

**My comments on the OEB Smart Meter Implementation Plan  
November 9, 2004 Draft Report  
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There were many articles in local papers in August on the one year anniversary of the power black out. The general message was that we did not learn our lesson! What did we do wrong that we have to learn a lesson? Lets see.

The old Ontario Hydro racket up over a \$30 billion debt. In 1997, the old Ontario Hydro had to shut down a total of 8 nuclear reactors (4 at Bruce and 4 at Pickering) because of poor maintenance and even poorer management. Some may even argue because of poor design. Remember when these reactors were first built? We were told that they were suppose to have a 30 to 40 year life expectancy. Some of these reactors did not even make it to 15 years. If I have my facts straight, the original estimate to bring all 4 reactors back on line at Pickering was just under \$1 billion and they were suppose to be up and running by 2002. By the spring of 2004, they managed to bring one reactor back on line and the cost was well over 2 billion! The latest estimate to bring a second reactor back on line at Pickering is \$1 billion. If they get this right that is over 3 billion for 2 reactors back on line. So they are more than 3 times over the original budget and they will only have 2 reactors back on line. It was suppose to be less than 1 billion for all 4! So what has changed? Same old stuff we are use to from the old Ontario Hydro. Massive cost overruns and continuous delays!

To correct for all the wrongs in the past and to make things better, In May 2002, the government of the day officially “de-regulated” the electricity market. They said the “market opened” and from this day on it suppose to be competitive. This could not be further from the truth! De-regulation is the wrong word! The electricity market today is as regulated as it ever was and some would argue that it is much more regulated today than in the past.

Somewhere along the way, the old Ontario Hydro ceased to exist and it was divided into 5 companies:

- 1 Hydro One (the transmission system and rural distribution system)
- 2 Ontario Power Generation OPG (the generating plants)
- 3 The Independent Market Operator or IMO (the company that operates the entire electrical system and process all settlements for power sales)
- 4 A company called Ontario Electricity Financial Corporation (OEFC) that is suppose to manage all the old Ontario Hydro debt.
- 5 The old Ontario Hydro Inspection services was spun off into a new company called the Electrical Safety Authority (ESA).

The local companies that distributed electricity that is the local Public Utilities Commissions (PUC's) and local Hydro Commissions were dismantled and new local distribution companies owned by the municipalities were created to replace the PUCs

and local Hydros. Ontario went from over 300 PUC's and local Hydros to about 95 Local Distribution Companies.

A new player was introduced into the market called the Retailer. Remember these guys? They are the ones that came knocking on your door trying to sell you electricity. Their claim to fame was that they could offer us a fixed price which was suppose to protect us from the wild competitive market fluctuations. Well, six months after the market opened in May 2002, except for the large industrial and commercial customers, the government of the day fixed the price of electricity! So much for Retailers. What ever happened to these guys?

Generation is now supposed to be competitive. That is, private generating companies will be allowed to generate electricity. Although some are, the majority over 70% of the generation is still owned by Ontario Power Generation.

Hydro One owns the transmission system along with all of the rural distribution system. Note that the local Distribution System Companies are owned by the municipal governments.

The IMO is suppose to be a neutral player that operates the electrical system and is the settlement house for all wholesale market transaction.

ESA is a Provincial Government authority that enforces safety rules for the industry.

The Ontario Electrical Financial Corporation (OEFC) is a Provincial Government run organization set up to manage the old Ontario Hydro debt.

With the exception of the Local Distribution Companies and of course the new player in town (the Retailers) along with some Generators, All these companies are owned by the Provincial Government. Although most of the Local Distribution Companies are still owned by governments at the municipal level, I would like to point out that it is somewhat unfair to group the Local Distribution Companies with companies owned by the Provincial Government. The local Distribution Companies have run and operated their distribution systems responsibly and do not have a history of massive cost overruns, project delays and massive debts. Having said this, Local Distribution Companies are government owned companies which means that there is room for improvement.

Our power bills now breaks down the cost of electricity into:

1. The actual Cost of Electrical
2. Transmission Charges
3. Distribution Charges  
(Some bills combine The Transmission and Distribution Charges into a Delivery Charge)
4. The cost for the IMO to administer and regulate the markets
5. The cost of the "old" Ontario Hydro debt (My personal favorite!)

There is also some extra charges for losses but supposedly we were also paying for these before the market opened.

O' by the way, did you notice that the distribution charges has gone up twice since the market opened in May of 2002? Distribution charges in some Local Distribution Companies increased by as much as 50% since the market opened.

And then the Blackout. Engineers are notorious for making impressive claims about their creations. Remember the Titanic? It was not suppose to sink. The Space Shuttle was not suppose to blow up! (neither on the way up nor on the way down). The power Grid is not suppose to black out! After the first major blackout in North America back in 1965 (some of us still remember that one) NERC (the North America Electricity Reliability Council) was created. The main purpose why NERC was created was to ensure that a blackout of the electricity grid was never to happen again! Engineers! some of these guys have big heads! Well, the guys at NERC now know how the Engineers that built the Titanic felt!

Anyhow, the government of the day is telling us that there is not enough generation capacity to meet our needs. Demand is going to outstrip supply and we all have to conserve electricity or else! They also created a new organization called the Power Authority. These guys are suppose to take on some of the responsibilities presently with the IMO (Independent Market Operator). Just pile it higher and deeper! Governments? They love creating bureaucracy and appointing officers (patronage type positions) with impressive titles that the only thing they know about electricity is that when they flip the switch, the lights are suppose to come on. The latest new "authority type position" being created is an "Implementation Coordinator" for "smart metering".

