

## Conergy ON Advantage

# Increased yield, Improved durability



CONERGY

www.conergy.ca



With **12 years** of solar energy experience, 1.5 Gigawatts of Solar Power sold and 500 Megawatts of Solar Parks installed, Conergy has long-term experience in every aspect of the solar energy supply chain. As a manufacturer, wholesaler, project developer and formerly an installer, Conergy applies its expertise and real world experience to the design of every solar module.



Conergy was one of the first manufacturers to pioneer the use of three busbar cells in mass production. Our engineers recognized the benefits of this design early on, despite the prevalence of industry standard two busbar cells at the time. Conergy's triple busbar specification increases energy harvest compared to typical two busbar designs, and thus **helps drive higher yields at the module level**. Every Conergy ON module utilizes this innovative cell configuration.



Many modules use anti-reflective chemical glass coatings or films that can delaminate or break down over time, which may result in discoloration or reduced yields. Instead, the Conergy ON utilizes micro-structured glass to dramatically reduce reflectance and **increase light transmittance by up to 7%<sup>1</sup>** compared to standard flat plate glass. Since the anti-reflective properties are built into the glass itself, **there's no chance for any discoloration or delamination**.



With typical solar module warranties, the validity of claims and any compensation is at the sole discretion of the manufacturer. However, the warranty claim coverage for the Conergy ON is driven by an objective third party, which creates an unbiased and transparent process for claim recovery.



The majority of industry-standard junction boxes are poorly sealed and use mechanical connections, which makes their conductive parts prone to corrosion, physical deterioration and excessive heat buildup leading to possible electrical fires. Featuring welded and soldered connections inside a **fully-sealed and potted** junction box with **cooling surfaces raised off of the module backsheet**, the distinctive Conergy ON junction box maximizes **safety, security and electrical performance**.



Although cables are a common failure point on PV modules, most manufacturers still use relatively low quality cables that tend to deteriorate over time due to bending stresses and environmental exposure. In contrast, the Conergy ON has double insulated, UL-4703-compliant Radox cables that reduce electrical resistance and provide up to **32 times the life expectancy of industry-standard PV cables**.



With a **large local sales and engineering staff, a complete product portfolio, two manufacturing sites and long-term standing in the country**, there is no other company that can compare to Conergy's dedication to developing the solar energy market in Canada.



The Conergy ON module achieves **15% domestic content for MicroFIT projects and 13% domestic content for FIT** projects under the Ontario Green Energy Act.



<sup>1</sup> at light wavelengths equal to 1000nm

# How to choose a solar module...

## 1. Check that the company is reputable.

Not all solar companies are alike. Many companies are just starting out in the solar energy business and do not have insight into the unique design and durability requirements of solar panels. Make sure to pick a solar energy supplier that has years of experience in every area of solar energy, from installation to manufacturing.

## 2. Make sure that the determination of warranty coverage is quick, fair, and unbiased.

Many manufacturers' warranty terms place an unreasonable burden of proof on the system owner, or require claims to be managed at service centers located in other countries. Often, manufacturers state that they and only they will determine if the claimed defect is, in fact, covered by their warranty. For this reason, coverage determined by third party testing combined with a clear and simple claim process is critical to ensure that you are adequately covered for potential product failures.

## 3. Confirm that the solar glass is made for durability and lifetime yield.

Since the glass covering the solar panel is the first step in the conversion of light to energy, it greatly affects the life-time yield of the module. Standard anti-reflective glass coatings can peel off resulting in decreased yield of the module and the entire system.

## 4. Look beyond efficiency. Choose a module based on reliably high yields.

Ranking modules by their watts per area does not give you the full picture of a module's yield. There are many other factors that determine yield – such as performance in real-world conditions (not just in a carefully controlled laboratory environment), durability and reliability over the module's expected life and factors affecting safety and security.

## 5. Remember that the operational safety of your module is critical

If solar modules are not properly designed or installed, they not only exhibit decreased yields, but can even pose a safety hazard. Most electrical problems occur in the junction box and the cables due to lower quality materials, connectors and manufacturing methods. It is important to choose solar modules with electrical parts that are built to handle both high levels of electrical output and extreme environmental conditions for many years.

## 6. FIT compliance

Many solar companies are just arriving to Ontario following the predicted market growth. These companies may not have the same insight into this unique market as a company that has been active in and committed to the local market for a number of years.

