



Research Triangle Park, North Carolina

PRESS RELEASE

For Immediate Release

Contact Information:

Robert Gosselin
VP of Marketing
Koolbridge Solar
703-853-0498

The US Patent and Trademark Office Awards Koolbridge Solar's 13th and 14th Patents.

Koolbridge Solar was recently awarded their 13th and 14th United States Patents from 30+ total active Applications. These latest Patents are for the Inter-Coupling of Microinverters and the Rotary Solar Converter.

Inter-Coupling of Microinverters Patent. A few DC-AC microinverters driven by separate photovoltaic sub-arrays are physically combined to use common components such as a common-mode choke. Each microinverter is controlled by a common switching controller to produce a portion of the desired output such that ripple on the combined output is minimized, and each microinverter produces a common mode signal on its associated sub-array equal in frequency to the desired AC output frequency.

Rotary Solar Converter Patent. As home and business solar system's power levels increase through 100kw and above up into the megawatts level, it is estimated that a mechanical method of converting the solar DC to AC power could become cheaper for home owners and more robust than an alternative pure electronic method: the idea was behind Koolbridge Solar's latest Patent issued by the USPTO for the Rotary Solar Converter. The new Patent teaches how to keep the conversion efficiency high by re-using all the same parts, including the same windings for both the solar panel DC input and the AC output. The award of this Patent gives Koolbridge Solar the advantage of offering large electrical machine manufacturing partners a Converter that will see value in adding it to their product line.

List of Koolbridge Solar's Patents:

1. Solar Energy Conversion and Utilization System
2. Smart Load Center for Distribution of Power from Two Sources
3. Residential Electrical Energy Installation
4. Potential Arc Fault Detection and Suppression
5. Inverter Inrush Current Limiting
6. Smart Appliances
7. Potential Arc Fault Detection and Suppression - Continuation
8. Smart Appliances - Continuation
9. Addressable Electrical Outlet
10. Solid State Phase Splitting Transformer
11. Inverter with Independent Current and Voltage Controlled Outputs

12. Inter Coupling of Microinverter's
13. Inter-Coupling of Microinverters – Continuation (Above)
14. Rotary Solar Converter (Above)

Descriptions of each of the above Patents can be found at:
<https://koolbridgesolar.com/intellectual-property/>

The diversity of the listed Patents uniquely positions Koolbridge Solar to not only further support the growth of the Company within the renewable energy field with advanced products and concepts but are also being made available to companies in the energy field who do not have this advanced technology as part of their product offerings. If you would like to become a strategic business partner and deploy these Patents into your product line, please email Bill Griffin, President and CEO at: bgriffin@koolbridgesolar.com.



Dr. Paul W. Dent Founder, Chief Scientist & Director Koolbridge Solar

“Since Co-Founding Koolbridge Solar five-years ago, in addition to developing and obtaining a Patent for the Smart Load Center®, and recently receiving our 14th Patent Award, I have also concentrated on inventing a broad range of products to fill a vast emptiness in improving solar energy efficiencies for homeowners and utilities. Today there are 31-Patent Applications that have been submitted and they are just the beginning of many more to come inventions in support of Koolbridge Solar’s multi-array of distributed home energy management devices”, said Dr. Paul Dent. Dr. Dent is the #1 Patent inventor in wireless communication technology, having filed 350+ US Patents, and over 1,000 international technology Patents in his name.

About Koolbridge Solar

Koolbridge Solar is the **“Gateway to the Intelligent Home®”**. It is the first company to design, develop and sell the next generation of innovative intelligence driven, solar-ready, battery, wind or generator power for homes and businesses on a circuit by circuit basis. Koolbridge Solar has 30+Foundational Patents and Patent-Pending Applications under development that effectively captures, manages and distributes electrical energy throughout homes or businesses. Moreover, with Koolbridge’s first product, the **SMART LOAD CENTER®**, there is no power interruption whatsoever if the grid goes down while using solar power.