

An abstract background image with swirling, organic patterns in shades of blue, green, and yellow, resembling a microscopic view of a cell or a geological formation.

Crisis Management In Action

So How Did We Do?



Moderator and Panel

Michael Angemeer - Moderator

President & CEO, Veridian Connections

Jim Keech

President & CEO, Utilities Kingston

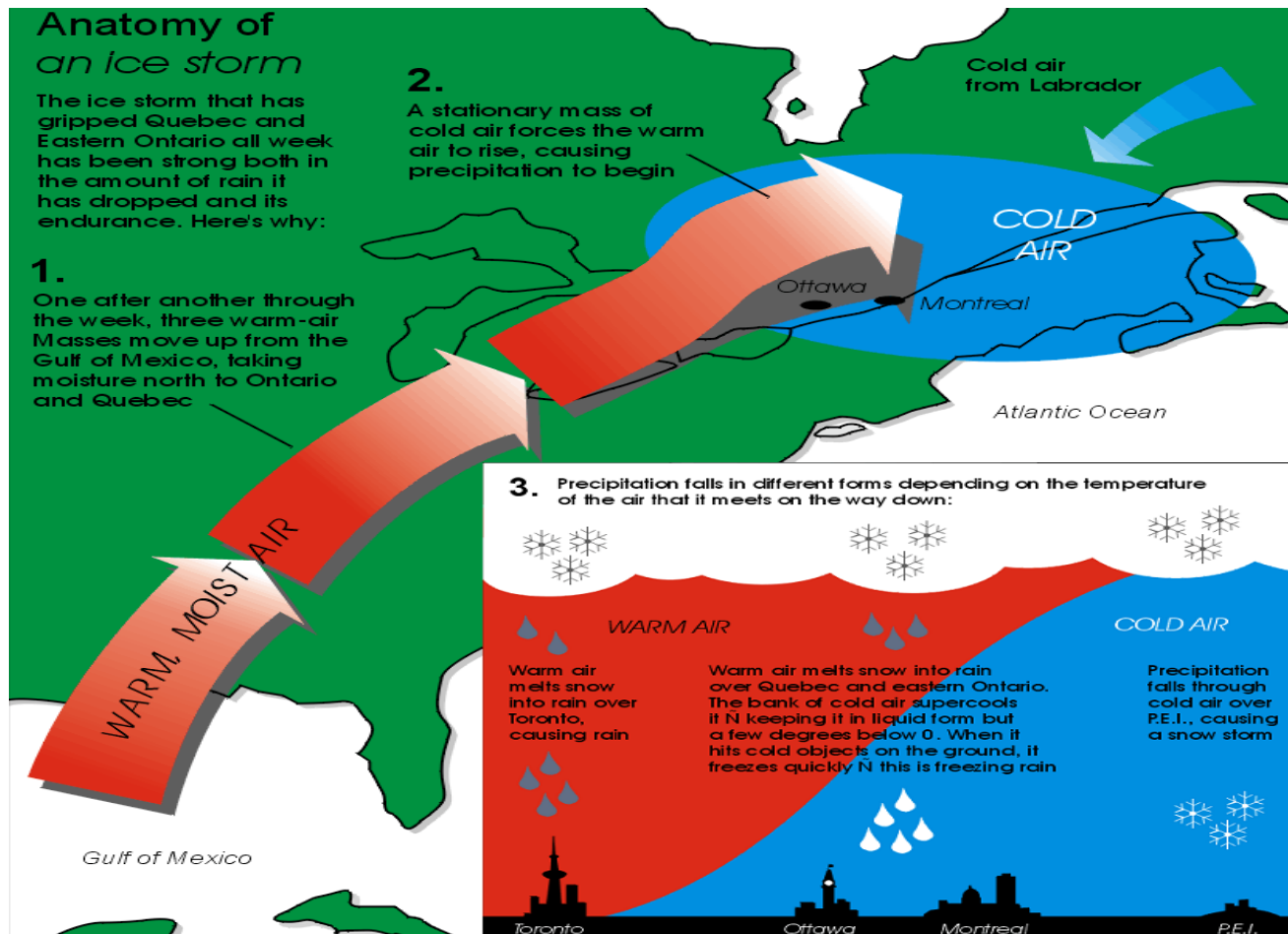
John McClean

Vice President Operations, PowerStream

Art Skidmore

President & CEO, Halton Hills Hydro

How the Ice Storm Started



Ice Storm Impact

December 21st storm was significant:

