

The Drummond Report is now being quoted by the media or anyone with a special interest about either the value of "green energy" or the waste being perpetrated by the government or industry. The report appears to offer the "facts" to support their recommendation but it falls short of characterizing the problem properly or the REALITY behind the waste. Either media spin or error of omission or ignorance of how these recommendations were arrived at has clouded the picture, and as usual the truth is somewhere else. Here are some verifiable electricity facts and realities in Ontario about those auditor and media claims and the direction this controversy is taking us.

The recent Ontario Auditor General's Report and the Drummond Report both follow conventional logic around electricity pricing and simply report the Ontario Power Authority's (OPA) pricing instead of investigating the way that pricing is arrived at. Somehow OPA was authorized or decided themselves that all the new renewable energy projects (FIT or MicroFIT) should be paid a tariff rate that returns ~11% profit to the generator. This likely comes from past large government project formulas like those used to fund nuclear power plants with tax money. The 80cents/kWhr has received hours and hours of media debate as if to compare it to the 5 or 9 cents on your hydro bill. Both Drummond and the Auditor then site the OPA's failure to reduce these rates soon enough, as resulting in over payment or losses of \$950 million of your future tax dollars. This is poor critical thinking and a false association. The entire pricing formula is still unexplained and not justified. For MicroFIT many private citizens or businesses paid over \$100,000 in after tax earnings to build a single 10kW MicroFIT project on their private property with an awful lot of red tape, costly delays and interference from various municipal, provincial and federal governments in order to earn the 80cents.

In REALITY the OPA has no business regulating the profits of private citizens or companies. They should simply set the price they are willing to pay based on the forecast real future value of electricity and get out of the way. Let the individual decide if it is more profitable to put the system on the roof or on the ground, to use a tracking system or not. The current constant meddling with prices and rules has destroyed many fledgling enterprises. It has irreparably damaged new technology companies who established themselves in Ontario to help develop the renewable energy manufacturing, installation and service industries. The uncertainty has continued since the program was first announce and now it is only the larger multinationals who remain or are willing or able to continue.

Meanwhile, new generator companies (electricity producers) have compromised their roofs by drilling hundreds of holes (that may cost them a new roof someday) and hired contractors, electricians and safety inspectors just to begin production. Many lost money or entire projects as politicians and the OPA played with or continued to change rules and pricing every few months. This REALITY is hardly the "risk free windfall" that the media or the auditors like to site. These individuals will pay a large fraction of that 80cent back to both federal and provincial . . . and municipal governments in taxes for the next twenty years. Meanwhile, the government will collect millions more in tax dollars from the thousands of installers and retailers who participate in building these installations. In fact, after accounting for inflation, taxes, operating costs and maintenance the owners of such systems will POSSIBLY make 8% profit for their investment. . . Pretty good for the time being, but not "guaranteed" to be nearly as valuable in another 10 or 15 years when the current financial crisis has subsided. If electricity prices rise as expected that fixed price will benefit only the taxpayers.

In addition, since these owners must sign over all "environmental attributes" to the OPA in order to get the contract with the Ontario government, it is not the owner but the OPA who will receive the carbon credits or other yet unknown benefits for EVERY kilowatt EVER produced by the system. As worded in the contract these benefits are, "permanently and irrevocably" transferred to the province, so in fact the OPA (funded by taxpayers), will not actually pay 80.2 cents but a significantly less net amount, less the

taxes, devalued money year after year and even retain carbon credits beyond the 20yr contract period.

The media also likes to point out how electricity prices will “rise 45% on the next few years” or how they have doubled or tripled in so many years. If I pull out some old Ontario Hydro bill from the past 10-12 years there is a much different picture of electricity prices in Ontario compared to the spin of auditors, columnists or talk show hosts. These bills are REALITY. The REAL COST of electricity has been constantly kept arbitrarily low here in Ontario for decades, to appease the public and win elections. If you believe the screams that electricity prices are too high and out of control in Ontario you would be quite mistaken. StatsCanada says "Canada has some of the lowest prices for electricity in the world, mainly due to Canada's natural resources, such as inexpensive hydro (i.e., water resources) and a vast coal supply." This ignores the unpaid cost of nuclear and coal generation. Meanwhile, the Ontario government has committed to closing coal fired plants while at the same time struggling to keep constituents happy by keeping electricity prices from rising, hence a recent 10% rebate (actually a tax reduction) on your latest bill. The REALITY is Ontario electricity costs less than it did a year ago so the Drummond Report is quite right in recommending they drop the subsidy simultaneously with the debt charges, as soon as possible, to avoid another taxpayer revolt. Here are three bills from my home in the past decade, in which I used no alternate energy source, just the Ontario grid. These are REAL costs per kWhrs including all the line losses, taxes, time of day, delivery charges and debt retirement.

