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Lundi 6 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**

Monday 6 February 2006

Lundi 6 février 2006

The committee met at 1001 in room 228.

**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 call this meeting of the justice policy committee to order. We're here, as you know, to deliberate 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.

CONSERVATION COUNCIL OF ONTARIO

The Chair: We'll now proceed to invite our first presenter. That will be Mr. Chris Winter from the Conservation Council of Ontario. Mr. Winter, just in terms of protocol, you'll have 20 minutes in which to make your remarks. If there's any time remaining in that 20 minutes, we'll distribute that evenly for questions and comments to the various members of the parties. I would invite you to begin.

Mr. Chris Winter: Thank you, Mr. Qaadri and committee members, for the opportunity to present to you today.

I represent the Conservation Council of Ontario, which is a provincial association of organizations and individuals that support conservation. We were founded in 1951, and I have been with the council for 22 years.

We currently host a new initiative in support of a provincial conservation movement. It's called We Conserve, and it's designed to involve leaders from all sectors in the transition to a deep-rooted culture of

conservation and a conserve economy. We Conserve is an opportunity to help Ontarians on the path to becoming better conservers through provincial campaigns and co-marketing conservation products and services and through social marketing.

I want to present to you today some results we had of polling commissioned with respect to public attitudes and commitment towards conservation in the home. The survey was conducted by Oraclepoll Research in December: 956 people were interviewed, 18 years and older, and the margin of error is considered 3.2%, 19 out of 20 times. There are three basic conclusions that came from this: (1) support for conservation is overwhelming; (2) personal commitment to conservation is also very high; (3) there is a very strong support out there for government leadership in setting efficiency standards and investing in conservation through financial incentives.

Conservation, and energy conservation in particular, is now a widely held cultural value. We have a culture of conservation out there. Ninety-three per cent of the respondents said that energy conservation is important to them, and 99% said they do the simple things, like turning off lights and appliances when not in use. Now, we all know that nobody is perfect in this and that even the best of us forget to turn off lights, but the significant point there is that almost everyone out there is making an effort to conserve.

When asked to rank the five power supply options in order of preference, green power topped the list at 1.7, conservation and efficiency was next at 2.5, natural gas and cogeneration was at 2.8, and then we get to nuclear power at 3.7, and the last one, keeping the coal-fired plants operating, was at 4.0. Clearly, Ontarians want to see renewable power and conservation at the top of the government's priorities.

In terms of personal commitment to conservation, we find that, over the past year, 72% of homeowners have installed one or more compact fluorescent light bulbs; 69% have draft-proofed doors; 64% have upgraded to more energy-efficient appliances; 40% have reported adding insulation to their home; and 37% reported upgrading insulation levels in the basement. That's quite a significant commitment on the part of the public.

In terms of public support for government leadership, we found a very high level of support for improved efficiency standards and financial incentives: 95% of respondents want new homes to be insulated to meet the highest energy efficiency standards; 93% felt that

renovations should also meet the highest energy efficiency standards; 89% support an energy efficiency label for new homes, similar to what is currently on appliances; 85% want the government to invest in incentives and low-interest loans for conservation; and 80% support increasing energy efficiency standards in the Ontario building code. So Ontarians are willing to pay a premium for energy efficiency, especially if it will result in low energy bills.

Those who were planning to buy a home were asked how much extra they would pay for energy efficiency. Sixty-five per cent said they would pay an additional \$5,000; on top of that, 12% would pay \$2,500. That \$2,500 invested in energy efficiency would be paid off within five years through lower energy bills and would provide long-lasting energy savings for homeowners and the province, and it would touch both heating and electricity.

In short, the Ontario public is committed to conservation and has taken many of the simple steps, and it will go much further with the right kind of support.

This is the kind of support we are looking for from the provincial government:

(1) Raise home efficiency standards in the Ontario building code to a minimum rating of Energuide 80.

(2) Require energy efficiency labelling of all homes, starting with new homes and incorporating existing homes on resale.

(3) Provide immediate financial incentives in the 2006 budget for investing in conservation, including PST exemption on conservation supplies and linking electricity surcharges to conservation financing.

(4) Invest in conservation and renewable power. Funding for renewable power and conservation should exceed the investment in fossil and nuclear power for the first 25% of each. A 25% reduction in energy demand by 2010 and a quarter of electricity demand from renewable power are both achievable targets, at a fraction of the cost of nuclear power.

