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Tuesday 7 February 2006

Journal des débats (Hansard)

Mardi 7 février 2006

**Standing committee on
justice policy**

Energy Conservation
Responsibility
Act, 2006

**Comité permanent
de la justice**

Loi de 2006 sur la responsabilité
en matière de conservation
de l'énergie

Chair: Shafiq Qadri
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LEGISLATIVE ASSEMBLY OF ONTARIO

ASSEMBLÉE LÉGISLATIVE DE L'ONTARIO

**STANDING COMMITTEE ON
JUSTICE POLICY**

**COMITÉ PERMANENT
DE LA JUSTICE**

Tuesday 7 February 2006

Mardi 7 février 2006

The committee met at 1330 in the Best Western Little River Inn, Simcoe.

**ENERGY CONSERVATION
RESPONSIBILITY
ACT, 2006**

**LOI DE 2006 SUR LA RESPONSABILITÉ
EN MATIÈRE DE CONSERVATION
DE L'ÉNERGIE**

Consideration of Bill 21, An Act to enact the Energy Conservation Leadership Act, 2005 and to amend the Electricity Act, 1998, the Ontario Energy Board Act, 1998 and the Conservation Authorities Act / Projet de loi 21, Loi édictant la Loi de 2005 sur le leadership en matière de conservation de l'énergie et apportant des modifications à la Loi de 1998 sur l'électricité, à la Loi de 1998 sur la Commission de l'énergie de l'Ontario et à la Loi sur les offices de protection de la nature.

The Chair (Mr. Shafiq Qadri): Ladies and gentlemen, I'd like to call this meeting to order. This is day 3 of our committee hearings for justice policy for the Legislature of Ontario, to deliberate Bill 21, An Act to enact the Energy Conservation Leadership Act, 2005 and to amend the Electricity Act, 1998, the Ontario Energy Board Act, 1998 and the Conservation Authorities Act.

Before beginning, I'd like to introduce to the audience the members of the committee. My name is Shafiq Qadri, MPP for Etobicoke North in Toronto. To my left we have members of the official opposition: Mr. Toby Barrett, the MPP for Haldimand–Norfolk–Brant, joined by his colleague Mr. John Yakabuski, from Renfrew–Nipissing–Pembroke. In the far corner we have Mr. Howard Hampton, MPP for Kenora–Rainy River and leader of the NDP. On this side, the government side, we have Ms. Jennifer Mossop of Stoney Creek, Mr. Kevin Flynn of Oakville, Mr. Jeff Leal of Peterborough, Mr. Bob Delaney of Mississauga West and Mr. Jim Brownell of Stormont–Dundas–Charlottenburgh.

Just to inform everyone about the protocol, presenters, once they're called forward, will be invited to present their remarks for 20 minutes. If there's any time remaining—for example, let's say they spend 15 minutes in that presentation—the remaining time will be distributed evenly among the parties for questions and comments. If you have any written materials to distribute to the members, feel free to offer them to us and I'll have the clerk

distribute them. I would also encourage everyone to understand that these are recorded proceedings. They will become part of the permanent record of the Legislature of Ontario. As well, as you're speaking, especially if there's a group of individuals testifying, please identify yourselves by name for the purposes of Hansard recording.

**HALDIMAND FEDERATION OF
AGRICULTURE**

The Chair: I'd now like to bring forth our first presenter, Mr. Frank Sommer, who is treasurer of the Haldimand Federation of Agriculture. Mr. Sommer, please have a seat. Just to remind you, you'll have 20 minutes in which to make your presentation. As I said, time remaining afterwards will be distributed evenly among the parties for questions and comments. Sir, would you please begin now.

Mr. Frank Sommer: Thank you, Mr. Chair. My name is Frank Sommer and I represent the Haldimand Federation of Agriculture.

The Chair: Please have a seat. It's not the Legislature; you're welcome to sit.

Mr. Sommer: Thank you.

Members of Parliament, staff, guests and fellow citizens, I'm happy to represent the federation of agriculture here this afternoon. You may find it somewhat strange that the treasurer of the organization should represent the organization, but the nature of farming being what it is these days, the farmers who are left in Haldimand county are either working full-time or part-time off the farm in order to make ends meet. Being a retired farmer, I still am involved in the farm organization and serve as treasurer and director on the board.

Our federation has served Haldimand farmers for over 60 years. We are a general farm organization that represents farm families and the agricultural interests in the county. Our main purpose is to have a positive influence on the welfare and the prosperity of individual farmers and of the industry, and it's our purpose to inform the general public of the importance of farming to the local economy. Many of our farm organizations have their roots in the federation of agriculture.

It may seem somewhat ironic that we are here addressing the justice committee of the Legislature, because justice is what a lot of our farmers are concerned about. To a large extent, farmers in Canada and particu-

larly in Ontario have felt for years that we're disadvantaged when competing on the world scene. While having to compete globally, our farmers have had to compete against the treasuries of the European Union and the American treasury, and as well we have had to deal with distorting provincial policies that can be in some cases much more favourable, such as the case with the policies in the province of Quebec.

Farm commodities, like energy, are so politicized on the worldwide scale that for the layman it's sometimes difficult to sort fact from hearsay, truth from speculation, and yes, it's even hard to sort out the difference between government policy and political posturing at times.

Sure, we were aware that there were increasing costs. The increasing costs of energy have impacted the farming community the same as everybody else, and we sure appreciate the Ontario government's attempts to come to grips with the pressures that are out there, particularly the looming shortage of electric power. Lately, we've also become aware of the looming shortage of natural gas.

We really didn't become aware of the current Bill 21 until just the last week or so, when we found out that the province is again trying to switch to generate electricity from natural gas. We applaud the intent of Bill 21 in establishing a framework for future energy conservation, and we welcome the opportunity to comment. The aims of the bill can hardly be disputed: energy conservation, the potential for benefits by the proposed use of smart metering, the ability of the conservation authorities to exploit hydroelectric resources—all things that I think few of us can argue with as being beneficial.

In schedule A, it appears as if the intent is to institute preferential treatment in law for certain undefined energy conservation measures. It appears to open the door to energy audits when real property changes hands. It seems like it's sort of an approach of energy conservation by regulation, if we look at the proposed annual conservation plans for public utilities, for instance; compliance orders, even enforcement officers.

In schedule B, we get a glimpse of what the government's intent is for the smart metering entity. It seems to be the creation of a super-agency to plan, implement, oversee, administer and deliver smart metering, in addition to having the exclusive right to collect and store consumer information and to own and lease databases—in other words, a smorgasbord of options for the structure of the entity are permitted, as well as a large range of activities with an unprecedented range of powers.

Schedule C seems to create a framework by which the Ontario Energy Board can make the whole process legal, with licensing agreements, conditions of agreements, cost allocation etc.

While we have neither the technical nor the legal expertise to comment on the detailed provisions of Bill 21, we are concerned that the proposed measures, when fully implemented, will in themselves be very costly. We're not convinced that we, as the province of Ontario, have arrived at the point where these draconian measures

are necessary at this point in time. We're not convinced that all opportunities for incentives and persuasions for energy conservation have been fully explored to fully surrender to the intrusive regulatory approach being proposed in Bill 21.

1340

From the description in Bill 21, it is difficult for the reader to visualize the final form in which the smart metering entity will emerge. But one observation can undoubtedly be made: The smart metering entity opens the door for the creation of yet another large and costly bureaucracy that could turn into an all-encompassing stand-alone organization with unprecedented powers to impact on our everyday lives. The bill allows for the creation of infrastructure that is sure to be very costly to install and maintain.

Given past experience with government mega projects, costs are likely to be several times what the current estimates are. Perhaps gentler, less coercive ways are available to provide the benefits of smart metering technology that could be implemented in other ways.

We're concerned that Ontario may be embarking on an experiment that will set us on a course that will leave our farm industry and the rest of Ontario on a less competitive footing with our neighbours than we already are.

In conclusion, we respectfully submit that there are a number of measures that can be made to stave off an electricity or an energy crisis before the draconian aspects of Bill 21 need to be implemented.

On the demand side, we suggest that we're still living in a mindset of about 50 years ago, when nuclear power first came on board and we all had the mindset that energy was going to be almost free. We still have a legacy dating back to those days; there are still thousands of homes out there that are heated with electricity. We feel that an aggressive program to phase out space heating and water heating by resistive electricity use would free up a huge amount of power that would be helpful in saving electricity for the future.

Secondly, we feel that a natural gas distribution network in rural Ontario would allow the conversion of electricity for crop drying, for space heating on the farm, and that again would eliminate the need for electricity.