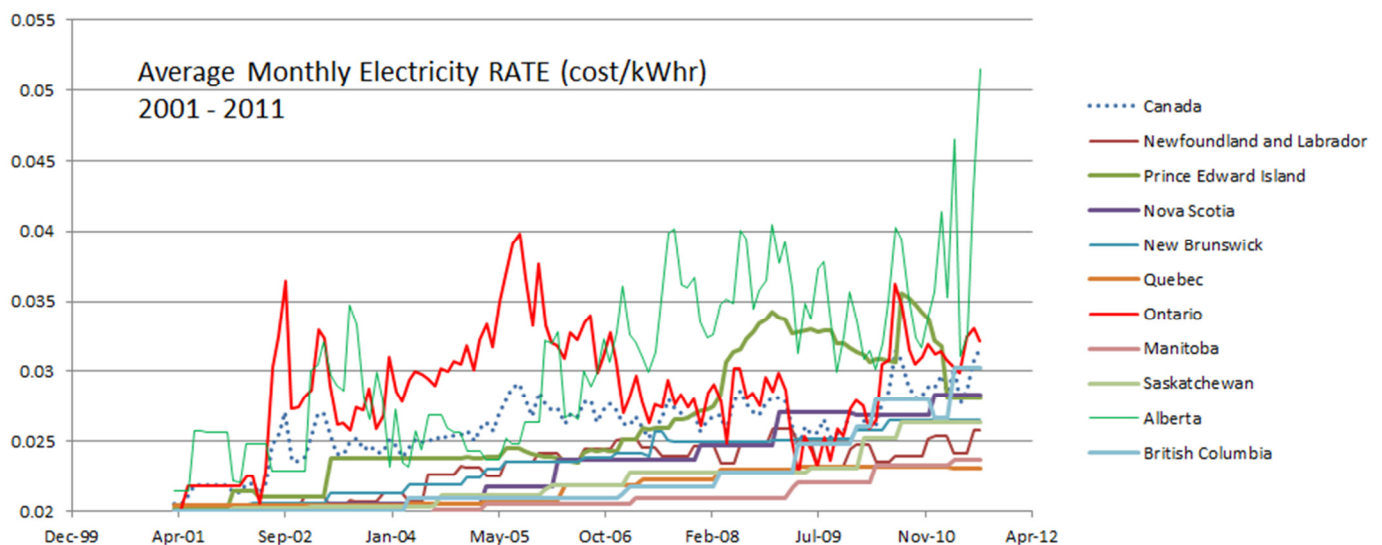
Aug 1998 1230kWHrs cost me \$124.24 = 10cents/kWWhr in 1998

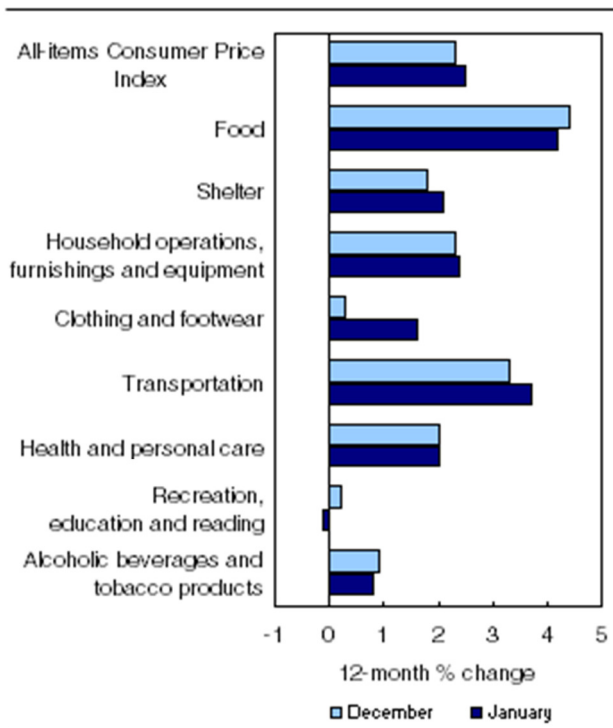
May 2003 2140kWHrs cost me \$203.04 = 9.5 cents/kWWhr in 2003

Nov 2010 757kWHrs cost me \$124.40 = 16.4 cents/kWWhr in 2010

Jan 2012 781kWHrs cost me \$112.81 = 14.96 cents/kWWhr in 2012

By the Bank of Canada method of calculating inflation, 10 cents in 1998 equals 13 cents in 2012, so for me at least, the cost of electricity has risen 49% in the past 12years, so while inflation rose 30%, its not the radical impact you hear on the news. Yes one might rightly claim that the REAL cost of electricity has increased beyond Canadian Consumer Price Index of inflation (CPI). But the CPI is usually quoted without electricity. If electricity was part of the CPI then the "REAL inflation rate" would be a lot higher than currently reported and more in line with REALITY.