Finally, I'd like to make some specific comments with respect to schedule A of Bill 21, the Energy Conservation Responsibility Act, which is before us.

First, you should include renewable energy as part of the definition of "conservation." Second, we fully support the designation of goods and services to eliminate any roadblocks in implementing conservation technology and practices. Third, we support conservation action plans—section 4—and further recommend that clause 4(3)3 include a requirement for conservation targets, as well as just the actions taken. Fourth, in section 6, the conservation council has noted in years past the absence of any rigorous environmental procurement policy within the provincial government and Management Board. We welcome these measures to require energy conservation in government procurement policies.

Finally, on section 7, conservation agreements, the conservation council looks forward to establishing a conservation agreement with the province with respect to the development of a provincial conservation movement. We feel that engaging Ontario's communities, non-gov-

ernmental organizations and business leaders in a broad-based conservation movement would be a unique area of leadership for Ontario.

I thank you for your time.

The Chair: Thank you very much, Mr. Winter, for your deputation. You've left a generous amount of time for questions and comments. We'll begin with the Tory side. We have about four or five minutes per party. Mr. O'Toole.

Mr. John O'Toole (Durham): Thank you very much for your presentation. I appreciate it and certainly have no problem with the four recommendations specifically raising energy standards in the building code. I think that those all make eminently good sense, I would say. More specifically, I think some of the things that the government is doing—they're mouthing the platitudes of the conservation culture, but I don't see any real action.

I think some of their incentives, which you mentioned in one of your recommendations, are extremely important. One of the first things they actually did was cancel the EnerStar PST rebate program, which I felt was rather more of a gesture than a substantive thing. I think they removed it just because the Conservative government had done it. But even there, what's missing in the whole debate is honesty and integrity. Any kind of plan is still kind of nebulous. Even if you look at the distributors' report, which I'm looking at, their comments on Bill 21 indicate that there's more mystery here than substance.

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In fact, I quote Robert Mace's concluding remark: "A common concern that has been raised by LDCs in their review of the specifications is the need for a" full "explanation of how the overall smart meter system will work," what its functionality is in terms of its implementation. This commitment is a lot of money going into shifting load around. There's not a lot of conservation content. It's more or less going to move load, as opposed to conserving load. I think that your mandate and that some of the suggestions you've made are quite valid. In fact, I don't think the government would have much trouble doing that.

When I go back to it, even their plan and your survey indicate the public's willingness to accept as much as \$5,000 of their own expenditure. That needs incentives and encouragement. That may actually conserve, if you meet some of those standards in the building code, etc. I look at it and see, even in the more recent report by Dave Goulding—you've seen that report—

Mr. Winter: Which one is that?

Mr. O'Toole: The outlook for reliability; the IESO report. It's clear in there that the government—in fact, I asked Dwight Duncan in the House if he would resign if he didn't make his 2007 commitment on coal. He obfuscated and sort of answered—pure smoke and mirrors to all of us. Much of what I hear and see is smoke and mirrors.

What the experts, the people who actually run the system, say here is, "This report confirms that fuel, staffing and maintenance are needed to ensure that Lambton units are capable of operation," and it goes on

to say that Nanticoke generators are “required either as generating sources or as non-coal burning synchronous condensers.”

So they’ve said that if they made the promise without knowing, then that’s irresponsible, but if they made the promise and knew, then that’s deceiving the public. I’ve been supportive in everything I say, and of everything I hear John Tory say, that it’s a matter of the timing. Elizabeth Witmer made that commitment on the Lakeview plant. Their commitments are all being fuzzed now.

I’m anxious to see what is going to happen in north-western Ontario. Perhaps Howard will take that up with Atikokan and Thunder Bay, because these are important considerations in the balance of the whole system on the transmission side.

I commend your input this morning as being objective and straightforward, with some real, workable recommendations. I’d be happy to hear your comments specifically on what measures, including tax breaks, would be your first order of business to engage the consumer in this cultural revolution.

The Chair: Thank you, Mr. O’Toole. You may want to take that up, if you’d like, Mr. Winter, in the following question. Mr. Hampton.

Mr. Howard Hampton (Kenora–Rainy River): Whenever the government is asked about energy efficiency and energy conservation, they immediately trot out smart meters. They say that smart meters are the key to energy conservation and energy efficiency. But I note that in your brief you hardly refer to smart meters. Can I ask you why that is?

