

GREEN TECH THE SERIES COLUMN FOR NOVEMBER 23, 2016  
HEADLINE: UNDERSTANDING HOW HYDRO BILLS ARE PREPARED

The column of November 3, 2016 called “Hydro Reality: We Have to Change How We Live” sparked an upsurge of reader inquiries. It’s clear that the cost of hydro in Ontario has become a major budget factor for many families. I had the opportunity to travel to Kempville last Monday to hear Chris Weissflog, BSc MSc MBA, speak on understanding your hydro bill. Chris owns a company called “EcoGen Energy,” in Merrickville, south of Ottawa. I have known Chris casually for some time and, along with his lovely wife Clair, he has built an amazing “Passive House,” just outside Merrickville. There will be a series on their home in future columns. Chris is well respected in the solar and sustainable energy community. He graciously gave me a copy of his presentation. With his permission, I am sharing portions of it in this week’s column.

There are actually three types of billing in Ontario: Time of Use (TOU), which is tied to smart meters; two tier, which was the most common type before TOU came into use, and third party retailers like Bullfrog. TOU, using smart meters, measures actual electricity use and is billed based upon time of day, time of year and weekdays vs. weekends or a holiday. These rates are clearly listed on your bill.

There are a number of other factors that determine your bill, however. Let’s start with what is included in the Delivery Charge Rates. Where you live is a major factor in determining charges. There are three population density levels for billing. For example, if you live in a large urban area, the charge for high density is a flat \$22.86. If you live on the outskirts of a city or town, with a number of homes within a set kilometer, then the cost is \$30.88. In rural Ontario, you get hit with a base charge of \$43.32. Within the Delivery Charge, is also a Volume Charge, where, again, an urban customer gets the best rate. A Transmission Connection Charge is in there, as well. In this one, rural customers get the best rate. Further, on every bill in Ontario, a flat charge of 79 cents is added in for the smart metering program. The Line Loss Adjustment, still part of the Delivery Charge, hits the rural client hardest, as it amounts to twice what it is in urban areas. Also in there is an added Adjustment Factor that is very similar no matter where you live, averaging 1.076 cents. Our rural neighbours get a small break when a \$31.50 credit is applied to low density customers for remote rate protection.

From the Delivery Charge, Hydro One breaks its budget down into four main categories. 60% goes to replacing old equipment, trimming trees and general maintenance; 10% goes to connecting new clients; 15% goes to billing providing customer service and a staggering 15% is held to restore power during an outage.

The next line on your bill is called the “Regulatory Charges” and, within this charge, there are a number of elements. Supply Service Administration covers costs set by the Ontario Electrical Board. The Rural Rate Protection pays rural distributors to offset the higher costs of providing service. Wholesale Market Service covers the cost of operating the actual market, including costs of renewable energy connections. The Ontario Electricity Support Program is designed to provide low-income customers with a monthly credit on their bill. This based upon household size and income. For example, a family of 3 with an annual income of under \$28,000 can receive a monthly credit of \$30.00. This program can also permit waiving of security deposits, additional payment time, equal billing and an arrears payment agreement.

Yet another program that Chris brought up was the LEAP (Low Income Energy Assistance Program) that, once applied for, can grant a one-time allowance of up to \$500.00 annually; \$600.00 annually, if the residence is electrically heated. Again, this is based upon income and household size.

In my column of November 2, I listed off the coupon programs and other incentives. One I did not list was the Home Assistance Program. This program will help anyone who qualifies for LEAP, falls under the lower income calculation or receives social benefits. This program will help replace an older refrigerator, if it's more than 14 years old and, if the applicant has two refrigerators and the second one is pre 1995, they will replace it, as well. To name just a few of the permitted upgrades, they will provide some free energy efficiency upgrades, such as insulation, lighting, low flow faucets and pipe insulation, if you have an electric hot water heater.

Chris presented a chart of hydro costs in various areas around the province. The average cost factors, based on an average residential bill, were very similar until you arrive at Cornwall, Ontario. If you live in Cornwall, hydro costs \$120.66 a month. This is because the Cornwall Electric Company buys directly from Quebec. By comparison, Kingston Hydro charges \$140.75 for that average bill, while Toronto Hydro comes in at \$160.91. Hydro One provides the lion's share of hydro outside urban areas, however, where a low density customer pays a staggering \$206.64 for the same hydro Cornwall pays about 40% less for. Chris commented

that he looks at Hydro One like UPS. They are the carrier of the electricity and must maintain the grid system, recovering their costs as they deem necessary.

One of his final comments drew a gasp from the audience that night. The Ontario Power Authority has made application for an 11% price increase to cover the cost of refurbishing our nuclear reactors. This added cost is to run for 10 years and, based upon past history, budgets for upgrading a nuclear power plant rarely come in on target. Prepare yourself for this one. The only light at the end of the tunnel is that Quebec has an excess of hydro power and, recently, Ontario contracted to buy some of it. Only time will tell how much it offsets this nuclear price increase.

Special thanks to Chris Weissflog for his presentation and for allowing me to share portions of his material in this week's column.

Cam Allen L.I.W. NHI ACI can be reached at [alltechconsultinggroup@gmail.com](mailto:alltechconsultinggroup@gmail.com) for any questions or comments.