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Wednesday 8 February 2006

Standing committee on justice policy

Energy Conservation Responsibility Act, 2006

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Mercredi 8 février 2006

Comité permanent de la justice

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

Chair: Shafiq Qaadri Clerk: Katch Koch Président : Shafiq Qaadri Greffier : Katch Koch

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STANDING COMMITTEE ON JUSTICE POLICY

Wednesday 8 February 2006

The committee met at 1300 at the Wheels Inn, Chatham.

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, 2006 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 2006 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 Qaadri): Ladies and gentlemen, I'd like to officially call this meeting of the standing committee on justice policy to order here in Chatham, Ontario, on day four to consider Bill 21.

With your permission, I might just introduce the participants. My name is Shafiq Quaadri, MPP for Etobicoke North. To my left, we have Mr. John Yakabuski of the official opposition, MPP for Renfrew–Nipissing– Pembroke. We have in the far corner Mr. Howard Hampton, MPP for Kenora–Rainy River as well as leader of the NDP. On this side, the government side, we have Ms. Jennifer Mossop for Stoney Creek, Mr. Jeff Leal for Peterborough, Mr. Kevin Flynn for Oakville, Mr. Bruce Crozier for Essex and Mr. Jim Brownell for Stormont– Dundas–Charlottenburgh.

CHATHAM-KENT HYDRO LTD.

The Chair: I will now invite our first of the presenter of the afternoon, Mr. David Kenney, president of Chatham-Kent Hydro. Mr. Kenney, just to inform you, you'll have 20 minutes in which to make your presentation. Let's say if you go 15 minutes, if there is time remaining afterward, we'll distribute that evenly amongst the parties for questions and comments. I would invite you to begin now.

Mr. Dave Kenney: I am Dave Kenney and I am the president of Chatham-Kent Hydro. I will be speaking

ASSEMBLÉE LÉGISLATIVE DE L'ONTARIO

COMITÉ PERMANENT DE LA JUSTICE

Mercredi 8 février 2006

with you today on behalf of Chatham-Kent Hydro. Attending with me, I might add, are Mr. Ray Payne, who's sitting over here—he's the CEO of Chatham-Kent Energy—and Mr. Jim Hogan, who is the CFO of Chatham-Kent Energy.

I appreciate the opportunity to make a presentation to the committee on behalf of Chatham-Kent Hydro regarding the Energy Conservation Responsibility Act. I'm going to focus my comments today on the sections of Bill 21 referring to smart meters and the amendments to the Electricity Act, 1998.

A bit of history: Chatham-Kent Hydro was incorporated on October 1, 2000, and is the local electricity distribution company, serving approximately 32,000 customers within the municipality of Chatham-Kent. Chatham-Kent Hydro is one of three subsidiary companies of Chatham Kent Energy, which is 100% owned by the municipality of Chatham-Kent.

In early 2004, the Minister of Energy established a commitment to smart meters, with the goal to use smart meters as a tool to reduce the demand for electricity during peak energy consumption periods. The former Minister of Energy, the Honourable Dwight Duncan, is quoted as saying, "The government of Ontario's vision is to redesign our energy sector to reliably and affordably deliver the power that Ontario's homes and businesses require, and to do so in a way that does not threaten our environment."

Chatham-Kent Hydro thus began to research consumption habits of consumers and found studies that concluded that simply educating consumers on their energy use habits and more efficient energy products would cause consumers to reduce consumption by 5% to 10%. Compounding this with providing price incentives to shift or curb their energy use will assist the province in achieving the targets required to meet their generation initiatives.

Chatham-Kent Hydro also began to research smart meter technologies and strongly believes that providing customers with a smart meter will also provide them with a tool they can use to conserve energy and shift demand to off-peak times. The smart meter also has to be integrated with an in-home visual display so that the customer can access their own usage patterns and see the benefits in changes to those habits.

Chatham-Kent Hydro established several key principles prior to the selection of a smart meter product, including: —Look beyond the meter for cost recovery. We knew that whatever we chose must provide other efficiencies in power outage, notifications and things like that;

—We wanted to minimize stranding of assets. We have over \$2 million in metering assets, so we wanted to find a product which would reuse those assets rather than throw them away;

—Ensure the system is not proprietary;

-Establish openness with other existing systems;

—It must be flexible and robust for future opportunities and expansions; and

—It must be less than the costs being publicized, which at the time and still today are publicized in the \$4 per month per customer range for a smart meters. We set a target of less than \$2 per month; that was our goal.

After an extensive process, Chatham-Kent Hydro selected the Tantalus TUNet system for our smart meter pilot program. Chatham-Kent Hydro deployed a 1,000meter residential smart meter pilot using the retrofit product and a 220-MHz communication technology from Tantalus System Corp. of British Columbia. This is the first pilot of its kind in Canada, and has proven to be an efficient way to install and operate a smart meter system. The interface was also completed to our Harris customer information system, and Chatham-Kent Hydro is able to produce a time-of-use bill for our smart meter customers.

An energy conservation module has also been added to the billing system, which will enable our customers to access their energy consumption information via the Internet. Not only will it provide previous-day hourly consumption data to customers, but it also provides tools to help them manage their energy use.

Our smart meter wireless infrastructure is also capable of reading other utilities' meters. A pilot is also being considered in the near future to partner with the local public utilities commission to interface to read some of their water meters, to integrate them into the system.

The most exciting part of our smart meter system is the cost. Our goal was to ensure that long-term operating costs are in an acceptable range, and our target was to be significantly lower than the \$4 per meter quoted throughout the province. We took the approach to avoid the use of expensive landlines or phone lines for communication, and we chose to retrofit meters rather than replace them. Upon completion of the installation of our 1,000 meters and communication infrastructure and the interface to the billing system, the firm of Deloitte Inc. was contracted to examine and validate our results. They were to assess our costs and cost estimates, validate our assumptions and conclusions and report their findings

Deloitte's findings are that the monthly cost for a completed smart meter deployment by Chatham-Kent Hydro is \$1.29 per month per customer. Deloitte also stated in their report that the Chatham-Kent Hydro smart meter initiative would also likely result in an incremental monthly customer charge between \$1.20 and \$1.40 per costumer per month. This cost includes efficiency gains that will result from the automated meter reading etc. Our goal to be less than \$4 has been realized, and we believe

that as customers are educated to use energy in low-price periods, the low cost of smart meters in Chatham-Kent will easily be transferred to a savings for the costumers.

