



Don Horne, Editor

## IT'S TIME WE CAME TO TERMS WITH COAL

When two ships at sea are on a collision course, the captain sounds the klaxon.

Green, environmentally friendly power (wind, solar, hydroelectric) is sailing straight into the good ship coal – and politicians are having to make some very tough choices as to what and how much generation they need to build.

North American power providers have crunched the numbers and stated plainly that coal generation not only needs to be maintained at its current level but actually increased.

A CIBC World Markets report backed up what the Power Workers' Union has been telling the Ontario Power Authority for years – that the closure of the province's existing coal plants will lead to higher electricity prices.

At the moment, the provincial government has set the closure date for Ontario's coal plants at 2014 (a date that has already been extended). This is set in the backdrop of other provinces like Alberta and Saskatchewan planning on building new coal stations fitted with new clean coal technologies.

And all of this is framed by the Kyoto Protocol limiting Canada's greenhouse gas emissions, and must be factored into the country's carbon credits.

In the U.S., many states are moving ahead with new coal generation construction, part of a worldwide construction boom of more than 1,000 new coal plants destined to become operational by 2030.

But they all won't be pollution-spewing monsters.

One new coal generation plant in Jamestown, New York will feature new emission reducing technology from Praxair, which is called the oxy-coal process. Certainly not emission and pollution free, the reduction and containment system is being heralded as a plus for the community, and an opportunity to make the Buffalo Niagara region a center for research in new coal-burning technology.

An attitude that is worlds apart from

just across the U.S.-Canada border, where any endorsement of coal is seen as being tantamount to political suicide.

But coal is just one part of the puzzle. The nuclear option has gained a great deal of support, despite lingering doubts regarding waste and plant safety.

Additionally, local utilities are faced with the aesthetic hurdle. No one wants overhead wires, and no one wants a generation or substation in their backyard.

Residents usually come out in force to complain about new transmission and distribution corridors. Bury it, is what they suggest – that is, until they see the cost.

On Toronto's shoreline, a brand new natural gas generation plant is under construction, drawing frowns and fumes from many area residents who would prefer a park be built instead, allowing an unobstructed view of Lake Ontario.

Unfortunately, they also frown and fume when their air conditioning and refrigeration shuts down due to a brownout or blackout. Of course they admit that it is necessary to build new generation to meet demand on the grid – and of course they point to several areas far, far away where the generation plant or substation could be located.

And for the naysayers of coal generation, they can now point to the ash coming from the "clean coal" process as being as bad or potentially worse than ordinary ash.

Tests have proven that the chemicals injected into clean-coal plants' emissions to capture airborne pollutants are changing the composition of the ash and cuts so that they cannot be used to make concrete.

In short, this arsenic and mercury-laced ash has to be sent to the landfill, and that means a possible leaching problem into the groundwater. And that doesn't factor in the ammonia, lime and calcium hydroxide that is used in the "cleaning" process that is now a part of the already toxic ash chemical cocktail.

Currently there are several quite

effective and inventive energy conservation campaigns being conducted in the United States and Canada. Mostly they focus on how consumers can control their demand by purchasing energy efficient appliances, light bulbs, smart meters, etc. In addition, the nuclear energy lobby has some excellent public awareness campaigns on the benefits of nuclear generation (no emissions); and in the area of wind and solar, every new farm is heralded by every level of government to the smiles and applause of environmentally conscious constituents.

The rush to eliminate coal generation is foolhardy, and the politicians need to step forward and admit as much. In addition, every one of us who uses electricity must come to grips with the fact that we have been given something very close to a free ride for far too long.

Much of the public service announcements and awareness campaigning is targeted to make the public drink the Kool-Aid on electricity conservation. Since it looks inevitable that the politicians will have to eat crow on the retirement of coal-fired generation plants, some Kool-Aid might be needed to wash that crow down.

But as much as the politicians need to face facts, the electric power industry must be prepared to bite the bullet as well by exploiting clean coal solutions now.

The race is on to build a new fleet of coal-fired power plants that rely on conventional combustion technologies – technologies known to accelerate global warming. And there is little doubt that once Congress passes any kind of serious greenhouse gas legislation involving air pollution permits, the utilities will certainly argue for all existing plants to be grandfathered in. This very scenario was played out in 1970 when the Clean Air Act was passed, and older plants were made exempt with the promise of newer state-of-the-art facilities coming on line.

And many of those grandfathered plants continue to operate today.

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