In Germany electricity costs over 30 cents/kWhr. In Jamaica it's 25 cents. In Denmark it's over 42 cents. In Sweden 27cents, while we here in Ontario complain about 14 or 15cents. That same UN source quotes Canada as 6.8cents (likely not including taxes or delivery charges). Why is the electricity price so low in Ontario and Canada generally, compared to other countries? For one, those countries charge the actual cost of electricity. For another, Canadian and especially Ontario politicians have consistently avoided acknowledging that we never paid for the nuclear or coal fired power plants we built prior to 1995 with a promise of cheap inexhaustible energy. We don't even want to think about the full life-cycle cost of those power plants, let alone the energy production costs we've been subsidizing with tax debt dollars for decades. If we had been paying the REAL cost of that energy, since 1968 when they were built, those reactors might now be paid for and we'd have literally BILLIONS more to invest in cleaner safer renewables, so when comparing REALITY to a pipe dream it is not good critical thinking to suggest REALITY is the problem.

I often wonder where the NIMBY folks would prefer to get their electricity from instead of coal and nuclear? There is not much else besides sun and wind and tides perhaps. If you follow the media hype, the well-established environmental and health impacts of coal fired plants seem to pale in comparison to very low intensity noise in rural environments, experienced by some hyper-sensitive humans, who's class action lawsuits benefit no one but the lawyers. If turbine noise was a significant health risk, then half of Germany and all of Denmark would be up all night filling hospital emergency rooms and every freeway in Toronto would generate hundreds of thousands of health claims a month. Some people cannot even enter a shopping mall or a hair salon due to their hyper-sensitivity to certain chemicals, yet we do not stop building malls or ban beauty salons for those few REAL but isolated impacts. If we stop all wind production while we study this another decade how many more lives are lost to pollution and where will the energy come from? Ontario politicians stopped the Wolf Island off-shore wind farm for several years, at considerable cost, on media hype from some local residents who had no scientific data or rationale. They simply did not want it in their back yard. . . .pardon me, in their view off shore. This

happened in Nov 2006, barely 10 days after the Danish Energy Authority published an 8 year study on off-shore wind farms that concluded there was a net benefit to the local marine environment BELOW the water line and no significant positive or negative environmental impacts above the water, yet the Ontario government needed to spend more tax dollars on their own off-shore wind study even though the Danish report cited over 75 supporting detailed scientific studies on all aspects of human, marine, avian and socio-economic or environmental impacts. If detractors have any REAL competing evidence of negative effects of wind they should weigh it against the value of burning coal or a nuclear catastrophe like Fukushima or Chernobyl and the media and government should not be overly influenced by the vocal NIMBY few who will refute any evidence contrary to their agenda of BANANA . . (Build Absolutely Nothing Anywhere Near Anything).

This I know about personally; there is often a media story interviewing a “concerned citizen” about small wind turbines killing birds or bats, or how noisy they are. This is again poor critical thinking, extracted from megawatt wind farm studies, that itself is insignificant considering other causes of bird and animal kills. Any deaths that can be attributed to wind are so small in number as to be statistically insignificant in REALITY. Since 2002 I have personally made over 1000 visits to hundreds of small wind sites all over the world (many sites multiple times) and I have yet to observe any credible evidence of a single bird or bat kill . . ok, . . ONCE . . I did see one fine breast feather on the housing of a 1kW machine we were servicing in Capo Verde Africa but no evidence of a body anywhere nearby, hardly a confirmed kill, but a possibility . . perhaps. Meanwhile, on a single 2 hour drive to one site in southern Ontario in 2005 I personally counted over 50 blood splats on the highway I was driving on, and those were just the recent bloodstains that looked like they were less than a week or 2 old. . . and THAT was in addition to the 53 actual bodies I counted of skunks, porcupines, groundhogs, jack rabbits, deer, seagulls, ravens, dogs, cats and other birds and mammals, yet no environmentalist is screaming about that carnage that happens on every road and highway in Ontario EVERY year.

Environmental and animal activists should better focus on a more significant death rate that is easily measurable and not keep repeating the hysterical unsupported claims of an unrelated phenomenon. Yes, there are bird and bat kills documented by wind farm studies that despite the numbers are still not statistically significant compared to glass buildings. Furthermore, those facts about “wind farms” do not apply to personal wind turbines, yet the public is conned into believing it is by the sensational and easy stories it generates. Small wind is NOT big wind . . don't confuse the two. The only two things wind farms and personal small wind turbines have in common is wind and bureaucracy . . and those may not actually be two things.

Either sun and wind are good clean energy sources and we should accelerate augmenting and replacing fossil fuel generators . . . or we should not. Indecision is a decision itself.

