

From: Dorene Rew [darew@telusplanet.net]

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To: Gordon Howell--HME; Mary Griffiths; greg.melchin@assembly.ab.ca; premier@gov.ab.ca; wally.brown@gov.ab.ca; anne.denman@gov.ab.ca; Mary Beth Hansen; wade.vienneau@gov.ab.ca; Info@aeso.ca; reddeer.north@assembly.ab.ca; Peter Wong

Cc: kevin.taft@assembly.ab.ca; Brian Mason; mayor@redder.ca; martha@rtinc.com

Subject: micro-gen06: statement of concern re: AESO process change consideration

Dorene A. Rew
31 Parkview Ave.
Red Deer, AB T4P 1K1

August 4, 2006

AESO –Alberta Electric System Operator
2500, 5th Ave. SW
Calgary, AB T2P 0L4
Email: info@aeso.ca

Re: July 27th AESO Process Change Consideration
For Micro-generation

This letter is a Statement of Concern regarding the above process change for micro-generation.

On the AESO website it says that the AESO “are responsible for the safe, reliable and economic planning and operation of the Alberta Interconnected Electric System (AIES).”

In addition the AESO statement says “We provide open and non-discriminatory access to Alberta’s interconnected power grid for generation and distribution companies and large industrial consumers of electricity.”

Although the statement does not actually say *large* generation companies *only*, your policies are extremely unfriendly towards micro-generators of electricity. It would therefore appear that you are not mandated, or are improperly prepared, to deal with micro-generators and small exporters.

This is certainly the impression I got when reading the latest version of requirements for micro-generators. I can see very little change from the previous requirements for acceptance of electricity from micro-systems into the grid.

I mean, not everyone ‘wants’ to give excess power to the grid for nothing and yet it is still the only way to avoid becoming a Pool Participant (read become a corporate citizen). While the new

proposal, in its favor, would allow the micro generators who don't wish payment for export of power to avoid paying the participation fees, (and 1.1 actually acknowledges that fees are typically higher than the profits which micro-generators could make) none of the changes make it any easier for a micro-generator to be paid for excess generation going to the grid.

So, if the micro-generator graciously allows any excess electricity produced to flow into the grid, who benefits from this free power going into the grid, if not the generator?

2.

The Ontario Sustainable Energy Association says that line loss constitutes about \$.01/kWh to the system or 8% of generation. With Ontario power sales at about \$9 million, some \$700,000 went off into cyberspace. What is the loss from lines in Alberta? Are micro-generators making up for line loss? Or does the sale of this power pad corporate profits? In Alberta, we don't need another form of corporate welfare for the fossil fuel industries. See Postscript for more thoughts on this.

The province continues to subsidize the coal industry, the electricity industry, the oil and gas industry, the oilsands industry and most recently the coalbed methane industry (CBM/NGC), but when micro-generators would like some sort of subsidy – which would amount to no more than creating a level playing field - they are met with foot dragging, masses of complicated paperwork and they then have to throw themselves at the feet of the EUB gods and other regulators in order to receive permission to export a few kW/ hour into the system.

Elsewhere around the world, governments are actually offering incentives to increase the numbers of micro-generators and therefore the amount of pollution free power generated. Many have also set targets for the amount of renewable energy they want to produce in the future. They are also providing simplified “Standard Offer Contracts” and in many cases they are also offering “Net Metering,” not to mention reasonable pricing for the electricity generated, in accordance with the type of micro-system doing the generating.

While the government of Alberta brags that they were the first in Canada to have a climate change policy on paper, it seems that this same government has not considered how many tonnes of GHGs clean energy could off-set, from all the fossil fuel generated emissions, if they actually introduced a renewable energy policy that encouraged rather than discouraged people from putting solar systems on their rooftops or micro turbines in their farmyards.

Indeed, many countries – including poor countries such as India and China – in addition to encouraging the growth of ‘green’ power are setting targets for renewable energy production and pollution reduction, because they realize that their future existence depends on reducing their

footprint on the planet. Conversely, Alberta and the new federal government are expecting some pie in the sky 'techno-fix' to rescue us just before the planet plunges into a catastrophic warming stage.

I say this because I have also just read the Alberta government's recent draft of its Integrated Energy 'Strategy,' which seems to promote 'business as usual' only more so, in contrast with the rest of the world where most nations have been implementing energy efficiency plans and encouraging the growth of their renewable energy sections. Canada and Alberta are being left far behind instead of being the great leaders in innovation that they profess to be.