On the supply side, we feel that it's premature for the government to phase out the coal generation of electric power. We feel that it is in no small measure responsible for the expected supply shortage. While we agree that the objectives to reduce emissions of coal-fired electricity are worthwhile, we are not convinced that leading-edge technology for the reduction has been fully explored.

To sum up, our major concern is the competitive position of our farmers. We are concerned that—especially in the last week or so we've heard reports that the Ontario government plans to introduce gas-fired power generation again. We feel the resource is far too scarce and far too valuable to use for that purpose. Natural gas is a fantastic asset to our farm community, and to the rest of Ontario for that matter. It's easily transported to the final

point of consumption. I've got a furnace in my home that works at 95% capacity and efficiency. In livestock buildings, when natural gas is used, it can be as much as 100% efficient. In other words, it's invaluable for efficient crop drying and space heating in rural Ontario. It's also an important feedstock for fertilizer production. We feel, as a matter of justice for that matter, that it should be a government priority to make natural gas available as a public utility in rural Ontario to help maintain our farmers in a competitive position. We feel that natural gas should be available to all farmers for those purposes, to remain competitive with the rest of the world.

I came across some indication that—and I haven't been able to verify that—somebody made the remark that a 100-watt incandescent light bulb, burning anywhere, only uses an energy efficiency of less than 10%, and possibly as low as 5%. What we're saying is, save natural gas for the farms' use and for its intrinsic value.

Mr. Chairman, it's a pleasure for me to have been able to address you. If there are any questions, I'd be more than happy to entertain those.

The Chair: Thank you very much for your initial remarks, Mr. Sommer. We do have time for questions. We'll have about two minutes per side, efficient if you might. We'll begin with the official opposition.

Mr. Toby Barrett (Haldimand–Norfolk–Brant): Thank you, Frank, for the presentation on behalf of the Haldimand federation. Just a comment; I think Mr. Yakabuski would have a question. I agree, how precious natural gas is, just for cooking alone, for example. We have a good distribution system in our area for telephone—even cellphone—and electricity, but we don't have the natural gas distribution. Many of us have gas wells on our own farms, but we can't access the system to use it in our buildings or in our homes. I'm not sure, for those of us who have to heat with electricity, how a smart meter that allows you to adjust it in the evening is going to help, because normally we want to use less in the evening, or we keep the home cooler in the evening. That's just a comment that I have.

Mr. Yakabuski, do you have a question?

Mr. John Yakabuski (Renfrew–Nipissing–Pembroke): Thank you very much for your presentation. It would appear to me, from your presentation, that what you're suggesting, and I think correctly so, is that there are far more efficient ways to use our limited resource of natural gas than in power plants, which will be operating at much less efficiency than natural gas heating systems, either in the agricultural or residential applications. Is that, in a nutshell, part of what your concern is with the move to natural gas that the government is saying they want to do for producing electricity?

Mr. Sommer: Yes, exactly. I feel that electricity generation in general can be very efficient when we produce it with water or hydro power, or cheap coal, of which there appears to be an abundance. We've learned just in the last year or so that the supply of natural gas is finite, within our horizon. There's not enough there to last for generations, certainly.

The Chair: I'll need to intervene there. Thank you Mr. Yakabuski. We'll now move to Mr. Hampton.

Mr. Howard Hampton (Kenora–Rainy River): I want to ask you a question about smart meters. It's a question I've asked almost everyone that's appeared before the committee. We've been told by local distribution companies, for example Hamilton Hydro, Toronto Hydro, many of the local hydro supply companies, that they think the cost of smart meters is going to be much higher than \$1 billion. They're saying \$2 billion could be within the ballpark when you consider all the infrastructure.

1350

My question is, I think \$2 billion is a lot of money to spend, and I think before you'd want to spend \$2 billion, you'd want to have some sort of cost-benefit analysis that would tell you what you're going to get for \$2 billion. Has your organization seen, either locally or through the Ontario Federation of Agriculture, any kind of cost-benefit analysis offered by the government on this issue?

Mr. Sommer: No, we haven't.

Mr. Hampton: One thing we were told over the last couple of days is that in urban areas we have a lot of apartment buildings, and air conditioning is an issue. There's a sense that a lot of money could be saved on air conditioning. Could I just ask you, from your knowledge of the local community, (1), how many people have air conditioning installed and, (2), do you have a sense of how much air conditioning is used, say, in this community or in the surrounding rural area?

Mr. Sommer: I have no more than a gut feeling about that. It's certainly much more common to look towards—people almost expect air conditioning today. It's become a norm rather than a luxury in the last few years. Now, just what's the reason for that—we've had some very hot summers in the last year or two. That, of course, has increased the demand. The problem with air conditioning, of course, is it peaks very sporadically, directly related to the weather, like heating, and it's very costly for electricity supply.

The Chair: We'll move now to the government side.

Mr. Jeff Leal (Peterborough): Thank you, Mr. Sommer, for your presentation today. My question specifically is, on page 2 you talk about the creation of the smart metering entity and the fact that this entity will be collecting a significant amount of information. Sir, would you have any ideas for us how we might amend the bill in terms of protecting privacy? Have you got any thoughts on that matter that could help us perhaps draft an amendment to protect individual privacy?

Mr. Sommer: Yes, sir. It's a major concern to me personally. I'm not familiar enough with the processes that are available for us to prevent unauthorized dissemination of private information. It is just a "one more nail in the coffin" type of thing. It's difficult. We see the proliferation of computer technology to the point of cross-referencing of codes and passwords. It's scary to read the press sometimes. The assault on our privacy is a concern, absolutely.

Mr. Leal: My colleague Jennifer Mossop would like to ask you a question.

Ms. Jennifer F. Mossop (Stoney Creek): Just as an aside, don't worry about the media; they're fearmongers. I can tell you that first hand.

There is concern, though, because we all experienced the blackout a few years ago. Many saw that as a wake-up call, as the red flag, as the warning that we had to take energy conservation much more seriously. What we were talking about with some of the presenters in the last few days is that while we try to create a culture of conservation, what we are living in right now, and have been, is a culture of waste. We don't understand here in North America, where we have so much abundance, the need to conserve. It comes naturally to those who've lived through wars or depressions. Maybe our seniors are more familiar with that, but certainly there are many generations that are missing out. Hence, Bill 21 and the efforts.

We've also heard that smart meters are used in a number of jurisdictions that are a little ahead of us, again, in Europe with success.

The Chair: Ms. Mossop, with apologies, I'm going to have to intervene and keep those comments rhetorical for now. I'd like to thank you on behalf of the committee, Mr. Sommer, for coming forward for this deputation. We appreciate the time that you've taken and your remarks.

CLEAN AFFORDABLE ENERGY ALLIANCE

The Chair: I'd now like to, with your permission, invite our next presenter to come forward. That is Ms. Carol Chudy of the Clean Affordable Energy Alliance. Please come forward. You've seen the protocol: 20 minutes in which to make your remarks and the time remaining will be distributed amongst the parties afterward for questions. I invite you to begin now, please.

Ms. Carol Chudy: Good afternoon. I am Carol Chudy. I am the co-chair of the Clean Affordable Energy Alliance. As the voice for Ontario's energy ratepayers, we are very concerned about the politics and policies regarding electricity restructuring in Ontario. We wish to address the committee this afternoon on specific issues related to the Energy Conservation Leadership Act, the impact this legislation will have on the public ability to reduce electricity demand in our province and in particular, of course, smart meters.

The proposed legislation provides the framework for the government's commitment to install 800,000 smart meters in Ontario homes and businesses by 2007, and then all homes and businesses by 2010. While it is true, as was said a moment ago, that Canadians consume more energy per capita than any other jurisdiction in the world, we must remember a few things: our manufacturing and industry, our natural resource-based economy—i.e., reining and refining—plus our climate variances—hotter, humid summers and traditionally colder winters—create an energy-intensive nation. Even as has been mentioned, when we think of high-rise apartments and the amount of air conditioning, the urbanization that we do have going

on creates that additional energy intensity. We enjoy a technologically based lifestyle. We cannot pump gas, we cannot get money from an ATM, ride in elevators or use our computers—anything like that—without electricity. We are an electricity-dependent nation.

However, having said that, we can reduce the power that we use in this province for the good of our environment and our economy. The government is to be commended for seeking ways to mitigate the pressures on an already strained electricity system—a system, I might add, that operates with a dangerously low reserve capacity. Without a doubt, conservation of electricity ought to—in fact, must—play a role in Ontario's energy strategy.

However, are smart meters a good part of that strategy? That's what we want to address you on today: what smart meters promise; whether they can fulfill that promise; the purpose of smart meters; the price of smart meters; and finally, some conclusions.

