

Electricity Market Update



Experts Say Smart Grids A Privacy Concern

Concerns have already been raised regarding smart grid security, but now experts are saying that this technology raises major privacy concerns. Utility companies could use smart meter data for a new way to market services to people, for example. Smart grid technology promises to revolutionize how consumers use energy by providing consumption information in real time. Privacy experts are concerned that not much attention has been paid to how utilities and their partners will use the mountain of information that will be newly available. “Instead of measuring energy use at the end of each billing period, smart meters will provide this information at much shorter intervals,” said the report. “Even if electricity use is not recorded minute by minute, or at the appliance level, information may be gleaned from ongoing monitoring of electricity consumption such as the approximate number of occupants, when they are present, as well as when they are awake or asleep. For many, this will resonate as a ‘sanctity of the home’ issue, where such intimate details of daily life should not be accessible.” Data mining techniques could determine the types of appliances that are used within the home because different devices have identifying power signatures. Electric vehicles are expected to function as portable smart grid devices so it will be readily known if a vehicle is charged at home, at work, or at a neighbour’s house. Ontario is expected to have a smart meter installed within every home and business within the province by the end of 2010. In the United States there are more than 8 million smart meters already in use with plans calling for an additional 50 million to be installed in about 25 states over the next five years according to the Edison Foundation. The report rehashes concerns raised by the National Institute of Standards and Technology (NIST) in September 2009 that said smart meters and a new distributed energy system would reveal private information about homeowners. The report went on to note that privacy policies are severely lacking. (Source: *Smart Meters Website*)

