IDEAL POWER
NASDAQ: IPWR
Leading the Grid Revolution
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.
Disruptive Technology Platform for Power Conversion
- Current technology provides long-term competitive advantages, supported by extensive patent portfolio
- Next generation of technology has potential to further expand competitive advantages
- Technology brings innovation to large and rapidly expanding markets

Enable Storage Markets & Scale into Mature Markets
- Orders/sales in commercial storage market growing
- New microgrid solutions for integrating storage w/ PV, wind & diesel
- Cost reductions and new power switches for entering mature markets

Capital-Efficient Business Model
- Allowed by enabling technology and strong IP protection
- Leverage licensing to penetrate global markets
PPSA™ Delivers Transformerless Isolation

Patented Power Packet Switching Architecture™ (PPSA)
• 100% indirect power flow; all power temporarily stored in AC link
• Eliminates ~90% of passive components (transformer, inductors, capacitors)

Conventional Power Inverter
• Power flows continuously from input to output
• High number of passive components (relative to PPSA) leads to increased costs and lower efficiency
The Ideal Converter

**Key Advantages**
- Transformerless with isolation
- Higher efficiency
- Multi-port capabilities
- Compact and light
- Low cost to power density
- Higher Reliability
- Software enabled
- Compatible with all battery types

We believe we have the only transformerless inverter that provides essential isolation, a critical component to enable the battery connected grid.
# Efficiency, Size & Weight Comparison

<table>
<thead>
<tr>
<th>Model</th>
<th>IDEAL POWER</th>
<th>Princeton Power</th>
<th>IDEAL POWER</th>
<th>Princeton Power</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power</td>
<td>30 kW</td>
<td>30 kW</td>
<td>125 kW</td>
<td>100 kW</td>
</tr>
<tr>
<td>CEC Efficiency</td>
<td>96.50%</td>
<td>92.50%</td>
<td>96.50%</td>
<td>~94%*</td>
</tr>
<tr>
<td>Weight in lbs</td>
<td>97</td>
<td>650</td>
<td>375</td>
<td>~1250*</td>
</tr>
<tr>
<td>Transformer</td>
<td>Not required</td>
<td>Built in</td>
<td>Not required</td>
<td>Required</td>
</tr>
</tbody>
</table>

*Requires external transformer

Source: Company websites, Product datasheets
Performance/Cost & Margin

With planned bi-directional switches

Conventional Power Converters

Current

Round trip Efficiency

Power Density

IDEAL POWER
Ideal Power Provides the Critical Link

PPSA enables the integration of storage, renewable power, distributed generation and the grid

![Diagram showing the integration of storage, renewable power, distributed generation, and the grid with Ideal Power at the center]
Strong Value Proposition in PV + Storage Markets

“Return on investment from solar + battery storage by 2020 Will beat payback from solar now” – Citigroup¹

- Global power conversion market forecasted to grow to over $70 billion by 2020²
- Vast majority of the growth will be driven by battery and microgrid
  - *Battery & microgrid estimated to grow at 40% CAGR²*
- Ideal Power has products in production and development that directly address key markets:
  - Commercial energy storage
  - Utility level energy storage
  - Microgrids

¹ Source: Energy Storage: Game Changer for Utilities, Tech & Commodities, Citigroup
² Source: Inverter market trends for 2013 – 2020 and major technology changes report, February 2013, Yole Development
US Commercial building electric utility costs can include both an energy ($/kWh) and a demand ($/kWh) charge

- Demand charges can run between 30-70% of the electricity bill.¹

Peak Demand Reduction

» Storage reduces demand charges (kW)

» Solar reduces energy charges (kWh)

¹ Source: US Forest Service, “Saving Money by Understanding Demand Charges on Your Electricity Bill
Commercial and Industrial Storage Scaling Today

**Commercial & Industrial Storage:**

- Peak shaving is just the tip of the iceberg - storage market driven by:
  - Declining battery cost
  - Increasing adoption of solar and wind
  - Improving IRRs are enabling greater financing options

Commercial storage solution providers using Ideal Power technology today

*Note: Gexpro both distributing Ideal Power products to integrators and selling turnkey solutions to rapidly growing market*
Utility Storage Market Drivers:

- Wind and Solar Integration
- Energy Arbitrage
- Frequency Regulation & Ancillary Services
- Infrastructure Upgrade Deferral
- Locational Capacity

*Different battery technologies will supply this market*

Ideal Power is forming alliances with leading battery suppliers

120kW – 500kW

Bonneville Power Authority, WA
Microgrids & Distributed Generation

- More than 1.3 billion people live in remote parts of the world without reliable access to electricity\(^1\)

- Renewables + storage can replace diesel generators as batteries become cost effective.

