

WTE column of March 7, 2015. Editor's headline: "Wyoming fails to see the light"

CST column of same date: "Solar power a technological watershed for nation"

A technological watershed has swept up America in delighted surprise, significant for Wyoming which, should it go with the flow, will reap the rewards of lucrative change. The cause? Thanks to China's fine-tuning of photovoltaic cells (PVs), prices have dropped by 70 percent; hence, the capture of sun power has become an attractive business venture. A massive influx of capital and labor energizes solar production. GTM Research reports that, in the US in August 2013, one solar PV system was being installed every four minutes.

Americans use—and produce—vastly more solar electricity than most of us realize, writes Neville Williams in his 2014 "Sun Power." 120,000 workers are employed in the solar-energy industry, a number that increases by 20,000 every passing year. In 2010 alone, America's top ten utilities integrated 561 megawatts of solar-electricity capacity, a 100% increase over the previous year. Since then, 151 coal-fired power plants have not been built and 50,000 megawatts of such plants have been retired. Although the U.S. Congress never instituted an energy policy, states are busily generating the impetus. Solar makes money—at the state level.

California's energy plan, which calls for 33% renewables by 2020, leads the way. Former Republican Governor Arnold Schwarzenegger, ecstatic over his state's No. 1 status in solar power, promoted a "Million Solar Roofs" program while in office. "Our green sector is the brightest spot in California's economy," reports Mr. Schwarzenegger, adding that the industry has grown "ten times faster than any other business sector since 2005." For California, where Silicon Valley holds sway, that's impressive. Today 3,500 green-energy firms exist in California. Installation companies putting solar panels on rooftops employ 25,000 people.

America's commercial electric producers and consumers are the largest users of solar PV. After Walmart, which expects to have 1,000 solar-powered locations by 2020, are Costco; Kohl's (150 stores); Walgreen (200 stores); Macy's; Staples; Bed, Bath & Beyond; Toys R Us; GM; Ford; FedEx; Toyota; Whole Foods; Anheuser-Busch; Safeway; Lowe's; PepsiCo; IBM; DuPont; Alcoa; Dow Jones; Johnson & Johnson; Intel; HP; Google, and eBay. IKEA has already put solar on 89% of its stores. Apple is building huge solar farms in North Carolina, committed to providing 100% renewable energy for its operations.

Recently the Department of Energy (DOE) launched SunShot, which aims to reduce the cost of residential solar electric installations by 75% before 2020. Subsequently, Rhone Resch, president of the Solar Energy Industry Association, declared: "By 2016, solar electricity will be the lowest-cost source of retail power in the U.S."

Bank of America Merrill Lynch has launched Project AMP (with additional DOE funding) to finance 750 megawatts of distributed generation. In California's Antelope Valley, Warren Buffet's solar corporation began construction of two gigantic PV projects totaling 579 megawatts. Another 130-megawatt solar plant is financed by Tenaska, the giant natural-gas firm. Incredibly, as large central solar plants come on-line, solar is becoming cheaper than natural gas.

Even Canada is going solar. Not exactly a sunny place, Ontario passed the first North American feed-in-tariff some years ago. Since then, nearly 400 megawatts of solar PV have appeared, along with an 80 megawatt PV plant of thin-film panels. Canada is set to surpass California in solar installations. In this scenario, who needs dirty tar-sands oil?

“Regardless of whether one agrees with climate change,” writes Author Williams, “investing in solar flourishes because that’s where the money is.” Advanced technology isn’t just for the rich, adds Brad Pitt, whose “Make It Right” foundation built 150 homes in New Orleans, all with solar systems on their rooftops.

New Jersey, the second state to lead with solar installations, created a renewable portfolio standard (RPS) that requires utilities and electric-grid operators to purchase enough solar power to reach the state’s goal of 22.5 percent renewables by 2021. Then it instituted Solar Renewable Energy Credits (REC). Since then, 29 States and D.C. have emulated New Jersey’s portfolio.

Not all states embrace change for the better. When Colorado legislators, accustomed to genuflecting before Big Fossil, refused to develop an RPS, Coloradans took matters in hand with Proposition 37, offering them to the voters. It passed. Colorado expects to reach one million solar roofs by 2030.

Meanwhile in Wyoming, Governor Mead continues to promote coal; legislators pump money into fossil-fuel subsidies. “I have never seen a state government so indifferent to the concerns of its residents,” commented one constituent recently. Mr. Schwarzenegger echoed the view nationally when he wrote in the Washington Post in 2011: “It is absurd that our federal government spends tens of billions of dollars annually subsidizing the oil industry.”

Nevertheless, homes, businesses, stadiums, and parking garages will be roofed with solar in no time. Cars will run on electricity. Even in Wyoming.