

# PowerWindings™

## Introduction and Background on the Invention

With PowerWindings™ we have two inventors with over 30 years of experience building transformers. They have invented a new method of designing transformers that is a simple yet clearly overlooked shift in the design process. This change in the design process has widespread implications for commercial transformers.

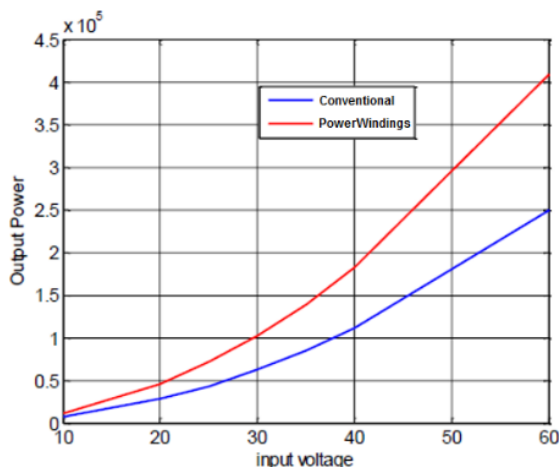
## Results to Date

Preliminary bench test results show an increase in output power capacity of more 38.97% utilizing the PowerWindings™ method for winding configuration with an off the shelf commercial transformer using the same materials. Further bench tests results showed the same output using 30% plus less materials.

A commissioned research project from the UCLA Dept. of Electrical Engineering performed finite element simulation studies based on the PowerWindings™ methodology and confirmed a substantial increase of power capacity from the new winding configuration. Professor Yuanxun Ethan Wang and his research group utilized ANSYS MAXWELL simulations, which confirmed that the methodology improved transformer efficiency and power capacity. Prof. Wang drafted a white paper of his results including the chart below which is available for confidential review.

The design benefits should apply to all transformers that are wound on a common core with at least two coils. The invention, patent application and test results are available for further review by interested parties.

Output Power vs. Input Voltage



## Key Benefits

A New Method for Designing Transformers

30% + Less Material for Same Output

Less Heat Extending Product Life

Output Power to Input Voltage increased by up to 60%

Easily optimize by objectives; reduced size, lower material costs, less heat, increased output and efficiency

Uses existing manufacturing equipment and processes

## Top Markets

Backup Power & Server Farms

Industrial & Manufacturing

Computer Servers, Workstations Laptops, Routers & Peripherals

Commercial and Consumer Appliances

Power Grid

## Total Market Potential

Global Annual E-I Type Transformer Market	>1 Billion Units
---	------------------

Benefit per Transformer	>\$ 1.00
-------------------------	----------

## The Opportunity

We are interested in partnering with a major company.

The benefits of partnering would include:

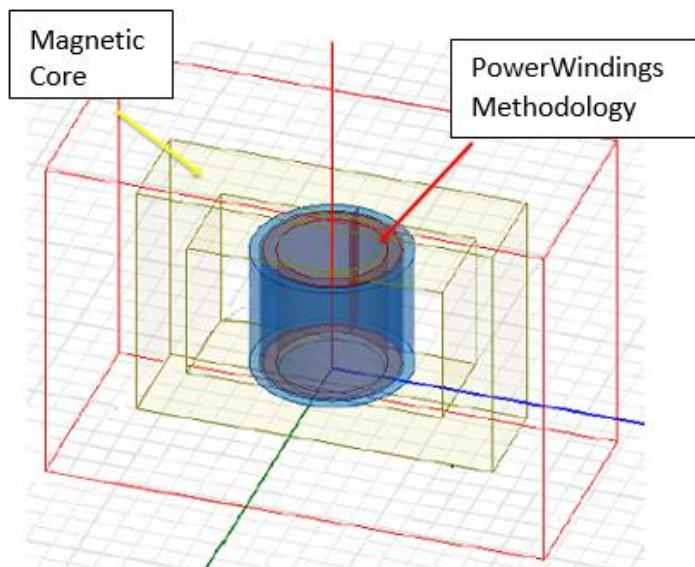
- Increased market share, margins, profit and share price with better performing transformers at lower cost; a substantial performance and material advantage;
- A huge strategic competitive advantage;
- Continued development resulting in new inventions protected by patents;

For more information contact InventionShare:

Keith Taylor, Vice President of Acquisitions and Licensing

[ktaylor@inventionshare.com](mailto:ktaylor@inventionshare.com)

613-225-7236 x105



## Value Proposition, Increase in Market Share

Total All Markets	>\$56B
Increase in Market Share 1%	>\$560M

## Intellectual Property

Trade Secrets	Yes
Patents & Patents Pending	Yes
Copyright (Methodology & Education)	Yes
Trademarks	Yes
Software (To be developed)	Yes

## Vertical Horizontal Sublicensing Opportunities

Home Appliances
Battery Backup
Robotics
Industrial applications
Computer

## Risk Factors

Prior Art	Low
Invent Around	Low
Slow Adoption	Low
Market Education	Low
Proof of Concept Transformers	Low

**PowerWindings™**



InventionShare™ is the exclusive global agency for the licensing or acquisition of PowerWindings' Inventions