as a computer router directs information to-and-from and between devices, Ideal Power's Products direct energy packets from any port to any port.

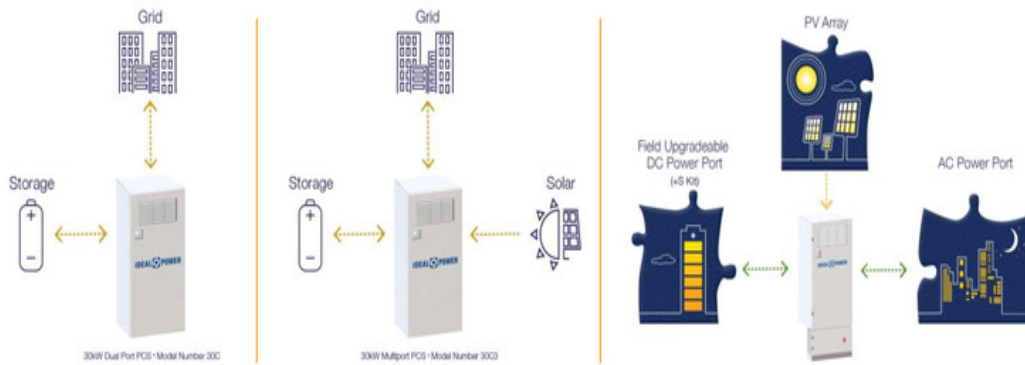
The Ideal Converter

- **Multi-port**
 - Connect multiple devices with one box
- **Bi-directional**
 - Charge battery or use battery for power
- **Built-in Isolation**
 - Required for any system that includes batteries
- **Compact and Light Weight**
 - Less metal means lower total system cost
- **Software-Enabled and Upgradeable**
 - Microgrid-capable; operates in 50Hz/60Hz environments



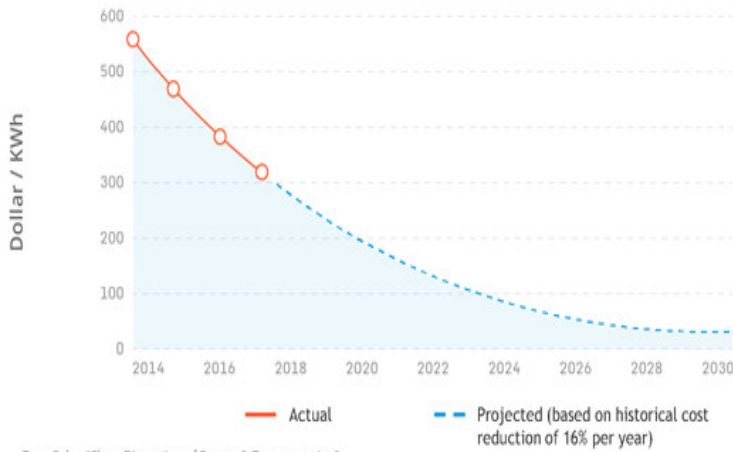
Our Product Portfolio

| 30kW | Stabiliti™ Dual Port | Stabiliti™ Multiport | SunDial™ | SunDial™ Plus |
|-------------------|----------------------|----------------------|----------|---------------|
| Model | 30C | 30C3 | 30PV | 30PV+S |
| Weight in lbs | 135 | 135 | 150 | 150 |
| Power Flows | AC ↔ DC | AC ↔ DC ↔ DC | PV → AC | PV → DC ↔ AC |
| Microgrid-Capable | Yes | Yes | No | No |



Lower Battery Costs Are Driving Adoption in Our Target Markets

Li-Ion Battery Cost Trend



Tony Seba, "Clean Disruption of Energy & Transportation"

• Major Investments:

- Tesla: \$5B
- Daimler Benz: \$540M
- LG Chem: \$340M
- Samsung: \$335M

• Planned Investments:

- Volkswagen: €10B
- Samsung: \$2.5B
- Johnson Controls: \$780M

The “Duck Curve” Illustrates the Imbalance Between Power Generation By Renewables and Actual Power Demand

The Duck Curve:

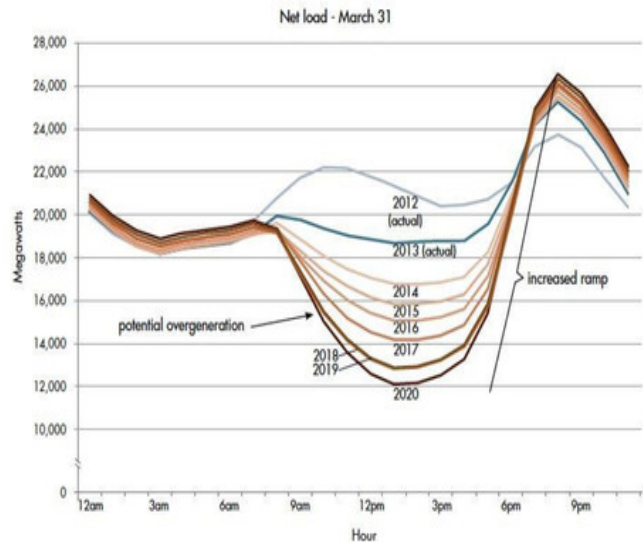
- Represents the difference between power demand and power supplied to the grid from renewable sources

The Problem:

- Traditional utility load-demand balance is skewed from 3:00PM-8:00PM as solar production diminishes and demand increases

Solution?

*“It’s time to decapitate the duck. The Duck Curve is used to speak negatively about the solar industry, a way of saying there is ‘too much solar’ on the grid. The real problem is the antiquated sources and methodology used for baseload, and the outmoded idea that ramping baseload up and down is inefficient, expensive and polluting. **We should have control over when and where the power is transmitted and distributed on the grid,**” Alex Au, CTO NEXTracker - August 2017*





Solar + Storage Applications
C&I + Utility

SunDial™ Solves Core Problem With Distributed Solar Market

Problem: Solar alone cannot solve demand management, backup, and critical load support problems due to its intermittent nature; storage is a necessity to the continued growth of solar



Solution: Ideal Power's SunDial™ integrates solar with batteries; enabling efficient load management

Results: Signed first licensing agreement with Flextronics + MSA with NEXTracker in Q3 2017 for C&I + Utility markets

Lead Customers:



NX FUSION PLUS OPERATIONAL DIAGRAM





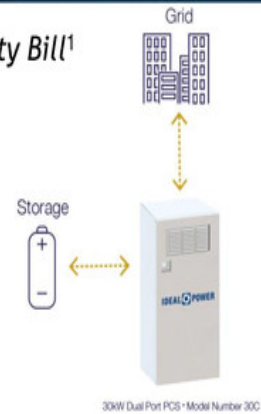
Energy Storage & Microgrid Applications
Commercial & Industrial

Stabiliti™ Series Dual Port Power Conversion System

Demand Charges Can Run Between 30-70% Of a Customer's Electricity Bill¹

Problem: Peak demand and time-of-use charges make power expensive for customers (commercial and industrial) who need to use power when it is in high demand

Solution: Ideal Power's stand-alone storage product allows customers to charge battery arrays in off-peak times and discharge during peak hours



Customers:



1. Source: US Forest Service, "Saving Money by Understanding Demand Charges on Your Electricity Bill"

Microgrids Overview

- A microgrid is a small-scale energy system consisting of distributed energy sources that can operate independently or in conjunction with the area's main electrical grid
- Self-sufficient, a microgrid serves a discrete geographic footprint, such as a college campus, hospital complex, business center, or neighborhood
- Distributed energy sources include: solar panels, wind turbines, combined heat & power, generators and many newer microgrids contain energy storage, typically from batteries
- **A microgrid is:** local, independent and intelligent
- **A microgrid is NOT:** a simple distributed energy system - i.e. solar panel or generator



Microgrid Facts¹

- 1,842 microgrids worldwide as of Q2-2017
- Global microgrid capacity expected to reach 7.6 GW by 2024, up from 1.4 GW in 2015
- North America and Asia as the centers of growth

1. Source: Navigant Research – June 20, 2017 Article [Here](#).

Stabiliti Series Multi-Port Power Conversion System - Microgrids

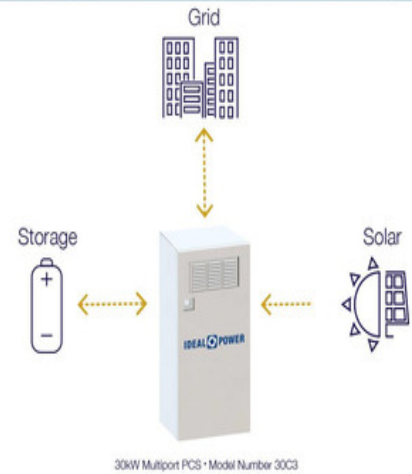
What's Supporting Microgrid Growth ?

