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Here we go. Change is coming to both Alberta and to Canada. Personally I do not see how improving our perception in the world with relation to climate change will help us get access to markets – i.e. pipelines. Keystone nixed by Obama; Northern Gateway running up against an “official” moratorium on tanker traffic off the northern West Coast of BC (conveniently ignore the super tankers that come down from Alaska every day about 50 miles off the coast); and some poll done by the ENGO’s that say 60 % of people in Quebec are against Energy East. So forgive me for being skeptical. The recent Alberta measures will; cost us about \$3 billion dollars. We will reduce GHG’s marginally and hopefully begin to change consumer behaviour (i.e. drive less). Canada makes up less than 2 % of global GHG’s. China, already the world’s larger emitter around 25 %, has agreed to ONLY double their emissions by 2030. India said they would ONLY triple their emissions by 2030. And we are climate laggards.....?

The Roughneck - November 2015 - Natural Gas Is Coal’s Only Real Alternative – Gwyn Morgan courtesy of Troy Media (www.troymedia.com)

On the final day of the June 2015 G7 summit in Germany, host Chancellor Angela Merkel announced the leaders had agreed on the need to “decarbonize the global economy in the course of this century.” Environmental activists were exultant. A week later, Pope Francis issued an Encyclical calling for the world to come together to develop “renewable and less polluting forms of energy.” Visionary aspirations are fundamental to human progress. But acting on unrealistic aspirations often make matters worse, not better.

As an engineer, I understand that the fundamental laws of physics must apply even when their implications are unpopular. No one put this more clearly than 16th century Italian physicist Galileo Galilei who said, “ In questions of science, the authority of a thousand is not worth the humble reasoning of a single individual.”

His belief in the superiority of science over authority was demonstrated when his theory that the earth circled the sun rather than the other way around angered Pope Urban VIII, resulting in charges of heresy that saw Galileo confined to house arrest for the rest of his life. So at the risk of committing heresy in the eyes of the current Pope and other believers that 2100 AD will see a utopian world where humans travel across town and around the globe, heat and cool their homes, generate electricity and produce food for a staggeringly enormous population all without emissions to the atmosphere, here is a reality check.

The fastest growing source of global greenhouse gas emissions is the burning of coal to produce electricity. The most often touted “renewable” power sources are wind and solar even after both technologies have proven unaffordable and unreliable.

Here in Canada, former Ontario Premier Dalton McGuinty's plan to replace coal-fired power plants with highly subsidized wind and solar transformed Ontario from one of North America's lowest power cost jurisdictions to one of the highest, driving manufacturing jobs south of the border and overseas.

In Britain, outraged consumers demanded an end to (US) \$700 million per year in wind power subsidies that produce less than 0.5 percent of demand. But the country where so-called green energy has been the biggest disaster is Merkel's Germany, where some (US)\$140 billion was given to solar power companies that generated a meagre 4 percent of electricity supply. The subsidies were pulled back after the minister of Economics called them "a threat to the economy."

Taken together, after hundreds of billions of investment, wind and solar power constitutes a tiny, and unreliable, source of electricity. As if that reality isn't enough to stretch the credibility of the G7 "decarbonisation" declaration, an OXFAM study prepared ahead of upcoming climate talks reveals that Britain, Germany, Italy, Japan and France G7 increased coal burning by 16 percent between 2009 and 2013. Only Canada and the U.S. reduced coal consumption over that period. Meanwhile, coal burning has skyrocketed in developing countries, most notably in China and India where almost three-quarters of global coal is burned. Even after Chinese President Xi Jinping and U.S. President Barack Obama touted their climate change pact in late 2014, China continued to commission a new coal-fired plant almost every week.

A pretty bleak picture, but there is another fuel that can make a gigantic strides in reducing emissions. By switching from coal to natural gas power generation, CO2 emissions are cut nearly in half and toxic particulates and NOX are eliminated. Advancements in hydraulic fracturing technology unlocking gas trapped in shale formations is the main reason why U.S. coal use has fallen. There are vast amounts of untapped shale gas resources around the world. The other big challenge for "decarbonisation" zealots is transportation. Replacing gasoline-fuelled cars with electric would require huge additions to power generation capacity, much of which would be generated by fossil fuels.

What about diesel-fuelled heavy transportation? Here again, natural gas comes to the rescue. Conversion of diesel engines to natural gas is a long-proven technology. The U.S. has already created long haul "natural gas highway" routes with filling stations for transport trucks. Here in Canada, CN Rail locomotives and B.C. ferries are being converted from diesel to natural gas. And, as we are learning from the Volkswagen scandal, diesel engines produce toxic NOX and volatile organic compounds not emitted from natural gas engines.

Rather than following a doomed decarbonisation pipe dream, natural gas offers an enormous opportunity for a cleaner atmosphere long, long before 2100. Galileo would rejoice.

From The Thursday File

The best argument against democracy is a five-minute conversation with the average voter.

Winston Churchill