We look at smart meters within the parameters of the energy ministry mandate to provide affordable, reliable power for the people of Ontario. The energy minister, Mrs. Cansfield, has indicated that the installation of smart meters will give—and this is the purpose—Ontarians “the tools they need to make intelligent choices about electricity use” and to help save money. The Ministry of Energy website indicates that smart meters will “provide consumers with greater control over their energy costs that can lead to system-wide savings through reduced peak demands.” “With smart metering, customers can choose to control their energy costs through moving usage to off-peak” times.

If we have smart metering combined with a pricing structure that will come in the future that will reflect the cost of power production at certain times of day and times of year, this will allow consumers to make informed decisions. Again, as told to us, Ontario consumers will reduce the strain at peak times. Therefore, the promise of smart meters is dual-based: cost savings and reducing power system strain by load shifting.

Can smart meters fulfill the promise? That's an important question to ask. With regard to cost, the Ministry of Energy indicates installation costs of about \$1 billion. As Mr. Hampton has said to us, it's probably now closer to \$2 billion, plus maintenance, plus monitoring costs. We have to remember that there is no net power reduction, although the Ontario Power Authority estimates 500 MW for power planning purposes; we think probably closer to 300 MW. We have to remember the load is not reduced, it is shifted.

The initial cost for the meter is approximately \$500 per household, plus monthly fees for monitoring and processing of information. The key word here is “estimate,” because again, as has been pointed out, no firm costs and no firm cost benefits have been determined. In order to determine savings or added costs for the affected ratepayers as well as the province, we have to consider the following factors.

There is going to be a telecommunications infrastructure for monitoring of meters, as well as constant

updates with the software and technology, as we know. There will be information provided to the OPA from conservation consultants. Lower-income earners, we've heard, respond better to time-of-day changes than do average consumers. We see that these consumers will benefit by not incurring higher prices, but not positively rewarded for their efforts.

1400

According to the legislation, as the former participant has indicated, a smart metering entity will be formed; in other words, another level of bureaucracy. Additional departments, companies and personnel translate into higher costs. There will be another function implemented by the LCDs, and that will add to their costs. The question is how much the metering will effectively cost and how much a household can save. If the difference is low or negligible, the passing of this legislation is counter-productive to the reason for its creation. The overall savings, we believe, will not be sufficient to justify the costs.

Again, we note that the meter itself does not conserve power; rather, it is designed to change behaviour and modify the lifestyles of Ontarians and small business. Even the OPA report indicates to us that conservation and demand management "relies on public uptake and behaviour." It's dependent on the public being willing to change. The degree of success of smart meters will determine the worth of these meters.

Two factors come into play here: The ability to change, and the desire to modify lifestyle. For those who cannot change, the legislation is punitive, not incentive. We think of seniors, shift workers, even young mothers who stay home with their children during the day. They will be penalized for using energy when they are able and when convenient. Some who are electricity-dependent for health reasons—and we get information from such people. They need their respirators, they need air conditioning because of health and respiratory problems. They will be unnecessarily penalized because they cannot switch the time of use.

The farming community, as we've heard, will suffer. Agriculture is Ontario's second-largest industry. Reliable and reasonably priced power is essential to their sustainability. Much of the farming activities that are energy-intensive simply cannot be shifted. You can't turn off your greenhouse at peak time. You can't stop your heating or air conditioning for livestock, milking and storage of product etc.

Smaller businesses having hours of operation coinciding with peak-of-day use will likewise be penalized. We have to remember the current lifestyle, particularly in Ontario, where we have a lot of two-income earners. The household is empty during the day, so you anticipate a hot summer day, the air conditioning isn't on during the day, they're not running the dishwasher or the dryer. They come home and when it's now lower-peak time of the day, those things will begin to happen. You're shifting your load, but not necessarily for a profitable reason.

There are concerns too with load shifting: Someone has pointed out that the McGuinty government is

encouraging to throw your dryer on in the night time, and yet the insurance companies indicate to us that dryers are a cause of house fires. There are some things that just have not been carefully thought through.

There is inequity for those who work the hardest to conserve energy and those who will still choose not to. AMPCO has indicated, "It may be argued that the customers who participate create benefits for all customers whether or not they participate...."

In California, an opposite tack was used. They used an incentive 20-20 program. If you reduced 20% of your electricity use for a four-month period over the summertime from what you used a year before, then you were incented with a 20% rebate. That is given to those who are most profitable at conserving.

Many people are concerned about accessing information via the Internet, or having complicated bills and the sharing of that information.

Some will not gain from their desire to conserve or load-shift, so will be disinclined to do so. For example, those who are in condominiums or through rental fees do not benefit. The Ministry of Energy website—actually, Oakville Hydro—has indicated that whether or not new prices are passed on depends on arrangements with particular landlords or condominium corporations.

Consultants' reports to the OPA indicate that where conservation has worked the best, there have been sustained efforts over long periods of time using frequent messages: Information/education is the best conservation tool.

The Ministry of Energy has only recently begun to implement aggressive educational measures to encourage public participation in conservation. The many requests by the IESO this past summer—about 50 times—to reduce consumption met with considerable positive response in light of the higher than normal temperatures. Ontarians, when given a fair chance, respond positively. We have not even given them a chance to respond to these initiatives and programs, yet in Ontario we are told we have to have smart meters. There is no option.

Smart meters are not so much a tool to assist with cost savings. They are mandatory devices alongside new rate regulations that result in penalties and charges for time-of-day use. The Ministry of Energy is not doing the ratepayers any favour by providing these smart meters.

We conclude that those who make changes in order to save money will do so if they are educated with ways and means, those who choose not to make lifestyle changes will pay the bill regardless, and those who are unable to reduce load at peak times will be wrongfully penalized.

The second criterion for smart meters: Will they work? Will they reduce peak load through shifting demand? In the summer, people will be encouraged to turn down their air conditioners through the day, not run their units, then run their units in the evenings and through the night. Shifting load for dishwashers, clothes washers, dryers etc. to evening and night hours will create higher peak usage in the night, thereby shifting the peak, not the load—the very thing this legislation is trying to avoid.

Another possible outcome will be to reduce the height of the peak—that is, have less power requirement at that peak—but then have the peak last for a longer time so that it actually flattens out. This will have the effect of creating less use, but over a greater period of time in the day.

The IESO has pointed out that in the summertime, there's a bit of a shift from your high peak for a short time to a peak of about 10 to 14 hours a day for many days in a row in the summer months. It will likely be more of what previously had been considered intermediate generation. If you look at the chart that we have there on page 5, you'll see the new OPA recommendations. There's really not a lot of room for intermediate power generation.

Currently, coal-fired generation supplies primarily intermediate demand, as well as base and peak, but with the removal of coal and the strong recommendations from the OPA that natural gas be used for peaking purposes only, there is little generation available for that intermediate load. Nuclear is baseload. Hydro, although it can serve as base, intermediate and peak, depends on water levels, traditionally lower in the summer months. Wind power is only rated at about 10% capacity during the summer weather conditions. So you see, then, that there's a problem: If you have a longer sustained load in the summertime rather than peaks, you require more intermediate generation. The OPA, with their recommendations, is wiping out a good part of that.

Will smart meters effectively shift load to off-peak times? The answer: It may precipitate an unwanted reaction that the system will be unprepared to deal with. Reaction in the future in terms of fuel mix to balance load requirements could be very costly.

We conclude that there are many factors and long-term ramifications that have not been considered by the Ministry of Energy in the determination to proceed with smart meter implementation. So what's the purpose of smart meters and of conservation?

The Ministry of Energy has noted, "Energy conservation has many benefits. Not only will our energy sector and economy benefit ... so will our environment." They go on to say that the province then will need to rely less on coal-fired plants to produce power. Interestingly, it was indicated that the government wants to reduce peak electricity generation at the same time that it wants to close coal-fired plants.

You can see that herein lies the key to one of the reasons for the rush to implement smart meters; that is, the coal closure deadline. This document was obtained from the Ministry of Energy website regarding smart meters, and they comment there: "The pending retirement of coal plants, plus growth in demand for electricity, has increased the urgency to create a culture of conservation." The urgency and the rush has been created by the rush to close coal-fired generation.

1410

Like so much of the current plans of the Ministry of Energy, panic to fill the energy gap anticipated by the coal closure policy is forcing decisions to be made in the

short term. Conservation is not deemed, then, to be something good for the economy and the environment, but is perceived as mitigation for the loss of 25% of the provincial power supply. Would it not be more prudent to educate the public and determine how effective widespread information could be before enforcing expensive metering?

The Ministry of Energy is planning on charging Ontario residential and small business ratepayers over \$1 billion to net 300 to 500 megawatts of power while prematurely shutting down 7,500 megawatts of coal-fired generation. The Ministry of Energy is forcing the Ontario public to incur the additional expenses of smart metering while negotiating over 6,000 to 7,500 megawatts of natural gas power, which will cost at least \$11 billion—these are figures from the OPA recommendation—in capital costs alone, plus significantly higher hydro and energy rates.