The progress a local distribution company like Chatham-Kent Hydro has made in smart meters is an example of what small and midsize distributors with low overheads and no bureaucracy can accomplish.

In schedule B of Bill 21, the smart meter entity is introduced. The smart meter entity is a new corporation that will, as stated in article 53.8, plan, implement and, on an ongoing basis, oversee, administer and deliver any part of the smart metering initiative and, if so authorized, have exclusive authority to conduct these activities. Bill 21 goes on to give the smart meter entity the authority to store the customer data and own and operate the communication systems.

Chatham-Kent Hydro supports the government's smart meter initiatives and conservation efforts, and has demonstrated this by being a leader in the province in smart meter deployment. What we have difficulty supporting is an additional corporation to manage the smart meter deployment and manage the customer data and communication system. We believe this will result in additional costs and unnecessary bureaucracy. The smart meter entity could be an added cost to the ratepayers of electricity in Ontario. The smart meter entity may also continue to delay the deployment of smart meters.

The government has challenged the electricity stakeholders to install a smart meter on every home and business by 2010. Some of us have stepped up to the challenge, and Chatham-Kent Hydro is definitely ready.

Chatham-Kent Hydro has demonstrated that progressive local distribution companies are fully capable of deploying smart meters along with any other core electrical distribution function. We believe any cost greater than \$1.29 per month per customer for Chatham-Kent for smart meters will be due to unnecessary thirdparty bureaucracy.

Chatham-Kent Hydro thanks the committee for the opportunity to make this presentation and respectfully requests that the government reconsider the need for a smart meter entity.

The Chair: Thank you very much, Mr. Kenney. You've left a lot of generous time for us for questions. I would invite the official opposition to begin. We have about four minutes or so per party. Mr. Yakabuski. **1310**

Mr. John Yakabuski (Renfrew–Nipissing–Pembroke): Thank you very much for your presentation. A couple of questions on your pilot project—and I apologize if the answers are in here. Sometimes we read ahead and sometimes we miss things.

On the cost of your metering program, \$1.20 to \$1.40—I see the \$1.29—is that the administration, or does that include the capital costs for the meters themselves?

Mr. Kenney: Yes, that includes the capital costs of the meters and the operating costs—the maintenance of

the meters, the communication cost, the storage of data cost. That's the complete system.

Mr. Yakabuski: So if any smart meter program takes more than that to operate it, then somebody's doing something wrong, is what you're saying?

Mr. Kenney: For Chatham–Kent, it works fine. If it's much greater than that, we feel it's not necessary, and we've proven that with this pilot.

Mr. Yakabuski: When you chose your—it was 1,000 meters?

Mr. Kenney: That's correct.

Mr. Yakabuski: Was that done on a random basis? How did you pick the 1,000 installations? Is there anything that you have as far as results? Because how you choose them is important. If they're cherry-picked, if you want to call it that, then you can show what you want to show, whether they're the best savings or worst savings, whatever. How did you pick them, and have you got some data for the reductions in consumption?

Mr. Kenney: We have a service territory that stretches 2,400 square kilometres in Chatham–Kent. Why we needed 1,000 is so we could cover all that territory. So we chose meters at the far ends of the territory to ensure our communication system—which is wireless; it communicates from one tower in Chatham; that's it—so we had to make sure we hit all those pockets where we may have some experience and difficulties with communication. We had a 0.2% communication failure rate. It was very minor. That's about 10 or 12 meters which acted up on us. Those were fixed by raising the modules out in the field and things like that.

Mr. Yakabuski: As far as any data on consumption reductions, have you got that?

Mr. Kenney: Yes, we have data for all those meters on an interval basis, on a time-of-use basis, stored right now in our system.

Mr. Yakabuski: Can you give us a ballpark as to what those figures—

Mr. Kenney: What the figures are telling us is, for example, for an electrically heated home in Chatham-Kent that is on a smart meter, the cost is reduced by approximately 5% without that customer doing anything, because the electric heat—the time-of-use rates, we're not yet able to use them, but we take them and compare their existing charge to if they were on a time-of-use rate. For example, an electrically heated home would see a reduction of about 5% of their bill by doing nothing.

Mr. Yakabuski: Whether smart meters change any behaviour, by having the variable pricings throughout the day, there will be a savings to someone on electric heat of about 5%, is what you're saying.

Mr. Kenney: Yes. To a customer of electric heat, by using a smart meter and time-of-use rates, they will see a savings of 5% without doing anything. So a customer who really tries can easily save 10% to 15%.

Mr. Yakabuski: Well, I suppose, if they're in a position to make changes, and that's my next question. We had a gentleman here yesterday—not here; in our last location—talking about how there is no fat to cut in his

electricity bill. He produced a copy of his bill, which was very low. When we're talking about a mandatory program, and some estimates on these meters could go as high as \$8 a month—not in your experience, but—

The Chair: Thank you, Mr. Yakabuski. I will need to move on. I offer the floor to Mr. Hampton of the NDP.

Mr. Howard Hampton (Kenora–Rainy River): I'm interested in your comments on the smart meter entity. I think you're making the case that municipal electrical distributors such as your own are equipped. You know your market, you know your population, etc. So you're able to deliver this, and you're able to deliver it, as your information shows, efficiently or at least cost-effectively. So why do you think the government is interested in another large entity called a smart meter entity, which will be a very powerful body? I don't know if you've gone through all of the power that it would have and all the power the minister would have to give it more authority. What's the interest in creating this large body, do you think?

