

Watt's Happening?

Written by Don Pettit
for Peace Energy Cooperative, Dawson Creek, BC Canada
www.peaceenergy.ca ph 250-782-3882



Renewables Take the Lead!



According to Bloomberg New Energy Finance and other sources, the world is now adding more capacity from renewable power each year than from conventional energy sources, an historic first – and there's no going back.

Last year was an historic year – for the first time, the world added more renewable energy capacity than new capacity from all fossil fuels combined. Future projections show fossil investment plummeting while clean energy skyrockets.

This historic announcement was made at Bloomberg New Energy Finance's annual summit meeting earlier this month. According to Bloomberg, the world added 141 GW (one gigawatt = 1,000 megawatts) of fossil energy in 2013, but 143 GW of

clean energy in the same year. Renewables pulled ahead for the first time.

Projections for 2015 show fossils falling to 110 GW with renewables surging to 164 GW. Fossils are predicted to fall steadily over the next few decades, with 2030 showing about 64 GW of new capacity, while clean energy soars to 279 GW in the same year, mostly solar followed closely by wind.

Sure, the numbers vary depending on whose study you read, but the trend is clear and accelerating.

When I first became interested in renewables about 40 years ago, the transition to a clean energy world powered by energies supplied free from nature seemed centuries away, some utopic dream. Today, it is happening so quickly that it's taking everyone by surprise.

WIND IS SOARING

The global wind sector set a new record last year, building more than 51 GW of new capacity, for a world total capacity of 372 GW. China continued to lead the way, installing an astounding 23 GW in one year.

SOLAR IS SHINING

In 2013 Australia installed one million rooftop solar arrays, and put up another million in 2014. Japan hit one million solar roofs in 2014, and expects to double that this year. Amazing.

WHY?

Why such a rapid shift to clean energy? There are many reasons, but here are a few to ponder:

*A decade ago we weren't sure, but now we know that the world CAN supply ALL of its energy from renewables. The changeover will take a few decades, but it is entirely doable and it won't break the bank. No new technology is needed.

*Investment in renewables shows good, steady long term returns, and is not subject to unpredictable boom and bust cycles.

*Renewables help slow and eventually may halt catastrophic climate change. Big benefit there!

*Renewables reduce health care costs and improve quality of life. This is a big motivator in China, for instance, where breathing has become an issue.

*Renewables are distributed across the landscape, spreading out the benefits to more people, creating more secure and efficient grids. (You can own a rooftop solar array that makes all the electricity you need, for instance, but you will never be able to own your own nuclear reactor. Thank goodness.)

*Renewables are diverse. There are a zillion different ways of creating new clean energy from nature, some of which we haven't even imagined yet, but it's already pretty diverse: solar, wind, geothermal, tidal, wave, hydro, biomass . . . A diverse electrical supply is more robust and more secure than highly centralized, single-source energy supplies.

*Renewables have a relatively small environmental footprint, and as more renewable energy is used to produce more renewable energy, this only improves.

*Energy from renewables cost less. Once the renewable energy infrastructure is in place, it costs very little to run because the fuel is supplied for free. The up-front cost of that infrastructure is also plummeting, as the economies of scale kick in, clearly demonstrated by the recent decline in the cost of solar.

*Renewables are fast. With a high level of social license, low environmental footprint and quick to upscale with mass production, renewables can break all records for speed of implementation.

Renewables are not yet "business as usual" but they soon will be. Germany, one of the world's most technologically advanced and industrialized countries and one of the most financially sound, is now close to 50 percent renewable (mostly solar and wind), and is aiming for 100 percent by 2050.

Germany is not alone. One by one, we will see countries, states and provinces achieve 100 percent. They will be the leaders and will benefit the most from this, the greatest (and fastest!) energy transition in human history.

And that's a very good thing.