I agree with trying to conserve energy and of course electricity, but do we really need expensive government funded programs with fancy expensive "smart electricity meters" or fancy itemized bills for us to conserve? When you go fill up you car at the local gas station, the price is 78 cents/liter or 79 or 83. Whatever the price, you do not get a bill saying that 2 cents is for exploration, 4 cents is for drilling, 5 cents is to bring it to the refinery, 6 cents is to refine it etc. etc. If people want to see a breakdown of their gas bill or taxes for that matter or for whatever product, they can always go to the company websites or get the company annual reports and look the nice pie charts to see how costs are allocated.

The price of electricity can change on a monthly, bi-monthly, semi annually or yearly bases as per market conditions just like any other commodity. Do they really need to change the price of electricity every hour? Do they really think people are going to do their laundry or run their dishwasher at 2:00am to save a couple of bucks on the monthly bill?

It takes quit a bit of effort, but generating your own electricity is certainly doable. Many people grow their own vegetables and raise their own chickens! Lots of work but doable! Wind and solar can be used to generate small amounts of electricity. You can also use your bicycle to go to work and use a manual push lawnmower to cut your grass! You can also do your laundry by hand and hang it out to dry! Do you really need a dishwasher? How about a hot tub or a waterbed? Air conditioning? If you have one, how often do you use your swimming pool? How much electricity can a homeowner save? Only about one third of all of the electricity used in Ontario is used for residential. The remaining two third is used by business and industry.

The Draft report on "Smart Meters" released on November 9, 2004 claims that the total capital cost to install smart meters which include the meters, communications and changes to Distributor systems will cost 1.07 billion and it will cost an additional 50 million annually to operate these systems.

Based on these government run companies (such as Ontario Power Generation previously Ontario Hydro) past performance on estimating costs, 1.07 billion can quickly become 3 or 4 billion and an operating cost of 50 million a year can quickly become 200 million. Also based on these government run companies past claims on performance, I do not believe the claims being made about the reliability and functionality of smart meter technology specially the wireless communications to these meters ( NERC? the Titanic?)

The draft report is proposing to have 800,000 meters changed by 2007 and the remaining 3.5 million by 2010. So what do we do with about 4 million used meters? On average each one of these meters takes up about 1 cubic foot of space. That would require about 4 million cubic feet of landfill space. I figure that is how much space is available inside the old Ontario Hydro glass building on University and Collage in Toronto. Perhaps we can fill it up with all the old meters and convert it to a public museum for the public to see how their money is being spent. And if for some "unforeseen" reason "smart meters" don't work, we will still have the old ones that we can go back and re-install!

If people need a little incentive to conserve, how about increasing the price of electricity? Remember Economics 101? Supply and demand? It is going to happen anyway. The government just finished telling us that the price of electricity is going to increase by 50% by 2010. If the price of gas goes past \$1.00 per liter, I don't think you will be seeing to many people driving big fancy SUVs! And if the price of electricity increases by 50%, do we really need "smart meters" to remind us not to use too much electricity?

Government incentive programs to change people's behaviors and habits may have some success. You never know until you try but every time I here about increasing government spending I get shivers down my spin. Government incentive programs tend to be make-work projects that usually end in failure. The reality is that government cannot do electricity. At least not the Ontario government. The sad story about Ontario Hydro proves it.

There is also a big debate going on about how we should generate electricity. The traditional way was coal, oil, hydro, nuclear and natural gas. The new environmental friendly ways are wind, solar and possibly fuel cells with some new and improved natural gas methods. There are others such as: burning garbage, collecting methane gas from garbage, geothermal and ocean waves to name a few. You may also have heard of hydrogen. I am by no means an expert on generating electricity but, I do know that comparing wind and solar to the traditional ways of generating electricity is like comparing an automobile to a horse drawn carriage (wind and solar are like the horse drawn carriage). Burning garbage and collecting methane gas from garbage are still not benign. Suitable geothermal locations are very limited thru out the world. Ocean waves is not a well developed technology and is limited to costal areas. Fuel cell technology still has a ways to go before it can be seriously considered for generating large amounts of electricity. Hydrogen is pie in the sky stuff! If you have not heard of Don Lancaster, you can go to his website and download his newsletter on Energy Fundamentals at <http://www.tinaja.com/glib/energfun.pdf>. The section on Hydrogen Realities will tell you why. So there really is not much choice out there! Unless perhaps you talk to some Engineers! I am sure these guys have dreamed up dozens of ways to generate electricity. All they need is a "little bit" more funding to perfect their generating system! And who knows? Their new generator may never stop generating! Although some impressive gains have been made, they still have not found the magic pill to cure cancer. So I doubt that they will find a benign way to generate millions of KiloWatts of electricity any time soon!

Sustainable, renewable and responsible energy production along with responsible energy usage. Is there some place on planet earth where this is happening? There are numerous examples in history where technology was used to do good things or used to do bad things or was abused and caused permanent harm and damage to life and the environment.

So here is the lesson I learned from the Black Out. The further these government run electricity organizations get into debt and the more bureaucratic they become, just create a bunch of new rules and regulations along with complex metering and pricing to further cover up the mess and try to confuse the public into thinking it is their problem because it was their wasteful behavior that created an energy shortage.

Would private organizations have done a better job? Probably not, but we do have a pretty good example in Canada of an investor owned utility. Ever heard of TransAlta? They are the largest investor owned utility in Canada. They provide electricity for most of Alberta.

After our great grand children finish paying off Ontario Hydro's debt, do you think utility companies will do a better job? The odds are against them!