

Watt's Happening? #277

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THE FUTURE OF ENERGY *in British Columbia*



Like most of the world, BC has pretty well tapped out its hydro power, but has barely touched its truly vast solar, wind and geothermal potential.

In the world just ahead, we are going to need it all.

(Left: Bear Mountain Wind Park, Dawson Creek.

Above: W.A.C. Bennett Dam, Hudson's Hope.)

Supporters of renewable energy in BC are proud of our hydroelectric dams and wind farms, including the roughly 500 megawatts (MW) of wind in operation in the Peace Region plus the 400 MW recently announced. Impressive, right? Well, actually not.

In reality, we are rapidly being left behind in the energy transition, and here's why.

THE EXPERTS SPEAK

I was recently treated to a zoom event from the Canada West Forum thanks to a link sent from long-time Peace Energy Co-op supporter Ken Boon. The subject was the energy future of BC, and it was a real eye opener! (I will post the link at the end of this article)

It brought together an expert panel consisting of Glen Clark (BC Hydro Chair and former BC premier),

Jae Mather, CEO of Carbon Free Group and Chief Innovation Officer of Climate Door, and Markham Hislop, western Canada's foremost energy and climate journalist and podcaster.

Clark, as one would expect, spent his time justifying BC Hydro policy as it stands, while Mather and Hislop spoke adamantly about the dire need for change.

"We are in a 20th century energy model that cannot grapple with a 21st century energy transition system," said Hislop.

Mather spoke even more strongly, declaring that we are at least 10 to 15 years behind Europe. "We have harvested perhaps .00001 percent of our wind resource, and much less for solar and essentially nothing of our geothermal. Denmark produces 1000 times more wind energy than all of Canada, and Denmark is the size of

Vancouver Island. We are so far behind! It's shocking!"

HERE COME THE DATA CENTERS

Mostly, he warned that AI and data centres have not been truly included in BC's energy need projections, and that to meet that need grid capacity will have to increase by 2 to 3 times and "not by 2100, but by 2035."

"The entire future of every economy is ultimately down to electrons now," said Mather, "and most electrons are now being used by data...AI is the cleverest dumb thing we have ever done!"

But now we have no choice. We must participate in the AI revolution or perish. BC Hydro estimates that some 300 MW of new energy will be needed in BC for data centers by 2030, (the Site C Dam produces about 1000 MW) and Telus estimates another 400 MW for new data centres in BC by 2027. Mather warns that these may be extreme underestimates, but where will all this energy come from?

WHERE IS THE ENERGY INNOVATION?

He also raises the dire need for energy innovation, something Canada he says is critically lacking, but much of the rest of the world

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is not. Data centres elsewhere are being powered by geothermal and closed loop heating and cooling systems that need no water, for instance.

Hislop: "Energy is no longer oil, gas or coal. There is a global growth in electrification like we have never seen before. As of about 5 years ago, electrical technology now out-competes any combustion technology." China, Asia and

Europe all know this and are moving rapidly to electrify even heavy-duty industrial processes, but apparently Canada hasn't quite figured this out yet!

CARBON TAXES HELP

Even carbon taxes are in, something Canada shuns... apparently for political reasons? Hislop explains that China has just introduced an economy wide industrial emitter carbon tax. The EU already has one.

Carbon pricing is spreading around the world because it incentivizes the energy transition, and those that lead in this transition will prosper. That's in part because these new energies are the least expensive and most abundant ever created. Canada needs to wake up to this new reality.

British Columbia has immense but largely ignored solar, wind and geothermal resources. It's time to join the rest of the world and move quickly to a renewable energy future. What are we waiting for?

Powering the Future

<https://canadawestforum.org/powering-the-future/>