Mr. Winter: I see smart meters as coming. It’s happening. I see smart meters as being an essential first step. Get on with it. My focus is beyond smart meters. My focus is on what the information will allow people to do. Essentially, smart meters are going to give people information. They are not going to be a conservation tool in that they will not physically result in any reduction; they might create an attitude shift in people. The key point we’re looking at in our submission, in our work, is that when people are engaged with that information, how do we help them? When they want to conserve, how do we help them?

That’s part of what we’re doing with our social marketing and our building a conservation movement. But it’s also why we’re focusing on things like the building code and financial incentives. When that information kicks into gear and people look at their bills and the information coming out and say, “I need to conserve,” the support system has to be there to help them conserve. Right now, it isn’t.

Mr. Hampton: The government has been talking about smart meters for three years, and I think many people were hoping to actually get some definition in this legislation. But when you read this legislation, what it says about smart meters continues to be very vague. This indicates that there’s still probably a lot of work to be done on that file. You might not see smart meters until 2008. What does a five-year program of talking and not getting much done say about energy efficiency?

Mr. Winter: What it says to me is that turning the ship around is a very long and slow process, perhaps too slow, in some regards. I would like to see us move faster. What else can I say? I would like to see us implementing some of the fiscal instruments and some of the efficiency standards immediately; the sooner the better. We need to find the low-hanging fruit and move on that. If smart meters will help in that, then I’m all for stepping up the timetable and getting smart meters in there.

Mr. Hampton: You make a number of recommendations in terms of energy efficiency: “Raise home efficiency standards in the Ontario building code to a minimum rating ... require energy efficiency labelling on all homes ... provide immediate financial incentives ... for investing in conservation....” Another organization, the Canadian Environmental Law Association, handed the government a detailed report in the spring of 2004, six months after they became government, setting out all these things. Yet there has been virtually no action on any of them. How can the government continue to talk about energy efficiency and conservation when these elementary things, these sort of basics, aren’t being done, haven’t been done and there’s no sign that they’re going to be done in this legislation?

Mr. Winter: That’s a very good question, and that’s all I can really say on that. There has been a lot of support for the current government with respect to their commitment to conservation and their commitment to a culture of conservation. That support begins to wear thin when we don’t see the commitment within government for leadership, and regulatory and financial incentives that would back up the statement about wanting to create a culture of conservation.

We’re prepared to give them some time in terms of setting in place a new framework for creating this change, but we also need to see prompt and immediate action on some of these key steps.

Mr. Hampton: In terms of the efficiency steps you’ve recommended, have you put dollar figures to any of them? In other words, have you seen anything that would tell you how much bang you would get for a buck if you put a billion dollars into incentives for people to re-insulate their homes or install the highest efficiency appliances—what people would probably invest themselves, in order to carry out what they obviously want to do, as your polling indicates?

The Chair: I need to intervene there, Mr. Hampton. Thank you for your questions and comments. We’ll move to the government side. Mr. Delaney.

Mr. Bob Delaney (Mississauga West): A very interesting brief. Thank you for coming.

I’d like to ask you a couple of clarification questions on your survey. Could you tell me how your sample was chosen?

Mr. Winter: It was done by Oraclepoll Research, using the best statistical survey methods. They did a random poll of people 18 years and over across Ontario.

Mr. Delaney: So it wasn’t a controlled sample chosen, for example, from among people who have expressed an affinity—

Mr. Winter: No.

Mr. Delaney: Having bought a new home in the past year, I was actually pleasantly surprised to see how many conservation features were built in standard and how many others were available for what was really a very nominal cost. So I found your data very interesting.

You mentioned in your survey data that only about 8% of survey respondents were planning to buy a new home in the next 12 months. Did you measure what percentage of respondents would be willing to pay in the range of \$10,000 to \$20,000 for the retrofit of an existing home?

Mr. Winter: No. Because there is a limit to what we could do in the poll, we focused on new homebuyers.

Mr. Delaney: Okay. What survey data does your organization have, whether from the survey from which you've excerpted or other data, to measure awareness of the support for load management through such strategies as smart meters, which you just indicated you support in your discussion with Mr. Hampton?

Mr. Winter: To be frank, we don't have much of a budget to do this, so we haven't had the opportunity to do any detailed surveying on a number of issues. This is the first one we have done with respect to public attitudes.