Problem: The cost of building out conventional infrastructure to improve grid reliability is excessive and oftentimes subject to the same stresses as the line it serves as a backup to, reducing effectiveness

Solution: Ideal Power's multi-port Stabiliti™ power conversion systems enables efficient and cost-effective microgrids due to its bi-directional, software-enabled design

Results:

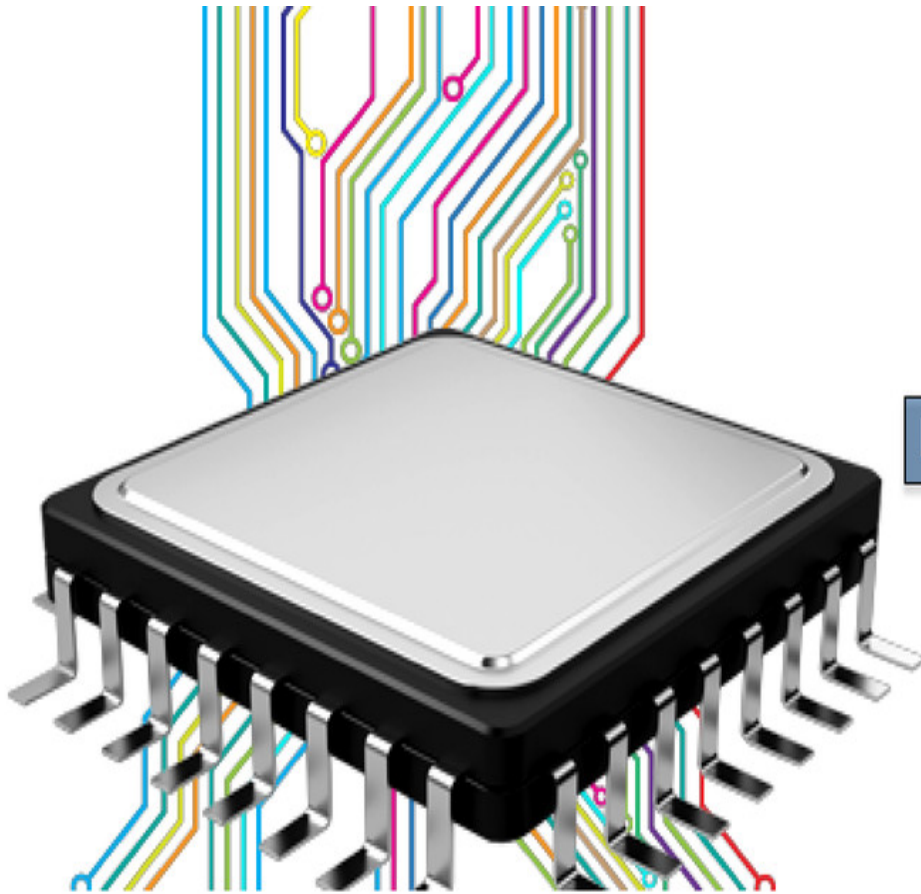
- Lower electricity costs - Rural locations = 3X-5X vs. U.S. mainland
- Critical load support & backup power solution - reduces reliance on costly diesel
- Project economics sufficient without incentives due to lower battery costs



Customers:

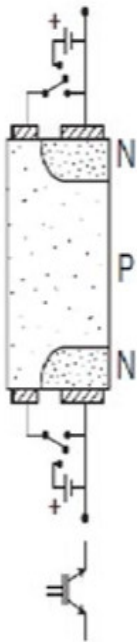


smartstorage.
by SHARP



B-TRAN Technology

Our B-TRAN™ Innovation Gives Us The Potential For Licensing Growth In The Future



B-TRAN™ is a bi-directional, bi-polar silicon switch under development

- Novel solution inspired by need for bi-directional power flow
- Replaces 2 standard power IGBT's and 2 diodes with 1 device
- Simplifies switching with fewer parts, lower switching and conduction losses and increased efficiency