Mr. Kenney: I don't want to make assumptions. I believe procurement of materials could be part of their reason; storage of data. Some seem concerned about the volumes of data that smart meters will create and who's going to store that. We've done testing on data storage and it's not an issue for us to store up to seven years of data of our customers. We think that some of those concerns aren't really justified.

Procurement, supply: We've checked with our suppliers. In our case, we can get the material we need. So we think those are some of the reasons, and maybe the fact that deployment is to hit 2010—if LDCs don't get started now, that's going to be a hard target to hit. That's why we've taken this initiative.

Mr. Hampton: The other thing that interests me about your submission is that you point out that when you installed your system, you were thinking outside the box; you were thinking in terms of other opportunities, whether it be water billing etc. So I want you to speculate here. Could it be that what the government really has in mind is creating a commercial entity that wouldn't just be aimed at electricity use but would be aimed potentially at a lot of other consumer products?

This will be a very powerful agency. We had the Pembina Institute come and say that they were really nonplussed that there was no privacy protection here, because the information you'd have through smart meters would tell you when somebody potentially left their home in the morning, when they got home, when there was no one at home. In other words, there's a considerable amount of information here that could be used for all kinds of commercial and potentially noncommercial uses.

Do you think there needs to be some protection here of people's privacy? And does it concern you at all that this kind of very powerful body would be created?

Mr. Kenney: As long as the systems are secure, I think information can be protected, whether it is a central body or not. We use EBT processes now to send data to

retailers, and they're protected. I'm not overly concerned about that. I'm more concerned with the fact that we feel we're best to deploy the meters because we know our customers, we know our issues, we know where the technical issues will come up and things like that. So we're not really concerned about that issue.

The Chair: We'll move now to the government side, beginning with Mr. Crozier.

Mr. Bruce Crozier (Essex): Thank you, Mr. Kenney, for your presentation. I'm struck by the fact that you've said here that this is the first pilot of its kind in Canada and it's proven to be an efficient way to install and operate smart meters. With the program that you carried out, the test that you carried out, I take it that Chatham-Kent Hydro is anxious to get on with this, notwith-standing some of the suggestions you have where the bill might be amended. I take it you're quite anxious to get on with this and you'd like to be one of the first ones up to bat, eh?

Mr. Kenney: We filed with the Ontario Energy Board in our 2006 rate submission to deploy our smart meters, starting in April of this year. We feel we have to get on with it, because to hit 2010 and to spread not only the cost but the workload for our staff and everything else that's the time we need to get them installed. We feel there's nothing left for us to test. We're ready to go ahead and start installing smart meters. Our suppliers are lined up. There's really nothing holding us back now.

Mr. Crozier: And if this bill were to be passed, then perhaps the parliamentary assistant to the minister could make sure that happens. You may have some comment in that respect.

The Chair: Mr. Leal.

Mr. Jeff Leal (Peterborough): Thanks very much, Mr. Chairman. Through you to Mr. Kenney, I really appreciate your presentation today. You've certainly provided a lot of analysis—very helpful—on your pilot project. It gets rid of some of the myths that have been out there about smart meters.

I would ask, sir, if you could provide—Deloitte provided a third-party analysis on your pilot project. If you'd be so kind, could we get a copy of that analysis and could you provide it to Mr. Richmond, the research officer, because I think it should be part of our package we get when we finish our deliberations here.

My colleague Ms. Mossop would like to ask you a question.

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Ms. Jennifer F. Mossop (Stoney Creek): Thank you very much for your presentation. I was curious: You were talking about the in-home monitor. Can you describe that? We had some discussion around that previously from some other presenters too.

Mr. Kenney: Currently, it's an Internet-based module and the customer can access their billing information from the previous day and look at what their consumption was during that day. It'll also tell them what the prices were during those hours. Also, it offers them a module called a DSM, where they can actually profile their own appliances. They can input data and it can tell them what appliances they should replace to get more efficient appliances and what that will do to their load. They can use those data to help them purchase more efficient equipment and things like that.

Ms. Mossop: Since we're in a technological age, with technological generations right now, we've been talking on the road about the culture of waste that we're in, while we're trying to foster a culture of conservation. I'm wondering if you can extrapolate a little bit about the educational value that Internet tool might have for children in the family or maybe even in schools.

Mr. Kenney: We actually have a school program right now. We're going to every grade 5 class and we're introducing them to smart meters and conservation and things like that. We have every school in Chatham-Kent. We're about a third—

The Chair: Thank you, Mr. Kenney. I'd like to thank you, on behalf of the committee, for your written submission and for your presence here today.

WIREBURY CONNECTIONS INC.

The Chair: I'd now like to welcome our next presenter, Mr. Rick Rakus, general manager and chief operating officer of Wirebury Connections. You've just seen the protocol. There are 20 minutes in which to make the presentation, with the time remaining to be distributed for questions and comments. I invite you to begin now.

Mr. Rick Rakus: Good afternoon. My name is Rick Rakus, and I am with Wirebury Connections. Wirebury Connections thanks the committee for the opportunity to present our comments on Bill 21 and our support of the government's initiative to take a leadership role in creating a conservation culture in Ontario.

Wirebury would like to share with the committee its experience with smart metering in the multi-unit residential market. We'll be speaking to a number of slides that I believe have been distributed to the committee members.

Wirebury supports the government's conservation initiatives, and has found there are significant electricity conservation and demand-response benefits that can be realized from sub-metering, with smart meters, the apartment and condominium markets.

Wirebury Connections Inc. is a leader in smart metering and sub-metering multi-unit residential buildings, and is owned by Enbridge and OZZ Corp. We have approximately 4,000 smart meters installed in condominiums and apartments, and proposals with interested property owners, property managers and developers for an additional 25,000 units that we're working on. Our customers have access to their electricity profiles to see their peak usage and how they can shift the use of their appliances to their benefit; for example, using their dishwasher later in the evening. Wirebury has the capability to rapidly scale up and implement anywhere between 100,000 to 500,000 smart meters in the multi-unit residential market to help the government achieve its target of 800,000 smart meters by 2007.

