

Watt's Happening?

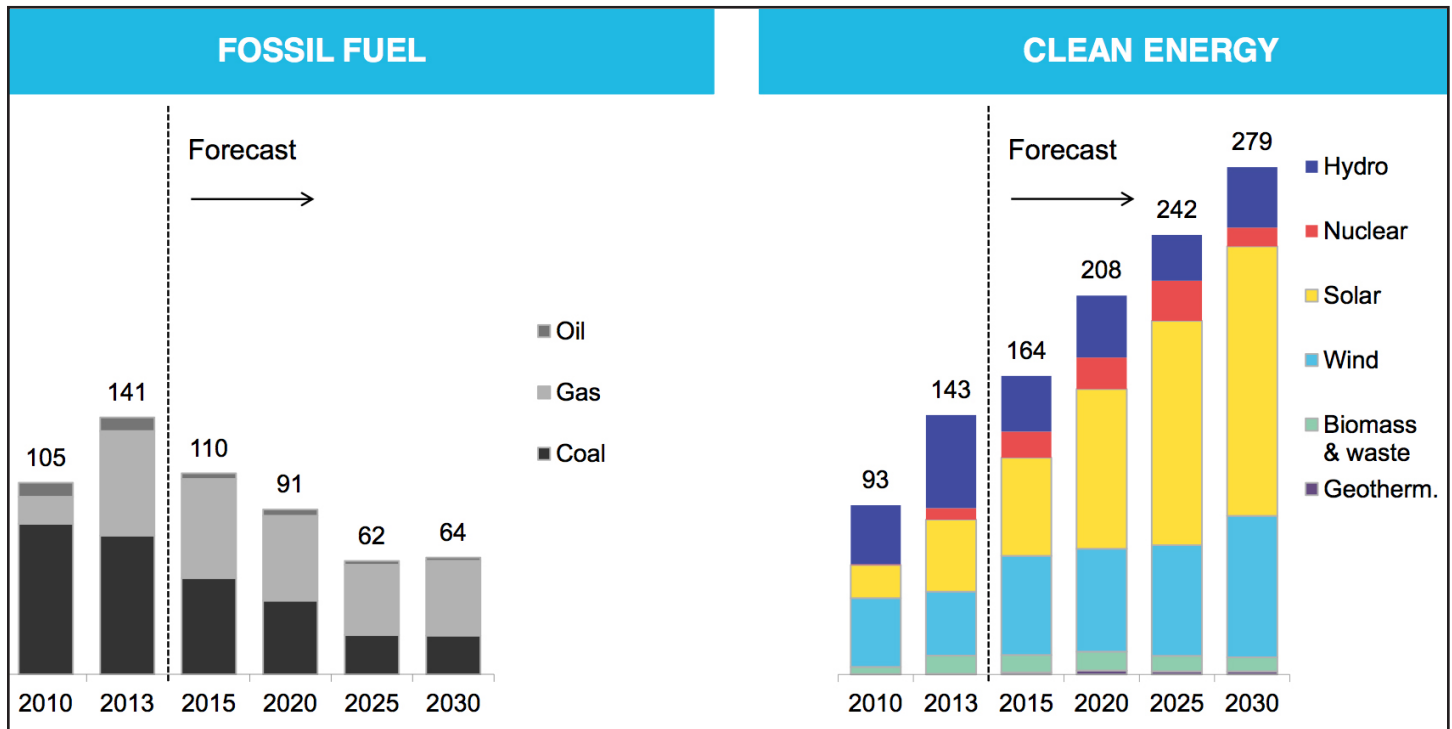
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Global Update 2016



This graph from Bloomberg New Energy Finance shows new global power generating capacity projected to the year 2030. According to Bloomberg

and others, the world is now adding more capacity from renewables each year than all fossil fuels combined. Exact numbers vary, but the trend is clear.

So, you may have heard. The price of oil has tanked. We hear lots about the effects, but little about the cause.

No, I'm not saying renewables have somehow pushed fossil fuels aside. The renewable energy industry is still small compared to the global fossil mega-industry, the biggest industry in human history and the most powerful force in the world today.

Powerful, but not ALL-powerful. The trillions of investment dollars that are not going into fossils right now aren't just sitting around and waiting. They are in large part going right into renewables, pushing them forward at unprecedented and unexpected rates.

This continues a trend started a few years ago with the surprising explosion of solar power, which is now vying with wind power as the fastest growing

energy source on the planet.

Why? Because the future, if there is to be one, is clearly powered by cheap, non-polluting energies that are constantly and automatically renewed by nature. It is the way. The world has seen the way, and that is where it is going. Not in some far and distant future-world, but right now. The crash in oil prices is merely helping it along.

Let's see watt's happening. Here are some highlights:

RENEWABLES LEAD

The year 2013 was a renewable energy milestone: for the first time, the world added more renewable energy capacity than new capacity from all fossil fuels

combined. In that year the world added 141 thousand megawatts (141 gigawatts) of fossil energy, but 143 GW of clean energy.

A first, but not the last. The trend has continued ever since. Sure, the numbers vary depending on what study you read, but the direction is clear: renewables in, fossils out.

CHINA LEADS IN RENEWABLES

The world's biggest carbon emitter is also the world leader in new clean energy. Over the next decade they plan to install more solar and wind power than all the rest of the world combined.

China's latest goal for solar is mind-boggling: 200 GW by 2020, quadrupling their previous target. Add to that their goal of 250 GW of wind by the same year, and you sort of get the idea: wow!

SOLAR REACHING GRID PARITY

The fact is, the cost of electricity generated from wind and solar continues to fall along with the cost of the technology itself.

In the U.S., the cost of solar panels fell by 60 percent between 2011-2013 alone, as more and more installations were deployed nation wide.

In some states, wholesale solar electricity is selling at less than 4 cents per kilowatt-hour (in BC you and I are paying about 8 cents), which may be the cheapest electricity in the U.S.

In many states, solar is already cost

competitive with other sources, and Deutsche Bank recently predicted that rooftop solar will reach grid parity (its cost will be equal to the normal cost of grid electricity) in almost all 50 U.S. states in 2016. We can expect the same in most of Canada.

After reaching grid parity (solar is about to, wind is already there in most areas) the economies of scale just keep on going, so in just a few years most renewables will become less expensive than conventional energy. And they will stay that way, because the fuel is free.

In just a few short years, renewables will be cheaper, and they are already cleaner and more reliable than fossil-based energy. This transition to clean energy will boost the economy, create jobs and make us more competitive. At that point, fossil energy will be obsolete.

JOBS? NO PROBLEM

Want jobs? Go green.

Experience around the world has shown that renewables make more jobs (and not boom and bust jobs either) per dollar invested than fossils. An October 2015 Clean Energy Canada report estimates that 270,000 new jobs could be created in B.C. if it adopts new policies to meet its 2050 climate target to reduce greenhouse emissions by 80 percent.

The price of oil may have tanked, but its not the only game in town. 2016 is showing signs of becoming *The Year of Renewables*. Time to celebrate.

Watt's Happening? Quick Fact:

Ontario invests \$20 million in Electric Vehicle Chargers:

Ontario has announced plans to invest \$20 million of its new \$325 million Green Investment Fund in electric vehicle charging infrastructure across the province. About two-thirds will be for level three fast-charge stations, which can fill a battery in half an hour.



Tesla Model-S