Given the importance of the limited remaining fossil fuel we know about, any rational government should at least drive innovation around cleaner burning methods for all sorts of fuels including coal, so we could someday make responsible use of its vast reserves of energy here in Canada as well as in under developed or less conscientious foreign lands. The rest of the world needs cleaner energy as much as we do and Canadian/Ontario ingenuity and industry could lead the way and grow our economy with new products and new jobs along the way. Meanwhile, there are better ways to convert energy than fossil fuel or nuclear power plants that require wasting it in transmission equipment.

For example, for a cleaner, more efficient planet we should give priority to "produce and use at source" generators and say no to governments who become the "middlemen" for personally generated energy.

Every kilowatt you produce and use at source is one less we need to burn and pollute or waste in the distribution process. When we generate 100watts by burning fossil fuels, less than 27 watts actually arrives at the light bulb. By contrast, when we “produce and use at source” (from wind and sun), we get to use over 95 watts at the light bulb from every 100watts collected. Better than that we produced virtually no emissions and the cost of the fuel was also ZERO, compared to the cost and pollution from mining, transportation, refining, distributing, maintenance and waste disposal that comes with every fossil fuel watt we burn. Produce and use at source is not 50% better, its an “order of magnitude”, (that’s at least 10 times) more efficient and infinitely cheaper than digging up, burning and distributing fossil fuel energy. With distributed generation the whole electrical grid system becomes more efficient, reliable and cheaper for everyone. In addition, a whole new manufacturing sector can grow out of designing, building and installing personal energy systems wherever it is practical, even the balcony of a high-rise. The only thing in the way of this highly efficient energy model is political insistence on maintaining its monopoly on electricity generation. Governments should better focus on investing in and removing barriers for their own local industries or at least those who have their primary holdings here in Ontario or Canada instead of trying to control and tax every kilowatt the public needs.

Beyond the commercial grip of every utility provider, energy is a fundamental human right, as basic as air and water. Try living for a day or two without electricity. Unless you want to revert to being a hunter gatherer, that is a REALITY, and every human on the planet has the right to heat energy or electricity captured from the sun or wind for FREE, and without interference. Remember, ALL energy on earth comes from the sun, which creates the wind and chlorophyll that leads to the biosphere and eventually gas, coal and oil. I can fully appreciate the need for large mining, drilling and refining companies to be paid for their extraction, refinement and delivery of energy and the taxes that are collected as part of that commercial chain . . . however, when it is for personal survival, sun and wind, are different. Surely we would not think of taxing air for the oxygen it contains, nor is it practical to meter or tax electricity from a cell phone charger or a few personal solar panels or the water from a farmer’s well. Electricity is easily available to everyone who wants it. It is everywhere on the planet and as readily transformed as the oxygen in your lungs . . . It is time to recognize this fundamental human right and allow individuals to collect, store and use solar and wind energy for themselves on their own property without interference from any neighbour, company, government department or agency. Once you own the equipment the energy is both clean and FREE, and everyone benefits, even the grid and those who do not own such equipment. In fact, it is cheaper and tax-wise better to subsidize those systems rather than pay people to produce commercially for the utilities.

Roof mounts produce the LEAST energy per dollar invested about 20% less. They come with many other problems like roof leaks and rotted trusses over 20yrs and in Canada at least snow cover. They are unlikely to be cleaned over the years producing even less energy than they could if they were cleared of snow.

Ground Mounts on the other hand can produce as much as 34% more energy from for the identical panels. If MicroFIT energy produced with "after tax" dollars is worth 80.2 cents on the roof then it's worth more on the ground.

Why is OPA paying a PREMIUM for low efficiency roof systems if "Every Kilowatt Counts"

Here is a better "agenda" for a more prosperous Ontario and a better planet.

1. More development of wind and solar technology companies by encouraging privately owned and operated generator systems from, wind, solar, hydro and bio sources,
2. More research into cleaner ways to burn the remaining limited fossil fuels we have,

3. Convert FIT- MicroFIT generation subsidies to lower cost initiatives that subsidize the generation equipment rather than the energy itself on "produce and use at source". This energy for personal non-commercial use does not need to be metered, taxed or regulated beyond simple product safety and,
4. Consider only the environmental impacts that matter while requiring real compensation from commercial projects for the abnormal impacts that affect only a few individuals.

If we follow conventional electricity generation thinking or delay every energy project while we study or respond to every individual complaint, we lose sight of the greater benefits for all, and as a result, we will only manage to maintain direction and speed towards the edge of the cliff in front of us. We will also not have protected the vocal minority any better than the rest of the population and we all suffer the eventual breakdown of society over the lack of clean air, energy, fuel and other vital resources. Status quo is a recipe for failure and leaders who simply straighten the deck chairs and keep pandering to the media and masses to get elected will be the only ones ahead of you at the lifeboats when our earth-ship takes on an irreparable hole. We need leaders to lead.

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