The benefits of sub-metering: With over 950,000 residential units not accountable for their electricity, we believe there are significant conservation benefits to be realized. We believe that the multi-residential apartment and condominium market should be pursued as the government works toward its goal of implementing smart meters and smart pricing in Ontario. We have seen significant reductions in electricity consumption, and estimate that converting all multi-unit residential buildings to individual smart meters can reduce Ontario's peak demand by anywhere between 190 to 380 megawatts enough to offset two years of the IESO's forecast growth in demand for Ontario.

Consumers will take custody not only of their electricity costs, but will directly receive the benefits of their conservation efforts. Our multi-residential customers want and expect the same access to retail markets in time-of-use pricing as others. Smart metering this market will eliminate the creation of a two-tier electricity market or two-tier access to electricity pricing and services available in the marketplace.

I would like to briefly describe a couple of case studies that I put before the committee.

The first involves an apartment building. The benefits, I think, of sub-metering are proven. Our case study of the two apartment buildings shows customers who are directbilled for electricity use can reduce their use by 40% to 50% over those who are non-direct-billed. In these buildings, consumption varies dramatically, anywhere from 250 kilowatt hours to upwards of 1,200 kilowatt hours. The graph I have handed out as part of the package shows the difference in consumption patterns between those customers who are direct-billed and those who aren't billed or pay their electricity through their rent. The graph highlights that.

The second case study I'd like to point out is a condominium project that we have also completed and have had operating for a year. It's a 725-unit condominium project. The graphs that are attached to that show the significant variances in consumption for similar-sized units. Consumption varies, as seen in the two graphs, anywhere from 242 kilowatt hours to upwards of 968 kilowatt hours, again highlighting the opportunity to conserve and the dramatic difference in consumption and, more importantly, peak hourly usage between similarsized units. The graphs you see in the package are the actual energy profiles that our two customers see. These are two of our customers' actual usage for that time period.

We have also looked at the impact of smart pricing, or time-of-use pricing, for this project and have identified that 62% of the residents in the building would be better off under the new proposed time-of-use pricing that will come into play in May over the current five-cent regulated price plan mechanisms.

The sub-metering industry is ready to implement. I should point out that we are just one of the sub-metering

companies operating in this competitive marketplace, and you have heard from some of the others in the last few days. We have the flexibility and capability to deliver smart meters in this unique market.

For our sector to contribute to the goals of Bill 21, clear direction on the smart meter initiative is required.

Wirebury respectfully recommends that the government expand the smart meter initiative to include multiresidential buildings, targeting 90% smart meter installations by 2010, similar to the other marketplace.

We would recommend that the government direct the OEB to implement licensing of sub-meters by April of this year to allow sub-meterers to offer our customers retail access and other service offerings.

We would recommend respectfully that the government direct the chief energy conservation officer of the province to broaden the eligibility for low-cost financing to include the multi-residential sector and target specific CDM programs to this marketplace.

We recommend that the government direct the Ontario Power Authority to include the significant benefits of sub-metering in its overall resource planning framework.

We would suggest that the government direct all new multi-residential buildings to incorporate individual smart metering systems as of today.

We would recommend that the government use an approach to ensure that households in assisted housing units receive subsidies that recognize both rent and energy costs.

In summary, sub-metering can support Bill 21's objectives. I think it's a proven approach in the multi-unit residential marketplace. There are a number of companies that are ready to rapidly implement smart meters in this particular market sector. We can achieve at least a 20% reduction in electricity use with significant benefit, particularly around the greater Toronto area, in some of the transmission and distribution constraints. I believe it will introduce more people in Ontario to the conservation culture. But government action and direction on smart metering is needed to facilitate conservation and demand response in this market.

The Chair: Thank you, Mr. Rakus. We'll begin with the New Democratic Party. Mr. Hampton, about four and a half minutes.

Mr. Hampton: Chatham-Kent Hydro was kind enough to share with us the study and results of their pilot project. Do you have similar data?

Mr. Rakus: The data we have, Mr. Hampton, are what we used in the graph. We can provide additional data on our projects, if required.

1330

Mr. Hampton: I'm interested in a couple of particular things. In terms of the apartment buildings, do you know if they used electric heat or not?

Mr. Rakus: They were not electrically heated.

Mr. Hampton: Okay. Do you know when the buildings were built?

Mr. Rakus: These buildings are in Scarborough. I'm going to guess they were probably built in the 1960s. I

would characterize the area that they're in as not a highrent area of Scarborough. In fact, there are a number of units within the building that are social housing units and subsidized.

Mr. Hampton: Do you know, roughly, the kind of insulation characteristics—energy-efficient windows etc.—the buildings would have had?

Mr. Rakus: Not specifically this building.

Mr. Hampton: Do you know if they had central air or individual air conditioning?

Mr. Rakus: Not central air, given the age of the buildings. I don't know if there are individual window air conditioners or anything else in this market.

Mr. Hampton: Can you tell us anything about the age or the energy-efficiency characteristics of the appliances?

Mr. Rakus: Actually, not specifically, but in working with the property manager in this building, she has been incenting her tenants to take custody of their own electricity and has offered up the installation of new, higher-efficiency appliances in this project as an incentive. So working between the individual metering of the units and doing her own things regarding energy conservation initiatives, they kind of work hand in hand.

Mr. Hampton: Finally, how long was your test conducted?

Mr. Rakus: This apartment building has been in operation for more than a year, and the condominium project that I've also put in the package before the committee has also been operational for over a year.

Mr. Hampton: If you could provide us with that kind of information, with the questions I've asked, that would be helpful.

Mr. Rakus: Yes.

Mr. Hampton: I just want to ask you some questions about your recommendations. I've reviewed the data from California; in fact, we've had it presented by a couple of groups. California saves about 12,000 megawatts annually now. That's how much they've reduced their electricity consumption. When they break it out, 2,000 megawatts is saved through essentially mandating efficient appliances. You have to buy energy-efficient appliances. About 4,000 is mandated by changes to the building code. In other words, you can't construct buildings in California now that aren't well insulated and don't have energy efficiency in mind. Yet I'm struck that your recommendations-you make some recommendations about how we ought to proceed. It would seem to me to be one of the basic things, if we're really serious about this, that we insist on energy-efficient appliances, that we insist that the building code be up to date in terms of energy efficiency.