- Stratford to Kingston
- 3 days of prolonged freezing rain
- Over 30 millimetres of ice
- Over 3 million people without power
- 24 LDCs directly affected, others assisted



Outage Statistics by LDC

One million customers without power:

Halton Hills Hydro	23,000	100%
Kingston Hydro	24,300	91%
PowerStream	92,000	26%
Veridian Connections	65,000	50%
Toronto Hydro	300,000	42%
TOTAL (24 LDCs)¹	1,025,900	28%

¹ Totals of 24 LDCs participating in Emergency Response Task Force

Business Areas Affected



Veridian Connections





Veridian Connections

Michael Angemeer

Summary:

- Storm began December 21st and restoration efforts continued until December 31st
- Level 3 Power restoration effort (highest in Veridan PRP)
- 38 outside crews worked staggered 16 hour shifts (24/7)
- Up to 21 call centre staff at peak plus internal support staff
- Storm account for 35mm of freezing rain
- 65,000 Veridan customers affected (50% of customer base)
- 90% of customers restored within 9 days
- Largest storm and restoration effort in Veridian's history



Veridian Connections

Michael Angemeer

Mutual Assistance:

Assistance was received from our LDC mutual assistance partners and contractors

- Whitby Hydro
- Oshawa PUC
- Lakeland Power
- Orillia Power
- Peterborough Distribution
- K-Line
- Davey Tree
- Asplundh
- Ontario Line Clearing Services
- Ascent



Veridian Connections

Michael Angemeer

What went well:

- Veridian’s Restoration Team stepped up and worked long and tiring hours for 9 straight days over the Christmas holiday season
- 24/7 response with many working 16 hour days
- No major injuries
- 90% of customers restored within the first 48 hours
- Superb customer care assistance showing great patience
- External communications efforts consisting of:
 - 19 news releases
 - Steady Twitter presence
 - Website updates
 - Radio / TV interviews



Veridian Connections

Michael Angemeer

Lessons learned:

- Enhanced communication channels to stakeholders and customers including social media, TV, radio, email, phone, text and an outage map on our website
- Customer focused education on outage and restoration efforts, outage response and emergency preparedness
- Improved technology to facilitate better situational awareness for staff, and communication between control room and customer care
- System hardening improvements and revised strategies on vegetation control
- General improvements to the Power Restoration Plan

Halton Hills Hydro





Halton Hills Hydro

Art Skidmore

Impact of Storm

	Maximum Customers Out		Customers out > 48 Hours	
	Customers	% of Customers	Customers	% of Customers
Halton Hills	23,000	100%	14,000	61%

A few hours shy of a week without power. Thank you to everyone at @hhhydro for all your work.



Halton Hills Hydro

Art Skidmore

Chronology of Storm:

- Freezing rain started on the Saturday, December 21st
 - By 11:00 PM on the 21st 100% customers without power
 - Halton Hills Hydro declares Major Emergency (as per EPP)
- December 22nd, Weather Network reports 30+mm ice accumulation in Georgetown
 - Halton Hills declares disaster (as per our EPP)
 - Mayor appeals to residents to stay home, Warming Centers opened
- December 23rd: Gellert Centre opens as evacuation centre
- December 29th: All distribution lines restored. Those without power require electrical work before restoration.

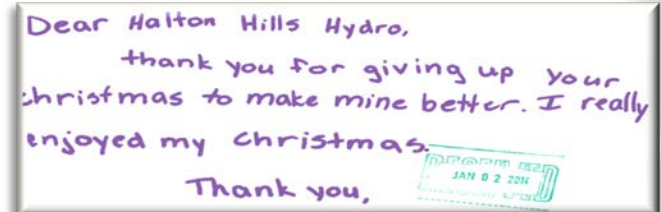


Halton Hills Hydro

Art Skidmore

Issue #1 - Communications

- Halton Hills Hydro customer count 23,000
- Daily Media releases: Dec 22 – Dec 31
- Working with Local Media
- Phone calls from Dec 21 – 30: 6,671
- Website visits from Dec 21 - 29: 120,051
- Facebook reach Dec 21- 30: 100,059
- Halton Hills Hydro tweeted 709 times between Dec 21 and Jan 8 reaching 70,000 people



Halton Hills Hydro

Art Skidmore

Issue #2 - Logistics

Date	Operations Personnel
December 21	13
December 22	37
December 23	60
December 24	65
December 25	71
December 26	93
December 27	112
December 28	121
December 29	132

1. 12 times normal staff complement
2. Lodging
3. Orientations
4. Use of HHH staff
 - Call Centre, Escalation Staff
 - Runners, Volume of Data
5. EPP
6. Coordination with Municipality
7. Crew meals
8. Other

Halton Hills Hydro

Art Skidmore

Issue #3 – Managing Customer Expectations

	Maximum Customers Out		Customers out > 48 Hours	
	Customers	% of Customers	Customers	% of Customers
Halton Hills	23,000	100%	14,000	61%

★★★★★ 5 stars for the employees at Halton Hydro. I see so much damage and a VERY WARM THANK YOU for all of those linemen that are working so hard under these difficult conditions.

