

Watt's Happening? #144

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The good news about clean energy



Solving climate change will provide many benefits along the way. The Hudson's Hope outdoor pool is heated by solar collectors on the roof, and powered by the "Solar Wave" at left. Designed, supplied and installed by Peace Energy Cooperative, The Wave provides over 10,000 watts of electricity, but also

much-needed shade, plus a unique architectural feature and tourist attraction for the community. Both the solar hot water and solar electricity significantly reduce the operating costs and carbon footprint of the facility.

Climate change is on everybody's mind these days, and that's a good thing. To solve a problem, you first have to admit that you have one.

And this is a doozy. But the good news is that we know what to do and we know how to do it, quickly. No new technology is needed, just the political will to implement the solutions we already have.

Let's make one thing very clear: in spite of the dire warnings from those opposed to change, tackling the climate problem head-on will not be a hardship or sacrifice. Exactly the opposite.

Outfitting the world with clean energy and increased efficiency will not only provide the biggest job-boom in history, but will reduce the costs to heat and light our homes, fuel and maintain

our vehicles, while reducing health care costs and increasing our quality of life with cleaner air, land, water and food.

Better health and a cleaner environment for you and your family, more comfortable homes that are cheaper to run, and a continuous stream of new job and business opportunities across all sectors. Who doesn't want that?

Lots of people want that,

and they're working hard to make it happen. Let's focus on two key areas: how we make and use energy; and transportation.

RENEWABLES LEAD

A 2018 report from the International Energy Agency says that renewables have now overtaken coal as the world's largest installed power source, a truly historic milestone.

Coal is being replaced with three primary clean energy sources: solar, wind, and efficiency. Efficiency can be considered a "source" of energy because when customers increase their energy efficiency, their overall energy use decreases.

The same for "self-generation" of electricity. With a solar array on the roof of your home or business, for instance, you are creating your own energy and taking the load off of the utility to create that energy, while, happily, reducing your electrical bills.

BIG BUSINESS

The clean energy industry in the U.S. alone is now worth an amazing US \$200 billion a year, which is about the same size as America's pharmaceutical manufacturing industry.

Clean energy is a US\$1.4 trillion industry globally, well ahead of air travel. The growth rate of the global economy is about 3 percent per year, while the growth rate of the clean energy sector is close to 7 percent annually.

CHINA'S SOLAR

Last year China either halted construction of, announced the closure of, or outright shut down more than 100 coal plants.

In the first quarter of 2018, they fired up just under 10 Gigawatts (GW) of new solar, or about 32 million standard-sized solar panels. That's a record 356,000 solar panels installed each and every day! up 22% over last year's record.

US CLEAN ENERGY

Last year was a tipping point in the US: for the first time, more people held jobs in clean energy than in fossil fuels.

Coal, for instance, has steadily declined to about 50,000 jobs from a peak of 178,000 in 1985, while jobs in wind and solar now account for 769,000 in the US, increasing 12 times faster than the US economy. Energy efficiency jobs now total roughly 2.2 million in the US. Another 174,000 are busy building electric cars.

EV REVOLUTION

China is not only the world's largest automobile market, but also the world's largest manufacturer, making nearly one third of all new cars in the world. And China is going electric, big time, so Ford, Renault-Nissan, GM, Volkswagen and Volvo are all scrambling to get on the EV bandwagon. Hundreds of new cars and trucks, electric and hybrid, will be on the market over

the next two years.

And its not just highway sedans going electric. Swedish mining manufacturer Epiroc AB is electrifying all of its underground machines within five years, including a 42-ton capacity truck for hauling blasted rock. Over 100 police departments in the U.S are now using a popular electric motorcycle.

With the effects of climate disruption now being felt around the world, this is all good news. Although we have a long, long way to go, the ship has begun to alter course. We might miss that iceberg yet.

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