



Icy Finish

Opinion/Analysis



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It looked like Canada's natural catastrophe story for 2013 was just about told when the ice storm mere days before the year's close added the chapter, "It ain't over till it's over." Some day, there will be another major wind or ice storm, demanding that discussions begin now about how much should be spent to guard against what may amount to fairly rare events.

In what may amount to a "coming-of-age" year for Canada, a string of severe weather events — ending with a major ice storm — conspired to ensure that Canadian property and casualty insurers will pay out more in catastrophe losses for 2013 than for any other year — by far.

At writing, preliminary insured losses for Ice Storm 2013 were still a few weeks away, but

claims totals for five earlier events had already pushed 2013 insured losses to somewhere between \$3 billion and \$3.5 billion. This puts the country in a league with many other western industrialized nations that face multi-billion-dollar claims years on a regular basis.

Perhaps somewhat ironically, the late-year ice storm came on the 15th anniversary year of the massive ice storm that ravaged eastern Ontario, the Ottawa/Montreal corridor and parts of the Maritimes — it was not until the floods in southern Alberta last June that the January '98 ice storm fell from first to second in the ranking of costliest insured Canadian natural catastrophes — and on the tenth anniversary year of the widespread northeastern blackout in August 2003. Once again, several hundred thousand Canadians found themselves without electricity, many for as long as five days or more.

The latest storm was exceptional, rare to be sure, but not unheard of. And while it had the potential to be on par with the '98 event had it continued a few days longer, by the end of it, Ice Storm 2013 was no fair analog to the Great Ice Storm, whether measured by ice accretion, customers without power, property damage or fatalities. Still, it was a significant event.

TAKEAWAYS

Although essentially all hazard events offer a long list of lessons, two themes come out strong in the wake of Ice Storm 2013.

First, the ice storm again raised the issue of personal preparedness. The vast majority of people affected by this event simply were not ready for a severe weather event.

The lack of preparedness and overall awareness of what to do prior to, during and immediately following hazard events was evidenced by the many instances of carbon monoxide poisoning reported in the press, caused when people used unorthodox and dangerous means to heat their homes during the outages. Despite nagging warnings, few people take steps to prepare, and this must change.

Second, the event shone a glaring spotlight on the poor condition of the hydroelectric grid, particularly in the

the rare step of publicly criticizing the poor state of its own assets and has issued dire warnings about future reliability of its own service.

The *Toronto Star* reported on December 30, 2011 that unions for Toronto Hydro warned that “a yet-to-be released ruling by the Ontario Energy Board risks slashing Toronto Hydro’s budget for renewing its aging system by two-thirds. And that, they say, will lead to an increas-

ingly unreliable power system — a conclusion that Toronto Hydro doesn’t disagree with.”

Notes the article, “‘We’re seeing neighbourhoods that are getting 12, 18 outages a year,’ Toronto Hydro vice-president Blair Peberdy said... The downtown core’s system is also aging. Much of it is 50 years old, dating back to the start of the 1960s construction boom.”

On January 5, 2012, *The Star* reported

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City of Toronto, where the system is old, trees tend to be older and larger, and streets are narrower. The ice storm, the July 8 flood event in the Greater Toronto Area (GTA), and the earlier urban flood event in southern Alberta warn of society’s growing vulnerability due to aging infrastructure. This lends some credence to the idea that many natural catastrophes are, in effect, man-made.

Often, in the wake of severe weather events, the common mantra heard from politicians, public utilities and others is that the event was “just too big” and nothing could have been done to prevent it or lessen its impact. It would be difficult, however, for Toronto Hydro to use this strategy when the corporation has in the not-so-distant past taken



“the Ontario Energy Board has told Toronto Hydro it can see little evidence that the utility’s state of repair is as bad as the utility claims.” The board told Toronto Hydro “to manage its spending the same way other utilities in the province have done. As a result, it won’t allow the utility to make a special case for radically higher spending on renewal and maintenance at a full-blown hearing before the board.”

Two months later, on March 7, 2012, *The Star* reported that Toronto Hydro was being dropped by its insurer FM Global at contract renewal June 1.

“Toronto Hydro has been warning that a decision in January by the Ontario Energy Board curbing its equipment renewal program will prevent it from replacing aging equipment — leading to longer and more frequent blackouts. Peberdy said the prospect of insuring less reliable equipment seems to have triggered the decision by the insurer, Factory Mutual insurance, or FM Global,” the article noted.

BALANCE ESSENTIAL

Toronto Hydro now finds itself in the unenviable position of being criticized after the July 8 GTA flood for having too many underground assets and after the

recent ice storm for not having enough.

It must now make some tough decisions. Investing in mitigation always involves the question of cost/benefit: How much should be invested to get major stakeholders to a certain risk comfort level? What is realistic and doable?

For the sake of discussion, consider storm water management. While it is technically feasible to put a storm sewer system into Toronto that could handle heavy rain events such as the August 19, 2005 and July 8, 2013 storms, the cost would be beyond prohibitive (some estimate it would require the entire annual GDP of Canada) and the disruption due to construction would be unlike anything ever experienced in the country.

One news report posited it would cost about \$2 billion to underground all remaining overhead lines in Toronto, not including other associated costs like installing stand-alone traffic signals. (An even more recent article has suggested the total is more in line with \$15 billion.)

Whatever the total, a 2013 feasibility study entitled *Underground overhead wires: Town of Markham: Yonge and Davis Corridors* — by Lehman & Associates, DPM Energy and George Todd Consulting with the Town of Newmarket — notes that “the cost of converting an existing overhead

distribution system to an underground system is relatively high — typically five to six times more expensive than the relocation of an above-ground system.”

While even the \$15 billion is considerably more realistic than the storm sewer upgrade example noted previously, it is substantial nonetheless. So the question remains: How much should be spent to bolster the grid for what amounts to be fairly rare damaging wind and ice storm events? And what about an underground system that can withstand flood, which likely is not factored into the \$15 billion?

As of late, there have been many calls for senior governments in Canada to invest in the country’s infrastructure, including storm water systems. While a similar call must go out for upgrades to the grid, it is necessary to be smart about any decisions and choices made.

As with the August 2005 Toronto flood, once an extreme event happens, it is clear it can happen again. Witness July 8, 2013.

One day, there will be another major ice storm in the GTA.

Let the discussion begin. ≡

Ice Storm 2013

(Ice accretion in millimetres:
December 21-22)

Trenton	30
Toronto Pearson Airport	24.8
Vaughan	25
Grimsby	27.7
Orillia	3-4
Niagara	27.7
Downsview	20
Niagara Escarpment	7-8
Hamilton	20
Barrie	20
Brampton	20-30
Cornwall	15
Kingston	20
Kitchener	15-20