The price of power: The cost of smart metering directly impacts the costs that consumers will pay for their electricity every month. Therefore, the smart meter policy and the legislation before you cannot be viewed in isolation, separate from the entire energy restructuring. The Ontario Power Authority, when they recently released their report back in December, indicated that \$56 billion to \$83 billion will be paid for electricity restructuring in Ontario. That translates automatically, for capital costs alone, to 30% on our hydro bills every year for the next 20 years. Some of these costs absolutely can and must be mitigated.

There are unrelated costs that will cause power to escalate even further:

—Natural gas costs, according to the OPA, have quadrupled in five years, and are expected to remain high and volatile. Supply risks impact the wisdom of this move.

—Removing coal-fired generation, the stability in the power grid both economically and in terms of generation characteristics, with the loss of valuable assets, plant decommissioning, and the loss of income from those plants, which goes back into the system to offset other costs, and which will be given to private foreign ownership.

—Natural gas will replace coal for the market-setting price. Coal has set the price 56% of the time. If you remove that, natural gas will be setting the market price 56% of the time, at triple the cost of coal.

—Using natural gas for electricity at 43% to 60% efficiency will impact home heating costs and industrial processes.

—The IESO warns that the provincial government plan to phase out coal represents the largest and most significant electricity system change ever undertaken in Ontario, and involves major technical considerations, significant risks and challenges. Again and again through the recent OPA report, that has been confirmed.

—Nuclear units will require replacement or refurbishment within 10 years. The cost? An estimated \$30 billion to \$40 billion. And, as has been indicated to us, even the highest costs are probably on the low side.

Costs must be mitigated where possible. Prudent planning, abandoning unnecessary or premature plans, must be considered, and that's what we bring before you today. The ratepayers of Ontario simply cannot absorb the higher electricity prices which are predicted. The impact of higher energy costs is just beginning to be felt in Ontario. This past week, the media reported 1,100 jobs to be cut at B.F. Goodrich. This brings us to a total of 61,000 jobs in Ontario, and another 50,000, they indicate, to come.

The Chair: Ms. Chudy, I would just invite you to bring your remarks to a close. You have about 20 seconds left.

Ms. Chudy: Thank you. At the back of our report, I would ask you to please read comments from business, industry, the economic drivers of our community, and the farming community, who say the impact in Ontario of higher energy costs is going to devastate this province. Please consider this when you consider smart meter legislation.

The Chair: Thank you, Ms. Chudy, for your submission. As I've just mentioned, regrettably, we don't have any time left over for questions and comments, but thank you for your written submission, which is very much appreciated.

POWER WORKERS' UNION,
SECTOR 2, UNIT 5

The Chair: I'd now like to invite our presenter, Mr. Paul Serruys, chief steward of the Power Workers' Union, sector 2, unit 5, and entourage. Gentlemen, as you've seen, the protocol is 20 minutes in which to make your presentation, time remaining afterwards to be distributed evenly. If you might introduce yourselves as you're speaking for the purposes of recording, please begin.

Mr. Bob Menard: My name is Bob Menard. I'm a staff person with the Power Workers' Union. Paul will be doing the presentation, but I just wanted to briefly explain the package we brought along: a Cerlox-bound presentation, both oral and written. There's also a DVD, a 13-minute documentary that we prepared from a trip to Europe that talks about clean-coal technologies that you might find of some interest; and a recent presentation from a clean-coal conference in Calgary that discusses some of the issues of clean-coal technology and how it could be implemented in Ontario.

I'll now turn it over to Paul.

Mr. Paul Serruys: Good afternoon, and thank you for the opportunity to address the standing committee on justice policy. My name is Paul Serruys, and I'm a union representative with the Power Workers' Union at the Nanticoke thermal generating station. If anybody's in doubt, that is a coal-fired generating station. I'm joined by Mr. Bob Menard, a Power Workers' Union staff officer.

This document has two parts. The first section is comprised of my comments to the standing committee,

which I hope to complete in sufficient time for questions. The second part is the written submission of the Power Workers' Union provided today for your review at a later time.

In my comments, I would like to address one aspect of the proposed legislation as it pertains to the implementation of smart meters from an economic and a consumer perspective. I would like to make it clear that it is not realistic to address the issue of smart meters in isolation from a comprehensive energy policy that is realistic in providing our economy with a clean, affordable, competitive, sustainable, accountable and reliable electricity system.

The Ontario electricity market, as any other market, has a need to balance and accommodate supply and demand issues. As in any other business, demand on the consumer side will determine the generating supply that is required at any given time. Conceptually, smart meters will provide financial incentives to consumers in order to lower peak demand during the day and shift some of that load demand to overnight hours. This would not reduce the total power consumption over a 24-hour period; rather it would reduce the amount of power used during peak demand hours, when prices are higher.

Consumers will support any technology that can result in savings, provided we can demonstrate a return on their investment as a ratepayer as well as a taxpayer. Consumers will need to know the true cost of smart meters and any associated costs, including government subsidies, if any. Who will pay for what and how are the financial benefits generated? How are we going to address the issue of families that do not have the financial resources to install these meters? Will there be any assistance for the less fortunate so they could also benefit?

Increasing pilot projects with smart meters would be a smart approach. This will allow us to determine the actual savings from experience before we apply province-wide installation. There are, however, other major factors that affect peak power periods. One of the primary factors determining peak load periods is generating supply capacity.

Our province has enjoyed population growth as well as economic growth over the past several decades, the net result of an industrious society. Our electric generating capacity has simply not kept up with the growth in demand for electrical power as a result of population and economic growth in the province.

This situation seriously increases the gap between supply and demand at any given time and therefore in turn also increases peak time periods. If the gap between generating capacity and power demand is allowed to further increase, we will reach a point where peak loading will be required to meet what was previously demand met by baseload. This would eliminate the purpose of smart meters since, under these circumstances, we will be at peak load 24 hours on any given day during all seasons.

Anytime baseload capacity is not capable of matching baseload demand, we are in a peak load situation and

have no control over the cost of imported power. Increasing baseload generation capacity, as well as some reserve capacity, would obviously have a positive effect on our attempts to reduce, minimize or even eliminate peak load demand periods when market prices can reach exuberant levels beyond anyone's control.

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The government's energy policy to close all coal-fuelled generation and replace that generating capacity with natural gas-fired generation has the real potential to produce baseload at double the cost. While the lowest-cost producer, coal, is shut down and assets wasted, we will spend billions in new infrastructure costs to build new gas generating stations and gas pipelines so we can produce base electricity power at double the cost. The consumption and demand for natural gas in Ontario will consequently double and, as a result, the cost of natural gas in the province will also double. Future supply issues with natural gas need to be addressed so we don't end up with a new infrastructure and no natural gas to fuel these boilers.

How can any government whose energy policies will result in doubling the cost of baseload electricity, as well as the cost of natural gas, persuade consumers to change their lifestyle and shift 5% of peak load from daytime to nighttime in order to reduce peak load on the electric supply system? It's going to be a tough sell when consumers realize the facts under these circumstances.

If these policies on coal closures are allowed to be implemented, the cost of electric power has the real potential of wiping out profit margins in many industries and businesses, which will leave the province looking for better opportunities.

We already have examples of many employers in different sectors of our economy leaving the province as a result of energy costs. This could very well be the beginning of the exodus if this government proceeds with its plans to shut down coal generation.

The following associations and industries have already warned the government not to proceed with their plan to eliminate coal-fuelled generation but instead to apply clean-emission coal technology to existing plants rather than to waste these assets: AMPCO—the Association of Major Power Consumers—the Ontario Mining Association, the Ontario Federation of Agriculture, the Canadian Chemical Producers' Association, Inco, the Ontario Chamber of Commerce, the Toronto Board of Trade and the Canadian Manufacturers and Exporters, to name a few.

Most of these large employers pay above-average wages for skilled workers and will be welcomed in any country, state or province should they be forced to leave our province as a result of misguided government energy policies. Furthermore, if these government energy policies are allowed to be implemented, the resulting cost for power and natural gas will also affect budgets of school boards, hospitals, cities and counties throughout the province. These budgets are also funded by Ontario taxpayers.

Unemployment could very well become the only growth sector in the province. We could very well witness the first government anywhere who's capable of wiping out its own tax base.

Our energy policies must continue to pursue and encourage conservation measures as well as renewable energy uses, and apply these energy sources whenever they are available in order to reduce overall power demand.

We must also realize the limitations of renewable energy sources from a reliability perspective, in the sense that they will not replace base or peak load that drives our economy anytime soon in the foreseeable future.

