

# Watt's Happening?

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## Canadian renewables update



*Ontario leads Canada in promoting rooftop and backyard solar power. This backyard array in southern Ontario generates green power for the grid and profit for its owner.*

It just makes sense to move to renewable energy sources like wind, solar and geothermal. Once the energy-harvesting infrastructure is in place, the energy source will last forever since the "fuel" is supplied and constantly renewed by nature – the sun shines, the wind blows, and the Earth emits heat from its molten core.

These are mind bogglingly big, big energy sources, dwarfing by many orders of magnitude our carbon fuel reserves. Renewable energies are also more job intensive, non-polluting, and more distributed across the landscape and among nations.

Renewables are good news, and the worldwide transition is beginning to show, but progress in

Canada varies from province to province. Here is a quick overview of "watt's happening" in the homeland and south of the border:

### **WIND ON THE RISE**

Wind power currently supplies about 3 percent of global energy needs, and is expected to more than double by 2018 to 7.3 per cent: a big jump in a short time. Most of the growth is expected in Latin America and Africa, developing economies keen on leapfrogging costly and controversial fossil-fuel-based projects.

Quebec has been big on wind power. Last month it opened the \$750 million Seigneurie de Beaupre

wind farm. At 272 megawatts, it is one of the largest in Canada, big enough to power 50,000 homes.

The British Columbia Peace region has at least 10,000 megawatts of wind power waiting to be developed above and beyond the some 400 megawatts already on-line. Meanwhile, wind developers continue to wait in the wings while BC Hydro dithers about letting them do their good work, apparently distracted by its controversial and expensive Site C mega-dam on the Peace River.

### **NB COMMITS**

New Brunswick has renewed its commitment to reduce demand for electricity, foster the development of renewables, and supply 40 per cent of its energy from renewable sources by 2020.

### **ONTARIO RECOMMITTS**

The newly elected Ontario government has recommitted to its bold renewable energy path and its pioneering Green Energy Act that has created some 31,000 new clean energy jobs. In a recent Speech From the Throne, they promised to push for a Canada-wide energy strategy that would focus on climate change, conservation and renewables.

### **ROOFTOP SOLAR SOARING**

Rooftop solar panels are transforming the residential power industry around the world. Worldwide revenue from residential distributed rooftop solar power is expected to grow from its current \$53 billion to \$72 billion by 2023. In Canada, Ontario is the leader encouraging rooftop solar and building a thriving provincial solar industry.

### **BC's SOLAR MINE**

An abandoned mine site in Kimberley, BC will soon become the largest solar power facility west of Ontario. 4,000 solar panels will track the sun and soak up light reflected off snow.

### **US REMAINS A LEADER**

*(While Canada falls behind . . .)*

An estimated \$8 trillion has been earmarked globally for new power-generating capacity, and some two-thirds of that will be invested in solar, wind, geothermal and other renewable energy sources. The US and Canada have responded to this immense opportunity in very different ways.

The United States Department of Energy has pumped an additional \$4 billion into its federal loan-guarantee program, supporting private-sector innovation in grid integration, waste-to-energy, biofuels, efficiency, small hydro and other projects that avoid, reduce or sequester greenhouse gas emissions. This helps cement the US as a global leader in low carbon technologies.

Alberta and Texas both started early as wind-power leaders, but after a strong beginning, Alberta has fallen far behind its US cousin. While Alberta has floundered, Texas has risen to become a world-leader in wind power and smart-grid development.

Although Canada has some targeted support for clean-energy innovation, it is nowhere enough to secure a competitive position as the world continues to shift to renewable energies. If we want to "harmonize" our economy with the US and capitalize on the largest energy shift in history, then we better get crackin'!

## **Quick Fact:**

### **WIND POWER CONTINUES TO GROW:**

Last year, 13 new offshore wind farms came online around the world, adding 1,720 megawatts, a 50 percent increase in offshore wind over 2012. Wind power is still the fastest growing energy source on the planet, but solar is quickly catching up.