Mr. Rakus: I would agree with what you're saying and would support those initiatives as well. What we're suggesting is that there is a rather large opportunity to reduce consumption and demand in the province through sub-metering, in addition to some of the things that you talked about. One of my comments or recommendations is that any new building should be individually metered or sub-metered or smart-metered, along with any other changes to the building code. So I think one works hand in hand with the other.

When people become more cognizant of what their costs are, their expectations for when they move into a building will make them demand things like high energy-efficient appliances and what kind of windows there are, because it is a competitive rental marketplace.

Mr. Hampton: I'm told that the most inefficient buildings are those populated by low-income people. That's part of the problem. We've had a lot of tenants' groups come to us and say, "Look, the problem isn't the person. This is part of the problem. They don't control the fact there there's bad insulation. They don't control the fact the windows leak air. You don't want to stand beside them in the winter. You might catch pneumonia. They don't control the fact that appliances—"

The Chair: Thank you, Mr. Hampton. We'll now proceed to the government side.

Mr. Leal: Thank you, Mr. Rakus, for your presentation today. An issue that keeps cropping is protection of privacy of the information. A smart meter entity or another entity is compiling a lot of very detailed information that potentially could be of use to others. Do you have any thoughts on how we might draft an amendment to bring into this bill to protect privacy?

Mr. Rakus: I appreciate the privacy issues. In fact, we do aggregate information, as I've done today with some of the graphs I've given you. We protect our customers' privacy, as required.

Maybe I can relate back to my own experience of a number of years working within Enbridge, Mr. Leal, and the fact that there's been an affiliate code set up between regulated entities and non-regulated affiliates on the sharing of information. The smart meter entity as proposed or drafted in Bill 21 has some value, I think, in trying to incorporate large systems and efficiencies with that. I think there are arrangements that can be made through contracts and affiliate code relationships that can protect, and it's been proven in the marketplace, particularly in the gas industry, and I think in the electricity industry as well, with retailers and marketers working with the regulated LDCs.

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

Ms. Mossop: There's a lot of discussion that we've had around the value of the smart meter, as you've probably already heard. We heard the cost considerations of installing these meters and what kind of benefit you're going to get back in terms of cost savings or even in energy savings.

One of the things that was discussed was that when water meters were first talked about being installed in people's homes, there was a great push back at the cost of that, the administration and all the rest, yet some jurisdictions immediately realized a 75% drop in water usage. I'm just asking you, do you see the smart meter as a bit of a refinement of general use? Are we advancing in these things now?

Mr. Rakus: I think the smart meter technology opens a lot of avenues to the public and to consumers—access

to time-of-use pricing that I mentioned, some of the benefits. I think there's a public-interest perspective of creating a conservation culture here in Ontario. The same thing applies with smart metering. Whether it's a smart electric meter or a smart water meter, I think it will drive the conservation culture.

Just on your point, we in fact have a couple of condominium projects underway where the developer wants to meter individually the water in the building, because there is a growing concern now about water conservation in addition to electricity conservation, which I truly believe supports the conservation culture we're trying to create in this province.

Ms. Mossop: Yes, I know. I have concerns when I see people watering their driveways. I'm not sure why they do that.

There is a culture of conservation that we need to foster in a huge way. We've heard from many people who have come from different parts of the world who are way ahead of us on this who say that we really live in a culture of waste and that we need to advance this. I just want to get the sense—you've already talked about it a little bit—that you're getting in your pilot projects. Obviously, you saw some benefits with individual units, but there is concern around the landlords. Does this incent landlords in some way, because they're still responsible for the common areas, are they not?

Mr. Rakus: That's correct. They will still pay the bill for the common area. I think it does incent them. I think you've probably heard over the last few days of the soft rental market and some of the things associated with that. I believe that if you have every building in Ontario smart-metered, if you're a tenant, first of all, you're going to ask, "What's your average electricity usage for this one-bedroom apartment?" So I'm going to shop around one-bedroom apartments, building to building and that sort of thing.

I think people are aware. In fact, we have two customers in one of our condominium projects who moved from a bulk-metered building specifically to this building, which is individually metered, because they were tired of cross-subsidizing some of the other tenants. To put it in perspective, I think we have to create a conservation culture but get away from the aspect of what we may be referring to as "free electricity." If you drive along Eglinton Avenue in Toronto—

The Chair: Thank you, Mr. Rakus, and thanks to you as well, Ms. Mossop. We'll now move to the official opposition.

Mr. Yakabuski: Thank you, Mr. Rakus. No, we're not done with you yet.

Mr. Rakus: Sorry.

Mr. Yakabuski: Thank you for your presentation. You talked about a 20% reduction in buildings where there would be sub-metering. We would have that, whether we had smart metering or not, if we had submetering.

Mr. Rakus: That's correct.

Mr. Yakabuski: So we're talking about two different issues here, in a sense. Conservation would be advanced,

in your opinion, by sub-metering all multi-residential apartment buildings that are currently on a bulk meter system.

Mr. Rakus: That's correct. If I could expand on my answer a little bit, where I think you're going with this is that individually metering units to make people accountable has some benefits. I'll call it a dumb meter for today, if I might. What the smart metering technology does is give tenants—you can start charging customers differently, or directly, for their usage, so you can be creative on the commodity pricing and even going further with time-of-use distribution rates or charges so that people really do benefit when they shift the use of their total appliances to an off-peak period. So the smart metering technology allows even further benefits from a conservation and a demand-response perspective, in addition to what I will call a dumb meter.

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Mr. Yakabuski: But the point is that if people are paying for their electricity they will be far more conscious of the electricity they use.

Mr. Rakus: Absolutely.

