

Watt's Happening? #86

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Global energy update



Solar power is leading the world in the clean energy revolution, and promises to make the least expensive power ever. Here the Demmitt Hall gets a new solar array, designed and provided by Dawson Creek's

Peace Energy Co-op and installed by Beaverlodge's Northgate Electric. This 6 kw grid-tied array should provide the energy-efficient Hall with all of the electricity it needs.

The energy revolution has begun. Around the world, investment in the “new” renewable energies of wind and solar continue to outpace investments in all other energy sources combined.

As I have detailed in previous columns, this energy revolution is not the first. Long ago, we started with simple low-tech renewables (think of wind mills in Holland and the great sailing ships), replaced by coal that fired the industrial revolution, then the latest transition to the modern era of oil and gas.

Each new energy source replaced the old because it was more useful and versatile than the last. Mammals overran the dinosaurs (with a little help from a certain asteroid) because we were small, smart and efficient. Renewables will replace old energy sources that are big, slow and wasteful. It just makes sense.

Let's have a snapshot look at this newest energy revolution as it moves us into yet another whole new way of doing things.

APPLE'S SOLAR SPACESHIP

Tech giant Apple is building a new 13,000-employee campus three miles from its Cupertino, California headquarters, powered entirely by renewables.

Dubbed “The Spaceship” it is a giant ring nearly one mile in circumference, (wider than the Pentagon), enclosing a circular park, and featuring a roof coated with solar panels.

The new building, to be completed later this year, also eliminates the need for conventional cooling systems thanks to a smart engineered structure that “breathes” naturally.

VW's NEW BRAND

The Volkswagon brand needs some attention. In spite of its serious financial and reputational baggage, VW is counting on a \$14.5 billion re-birth strategy that includes 30 new electric models by 2025, self-driving cars, and more.

BC FALLING BEHIND

BC Premier Christy Clark is quick to boast about the province's climate leadership (based largely on a petrified carbon tax filled with loopholes and exceptions) but a new Pembina Institute study shows that BC has a growing carbon pollution problem that is causing it to fall behind its provincial peers.

Based on each province's committed actions, Alberta, Ontario and Quebec will see a 20 percent decrease in carbon emissions by 2030, while BC's are set to increase by 40 percent.

CALGARY GOES CLEAN

An “edge of hunger” brings “clarity” says Calgary's mayor to Business News Network. Busts that follow oil booms are par for the course, but mayor Nenshi says the current one presents an opportunity to turn Calgary into a clean tech and innovation powerhouse. When Calgary starts to wake up and see the light, surely anything is possible!

ENBRIDGE GOES CLEAN

We think of Enbridge as king of pipelines, but its time to re-think that image. Enbridge is outpacing many of its larger competitors on renewables. Why? The fossil era is winding down and wind farms are, to put it simply, “easier to build.”

SASKATOON GOES CLEAN

While the provincial utility SaskPower is ramping up large-scale wind and solar, the City of Saskatoon is thinking small. The city has its own independent power system, and has set its sights on small-scale distributed clean power like roof-top solar.

A future powered by renewables offers the opportunity to reduce grid infrastructure and increase efficiency and reliability by developing a network of small, squeaky-clean mini-grids. By perfecting its own clean energy grid, Saskatoon could emerge as a leader in the fast-growing field of independent distributed energy generation.

SOLAR: CHEAPEST YET

A group of power developers has placed a bid to develop 800 megawatts of solar in Dubai at a record-low 2.99 cents per kilowatt hour. Although most analysts think this price is at the boundary of viability, it does suggest just how low the cost of solar power can go.

In BC, we pay over 8 cents per kilowatt hour, with steady increases in the works thanks to expensive mega-hydro projects and neglected aging grid infrastructure. When we're headed for 10, 12 and then 14 cents per kilowatt hour, solar starts to look pretty good.

Nobody likes change, me included. It would be great if things could just carry on as usual, but that's not “Watt's Happening.” “Usual” is loaded with problems on a scale of global proportions. To meet that challenge, the required changes will be equally as massive. Here we go!