Clean-emission technology for coal-fuelled generation has been successfully implemented and accepted in many densely populated areas worldwide. You can include Germany, Denmark, Sweden and many more countries. When I say "worldwide," I mean western Europe as well.

We can no longer ignore the fact that the answer for the Ontario electricity production and its economy in large part will depend on the abundance of coal we have in North America.

Applying clean-emission coal technologies will also address our environmental concerns without putting our economy at risk. The infrastructure costs to apply these technologies on all coal generating stations would only be a fraction of the cost of the capital required to replace them. When I see a cost of \$1 billion to \$2 billion on smart meters, that would go a long way to refurbishing those coal-fired stations which are your lowest-cost producers with clean emission controls that work in every other country or state.

The real crime against the environment is to delay the installation of clean-emission coal technology when that technology is available.

Lambton generating station is one of the cleanest coal-fuelled stations in North America, yet the government plans to shut it down in 2007 to replace it with—guess what?—natural gas.

We should also remember that Ontario's economic success was driven primarily on the basis of affordable energy as well as by generations of a hard-working society. Without large fuel resources of our own in the province, combined with the phasing out of coal-fired generation, our competitive edge will be lost in many sectors of our economy. The government needs to rethink its energy policies, specifically the shutdown of all coal generators in the province, before we reach a point of no return.

Respectfully submitted. Thank you.

The Chair: Thank you very much, gentlemen. We have ample time for questions, about three minutes each, and we'll begin with Mr. Hampton of the NDP.

Mr. Hampton: I'm looking at your written document here and you make a lot of statements about energy efficiency. One thing that comes to mind—and I note that you've got California included here—is that California, since the meltdown of 2001, has embarked on a very ambitious energy efficiency program. The figures we've

seen suggest that they now save the equivalent of 12,000 megawatts on an annual basis. In other words, it would be the equivalent, I guess, of roughly three Darlington.

What's ironic, though, when you read the literature, is that they have very little mention of smart meters. They achieve 2,000 megawatts of savings by regulating that people in California can only use energy-efficient appliances, so energy-efficient fridges, driers, washers, so on. They achieved 4,000 megawatts of savings by changing the building code, requiring that you can't build a building in California now unless it's very efficient. They achieved 6,000 megawatts of savings through things like energy-efficiency retrofitting of buildings and things like the 20-20 policy that was mentioned earlier. They give you an incentive to reduce your electricity consumption and they have various demand management programs for industry. If industry is willing to shut down at certain peak times, they'll actually pay them money.

California actually has some results: 12,000 megawatts, which is fairly impressive. You work for the Power Workers. Have you seen any cost-benefit analysis for smart meters? Have you seen anything that says, for an investment of \$2 billion, this is what the result will be?

Mr. Serruys: No, I haven't, personally.

Mr. Hampton: Has anybody else in the Power Workers seen a cost-benefit analysis for smart meters? I guess I'm asking your colleague.

Mr. Menard: The issue of cost benefit hasn't been as explored as much as it should. We would agree with you that there needs to be considerably more thought given to it and the other aspects of a diverse supply system in the province of Ontario. We spent a bit of effort putting together a website and documentation that I think we've shared with most of you, called A Better Plan. In there, we talk about reasonable efforts for energy efficiency and conservation. I would suggest that all of that needs to be subject to some sort of a cost-benefit analysis to ensure that the proper amount of monies are spent in the best way possible.

Mr. Hampton: Thank you for that. My point is this: I think the overwhelming majority of Ontarians are interested in energy efficiency and energy conservation. But I think people recognize from their own homes that if there were some incentives so they could put in, say, high-efficiency natural gas heating—and that's expensive; I know, because I put one in. If there were some incentives so they could afford to reinsulate their homes, put in energy-efficient windows, buy energy-efficient appliances, I think most people would be happy to do that, because people could see an actual result. But simply saying to someone, "We're going to charge you \$6 a month, \$8 a month for this gadget, but it in itself is not going to save you any energy"—I think people are rightfully questioning that.

The Chair: We'll now move to the government side.

Mr. Leal: Thank you all for your presentation. You made an interesting observation: Increasing the pilot projects for smart meters would be a smart approach. Just

to let you know, we've had Ontario Hydro One smart meter pilots in Barrie, Brampton, Lincoln, Peterborough and Timmins and feel we're on the right track. We've been following that advice that you provided today.

My colleague Bob Delaney has a question, and my colleague Kevin Flynn does too.

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Mr. Bob Delaney (Mississauga West): Concerning the subject of the bill, which is conservation and smart meters, you indicated that you had some reservations regarding the effectiveness of smart meters. Am I encapsulating that correctly?

Mr. Serruys: My basic point is that as you let your supply side deteriorate, what is the use? What is the purpose of a smart meter? If we're losing baseload, we're going to be increasing times on peak load. The purpose of a meter is only to differentiate between the rates of baseload, intermediate load and peak load. So unless we look at the supply side, energy supply, it will just wipe out the purpose of a smart meter.

Mr. Delaney: I'm going to read verbatim from your brief. On page 15 you state, "In the PWU's view, the proposed smart metering legislation would adequately put in place the tools to implement smart metering in Ontario in an efficient and effective way that recognizes both the role and experience of Ontario's local distribution companies, and the opportunities to benefit from common data services."

Mr. Menard: Let me make that comment. We participate regularly in all activities associated with the electricity industry. That particular position was taken out of the comments that we made when the Ontario Energy Board ran a process to have comment on the smart meter initiative. We took the position that since we had some expertise in the industry, we ought to review the proposal from the point of best practices, and that's what that statement relates to, that in the installation and use of these smart meters, there are in fact some positive things that are included in the plan that was put forward by the Ontario Energy Board. I think what we're hearing here is a different issue discussed, and that is the relative cost benefit of those meters in society as opposed to, for instance, rehabilitating new generation.

The Chair: Regrettably, we'll have to move beyond the government side to the official opposition.

Mr. Barrett: Thank you, Bob and Paul, for the presentation of the Power Workers. Your reservations about smart meters and your concern about shutting down coal—as the area representative, I have certainly been receiving that input for the last two and a half, going on three years, in particular around shutting down coal.

I just wanted to mention—I think John has a question—that I've also received briefs, Chair. As far as reservations about smart meters, I have briefs here from Brant county, Brant County Power and Norfolk Power. I know Norfolk Power is here, but they're not presenting. I'll pass these on to the clerk.

Secondly, I have briefs from Caledonia Regional Chamber of Commerce around the inadvisability of

shutting down coal, and also feedback from the Port Dover Board of Trade and Haldimand county.

Normally, you would expect these groups to testify, but I think they felt that this was not the appropriate venue. They thought it was strictly about meters, so they didn't testify. I'll pass on their briefs and feedback.

John, did you have a question?

Mr. Yakabuski: Thank you very much for your presentation and for joining us today. I'll make a statement and you can comment on it. It seems that the government is pretty good at defining a destination, i.e., reducing energy consumption or cleaner air, but they're very, very poor at navigating a route how to get there. With regard to their coal policy, I think they've created a real mess, and it's coming back as more and more people become involved in the process and become educated in the process as to what this is actually going to mean to the province of Ontario. Even the government members over there are getting very skittish and being less pompous about their promise and commitment to shut down coal, and even the energy minister is getting somewhat ambiguous in her statements—

Mr. Hampton: Shy.

Mr. Yakabuski: "Shy" would be a good word. Was this whole policy more just about politics because they thought they had a winner, and maybe they were wrong?

Mr. Menard: We've had opportunity to speak with government representatives, and I think that the policy comes from a time when there was a lack of information about what could be done to improve air quality from coal stations. There certainly was a whole different pricing regime for natural gas, the alternative fuel of choice, and there was a general perception that there might be quick answers to really complicated problems in Ontario's energy sector. What we and others have found over the ensuing years is that, first of all, basing an electricity policy on another fossil fuel that is even more volatile than some other ones we could be using and not really making the effort to look at what technologies exist today to improve—

The Chair: Thank you, Mr. Yakabuski and Mr. Barrett, and apologies to you, Mr. Serruys and Mr. Menard. I'd like to thank you once again, on behalf of the committee, for your deputation on behalf of the Power Workers' Union, sector 2, unit 5. We have your submission, and we appreciate it very much.

Interjections.

The Chair: Regrettably, there is no Sergeant at Arms at this committee, as there would be in Parliament, for enforcement of decorum. I believe, because the Legislature is coming back in session next week, our members are practising. Perhaps for the next committee meeting we can arrange for one.

GOLDEN EBM TECHNOLOGY INC.