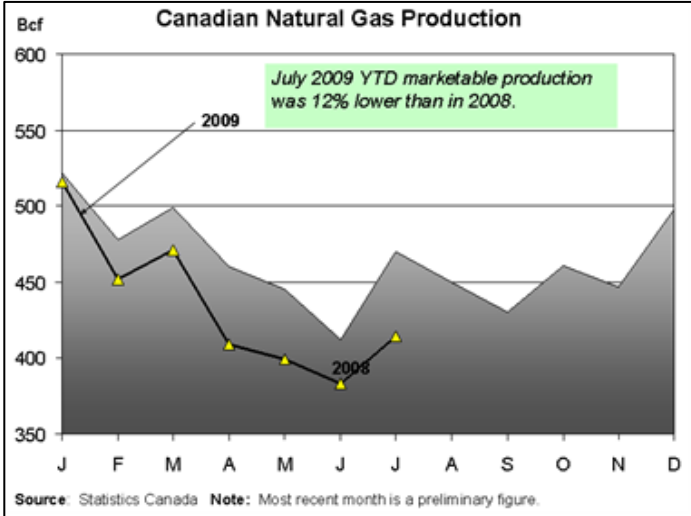
Environment Update

The Trouble Facing Canadian Rivers

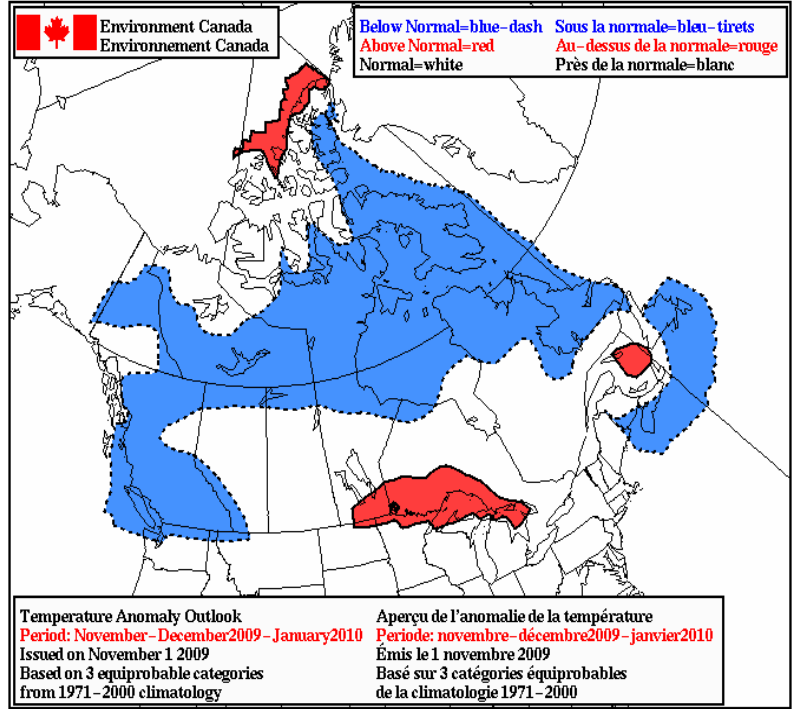
Canada's major waterways have suffered significant alterations in their natural flows, a WWF-Canada (World Wildlife Fund) report contends. The seasonal waxing and waning of rivers is one of nature's most crucial cycles, influencing everything from the success of salmon runs to having enough water during parched summers to irrigate crops. By this measure, many of Canada's major rivers are in trouble, contends a new report that says many of the best known rivers have suffered major alterations in their natural flows due to hydro dams, irrigation schemes and withdrawals by industry, and could be further compromised by the effects of global warming. The report, by WWF-Canada, one of the country's major environmental organizations, says the rivers that have been most altered from their natural state include the St. Lawrence and the South Saskatchewan, whose “ecosystems are in serious trouble” as a result. But it warned that if safeguards aren't put in place soon, some of North America's last free-flowing rivers “could soon be in trouble as well.” The report, titled *Canada's Rivers at Risk*, is believed to be the first evaluation of rivers in Canada based on how much human activity has changed their natural flows. Previous studies of rivers by government or environmentalists have focused on such traditional threats as pollution from industries or sewage treatment plants. The report assessed ten major rivers based on more than 300 scientific papers, and was recently released in mid-October. Most rivers have a distinct annual flow pattern on which wildlife depend, with amounts peaking in spring when melting snow augments flows. Low levels occur during winter freeze-ups or summer droughts. But dams and other human interferences smooth out these natural fluctuations. (Source: *The Globe And Mail Website*)



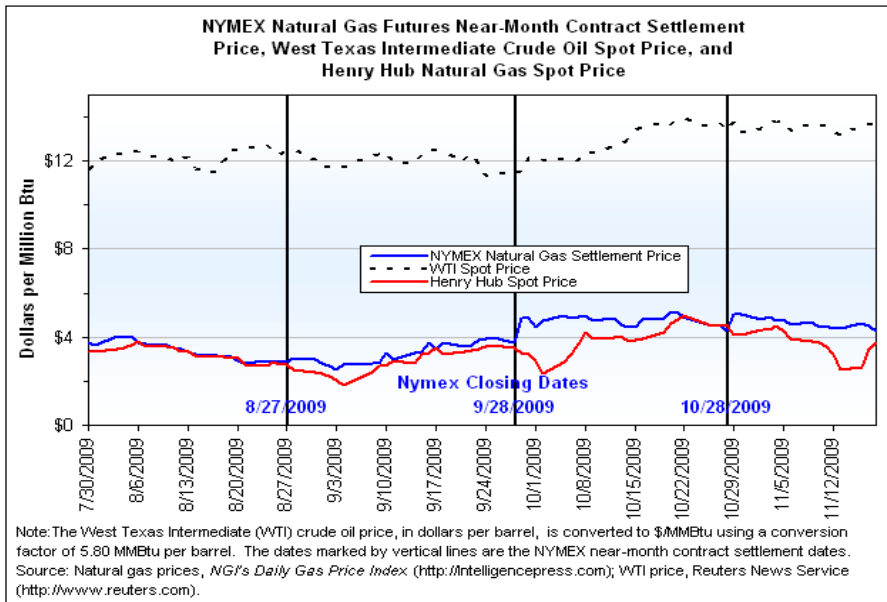
WEEKLY MARKET UPDATE



Marketable natural gas is the gas available for consumption after processing and excludes producer or plant uses. Marketable natural gas production for 2009 was 414 Bcf, 12% lower than in 2008. (Source: NRCAN Website)



Source: Environment Canada Website



At the New York Mercantile Exchange (NYMEX), the future contract for December delivery at the Henry Hub decreased by about 6% during the report week. (Source: EIA Website)