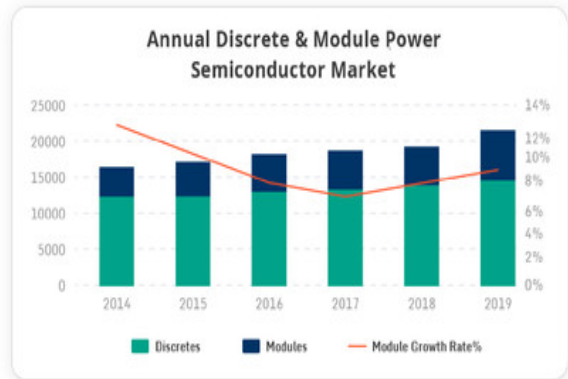
29 Patents Issued

- All Intellectual Property on the device and manufacturing methods controlled by Ideal Power

"B-TRAN™ is the most significant advance in power semiconductors in 20 years"

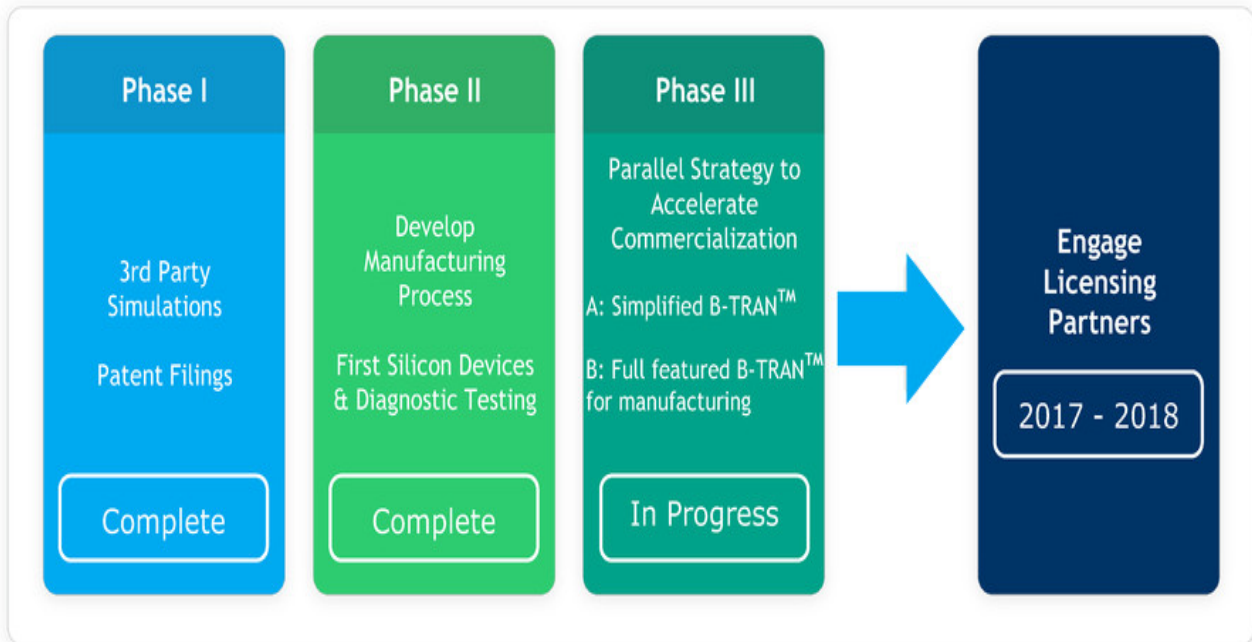
- Dr. Richard Blanchard, inventor of the trench MOSFET

Intend to License into Multi-Billion Dollar Annual Global Power Semiconductor Market



B-TRAN™ will address a portion of the large power semiconductor market that is currently addressed by module semiconductors, particularly the intelligent power module segment

B-TRAN™ Path to Commercialization



Capital Structure at September 30, 2017

- Market Capitalization: \$36.2 M
- Basic + Fully Diluted Shares: 14.0 and 24.6 M shares
- Cash Balance: \$11.7 M
- Debt Balance: \$0.0 M

Ideal Power at Glance

Investment Highlights

Disruptive, Patented Power Conversion Technology

Significant IP Estate

Asset Light Business Model

Executing on
Commercialization Strategy

Reduction in Battery Costs Driving
Significant Growth in Target Markets

Ideal Power at Glance

Recent Developments

Signed master purchase agreement with NEXTracker for C&I and utility sites throughout North America in Q3 2017