The Chair: I would now like to invite our next presenter, Mr. Ray Simpson, secretary-treasurer of Golden EBM Technology. Mr. Simpson, as you've seen in the

protocol, you have 20 minutes in which to make your presentation, with questions and comments afterward. Please begin.

Mr. Ray Simpson: Thank you. I'd like to welcome the MPPs to this great part of southern Ontario and also staff members and any guests who are here, plus presenters.

My background: I'm retired. I spent some time on council in Brantford and worked on getting a casino for Brantford, which is a wonderful thing; we have a huge payroll of around \$34 million. After the casino, I got involved with wind power. I spent two and a half years working on wind power with Stelco, and we found it wasn't economical. Today I'm here to speak to Bill 21.

My name is Ray Simpson, representing Golden EBM Technology Inc. I am speaking on behalf of both Norfolk and Brant homeowners who may be forced to accept the smart meters at a high cost to each power end user. This appears to be a money grab to compensate the power companies that have failed to look for power in the future. According to a memo from Toby Barrett's office, the cost of these meters could be very high, as the government hasn't worked out the cost as of December 19, 2005. The extra cost of these meters will be passed on to rural Ontario customers, who are now struggling to exist.

Just to add an aside here, I also belong to the Inventors' Club. I got a call this morning to say that there's a new industry that will start up because of the smart meters. They are looking at getting batteries for storage, hook on to the system between 1 a.m. and 6 a.m. when power is cheap, store it and use it for the rest of the day to save on power. If they can buy it at three cents, that's great; they can use it during the day. This will provide work for companies to build inverters to change the power from DC back to AC, and it will be good for the battery companies. I didn't have time to have that written in.

How can dairy farmers change the routine of milking their cows from 1 a.m. to 5 a.m. in order to get cheaper power? This will only help, in some cases, to quicken the bankruptcy of some farmers. It will be interesting to see bureaucrats travel to dairy farms to educate the cows to be milked at this time for the cheaper power rates, and to tell housewives to get up at 1 a.m. to wash and dry the clothes. This could also apply to doing the dishes, vacuuming etc.

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As for Norfolk county, the area will become a separate provider of cheap power within the next seven years. Presently, Norfolk uses 65 to 70 megawatts of power, and with the installation of 11 10-megawatt units, it will provide approximately 40 megawatts or more, depending on the time of day, in the Ontario grid, 24 hours a day, 365 days a year. Along with these units will come an increase in industry and greenhouses for many crops, thus making Norfolk a good place to be for cheaper power in the future.

With reference to coal generation, Nanticoke is a unit that is necessary to keep Ontario power up in peak

demand times, as it can be activated very quickly to sustain a steady power supply.

In reference to nuclear power, why construct a unit similar to Douglas Point and create an area called “cancer valley” by the London hospitals? It seems to be an area where there are more cancer-related illnesses than any other. Besides, it’s too costly to build—just study the cost of Darlington—and this doesn’t include the cost of dismantling it.

In my presentation, I have a page showing EBM. We put a little bit in here about global consumption of fossil fuels as estimated to release 22 billion tonnes of carbon dioxide into the atmosphere every year, and the amounts are still growing.

Energy by motion technology: After almost 20 years of high-level research and development, a new source of energy has emerged. It is called EBM, energy by motion. It incorporates a uniquely configured rotation machine using laminated steel and copper windings. A previously unknown source in a magnetic field with an unusual geometry, which behaves unlike any other known field, allows EBM units to constantly produce excess power.

This is a Canadian invention. They spent 20 years in a building near the Toronto airport. At that time, they had NASA working with them, a group in London, England, and, later on, a group in Budapest.

All that EBM needs to start it is a small DC motor. If you’re out where there’s no power at all, you go to a local farmer and get a John Deere, hook on to it and start it up. Initially, it rotates the EBM drive unit, and it achieves operating speed. Its unique geometry allows extra shaft power to be produced as the rotor is rotated through the magnetic field. The shaft power is converted to electricity via a synchronous generator attached to the shaft of the EBM unit. A small quantity of the electricity is then fed back into the EBM unit to continue the rotation. The excess power produced can then be used or sold for profit. In other words, when we sell a 10-megawatt unit, it is actually producing 15-megawatts—it will be the 15-megawatt generator. It will take five megawatts back to drive the EBM motor, giving you 10 megawatts to feed into the grid 24 hours a day, seven days a week.

It can replace coal-fired, oil-fired and nuclear plants. It can be used for desalination of salt water, heating and cooling for various applications, inexpensive hydrogen for fuel cell technology, oxygen and hydrogen manufacture for infertile land, water treatment, and plasma destruction of wastes.

Benefits: Traditional methods of power production add greatly to the emission of greenhouse gases; notably, carbon dioxide, methane, nitrous oxides and chlorofluorocarbons, not to mention a host of other related chemicals. These emissions pose great danger to the world.

The long-term availability of conventional fossil fuel reserves is not guaranteed. The contribution of renewable power sources is dominating current discussion of energy issues around the world. The most available and

economically sound form of renewable energy is hydro power. The majority of the best hydro sites around the world, having the most water with greatest capacity for turning turbines, have long since been exploited.

EBM is more than a new, highly efficient energy source. It has major economic and environmental benefits, including: emits no pollutants; emits no noise; can be buried in populated areas, freeing up real estate; is 100% reliable with predictable maintenance; is low-maintenance—a maximum of 10 hours a year; inexpensive per kilowatt hour rates; quick delivery time to installation; and a truly friendly energy source.

We also show here the competition. Of course there is coal, the lifetime of which is 25 years. EBM claims it will be a 40-year unit. Hydro plants are 40 years, with six years to build them. Gas turbines are 20 years, with three to five years to build them. One MPP stood up last fall and said that to produce a kilowatt of power with gas is seven and a quarter cents. Since then, it’s a lot more because gas has gone up. Nuclear power takes 12 years to build, with 15-year lifetime and an enormous expense.

An EBM power program provides you with an opportunity to realize your organization’s environmental commitment to your customer, your stakeholders and the world. OPG provided us with the figures on page 5. In fact, they came right out of Nanticoke. They’re just copied right from there; we put the top two lines in. Nitrogen oxide: 96 tonnes. Multiply that by 10, and that’s 960 tonnes that 10 units would save. Sulphur dioxide: Multiply that figure and you’ve got 3,150 tonnes. Carbon dioxide: multiply that by 10 and you’ve got 77,000 tonnes that you’re saving.

If you note just below, we show 60 megawatts. We did that for the city of Brantford; we did a presentation to them.

Next is a copy of a letter from a good friend, Toby Barrett. It was written on March 14, 2004, to the Hon. Dwight Duncan. It refers to EBM energy. He was just asking him to acknowledge the package that he got, which he had within a week and a half of being elected at the last election.

Along with him, there were three other packages delivered by my good friend Dave Levac. I’ve been working with Dave on this for a long time, along with Toby. Agriculture Minister Steve Peters had a copy, along with Minister of the Environment Leona Dombrowsky and Minister of Economic Development and Trade Joe Cordiano. Not one of them has answered or acknowledged even to say, “We just threw the file in the garbage.”

The next page is about nuclear. It’s very disturbing when you read about what has been thrown into the lakes. Next is an article, “Power Needs Could Delay Closing of Coal-fired Plants.” I’m not in agreement with that, because they can find better coal, and with EBM coming on over a period of time, they can just keep the plant as a quick power-up.

In our great day of technology, the computer went on the fritz, so I had to make some quick notes here.

EBM: Cheap power, six cents per kilowatt for five years. That's guaranteed. Savings to Norfolk: no power loss from the time it leaves a big power plant; savings in power lines—Hydro One won't have to put any more big power lines around the country. That may disturb some of them because that will put a little bit of work out of their hands. These units can be worked out at 10, 20, 25, 50 MW. They are working on, at the present time, a 250-megawatt. One of their engineers has been to Nanticoke and looked over the situation down there and he feels that they can design a 250-megawatt, so it will take 16 of them to replace Nanticoke. But he doesn't advise it. He still says they need a Nanticoke as an up-and-down unit.

1450

Gas turbines: Producing power costs seven and a quarter cents per kilowatt, and even more. That's not even paying for the unit.

Power supply by wind power: That is very interesting. I worked on that. We found out that at eight cents—three and a half or four years ago we were guaranteed eight cents a kilowatt—we could not make it a feasible thing. It just wasn't there. You took 30 years to pay for it, and in the meantime you had to replace the whole head at an enormous cost. The repairs on them are costly. But that was then. We just found out last Friday that the units going up at Shelburne have signed a sweetheart deal. They're getting eight cents the first year, 11 cents the second year and 14 cents the third year. So that's an indication that power could be going up in the next three or four years.

Gentlemen, I'm pleased to be here today and honoured to be in such company. Thank you.