3.

Renewable forms of energy in this misguided draft 'strategy' only receive a few one-liner mentions, with no targets for increased production, no plans to create energy efficiency incentives, and no plan at all as to how climate change/global warming can be dealt with. This is incredible given that the Alberta fossil fuel industry currently spews about 33% of the Canadian total for greenhouse gases into the skies over our province. This amount will soon rise exponentially as more oilsands projects come on line, more CBM wells are drilled and so forth. Not to consider these issues is suicidal, in my opinion.

Now, since the AESO is charged with "safe, reliable and economic planning and operation of the Alberta Integrated Electric System (AIES)," wouldn't it be prudent for the AESO to consider the costs of providing incentives for individuals and businesses to become more energy efficient (thereby placing less demand on the system) against the costs of building more capacity, or the costs of building more mega-generators which use fossil fuels?

A recent tele-conference held in Calgary on July 19/06 and posted on line (www.centreforenergy.com) was titled "Keeping the Lights On." The transcript of what was said quoted almost all of the speakers as saying that our present transmission system is old and needs to be replaced and also that additional lines were needed due to increasing demand. Demand growth, I believe, was said to be about 2% per year for the North American market and about 3% per year in Alberta.

Evan Bahry, the executive director of the Independent Power Producers Society of Alberta happened to note that his group represented almost 100% of the Alberta power supply. This must give this group tremendous influence regarding what happens in both generation and transmission of power in Alberta.

Mr. Bahry said that wind generation in southern Alberta was constrained by transmission

capacity. New coal-fired power is equally constrained according to Mr. Bahry, although natural gas fired production seems to have priced itself out of the market just now, except for co-generation.

The AESO's 'fastfacts' bulletin lists several new transmission lines which are approved to proceed, although some (such as Altalink's N-S line) are being protested by local landowners – and rightly so in my opinion, because the footprint of these power lines, oil and gas facilities, pipelines, water lines, sewer lines and so forth which are criss-crossing the same land farmers need to grow our food is affecting agricultural production. Since everyone needs to eat, keeping enough land to grow crops on should be the number one priority. Anywhere but in Alberta, at least, food production would have priority.

How many of the upgrades or new lines would really be needed if energy efficiency assistance were given to both individuals and businesses? I have read several studies which suggest that 20 to 30 percent less consumption could be achieved.

4.

However a study done by the Canadian Gas Association (CGA) and Canadian Electrical Association (CEA) – parties, incidentally, who have a vested interest in the *status quo* - was released to the press in July, saying that energy efficiency could only reduce demand by 10%. The Pembina Institute has refuted that figure and stated that in the US and Europe, 20% or better reductions are expected over the same time frame used by the CGA and CEA. Even the Ontario Power Authority has better expectations.

Both Ontario and B.C., according to the transcript, have plans to “manage consumption,” which I assume to mean ‘work towards energy efficiency targets.’ Alberta; however, has no energy efficiency targets or renewable energy targets. Again, let me say that I find this total lack of planning for the future politically suicidal on the part of the government and certainly not in the public interest.

The Ontario Independent Systems Operator representative, Don Tench (in regard to Ontario's plan to manage demand and promote ‘green’ power) is quoted as saying that in Ontario, “one of the challenges we face is a very strong desire on the part of the public for sustainable and clean energy sources.”

I put it to the AESO that most Albertans also have those same desires, but acting ‘in the public interest’ doesn't seem to have the same priority here as in Ontario. Indeed, both the Klein government in Alberta and the Harper government in Ottawa, have or are in the process of withdrawing what few programs the former Liberals put in place to improve energy efficiency.

Earlier in the year the federal government axed a program that would have helped poor Canadians increase the energy efficiency of their homes. An article in my last Suzuki Foundation newsletter says that the most recent casualty was the billion dollar, Green Partnership Fund designed to help provinces with climate change projects.

Does this mean that the big story filed out of Edmonton on June 30/06 that “Oil Rich Alberta Embraces Solar Power” will turn out to be just so much more hot air? The story said that Climate Change Central’s ‘Alberta Solar Municipal Showcase’ (with funding from the above mentioned federal Green Municipal Fund) would spend up to \$350,000 over two years installing grid-connected solar panels on the rooftops of a few municipal buildings across the province.

While slapping solar panels on municipal rooftops is a good thing, a real plan is needed to help the average Albertan.

