

TOP 5 REASONS FOR FALLING SOLAR COSTS

And what we can learn from it.

SOLAR PANEL COSTS FELL

99%

IN THE PAST 40 YEARS

SOLAR NOW COSTS

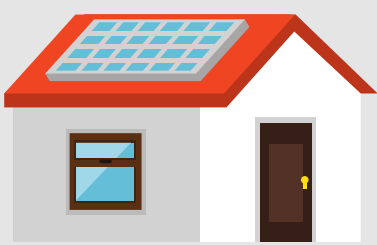
5-15¢

PER KWH IN CANADA

COSTS FELL RAPIDLY

76%

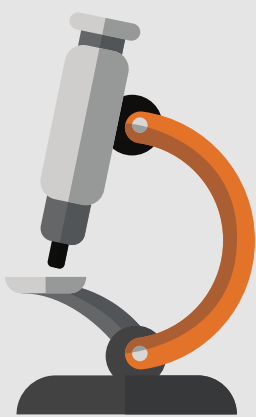
FROM 2009 TO 2017



1

SOLAR PANEL EFFICIENCY

One of the leading reasons for falling solar costs is improved efficiencies in solar panels and the manufacturing of solar panels. For some technologies, panel efficiency has nearly doubled in the past 25 years. Today, the most efficient solar panels are approximately 23%.



2

RESEARCH & DEVELOPMENT

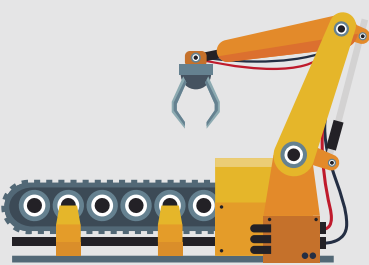
By far the biggest high-level factor to falling costs is R&D, helping to drive new technologies, greater efficiency, improved silicon usage, and much more. Both private and publicly funded R&D enabled companies to expand production, experiment and improve to develop a superior end-product.



3

ECONOMIES OF SCALE

Massive growth in the solar industry has caused plant sizes and production rates to increase drastically. As a result, fixed costs are spread over a greater output, which reduces per-unit costs. There are also discounts in raw material prices when purchased in large quantities.



4

MATERIAL COSTS

While the price of all material inputs has fallen significantly, the primary material in panel production is Silicon. Its price has dropped drastically: in 2008, refined silicon for solar cells went from costing roughly \$450 per kilo to about \$100.



5

GOVERNMENT POLICY

Government incentives and spending made the biggest contribution to cost-per-watt declines for solar panels since the 1980s. By funding early-stage R&D and helping to commercialize solar, government policy has helped to create larger markets, which in turn drive down prices.

DOES SOLAR MAKE SENSE FOR YOUR BUSINESS?

Contact Compass Energy Consulting today for your FREE Consultation.