The Chair: Thank you, Mr. Simpson. We have about five minutes in total, so I guess that means about 90 seconds each. We'll start with the government side.

Mr. Kevin Daniel Flynn (Oakville): The EBM: I haven't heard of this before, I'll be honest with you. I'm always intrigued by new ideas that people bring forward. It sounds a bit like the perpetual motion machine that I remember as a kid, that everyone was trying to find.

Mr. Simpson: Perpetual motion—there are 1,100 of them designed. They work, but they have no shaft power.

Mr. Flynn: Where would I see one of these that is working?

Mr. Simpson: There will be one here in Norfolk, possibly this fall, called Port Ryerse Power. It will be the showpiece of Canada and the United States.

Mr. Flynn: You mentioned some other cities. One of them was Budapest. Is there one in operation in Budapest?

Mr. Simpson: The boys moved from Toronto and went to Budapest because the engineering cost is one third over there, and they finished designing the unit over there.

Mr. Flynn: So that's operating now?

Mr. Simpson: They have a small prototype running. It will operate 50 one-horsepower motors hooked to whatever you want to hook them up to. They have been able to raise close to \$100 million to start building these units.

Mr. Flynn: You talk about "a previously unknown source in a magnetic field...." What is that? What have they found out that we didn't know before?

Mr. Simpson: It's all in the patent. He's got it patented in 60 countries in the world. He has a plan stored on three continents.

The Chair: We'll move now to the official opposition. A question for Mr. Yakabuski, 90 seconds.

Mr. Yakabuski: Thank you very much for your presentation. I'm not surprised that the government side would ask about that unit that's operating in Budapest or Bucharest. Budapest?

Mr. Simpson: Budapest.

Mr. Yakabuski: Because I'm sure they're planning a trip. Probably all five of them will be going there, at our expense, to have a look at it sometime this summer. The minister will probably go as well.

Anyhow, I certainly appreciate your comments on the necessity to maintain the operations here at Nanticoke, because at this time we have no replacements for it. It seems a shame that this party that calls itself the party and the government of the environment has wasted two and a half years, time that we could have been cleaning those coal plants. They have not made a single penny of investment in order to do that. That's a disgrace for the environment.

Thank you very much for your presentation.

Mr. Simpson: I would like to add that this is the first public presentation of the EBM, other than the city of Brantford. Norfolk Power knows about it. They have worked with the engineers at Norfolk Power, engineers who came in and studied the site and also worked with them so that these units can be hooked up. And we've worked with Ontario Hydro. They use the same equipment as they do to hook these units up to the grid. These also have an awful lot of heat. You can put one in, and it was just calculated by another person—not us—that one of these 10-megawatt units will heat 280 houses and air-condition them, plus you have cheap power, guaranteed at six cents.

The Chair: We'll now proceed to Mr. Hampton.

Mr. Yakabuski: I just want one comment: I'll wait to see the one operating in Brantford. I'll come and see it there.

Mr. Simpson: Port Ryerse.

Mr. Hampton: I looked at your brief, and you point out some things here that I think need to be explored. You point out that some things you simply can't switch to off-peak hours, that there are things that we do in our daily lives that you have to do at a certain time. For example, I don't think anyone would ever dream of telling their children that they have to go to school at 10 o'clock at night because it's off-peak for electricity. I don't think anyone would dream of shutting down their freezer or their refrigerator between, say, 9 in the morning and 4 in the afternoon because it's peak time for electricity—which is the other issue with smart meters. A lot of our electricity use is not discretionary; it is determined by appliances that always have to be on—your fridge or

your freezer—or it's determined by the fact that we are not nocturnal animals; we are not raccoons and rattlesnakes. We tend to perform best during the daylight hours. Or it's determined on the other side of the ledger: Many things that the government is citing, we already do at off-peak times.

My wife works, I work, so we don't prepare supper until after 6 o'clock at night, after we get the kids home from school and get everything settled down. You don't wash the dishes—and we still wash them with our hands—you don't do the laundry until 8 o'clock or 9 o'clock at night, after you've got the kids to bed. If this is sort of the normal, everyday rhythm of people's lives, if we can't send our kids to school at midnight, and many of us are already doing things at off-peak hours because the daytime is busy, it says to me that before we go down a \$2-billion boondoggle, there should be some real demonstration of what the benefits of smart meters are going to be.

The Chair: Thank you, Mr. Hampton. Regrettably, the time has expired.

I'd like to thank you, Mr. Simpson, on behalf of the committee for your deputation, for coming forward, as well as your written submission. As I have mentioned, it's very much appreciated.

GRANT CHURCH

The Chair: We'll now hear from our final presenter of the day. I just advise the committee that the scheduled final presenter, Reduce the Juice Project, sent their regrets. So we'll be hearing from Mr. Grant Church, who is here in his capacity as a private citizen. Because of that, he will be allotted 15 minutes, as opposed to the usual 20 minutes, which is the time extended to corporate or organization deputations.

Mr. Church, as you've seen, you have 15 minutes in which to make your presentation. Any time remaining will be distributed evenly among the parties afterwards. Please begin now.

Mr. Grant Church: My name is Grant Church. I live in Cayuga. I work in a stamping plant in Dundas. I'm here as a concerned citizen. I'm not a member of a political party.

I would like to say that smart meters are great if they are optional. Many people and businesses would be hurt as they have no way of shifting their power consumption to the off-hours. Those who have respiratory problems and who live in apartment buildings and have to use air conditioners would be penalized through no fault of their own.

Has a cost-benefit study been done? How much will these smart meters cost? The coal cost-benefit study was grossly flawed and skewed to tell the government what it wanted to hear. The OPA report excluded coal plants at the minister's directive. Again, it told the government what it wanted to hear. So who is saying that we should be forced to use smart meters?

On page 16 of the coal cost-benefit study—and I ask you to turn to that; it's the blue tab, third page in—you'll

note that there's a section for Haldimand Norfolk right in the middle. It says that ozone reduction, if they use stringent controls, would be 48%. If you look at the PM_{2.5}, which is particulate matter of 2.5 microns or less, it's estimated that the reduction would be 69%. Now, it's obvious to me that the best available control technology was not used in this study. There's useful information in this study, but it's useless as a cost-benefit study. I looked at the numbers in the coal cost-benefit study on NO_x emissions at Nanticoke, looking at the six units that didn't have SCRs. I calculated an 80% reduction on those units, and the overall reduction would have been 72% in NO_x. If they went to state-of-the-art technology, which Babcock and Wilcox can supply, they would have got 95%. Looking at 95% on all eight units, there would have been an 87% reduction. Now, if we look at the particulate matter, today's equipment can easily achieve over 95% reduction in particulate matter.

1500

This past fall, in October, I drove to Toronto to meet with Ministry of Energy officials. On the way there on the QEW, I couldn't believe that there was a brown haze obstructing my view of the downtown. The wind was blowing out of the northwest. It wasn't coming from a coal plant; it was coming from Toronto. Toronto's problem is Toronto's problem. A couple of years ago I was in Hamilton down on Gage Street, between King and Main, at my son's apartment. I could hardly breathe the air. My eyes were watering, my throat was burning and my nose was burning. I thought, I live in Cayuga and I have never experienced anything like that, and I live directly downwind from Nanticoke generating station.

Anyway, the list of stringent controls on page 6—you don't have to look at that, but it's included here so you can see it for yourself. Improved low-NO_x burner systems or wet electrostatic precipitators were not included. These are essential to achieve maximum emission reductions. If you just look at the front cover of my report, you'll see what a wet electrostatic precipitator is. This is a tube type. It has a series of tubes with a rod down the middle that they apply 80,000 to 100,000 volts of DC current to. It charges the wet and dry particles negative, which attract to the walls, which are positive, and then periodically they flush the tubes. You could easily get over 95% reduction in particulate matter and acid mists, which include sulphuric acid, hydrochloric and hydrofluoric acids and sulphur trioxide.

New Brunswick Power included this equipment in their Coleson Cove plant upgrade. Why wasn't it included in this study? In 2001, Babcock and Wilcox clearly showed that coal could be burned as cleanly as natural gas, as far as NO_x and particulate matter. It is obvious that there wasn't a professional assessment of what was available.

If you look at the purple tab, it will take you to a document by Babcock and Wilcox entitled, "How Low Can We Go?" If you turn to page 6, you'll see a bar graph which compares coal to natural gas. Clearly, it shows here from their results that coal plants, using either

bituminous coal or Powder River Basin coal, which is a very low-sulphur coal, with SCRs, could achieve NO_x reductions similar to those of a combined-cycle natural gas plant.