With many people struggling to pay upward spiraling utility bills, and given what I said about the complexity of getting grid-connected, just how many people can afford to do this? Can’t a province as rich as Alberta offer green power incentive funding to builders of new homes and to individuals wishing to upgrade older homes?

5.

I fully realize that any major changes to energy policy must come from Alberta Energy, via the legislature and then trickle down to all the other regulating agencies such as AESO. While I found the new draft ‘strategy’ extremely disappointing, I and many other Albertans will be pressuring the government for changes that more fully reflect the wishes of Albertans.

I would like to know where the Alberta Utilities Consumer Advocate falls into the above political equation. The AUC, according to its representative David Gray, who spoke at the tele-conference, has (as one of its mandates) to “look after the little guy” and to “...Challenge the sometimes industry centric types of policy recommendations....”

I hope to forward this letter to the AUCA as well as all other departments mentioned in this letter. Do other agencies actually have a mandate to serve the public? The AESO is free to forward my letter to all interested parties I may have missed.

David Gray also noted that “The cost to the economy of having any sort of blackout is so large that it must be avoided.” He said this before the July 24th rolling black-out. Where I live we’ve had numerous brown-outs which are very hard on some equipment.

As the Canadian Electric Association representative at the conference, Eli Turk, so aptly put it “Electricity really does underpin every aspect of society.” I would agree with what he said, but would like to add that while electricity must remain affordable for all of society (this is no synonymous with cheap), it must be used responsibly – read energy efficiency measures taken. It must also be generated in a responsible manor, using technologies which will not tax the life support systems of the planet on which we all depend.

To do this will mean that the AESO and the other bodies which govern the way electricity is produced and distributed in this province will need to be overhauled in order for them to be in line with the approach the rest of the world is taking. The Alberta government seems to think it exists in a vacuum somewhere in space. The time is fast approaching when Canada and Alberta will be penalized on the world market for producing and exporting ‘dirty’ energy.

Solar, wind and other renewable technologies are sufficiently advanced not to be treated as unreliable or experimental. However they are an emerging industry which needs government support. What they require most is a regulating department that understands their different needs. Some countries, such as India, have developed renewable energy departments in order to provide the needed assistance to these fledgling industries. I would suggest to the AESO that perhaps this would be the way to go in Alberta since the regulatory bodies here, (such as the EUB) with their long history of association with the fossil fuel industries, do not appear able to change the way they do business in order to accommodate the needs of renewable energy generators.

6.

It is my view that the most economically viable way to ensure that the “lights stay on in Alberta” is to implement “managed consumption” as a number one priority. If there is still a need for new generation sources and/or new transmission lines, then the province should consider setting a target according to how much of this new generation should come from renewable energy sources. Consideration must also be given to how this new transmission capacity is built. Megalithic transmission towers may not make either security or economic sense as the planet warms and ice storms increase in number and wind, lightning and rain storms increase in intensity. Indeed, some scientists and economists are saying global warming will exacerbate the spread of terrorism, due to population disruptions from sea level rise, deepening drought conditions and food and water shortages.

Thank you all for reading me out.

Yours truly,

Dorene A. Rew
Environmentalist and concerned Albertan

POSTSCRIPT: SOME GREEN FACTOIDS

- Over its 30 year life span, a photovoltaic system with an area of 10 sq.m. can spare the planet up to 40 metric tons of CO₂. This research, by the international solar industry, was based on a worldwide survey of existing studies done in 26 OECD countries.
- The Aug.1/06 issue of USA Today (on line) lists grants and tax credits offered under the new US energy bill. A tax credit of 10% of the cost or a lifetime credit of \$500 is available for energy efficiency upgrades. If homeowners install solar voltaic systems they can claim a credit of up to 30% or a max. of \$2,000 per year. A separate credit of \$2,000 per year is available for solar powered hot water systems.
- In Florida, Jeb Bush (not to be outdone by bro. George) put aside \$2.5 million for solar and efficiency. The Florida rebate is up to \$4 per watt for solar electric systems. The maximum rebate for PV is \$20,000 for homeowners and \$100,000 for businesses. That is on top of the federal credit. Other states have similar programs. From the July 1/06 Sarasota Herald-Tribune.
- British electronic retailer Curry, just decided the time was right to offer discounted pricing for PV systems. Government grants now cover up to 50% of the costs of many energy saving devices for British homeowners. From The Independent, Aug.1/06.
- The Standard Offer Contract which the Ontario government is about to implement simplifies the process for micro-generators and provides them with fixed pricing at a rate which encourages this fledgling industry. Ontario is offering 20 year contracts with price reviews at intervals. Other countries have shorter contract periods. About a dozen countries around the world are using SOC's, or Advanced Renewable Energy tariffs, or Feed-in-tariffs as they are called elsewhere. Several US states as well as some Canadian provinces have or are considering SOC's. These facts are gleaned from the Ontario government website and in part from a news release (March 22, 2006) by the Canadian Solar Industries Association.