Mr. Delaney: What would your research priorities be in the next year?

Mr. Winter: Our research priorities in terms of public attitudes?

Mr. Delaney: Yes.

Mr. Winter: They would focus on things such as the interest and capacity of people to commit to conservation and renewable energy, the degree to which people are willing to invest their own time and money, how much they would put up in terms of their own money, and the role that government or other subsidies could play in increasing that uptake.

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Mr. Delaney: Have you done any research work with developers and home builders to determine from the people who sell homes day after day just what they find are the market trends and the sensitivities among their buyers?

Mr. Winter: There are a number of organizations and a number of companies, and you may have found one of them that is taking a lead on marketing and incorporating energy efficiency into homes. What we're looking for is raising the bar and making that a standard. There's a group called EnerQuality in Ontario that is working with home builders to give them a marketing advantage by incorporating the best in energy efficiency. What we would like to see is for that to become the norm in home construction.

The Chair: There's a few seconds left if any government member would like to—that's fine. Thank you very much, Mr. Winter, for your deputation as well as for your materials.

SMARTSYNCH LTD.

The Chair: I would now invite our next presenter, Mr. John Feltis of SmartSynch. As you've likely seen the

protocol, Mr. Feltis, you have 20 minutes in which to make your presentation, with the time remaining to be distributed evenly amongst the parties afterward. Please begin.

Mr. John Feltis: Thank you for inviting me in this morning. My name is John Feltis. I'm vice-president of SmartSynch Ltd. At the outset, I would like to show my appreciation for your having invited us and demonstrate SmartSynch's commitment to the Ontario market. As we're all aware, energy conservation is at the forefront of everybody's mind and, with that, it's a major component of the province's plans towards dealing with Ontario electricity and energy supply problems moving forward.

At SmartSynch, we're very excited about the opportunity of working with the province, the Ministry of Energy and, of course, the LDCs, and are looking forward to providing our products and solutions to support Bill 21, the Ontario smart metering initiative, and supporting the LDCs as they promote an energy conservation culture to their consumers. The one thing I'd like to leave you with before moving on is that all SmartSynch products comply with the Ministry of Energy AMI draft specifications as released.

As far as SmartSynch's market position, we are a global leader in wireless smart metering technology for the utility industry, and that's North America-wide. I'd just like to take a moment to distinguish between smart or interval metering and AMR. AMR traditionally has been a way that the utilities could collect or gather normal consumption data from customers over time. An interval or smart meter is actually collecting data that is correlated to a time of day, whether that be time-of-use buckets or on an interval-by-interval basis. In Ontario, they're asking for 60-minute interval data at the residential level. Typically, it's been a 15-minute interval at the commercial-industrial end.

As a company, over the past five years we've deployed more interval smart meters with embedded wireless communications than all other companies combined. That is in the commercial and industrial sector. Being embedded means that the communications module is underneath the physical glass of the meter so there are no external modems and that type of thing to connect. As far as a market presence, we are in 50 major utility customers throughout North America, 12 of them in Canada itself. We've sold 90,000 wireless smart meters and all of these smart meters are the same ones that are used in Ontario, so all of them do comply with the standards.

As far as some of the milestones of the company, we were the first in the world to release an ANSI GPRS meter. With our partners, Rogers Communications, we were awarded the first major smart meter pilot in Ontario by Hydro One, and that was a 25,000-residential smart meter award. Rogers was the lead, and we partnered with them on that proposal and were successful with them.

In other markets, an example is California. When they had their energy crisis in 2001, we were awarded 95% of the commercial-industrial meter business in that market and provided them with approximately 28,000 commercial-industrial meters so their clients could

actually understand when they were using the power and could either shift load or conserve energy. We are the primary commercial-industrial wireless smart meter provider for three of the four top utilities in California, being LADWP, PG&E and Southern California Edison. As far as Canada goes, on page 6 you can see our Canadian customers to date. We've got a dozen customers. I already mentioned Hydro One. We've got Toronto Hydro—I won't read them all, but we're really gaining quite a presence in Ontario.

The major distinguishing factor of our company is that our sole focus is smart meter or interval metering. We do not actually build meters; we're meter agnostic, meaning that a customer or a client can actually select a meter that perhaps they're using today in other applications and don't have to change to a specific meter provider just to gain the benefits of the communications or the smart metering. If their staff is already very accustomed to a certain type of meter, then they can continue using that. They just have to purchase a SmartSynch module under glass and they're ready to go.