Mr. Yakabuski: They're paying for it and they are accountable for it.

Mr. Rakus: That's correct.

Mr. Yakabuski: You, yourself, and Chatham-Kent Hydro mentioned a 5% reduction immediately, just based on the variable pricing—the fact that there's different pricing at different times of day. The average person would see a 5% reduction in their hydro bill—not in their usage; their hydro bill—based on the prices and the normal time of use.

Given that and that the government is very positive about smart metering, in the cases where people recognize that there are improvements to be made-if it's good, they're going to jump on it immediately-we're brought to whether this should be compulsory or voluntary. For example, I started to speak about the gentleman here yesterday with a very small hydro bill. There is no savings for this person by having a smart meter. In fact, there's going to be a cost to him because he's going to be paying the charge for the meter every month. If the program is great, and the government says it is, and it's bound to work, will anybody who is concerned about their dollars, the same people who are not paying for their hydro today, or anybody—the dollar has an effect on our actions. Wouldn't people simply jump onto this if it was in their best interest?

Mr. Rakus: I believe a portion of the marketplace would, but there is also a portion of the marketplace that would not. I'm going to speak specifically of our experience in the multi-unit residential market, both apartments and condos. I'll speak specifically of condominiums and our trying to break into that market, where there is—

Mr. Yakabuski: We're talking about smart metering now, not sub-metering.

Mr. Rakus: Let's talk about both. From the standpoint of individual metering, it's is a challenge, because people who want to pay for their own and recognize the benefits want to do that. There are a number of consumers who are being cross-subsidized, who really don't want to be individually metered. So the willing people will, but given the current issues around the Tenant Protection Act and the Condominium Act of getting a majority of people to agree, it's a bit of a challenge at times.

Smart metering and the things we see with the new time-of-use commodity pricing, the opportunities to offer more retail access, retail pricing through retailers and marketers, I think will come and help drive overall conservation even further and much quicker than just on a voluntary basis.

Mr. Yakabuski: But we can't have—

The Chair: Thank you, Mr. Yakabuski, and thank you as well, Mr. Rakus, for your deputation on behalf of Wirebury Connections, as well as the written printout of the PowerPoint slides. The committee appreciates both.

Mr. Hampton: Chair, I was wondering about the follow-up in terms of accessing the information that the gentleman indicated he'd provide to us.

The Chair: Sure. We'll direct legislative research to follow up with Mr. Rakus as necessary.

Mr. Rakus: Sorry, Mr. Chair. Just to be clear, it's to deal with the age of the buildings and whatnot, Mr. Hampton?

Mr. Hampton: That's right.

Mr. Rakus: Okay, great.

ELORA CENTRE FOR ENVIRONMENTAL EXCELLENCE

The Chair: We'll now invite our last presenter of the afternoon, Ms. Mary Jane Patterson, manager of the residential energy efficiency project for the Elora Centre for Environmental Excellence. Ms. Patterson, as you've likely seen, you have 20 minutes in which to make your presentation. Any time remaining will be distributed evenly amongst the parties afterward. I invite you to begin now.

Ms. Mary Jane Patterson: Thank you for the opportunity to speak this afternoon. I manage a project for the Elora Centre for Environmental Excellence which is REEP, the residential energy efficiency project, in Waterloo region. The Elora Centre provides EnerGuide for Houses evaluations throughout southwestern Ontario, and that's why we chose this location today. The Elora Centre is a registered charity, a member of Green Communities Canada and a leader in communities.

We are pleased to support Ontario's Bill 21, the Energy Conservation Responsibility Act. As a provider of home energy evaluations for the past seven years, we have seen the benefits of improving the energy efficiency of buildings for the homeowner, for the community and for the economy. We congratulate the province for recognizing the potential for energy savings and community health that lie with conservation, and for promoting it with this bill. This submission focuses on schedule A, section 2, entitled "Mandatory conservation practices," which enables universal energy efficiency labelling of buildings. We heartily endorse this step. We also endorse the enhancements to this bill that have been put forward by our member association Green Communities Canada. Their recommendations are based on the collective experience of all of us members through many years of promoting energy efficiency in our communities. And since these recommendations have already been presented to this committee in Toronto, I won't repeat them here, but I include a summary of them in our written submission.

My purpose here today is to add the perspective of first-hand community experience just to reinforce those recommendations and our endorsement of this bill.

The Elora Centre is one of many local green communities that provide the EnerGuide for Houses home energy evaluations. These are third-party assessments of the structure of the home and of the potential for improving its energy efficiency. One of the recommendations that Green Communities Canada has put forward is that the province require or adopt EnerGuide for Houses as the labelling system for this section of the bill.

We would like to give you some community response or some anecdotal evidence to support mandatory labelling and the EnerGuide for Houses as the label that's used. We want to let you know that the community response to the service that we have been providing in southwestern Ontario has been overwhelmingly positive, and that's the EnerGuide for Houses home energy evaluations and labelling. Often a homeowner books an evaluation with us as soon as they move into their new home, and it provides a kind of introduction to that home for them. They are thrilled to receive the information we provide. We include a list of recommendations for improvement and they're cost-effectively prioritized so they know what to do first to get the best, most effective improvement. They trust us as providers of this service because we're a third party, we are not affiliated with any contractors who would do the work that we recommend, and we are non-profit.

Often our customers tell us they wish they had known the energy efficiency rating of the house before they bought it, just to know what they would be in for in terms of energy bills and what potential existed to reduce them.

The communities where we operate are strong supporters of this service. In Waterloo region, where I work, we have funding partnerships with three municipal governments, three electric utilities and with the natural gas utility. Our experience is that municipal governments are eager to improve the quality of local air, the quality of the local building stock and the quality of the lives of their citizens, and they want to know how we can make this service more widespread.

On many occasions we've been asked if there isn't some way to require a home energy evaluation and rating in every home. So there is a local feeling that mandatory labelling of homes can and should be done. Besides the direct benefits of energy efficiency, we've seen many indirect benefits that arise from improving home energy efficiency and from providing expert energy advice to homeowners.