Several countries, states and provinces also have aggressive targets to increase the use of solar PV or wind generation. Ontario plans a 5% increase in renewable power by 2007

and a 10% increase by 2010. South Korea has a solar target of 1,300 MW by 2020. California announced a solar target of 3,000 MW by 2017. Japan's solar target is 100,000 MW by 2030. China has partnered with BP in a joint venture. Beijing aims to increase solar power to 10,000 MW by 2020. While India has great solar potential it has chosen to push wind power and already surpasses Denmark in total installed capacity. Some 4,250 MW are installed and the average growth rate has been about 36% over three years. China has a wind generating capacity of 1,025 MW and a growth rate of about 39%. These facts have been taken from the United Press International, July 28/06, Reuters 2/12/05, and the Ontario Power Authority website.

A Canadian Solar Industries Association news release, dated March 22, 2006, says that Canada lags behind the world in solar energy with only about 13 MW (as of 2004). The small size of the PV market is primarily due to the lack of government support. Prior to the Ontario government announcement of its SOC program, Canada was the only reporting IEA nation with no support programs for PV.

The British government has set a target to have all government buildings carbon neutral by 2012, according to an Associated Press article, dated July 31/06. This would save an estimated 800,000 metric tons of carbon pollution (GHGs). The government also envisions a 30% reduction by 2020.

“Saving the world one building at a time,” by Steve Paul of the Kansas City Star (July 23/06) is the story of Arizona architect Edward Mazria who has proposed that new buildings in the US could cut reliance on fossil fuels in half in the next few years and to zero by 2030. For details see his website www.architecture2030.org. By Mazria's calculations, commercial and residential buildings (if all the materials and construction costs were included) account for about 48% of the American fossil fuel consumption annually. He says global numbers are about the same. Mazria now has some 78,000 members of the American Institute of Architects behind him and recently, the U.S. Conference of Mayors adopted the challenge for all buildings in all cities in the U.S.

A CP news story out of Calgary (07/23/06) said that TransAlta Corp reported second quarter net earnings of \$86.4 million. Thanks to an Alberta corporate tax cut and the promised federal tax cut, the company reduced income taxes by \$64.2 million over the same time last year despite lower power prices and inflation. TransAlta is one of Canada's largest independent power companies with 51 plants in operation or under development in Canada, the US, Mexico and Australia.

A CP news story filed by Dennis Bueckert (July 20/06) says that hints are being dropped that the federal conservatives might be announcing what has been dubbed as "Green Plan II" in October. The contents are sketchy at best, but, according to Bueckert, Bob Page, a senior official with TransAlta, said he has been told the plan will contain a Clean Air Act...and regulations for larger greenhouse gas polluters. If the part about regulating GHGs for large polluters is true, the Alberta government and the coal-fired power industry might want to ponder just how much 'dirty' power they want to send to the US or whether they might want to diversify away from the most polluting sources.

Ottawa, July 27, 2006 (Globe-Net) – Sales of grid connected solar photovoltaic systems rose over 400% in the first half of 2006, estimates the CanSIA. The association credits this increase to the province of Ontario's recently announced Standard Offer Program which pegs pricing of PV generated power at 42 cents per kWh. CanSIA estimates that over 250kW of grid-connected PV systems have been installed so far this year. This contrasts with a total of 110kW for the entire country in 2004.

Canader and Alberta, eh! Forward thinking province and progressive G8 member country or slumbering dinosaurs? Leading the world in innovation? I think not. The time for action is now, I say. Status quo and business as usual are not options. If human's want to be around for the 22nd Century, a lot of priority rethinking is needed. The doomsday clock is ticking for the fossil fuel industry and the sooner these industries begin to diversify the better chance they - and all other creatures on this planet - will have to 'live long and prosper.' - Dorene A. Rew