So why SmartSynch? We're in what we consider a market leadership position. We use standardized methodology when building our products. As far as the communications technology, we use proven networks that are out there: GPRS, airBand; PCS as well. GPRS comes through our partner, Rogers. All our devices are built on ANSI standards, which is a sort of quality assurance; they're built to a North American standard. We use very common technologies such as J2EE and we've got IP-based devices, meaning that you can interrogate with them directly without having to go through phone lines.

Our product architecture, as I indicated, is that we are meter agnostic and we can provide our modules with a variety of meter manufacturers. Our sole focus is on communications and smart metering.

As far as the company, we do reinvest a lot of our revenue into research and development to ensure that our product is improved. We have more products available to help customers with their needs as the markets evolve. To go along with our leadership, we've got proven installations throughout North America.

We do have a number of business partners that help us moving forward. We've got Siemens and Motorola, which provide some of the components in our communications module. As far as network providers, we have partnered with Rogers and PageNet Canada. We've got some meter partners, being Itron and Elster, and our modules integrate to them.

We're a company of about 40 people, very innovative and experienced. Our sole focus has been on wireless networks and smart metering. We actually introduced our first smart meter in the year 2000. Our core competency, which we never deviate from, is managing data over public wireless networks.

As far as cost of ownership, our suggestion is to buy the meter and don't buy the network. There are a lot of really good networks out there that we're all familiar with, with cellphones and BlackBerries. You can use that same type of infrastructure to transmit meter data,

without having to build out your own infrastructure. Our meters are plug and play. That's a pretty common term these days, but what it means is that you simply plug the meter into the socket, it auto-registers with the network and away you go. It detects coverage, and everything's ready to go.

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Some of the advantages of a public wireless network versus that of private networks are that, with a public wireless network, you can piggyback on the billions of dollars that have been invested by those companies. Those networks have been built to do other things, such as cellphones, BlackBerries and other types of data transmission. Why not piggyback on that—you're getting best-of-breed networks—and just leverage that moving forward to benefit your business requirements rather than building your own proprietary network?

Looking forward as well, as you get integrated and use different networks, you can benefit from the competitive forces that are natural out there in private industry, in that you're going to get the other carriers competing for price and competing for your business, which would make it very cost-effective.

If an LDC happens to build their own network, then you have to worry, as you expand that to cover your entire customer base, about capital costs. If you look at using a public wireless network, chances are you've got coverage in your area already.

Another benefit to using the public wireless network is that you can off-load the operation and maintenance burden. It's not just a matter of putting a tower up and, bang, you've got signal, and you don't have to worry about it for 20 years; there are maintenance and operational burdens on the LDC to build out that network and to keep it functioning at its peak performance. These public wireless networks are out there; that's their business. If their network goes down, they have no revenue, so they spend a lot of effort ensuring the network is optimized for the best traffic and that it's up and running as much as 99.9% of the time.

Another thing with using a public wireless network is that you can capitalize as technology evolves. If, say, today you're using GPRS and you want to move to something else as technologies change, such as Wi-Fi or Wi-MAX, the private wireless networks are going to evolve with new technologies. That's their business. You can follow on that train, if you will, in order to benefit from it.

I'd like to thank you for the opportunity of speaking with you. I'm open to any questions.

The Chair: Thank you, Mr. Feltis. We'll start with the government side; about three minutes each. Mr. Leal.

Mr. Jeff Leal (Peterborough): Thank you very much, Mr. Chair.

Mr. O'Toole: It's the NDP this time.

The Chair: I'm sorry; you're correct. I think I'm under-caffeinated still. We'll start with the NDP side; three minutes each.

Mr. Hampton: I want to thank you for your submission.

The government has been talking about smart meters for three years. I want to ask you this question: Have you seen any cost-benefit analysis for smart meters in the Ontario context? In other words: "This is what it would cost and this is what it would generate in either peak reduction or reduction overall or peak-shifting." Have you seen any credible studies?

Mr. Feltis: I have not personally, no.

Mr. Hampton: One of the things we heard last week, and we heard it especially from the local electricity distributors—Toronto Hydro, Hamilton Hydro etc.—is that they suspect that doing all of the work around smart meters is probably going to cost about \$2 billion.