For example, we've had clients with homes that are too tightly sealed and not properly ventilated, and they are subject to health problems that come with mould and poor indoor air quality. We show them how to ventilate their home effectively, without wasting energy.

Recently, we had a customer in Waterloo region with a furnace that was leaking carbon monoxide into their house. They had just brought their new baby home for Christmas and they were unaware that they were in an unsafe living space until our evaluator pointed it out and recommended that they have their furnace serviced immediately.

Often people have the proper equipment but they don't know how to use it. They have a heat recovery ventilator system, for example, stuffed with socks because they felt there was a breeze coming in there, or they have a switch that operates it and they never knew what that switch did, so we show them what it's for and how to work it. Most of all, people are delighted with the amount of money they save on their energy bills after completing home energy retrofits.

In summary, home energy evaluations and ratings provide many benefits to Ontario citizens and communities and to the province's energy supplies. The member organizations of Green Communities Canada have a history of working in our communities. We have strong municipal support. We've been in thousands of houses already, and we're ready to work with you on the energysaving measures that come from this bill. We look forward to making Ontario a more energy-efficient and healthier place to live. Thank you.

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The Chair: Thank you, Ms. Patterson. You've left a lot of generous time for questions. We'll begin with the government side, about four and a half minutes. Mr. Flynn.

Mr. Kevin Daniel Flynn (Oakville): Thank you, Ms. Patterson. Fortunately, I wasn't in Toronto, so I'm hearing this presentation for the first time. It sounds like a wonderful initiative. I'm just wondering, when you go into a home and you do the audit and you suggest the improvements for the retrofits, would you look at things like, do they have the right appliances? Is it that type of thing? What would a typical inspection entail?

Ms. Patterson: The EnerGuide for Houses specifically addresses home space heating and water heating. That's because it addresses the things that will not change, no matter who lives in that house, so we can give a label to that house that stays. That means you can go across the country and know by the label what kind of fix you're going to be in when you move into it and start paying the energy bills. That means that things like appliances are not included in the labelling of a house, because they come and go as people come and go with the house. We try to address that separately with our own public education materials that we give to the homeowner at the time of the visit. We have pamphlets about Energy Star appliances, for example.

Mr. Flynn: And you would probably—I'm assuming this—advise them to, where possible, use their appliances in the off-peak hours.

Ms. Patterson: It is something that we're getting more conscious of. We are working now with local electric utilities to talk about ways to address electricity more specifically in these evaluations. We have put forward proposals to do exactly that: working with smart metering, for example; to have public education that enhances and maximizes the benefits by making people aware of what that meter means and how to make use of it in the most effective way.

Mr. Flynn: Now, do you think the ability of the homeowner to be able to control their costs with a smart meter would make your job easier in convincing them to perhaps do things in the evening and at night if possible?

Ms Patterson: Money seems to be a real motivator. When we advertise our service, we talk about saving the environment and saving money. Saving money seems to hit home a little more.

The Chair: Mr. Brownell has a question.

Mr. Jim Brownell (Stormont–Dundas–Charlottenburgh): Well, I have to say that my colleague, Mr. Flynn, basically took my question.

Your presentation today certainly provided us with a lot of information regarding your organization's interest in introducing Ontarians to a culture of conservation, and I applaud you for that. You've really laid it out here. I really hadn't heard a whole lot about smart metering, your thoughts about smart metering etc. I just made a comment to my colleague, Mr. Flynn. Any further comments about that?

Ms. Patterson: What we know from things like community-based social marketing research is that public education is important, but it's not enough; it doesn't necessarily change our actions. Often we can be aware that we're doing the wrong thing—we think of ourselves as people who do the right thing—and yet we still do it.

It helps to have a financial incentive, that's for sure, and it helps to put the two together. We can see a real benefit from smart metering, especially when combined with public education that helps people to really understand why they're doing it and how to make the most of it. We are thinking of things like—I don't know, it sounds a bit odd—having a light that changes colour when you leave peak period and go into off-peak period that's in a really visible spot in your house so that you're just more conscious of that: "Okay, now I can do the laundry, and it will cost me less." That kind of thing.

The Chair: Ms. Mossop.

Ms. Mossop: Just following up on that line of questioning, I think your idea of having a light or some other gadget like that to notify people is actually quite a good idea.

There's some concern about whether or not the smart meter is necessary as part of this, but my sense is, more and more, hearing from people, that the smart meter gives people the financial incentive, the information that they need. Also, it's because we are trying to create a culture of conservation and we are really trying to reach out to younger generations who've never had to really be responsible for their use of resources. They haven't been through a depression; they haven't been through a war. It's not that real to them, but technological gadgets truly talk to this generation in a big way.

Our concern is not just to prevent a blackout, but to create a culture of conservation so that we don't have to spend billions of dollars building more capacity into a system. Would you say that this is—

The Chair: I'll need to intervene there, so I apologize, but thank you, Ms. Mossop. We now move to the official opposition. Mr. Yakabuski.

Mr. Yakabuski: Thank you very much, Ms. Patterson, for your presentation today. You talked about energy audits or EnerGuide for Homes. That was the main thrust of your presentation. Then you talked about mainly being focused on the environmental heating and the water heating of the home. But you must also evaluate the windows and the insulation, given that it's a 3,500-watt electric water heater and a 140,000-BTU furnace or whatever, to determine how much that home is going to use regardless of who's in it, because the rest of it is by choice. The appliances used could be by choice, how much you light it is by choice, how many gadgets and stereos etc. are by choice. So you have a baseline to go by, right?

Ms. Patterson: Yes. That's correct.

Mr. Yakabuski: Of course, in the selling of a home today, those things have to be disclosed; it's part of the listing of the home. You have to disclose what your heating source is and you disclose what your waterheating source is. It's part of the listing agreements; people will have that information.