Established first licensing agreement for Sundial™ with a Fortune Global 500 company, Flextronics (NASDAQ: FLEX)

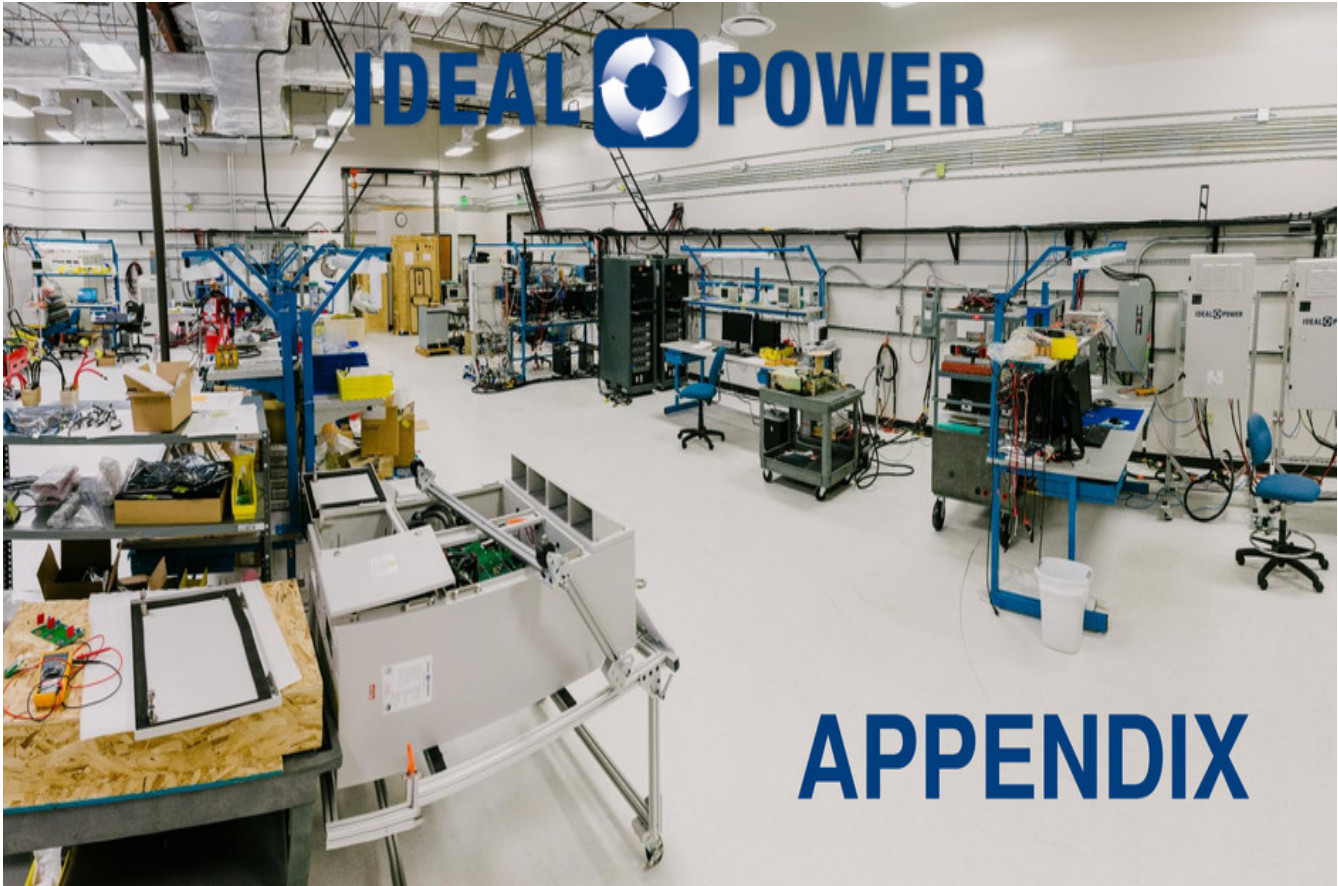
Introduced new strategic initiative in the solar + storage and microgrid markets in Q2 2017



IDEAL POWER

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APPENDIX

Management Team



R. Daniel Brdar
CEO & President



Tim Burns, CPA
CFO



Uwe Uhmeyer
VP, Engineering

Our independent directors are Dr. Lon Bell, Chairman of the Board, David Eisenhaure and Mark Baum

