



RP+5

Regional Plan 5 Year Review

Underground Utility Services

Halifax Regional Municipality will gradually move overhead telecom and power-lines to underground installations.

Overhead power lines and telecommunications cables are vulnerable to damage from weather and accidents. They also obstruct workers trimming street trees, and are generally considered unattractive.

Moving them underground makes for more attractive streetscapes, allows more urban forest cover, and improves the reliability of service. HRM currently has several successful communities where the developer voluntarily implemented underground wiring.

Of course it's not possible to change the whole region's utility lines overnight, and it is not HRM's goal to do so. Also, different approaches are needed in existing and new communities to minimize costs while ensuring maximum benefits.

Shifting them underground in the urban core can be phased-in as strategic opportunities arise, while in new subdivisions it should be required as part of the new development. Large scale conversion will be a long-term process. For that matter, not every new line will necessarily go underground—the cost of undergrounding will be considered and there may be cases where overhead installation makes sense. Therefore HRM will adopt policies that favour a shift to undergrounding over time.



In 2003 Hurricane Juan made landfall in HRM. Gusts of up to 180 kilometres per hour left incredible destruction in its wake, toppling thousands of trees and knocking out power to 300,000 customers of Nova Scotia Power (NSPI). Devastating winds brought down transmission lines, transmission towers, distribution feeders, and major NSPI substations across the province. (Source: Government of Nova Scotia. A Report on the Emergency Response to Hurricane Juan. 2003.)



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Proposed approach

First, proposed new streets proposed in subdivisions will be required to place utility lines underground. This will slow the increase of overhead wires as the municipality grows and will enable the urban forest to flourish.

Second, the HRM will evaluate development incentives for moving utilities underground in downtown Halifax.

Finally, whenever streetscape improvements are proposed within commercial and heritage districts, planners must give consideration to undergrounding the utilities.

What will it cost?

- Undergrounding cost adds an estimated \$8,500.00 to the cost of a 40 ft frontage urban/suburban subdivision lot⁵.
- Rural subdivision undergrounding will be 1.5 to 4 times greater due to larger lot size and more expensive conduit systems.
- Undergrounding can also add as much as 5% to the value of a property⁶.
- The ability to develop treed lots can add 3% to 7% to the value of residential property⁷.

¹Marbek Resources Consultants. Economic Implications of Buried Electric Utilities. March 21, 2007

²Nextbus - Thinkwell Research Inc. Sept. 2011. See <http://www.halifax.ca/undergroundwiring/>

³Marbek Resources Consultants. Economic Implications of Buried Electric Utilities. March 21, 2007.

⁴Halifax Regional Municipality. Urban Forest Master Plan. August, 2012 (Section 1.1 pp. 3-4)

⁵Stantec Engineering. Engineering Study of Joint Gas, Power and Communications Trench. April 2008 (2012 Update of the Joint Trench Installation Costs, March 2013). See <http://www.halifax.ca/undergroundwiring/>

⁶Report of the Putting Cables Underground Working Group to the Minister for Communications, Information Technology and the Arts, Australia. Putting Cables Underground.1998.

⁷USDA Forest Service, Newtown Square Pennsylvania. Midwest Community Tree Guide: Benefits, Costs and Strategic Planting. 2005.



Why underground?

HRM is the only community of its size in Canada where utilities in new subdivisions are still permitted overhead and along streets.¹

NS Power and Bell Aliant support the concept of undergrounding and have participated in several common trench design applications.

91% of HRM residents surveyed in 2011 (300 participants) completely agree/mostly agree with undergrounding for new residential subdivisions.²

With increasing global average temperatures, the frequency and intensity of extreme storm events is expected to increase, in many estimates by up to two-fold, posing increased risk to utility poles.³

Overhead wires reduce street tree leaf cover of by 35%. Each year, HRM street trees save us \$2.1 million in storm water treatment, \$9.6 million in pollution reduction and \$12.4 million in energy cost.⁴

Read the draft Plan, Chapter 8—Municipal Water Services, Utilities, & Solid Waste, Sec 8.7



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