One of the questions I have is about upgrading those homes. You talked about the importance of energy retrofits. There is a housing market out there where the least energy-efficient homes, as they get an EnerGuide rating or whatever, are going to be selling for lower prices, because the market, being such, will dictate that. But the people who buy those homes will be the people of lower incomes, most likely, or someone who wants to spend the money to upgrade the home. But the lower-income people won't have the money to upgrade that home anyway. If they're able to somehow finance the home, they're probably the last people in the world who will have the money to take advantage of the opportunities that are there to retrofit the home. I'm not sure how that might affect low-income people with regard to their ability to reduce the energy use of that home, because they can't afford the retrofits.

The other thing I'd like to ask you is—and you can answer them together—you did talk about money being an important part of the equation, a motivator. Do you agree that in places like the GTA, where obviously the concentration is, or anywhere else, that submetering of apartments should be mandatory? **Ms. Patterson:** If I may, I'll just start with the first comment that you made. I just went to look at a house on my street this week with the intention of possibly buying it. The real estate agent wasn't able to tell me what efficiency the furnace was, whether there was insulation or what type of windows there were. I don't find right now that there is an adequate level of disclosure at all about what you're in for when you move into a house.

Mr. Yakabuski: It's just the type of sources. They wouldn't be able to tell you the efficiencies, just the type of sources.

Ms. Patterson: Yes. You can find out what kind of heating it is.

Then you were asking about houses in the lowerincome bracket. It is a concern. The federal government now has an incentive for people who make their homes more energy efficient. What we need to do is make it possible for people—and I think that's part of our recommendations here from Green Communities Canada—to make the initial investment that in the long run saves them much more money. The federal incentive helps to do that. Mandatory labelling, we hope, will also put that forward. If people realize what they're living in right now, maybe they'll make the effort to make a change before they sell the house.

It doesn't have to be taken all at one time. The kind of the things that we give in our recommendations can be a blueprint for the entire lifetime of that house. Whenever you're able to make a change, however small, it will have an impact, and you can continue to do those incrementally.

The Chair: We'll now move to the leader of the third party, Mr. Hampton.

Mr. Hampton: Thank you very much for your presentation. I wanted to ask you, how long have you been associated with Green Communities Canada?

Ms. Patterson: For four years.

Mr. Hampton: What struck me is that the central part of this government's energy conservation campaign, the part that they talk about all the time, is smart meters, smart meters, smart meters. Yet your presentation deals with what I think the meat in the sandwich really is: A smart meter doesn't save you electricity; it's not going to retrofit your home; it's not going to change the Building Code; and a smart meter by itself is not going to bring into place demand management incentives, which I think are all of the things we need. Certainly, that's the experience in California.

1400

California's experience with smart meters was actually fairly disappointing. In their pilot projects, they assumed they were going to reduce consumption by 500 megawatts. When they did the after-the-fact analysis, they found that it reduced consumption only by about 31 megawatts. That's all they could really identify. There were other factors that were responsible for the other changes in behaviour.

What I find interesting is point (b): "That the bill be strengthened to require mandatory universal labelling of building energy performance." What I find surprising is that the government's had three years when it could have done that, yet it hasn't been done.

Mr. Leal: Two.

Mr. Hampton: Well, you're in your third year now, folks. Eighteen months from now, you've got to go back to the people.

Mr. Yakabuski: It seems longer.

Mr. Hampton: You're associated with Green Communities Canada. Can you explain why something as elementary as that hasn't been done?

Ms. Patterson: I can't explain. Can I just say that we're ready for it right now? We're absolutely ready to roll it out.

Mr. Hampton: One of the things they found in California was that just by changing the building code, by requiring that commercial buildings and residential buildings had to be built according to fairly strict energy-efficiency standards, they estimate now that they save 4,000 megawatts a year just by having a very up-to-date energy-efficiency building code. Do you have any understanding why the government hasn't done that already?

Ms. Patterson: I can tell you that, as an organization, our board and our evaluators together wrote a letter to our local MPP, who forwarded it to Dwight Duncan, and we would be glad to provide a copy for everyone here. In it, we put together all of the recommendations that we have, based on our experience in evaluating houses and hearing what people are asking for. We would be glad to provide that.

One of them is, why didn't we make every house an R-2000 house when we built it? Another one was, bring back the PST rebate for energy-efficient appliances. People were really pleased with that when they had that.

Mr. Yakabuski: Wasn't that a good one? That was great.

Ms. Patterson: Yes. So we've got a number of recommendations that we would be pleased to provide.

Mr. Hampton: I want to zero in on recommendation (f): "That Bill 21 recognize the need for support for

building owners to fulfill requirements specified in consequent regulations." I assume by that you mean financial support.

Ms. Patterson: Financial support, things like—you know what? I have the original submission that explains it a little bit more.

Mr. Hampton: In relation to that, are you aware that in the province of Manitoba, someone can, after they've had an energy audit of their home—I understand Green Communities is quite active in Manitoba—get a \$5,000 low-interest loan to put in high-efficiency heating, to put in energy-efficient windows, to put in better insulation, and even to replace your major appliances, the always-on appliances like your refrigerator or your freezer? So there's financial support for people to make the changes that—

The Chair: Thank you, Mr. Hampton. I'll need to intervene there, and I'd like to thank you on behalf of the committee, Ms. Patterson, for your deputation on behalf of the Elora Centre for Environmental Excellence, as well as for your written submission. All is very much appreciated.

I'd like to advise committee members that we will, as you know, be adjourning tomorrow to Thunder Bay, Ontario, for the next day of hearings. As the clerk has already indicated, we're due at a particular centre at 8 a.m. If you don't have the exact address, you might want to get that from the clerk in order that you arrive on time at the exact place. The plane is, incidentally, scheduled to depart at 8 a.m.

Seeing no further business-

Mr. Hampton: And it will arrive at what time?

The Chair: And it will arrive at what time in Thunder Bay?

The Clerk of the Committee (Mr. Katch Koch): We're scheduled to arrive into Thunder Bay at 11 a.m.

The Chair: Seeing no further business, this committee is adjourned.

The committee adjourned at 1405.

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