- Multiport solutions can accept batteries, renewable generation and backup gensets.

- Reduction in diesel fuel use has the potential to drive compelling payback periods.

1. Source: World Bank
New Power Switch Targets Multi-$B Markets

**Key Points**

- Doubles power density (2X power from same size box)

- Reduces size, weight and cost

- Opens mature power conversion markets for PPSA

- Expands competitive advantages

- $2.5M DOE grant for bi-directional switch development

<table>
<thead>
<tr>
<th>Losses</th>
<th>Conventional Technology</th>
<th>IPWR Today</th>
<th>IPWR Next Gen</th>
<th>Efficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td>0%</td>
<td></td>
<td>0%</td>
<td>-3%</td>
<td>100%</td>
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<tr>
<td>-1%</td>
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<tr>
<td>-7%</td>
<td></td>
<td>-7%</td>
<td>4%</td>
<td>93%</td>
</tr>
</tbody>
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Source: California Energy Commission (CEC), Company websites, Product data sheets
Bi-directional Switches + Scale Target Mature Markets

2020 Power Converter Market = $70B

- **VFD Motor Drives**: $34B CAGR 6%
- **EV Traction**: $8B CAGR 11%
- **Photovoltaic**: $8B CAGR 3%
- **UPS**: $10B CAGR 0%
- **Rail**: $2B CAGR 0%
- **Wind**: $6B CAGR 0%

*Source: Inverter market trends for 2013 – 2020 and major technology changes report, February 2013, Yole Development*
Capital Efficient Business Model

- No manufacturing plants - Contract manufacturing

- Enabling partners – create sales leverage

- Licensing model to expand PPSA adoption

- Breakthrough design + robust software should drive premium margins

- Operating model and increased volumes should drive above average ROI

- Highly scalable model
Capital Structure

Ideal Power: NASDAQ IPWR

Based in Austin, TX

Follow-On Offering Completed on May 15, 2015

• Gross Proceeds $17.1 M

Capital Structure at May 19, 2015

• Market Capitalization: $81.6 M
• Public Float: 6.1 M shares
• Basic + Fully Diluted Shares: 9.3 M and 12.3 M shares
# Team with Vision

## Key Management

<table>
<thead>
<tr>
<th>R. Daniel Brdar</th>
<th>Bill Alexander, P.E.</th>
<th>Tim Burns</th>
<th>Ryan O’Keefe</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEO and Chairman</td>
<td>CTO and Founder</td>
<td>CFO</td>
<td>SVP Bus Dev</td>
</tr>
</tbody>
</table>
| • 25 years of experience in power industry | • Founder, Ideal Power  
• Principal Engineer, BAE Systems  
• Prolific inventor with 25+ granted U.S. Patents | • CFO / Interim CEO, Rainmaker Systems  
• Small & large cap public company experience  
• Began career at Deloitte | • Experienced energy industry executive  
• SVP Bus Dev, Younicos/Xtreme Power  
• Former NextEra Energy and GE Executive |

## Independent Directors

<table>
<thead>
<tr>
<th>Lon Bell, PhD</th>
<th>David Eisenhaure</th>
<th>Mark Baum</th>
</tr>
</thead>
</table>
| • Founder and former CEO of Amerigon Inc & Technar Inc  
• Drove five inventions into mass production | • Principal, Eisenhaure Consulting  
• Founder and former CEO /Chairman, Satcon Technology Corporation | • CEO of Imprimis Pharmaceuticals  
• Former fund manager with transactional expertise |
2015 Milestones

- **Customer Engagement**
  - Rapidly scaling order volumes, backlog and revenues
  - Expand customer base – new strategic alliances & market channels

- **New products**
  - Complete certification 30kW 3-port, 125kW 2 & 3-port products
  - Grid Resilient 30kW with 50Hz + 60Hz expedites global roll-out
  - Announce new products utilizing PPSA technology

- **Technology**
  - Demonstrate bi-directional switch performance
  - Layout bi-directional switch commercialization roadmap