OPG invested in Powerspan Corp., which developed the ECO system. It wasn't available at the time the study was done, but it shows that technology is steadily advancing. ECO is an integrated, computer-controlled, multi-pollutant control system. It is designed to follow the load of the generator. This is extremely important because our coal plants rise up and down to follow the load, so we need equipment that will follow the load. I talked to the president of that company personally to get that information. Why is it that I, an individual, common citizen, can call an American corporation, get through to the president and get that information, but the government doesn't seem to be able to get it?

I toured the plant where it is in operation, and it was even better than I had read about. The system is removing over 95% of the 1% to 2% of the particulate matter that the dry electrostatic precipitator missed. The sulphur dioxide emissions are less than 10 parts per million, and as low as one or two parts per million; 90% of the nitric oxides are removed. It is also removing over 95% of the acid mists, including over 99% of the hydrochloric acid and 97% of the hydrofluoric acid; 85% of the mercury is removed along with over 95% of the other metals.

Look to the green tab, and you'll see a page showing metal removal rates. You see that eight of the 10 are being removed at a level over 99%, and that's largely because the system includes a wet electrostatic precipitator. That piece of equipment, by the way, was invented in 1907, it's been commercially available ever since and it was designed to run on a copper smelter to collect copper and sulphuric acid. What do we have to collect at a coal plant? We've got to collect the metals and the sulphuric acid.

Another point to keep in mind: Dry ESPs also remove a significant amount of mercury. At Nanticoke, they remove 50% to 65%. If you add an ECO system, your removal rate is going to be over 90%. At Lambton, they have an SCR-sulphur scrubber combination, which removes up to 95%. The reason for that is, an SCR oxidizes mercury, the sulphur scrubber removes oxidized mercury. If they added a wet ESP to that plant, I figure they might be able to push 100% mercury removal.

If you go to page 9 in the last document—it's the one with the black pages—it shows a picture of the system that I toured. As we went up the tower, there was a window in the sulphur scrubber. You couldn't really see into it; you only saw the face. All you saw was this white, swirling fog. We went up to the top, and looked in the top of the wet ESP: It was as clear as day. I had to take a second look. I could look through the window on the other side. It was that clear.

Another important point about this system is that it generates a very valuable fertilizer product called ammonium sulphate, so you don't have a lot of landfill costs. And the mercury is filtered out, which is a very

small amount of material to dispose of. I believe we should install this equipment on our coal plants and keep them open.

What about nuclear? In the same study, on page 9—it's in here, but you don't have to turn to it—Pickering was expected to cost \$1,400 per installed kilowatt; it cost \$2,600. Bruce units 1 and 2 were to cost \$1,300; it is proposed by Bruce Power to cost \$1,667. Again, I called them to find out how much that would cost. Nuclear is a sinkhole for money, and much of the remaining debt from Ontario Hydro is from building those plants. I think we should keep them open but not build any more until those ones are paid for and find out what to do with the waste. All the waste that was ever created at those plants is still there. We've got a big problem to deal with.

1510

What about natural gas? This past November, the gas generators were asking 14 cents a kilowatt hour, almost three times as much as what we pay. In December, Lennox generating station, which uses natural gas, was asking 19 cents a kilowatt hour, almost four times as much as what we pay. On the New York Mercantile Exchange, natural gas hit a peak of 65 cents a cubic meter. It's only because of this incredible record warm weather that we're having this winter that the price has dropped somewhat. Enbridge said that if we don't get natural gas by LNG tanker—that's liquefied natural gas—in the next five years—and they said this a couple of years ago—we're in deep trouble. They said there'll be gas to meet the basic needs, but it will be at a price we're not going to want to pay.

David Hughes, one of the chief geologists in this country, gave a report to the Ontario government: Don't use gas. It's running out and there's no way that the country can sustain the increase in gas production for consumption to run natural gas-fired electricity stations. In California, if you want to know what happened there, they had a drought. The hydroelectric stations weren't able to produce enough. They tried using their gas stations and the pipelines couldn't supply enough gas. Another fact about California: They don't have coal plants. No, they import 21% of their electricity from coal-fired generating stations outside the state. What will happen if we have a crippling winter like Europe is getting? Will we freeze in the dark, or will we freeze with the lights on? Will we get the gas and no power, or the power and no gas?

In May, we'll likely be facing a 60% increase in the price of electricity, rising from five to eight cents. Spare us more grief by not making smart meters compulsory.

I thank you for hearing my views.

The Chair: Thank you, Mr. Church. We really just have a minute left, so I'll start with the opposition for a quick comment, please.

Mr. Barrett: Thank you, Grant, for testifying. I hear what you're saying on mercury removal with SCRs and other technologies. I'm assuming, given the relative affordability of coal, we can afford to put just about every type of pollution technology that you can think of on the units around Ontario.

One question: What about carbon dioxide? We know natural gas plants also produce carbon dioxide, about half of what coal plants do, but it's still there. How do we get around this? Emissions trading or focus on other areas?

Mr. Church: Three principle ways: One, they can go to a more modern turbine that will give them about 5% reduction in CO₂. Second is biomass: In Denmark they burn wood pellets that they buy from Canada to blend with their coal. The next one is cogeneration. Certainly there's huge amount of surplus heat at Nanticoke that could be used to run greenhouses, for instance.

The Chair: Thank you, Mr. Barrett, and thank you for your efficient answers, Mr. Church. We'll now move to the NDP.

Mr. Hampton: I'm intrigued by your comments about Europe. What do you know about Denmark, Germany etc.? On the one hand, they've invested heavily in wind turbines, but on the other hand, I'm told that almost all of the wind-generated electricity is backed up by coal. What do you know?

Mr. Church: I've heard that every coal generator in Germany has an SCR and sulphur scrubber. That's where they apparently discovered that the SCR was oxidizing mercury, and they're getting basically an 80% reduction in mercury fleet-wide, at least that. There's been interesting work done at the University of Stuttgart. They proved that they could oxidize 100% of the mercury by adding chlorine to the coal exhaust.

The Chair: Thank you, Mr. Hampton and Mr. Church. We'll now move to the government side. Just one minute, gentlemen, please.

Mr. Leal: Thanks very much for your presentation. What are your views on conservation? You spent a lot of time on coal and aspects of that. The bill, of course, is Bill 21, smart metering and conservation. I'd like to hear your views on conservation.

Mr. Church: Okay, well here's my hydro bill. I spent \$35.02 on hydro and \$2.45 on GST. The actual hydro portion was \$13.40. If I have to pay, let's say, a \$7 fee a month for a smart meter, there's no way I can reduce my power consumption any further. Certainly using gas appliances instead of electric—using a gas hot water heater, using a gas dryer. Replacing old microwaves—I had about a three-kilowatt a day drop when I replaced my old microwave. I called the store: "What's going on? I just bought a new microwave." They're just that much

more efficient. Certainly, replacing refrigerators that are 20 years old really helps. Fluorescent lighting—I have fluorescent lighting throughout the house. My heating system—I have a gas fireplace and a radiant heater which doesn't require—

The Chair: Thank you, Mr. Church, for your presentation and your—

Mr. Yakabuski: On a point of order, Mr. Chair. I would certainly love to entertain a motion, if we could compare Mr. Leal's hydro bill to Mr. Church's hydro bill, to see who thinks more of conservation.

The Chair: I believe we'll require an order in council for that, Mr. Yakabuski. You're welcome to submit a petition in Parliament. Thank you.

I'd like to, first of all, thank you on behalf of the committee, Mr. Church, for coming forward, as well as for your very thoughtful written presentation.

I'd like to advise members of the committee that we will be meeting, as you know, tomorrow for day 4 of hearings, Wednesday, February 8, in Chatham, Ontario, at the Wheels Inn. I'm told we'll be leaving from Union Station at 7:50 a.m., meaning the train will be leaving at 7:50 a.m. I've been trying to negotiate with the clerk, Mr. Koch, as to what is the absolute latest he would require us. His opening volley was 7:15 a.m.—

Mr. Hampton: Forget it.

The Chair: —which is approximately my reply.

The Clerk of the Committee (Mr. Katch Koch): How does 7:30 sound?

Mr. Hampton: That's better.

The Chair: Committee members are invited to present themselves at Union Station at 7:30 a.m. for a 7:50 a.m. departure.

Unless there's any further business—yes, Mr. Barrett?

Mr. Barrett: Perhaps a point of order, Mr. Chair: I've been subbed on this committee today, so I'm not familiar with the protocol. I do wish to put forward a motion, essentially, that this committee consider keeping the Nanticoke generating station open. Would I write this up at this time, or is this done during clause-by-clause?

The Chair: I presume this would be presented during clause-by-clause, probably as a written motion, certainly.

Seeing no further business, this committee is adjourned until Chatham, Ontario.

The committee adjourned at 1518.

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