★★★★★ Outstanding work over the last 4 days and ongoing around the clock to get the community back on the grid. Social Media updates have been excellent, great work by all involved! Thank you.



Halton Hills Hydro

Art Skidmore

Issue #4 – Cost Recovery

- Engaged ODRAP early in conjunction with the Town on January 2, 2014
- Discussions with Shareholder / Board
- OEB Criteria – Causation, Materiality, Prudence
- Filed with OEB June 2014

Jenny @4Jenny1

29 Dec

@HHHydro - you're the best! Words can't express how grateful I am for your commitment to our community.

PowerStream





PowerStream

John McClean

The Good, the Bad, and the not so good...

- Stakeholder Interaction
- Customers
- ETRs
- Our Staff

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John McClean

Restoration Wave

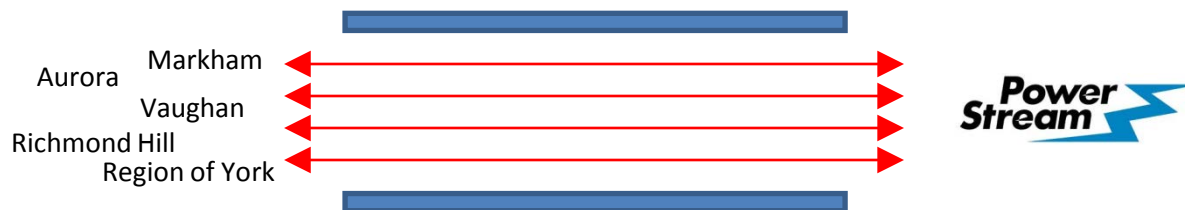


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Stakeholder Interaction

- Municipal CEMC/EOC (multiple municipalities)



- Virtual linkages (email, text, phone)
- H&S (emerging or missed locations)
- Information (confirmation of outage areas, ETRs)



PowerStream

John McClean

Stakeholder Interaction continued . . .

- Municipal Councilors (the good and the bad...)
 - End run around their EOC to communicate directly to Senior staff at PowerStream or anyone they knew; duplicate information, their perspective of H&S priority (as opposed to the professionals at the municipality), wasted efforts. Had to request municipalities to reign them in...
 - “Friends”that were out of power
 - Criticism during event when support would have been of more value
 - Some were extremely helpful, to their constituents and to the utility



PowerStream

John McClean

Customer Interaction

- **Interactive Voice Recognition**
 - Takes inputs from the Outage Management System
 - “stalled” due to number of inputs and demand from customers
- **Outage Webmap**
 - Also takes inputs from Outage Management System
 - Sluggish and stalled due to volume
- **“Shadow of Toronto” effect (can be good or bad)**
 - At times challenging to get our message out in media
- **Social Media**
 - Extremely powerful but must have quality information that is aligned across all communication channels



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John McClean

Estimated Time of Restoration

- ETR **Good** for the small to medium clusters of outages; **not so good** for the more challenging locations:
 - Better Triage process,
 - culture shift,
 - incident location planning
- **Triage**
 - Take the time to clearly identify extent of outage location
 - Damage assessment
 - Materials required
 - Resources required



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Estimated Time of Restoration continued

- **Priorities**
 - H&S locations already identified
 - Emerging locations were identified to us by CEMCs
- **Nested Outages**
 - Locations where radial locations “rolled” up to feeder
 - “Mass Pinging” not yet in place
 - Frustrated customers “your IVR says our power is ON!”



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John McClean

Our Staff – the good!

- Dedicated, working under trying conditions
- Compartmentalization of areas
 - Supervisor assigned to areas
- Customers
 - Setting up in-house 24/7 contact centre upon realizing failings of IVR
- Important to see Leadership in the field
- Communication with the municipalities involved

Kingston Hydro

Just when you think it can't get worse



















Panel Discussion

