



Real Estate Appraisers & Consultants
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Tower Analysis

Hydro Tower

versus

Telecommunication Tower / Wind Turbine

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Hydro Power Transmission Corridor vs. Telecommunication Tower / Wind Turbine

Hydro One Networks Inc. (HONI) expropriates land for the use of a hydro power transmission corridor. A transmission corridor generally consists of large overhead high-voltage wires suspended between large metal tower structures across large stretches of land.

Roger Wireless Inc. negotiates on the open market with land owners to use land for a telecommunications tower. A telecommunications tower consists primarily of a large single tower structure, sometimes supported by guy wires, that supports equipment that transmits communication related data. A Rogers Wireless Inc. lease is for '...the erection, replacement, maintenance, and operation of telecommunications facilities and equipment and the provision of telecommunications services'.

Wind turbine developers also negotiate on the open market with land owners to use land for a wind turbine. A wind turbine is a rotary device that extracts energy from the wind and consists primarily of a tubular steel tower, ranging from 60 to 90 metres (200 to 300 feet) tall, that usually supports a three-bladed turbine. A wind turbine lease is for '...the erection, replacement, maintenance, and operation of wind turbine facilities and equipment and the provision of wind turbine'.

Lease vs. Easement Analysis

Below is an analysis of a typical Rogers Wireless Inc. telecommunication tower land lease compared to a typical Hydro One Networks Inc. rural land easement expropriation (as outlined along the Bruce to Milton corridor, Ontario, Canada, 2009/2010).

Details of a typical Roger Wireless Inc. lease are as described below:

Property:	3119 Bruce County Road 3, Ontario (1 mile south of Paisley)
Owner:	Hutton Land and Cattle Limited
Tenant:	Rogers Wireless Inc.
Land/Tower Area:	Land area is 1.370 hectares or 3.385 acres:

The lease was negotiated on the open market and was subject to a public open house on August 13, 2001. The lease commenced on November 1, 2001 for a term of 25 years. The rent is outlined as follows:

Years 1 to 5	>	\$5,000 per year
Years 6 to 10	>	\$8,000 per year (negotiated and extended in 2006)
Years 11 to 15	>	To be negotiated
Years 16 to 20	>	To be negotiated
Years 21 to 25	>	To be negotiated

The tenant was granted further options to extend for five year periods commencing Nov 1, 2011, 2016, and 2021. The tenant, Rogers Wireless Inc., pays pro-rated realty taxes and liability insurance. The land owner, Hutton Land and Cattle Limited, has right to farm on the leased area not occupied by the tower and guy wire footprint areas.

Rogers Wireless Inc. state they pay a 'market rate per year' regardless of the land area required. For example, if a telecommunication tower can be constructed on 2.0 acres, they would pay \$8,000, however, if the land area is 6.0 acres, they still pay \$8,000.¹

Value capitalization for the price per acre is illustrated below:

Example Area Requirements						
Net Rent	Acres	\$/Acre	Cap Rate	Value/Acre	Cap Rate	Value/Acre
\$8,000	2.0	\$4,000	5.0%	\$80,000	8.0%	\$50,000
\$8,000	3.0	\$2,667	5.0%	\$53,333	8.0%	\$33,333
\$8,000	4.0	\$2,000	5.0%	\$40,000	8.0%	\$25,000
\$8,000	5.0	\$1,600	5.0%	\$32,000	8.0%	\$20,000
\$8,000	6.0	\$1,333	5.0%	\$26,667	8.0%	\$16,667

Hutton Land and Cattle Limited Lease						
Net Rent	Acres	\$/Acre	Cap Rate	Value/Acre	Cap Rate	Value/Acre
\$8,000	3.4	\$2,363	5.0%	\$47,267	8.0%	\$29,542

In a typical rural Rogers Wireless Inc. lease, the estimated land price is between \$16,667 to \$80,000 per acre given the lease is paid yearly. In the Hutton Land and Cattle Limited lease, \$8,000 / 3.385 acres = \$2,363.36 per acre rent per year. Net rent of \$2,363.36 capitalized at 5.0% = \$47,267 per acre price. Net rent of \$2,363.36 capitalized at 8.0% = \$29,542 per acre price. The Hutton Land and Cattle Limited land did not have a price of \$30,000 to \$47,000 per acre. Land prices in the Hutton neighbourhood leading up to December 2006 are examined:

Hutton Neighbourhood Sold Land (January 1, 2005 to December 31, 2006)					
Search parameter: 5 km radius from the Hutton lands (PIN 33181-0644)					
PIN	Address	Sale Price	Sale Date	Acres	Sale Price/Acre
331800078	1269 Concession 8	\$190,000	Jan/05	103.80	\$1,830
331890041	461 Brant-Elderslie	\$180,000	Mar/05	101.32	\$1,777
331890055	329 Brant-Elderslie	\$243,000	Jun/05	73.37	\$3,312
331810571	963 Bruce Road 11	\$200,000	Sep/05	148.68	\$1,345
332390015	S/S Concession Rd 16	\$200,000	Dec/05	100.50	\$1,990
331800102	3506 Bruce Road 3	\$335,000	Dec/05	135.33	\$2,475
332400011	1720 Sideroad 5	\$250,000	Dec/05	100.52	\$2,487
331890011	2497 Bruce Road 3	\$131,250	Feb/06	100.69	\$1,304
332800042	N/S Concession Rd 8	\$280,000	Mar/06	200.43	\$1,397
331890003	1752 Greenock-Brant	\$207,500	Jun/06	57.88	\$3,585
332400015	W/S Baseline South	\$283,000	Sep/06	138.00	\$2,051
Average price per acre					\$2,141
Median price per acre					\$1,990

¹ The \$8,000 is rural locations; an urban location will be a higher amount.

Rogers Wireless Inc. pays Hutton \$8,000 per year. HONI pays a farmer a one-time payment of approximately \$4,000 to 5,000 per acre depending on land value.² HONI then discounts this value per acre by 25% claiming this is an "industry standard". It is not an industry standard as Union Gas, Bell Canada, TransCanada Pipelines, pay 100% of the Fee Simple Value (and in some cases more).

The differences between HONI and Rogers Wireless Inc. / Wind Turbine Developers are summarized in the table below.

HONI	Rogers Wireless Inc. / Wind Turbine Developer
<ul style="list-style-type: none"> HONI land use is "industrial". The HONI payment is 75% of estimated market value by HONI appraisers. HONI takes against the will of the land owner (via expropriation). HONI makes a one-time payment. HONI's easement is in perpetuity, is not by consent. HONI does not pay a proportional share of realty taxes or insurance. 	<ul style="list-style-type: none"> Rogers Wireless Inc. land use is industrial, a communication tower with guy wires. Wind Turbine is a standalone tower. Rogers Wireless Inc. and Wind Turbine Developer negotiate on the open Market. Rogers Wireless Inc. and Wind Turbine Developer make YEARLY payments. The Rogers Wireless Inc. or Wind Turbine Developer payment is \$8,000 per year or \$1,333 to \$4,000 per acre per year for the term of the lease with rent escalating provisions every 5 years. Rogers Wireless Inc. and Wind Turbine Developer is terminal, usually 20 years, and is by consent. Rogers Wireless Inc. and Wind Turbine Developer pay proportional realty taxes and insurance.

One Acre: Payment illustration via expropriation by HONI

Easement payment per acre	\$5,000	75%	\$3,750
Injurious Affection payment per acre	\$5,000	10%	\$500
Total one-time payment for one acre			\$4,250

One Acre: Payment illustration via market negotiation by Rogers Wireless Inc.

Rent payment per acre (as per Hutton Land and Cattle Limited)	\$8,000	3.4	\$2,353
Each payment invested each year for five years	Rate	Factor	Total in 5 Years
	5.0%	5.525631	\$13,001

One Acre: Payment illustration summary

	Payment received for one acre in five years
Telecommunication Tower (Note: similar for Wind Turbine)	\$13,001
HONI	\$5,424
\$ Difference	\$7,577
% Difference	140%

² As estimated by a HONI selected appraiser 2008-2009.

It is also noted that for intensively farmed land particularly, telecommunication towers and guy wire infrastructure can impose significant operating costs. Similar impositions can be made by wind turbines. Telecommunication towers and structures increase the time and financial costs of applying fertilizer or controlling pests, and impede the movement of machinery to prepare or harvest crops.

Conclusion

It is reasonable to assume that Rogers Wireless Inc. and/or a Wind Turbine Developer is aware of the market value per acre. It is also reasonable to assume that a premium is paid for the use of land as they are aware that telecommunication towers and/or wind turbines cause a diminution in value.

Wind turbine land leases are very similar to telecommunication tower leases and similar conclusions can be considered.

Hence, it is reasonable to conclude that a significant portion of the Rogers Wireless Inc. and/or Wind Turbine Developer land lease payment is made in acknowledgement of a diminution in value. In other words, the land has been injuriously affected by their use.