Mr. Feltis: Yes, I've heard that figure as well.

Mr. Hampton: Do you think that's a credible figure?

Mr. Feltis: I think so, yes.

Mr. Hampton: I just want to ask you a question from the perspective of your company. If you were going to put \$2 billion into something, before you did that, wouldn't you want to see a cost-benefit analysis, like: "What am I going to get for my \$2 billion?"

Mr. Feltis: Certainly. I know that part of any business is to do a business case which shows you a return on your investment.

Mr. Hampton: The government's been talking about something that will cost in the range of \$2 billion—could be a little less, could be a little more—yet the government hasn't produced any kind of study that says, "This is what we're going to get. This is what we're after. This is what the benefit will be in terms of reducing peak consumption, reducing overall consumption and shifting peak consumption to off-peak hours." From your perspective, how would you explain that—a \$2-billion project, but the business case hasn't been done to support it?

Mr. Feltis: I cannot explain. I'm not privy to that information. I can only assume that perhaps there have been studies and analyses done on the benefits of such an intense program. I'm not privy to that. That's not saying it hasn't been done.

Mr. Hampton: Just about everybody I've asked over the last two days—no one has seen one. The only thing that comes close is if you look at the Ontario Power Authority report, which was released just before Christmas. It says that for its planning purposes, in terms of supply planning, they think that the government's smart meter scheme, as proposed so far, might result in a 500-megawatt reduction in peak demand. So you invest \$2 billion and you get a 500-megawatt reduction. That's the only thing that's out there right now.

The Chair: I'll need to intervene there, Mr. Hampton. Thank you for your questions and comments.

I'll now move to the government side, and you've got three minutes. Mr. Leal.

Mr. Leal: As you know, we're still waiting for the cost-benefit analysis for the acquisition of a Costa Rican rainforest, but some day maybe we'll get that.

I do have a question. Thank you very much for your presentation this morning. There have been some questions with regard to smart meters and climate changes

and climate conditions and how they'll stand up. Secondly, in terms of data collection, if an outage occurs, potential customers have said, "If there's an outage, how can I still get accurate data and be sure that the information when I receive my bill would be accurate and takes into account any outages that might occur?" So maybe we'll start with the climate one first and the durability of smart meter systems themselves.

Mr. Feltis: Sure. We put all of our modules and the meters themselves into an environmental chamber for testing. The meters themselves are tested from minus 40 to plus 70, I believe—I could be wrong—and the modules are tested likewise.

Regarding your question about outage and the accuracy of the data coming back, our meters have a couple of unique functions comparable to others in that our module is simply a module, and what it does is gather the data from inside the meter. The meter, in order to integrate to our module, needs to have its own mass memory, meaning that it stores all the information locally, about a month or so worth of data, depending on the configuration. So what happens is that when the power comes back on-line, all that data is still resident within the meter, and the system simply recalls it. That provides a couple of different benefits in that (1) you can be sure that your data is always at the meter in the event of a power outage, and (2) if for some reason there's a communication failure and you need to get that data, you can always go to the meter itself and get it.

Another unique feature that ours have on power outage is that we have built in what's called last-gasp technology, in that, when the power goes out, the meter actually sends a signal back to the home base and says, "I'm going out of power." That can be sent to a group or an e-mail list specifically to let them know. Here again, when the power comes back on, it sends out a signal and says, "I'm back on."

The Chair: Thank you very much. Regrettably, there's no more time for the government side.

I'll need to move to the Tory side. Mr. O'Toole.

Mr. O'Toole: Thank you very much for your presentation. I'm pleased to see you're working with Veridian, which is a company that sort of started in my area: a lot of success for John Wiersma as well as Michael Angemeer.

I'm quite interested. I would say that my understanding, as limited as it might be, is that these are really time-of-use meters. They're not really smart meters, as I understand it.

Mr. Feltis: You're speaking about our meters themselves?

Mr. O'Toole: No, no, the government's initiative, as I understand it, in the pilot projects that they've set up. Is that not what it is? It's going to say I used 100 kilowatts at 2 in the afternoon or 2 in the morning, and there will be a regulated price plan tied to those times of use. That's really what it's meant to do.

1040

Mr. Feltis: That's true. There is an option for the LDCs, according to the specifications. You can bring

back time-of-use data, meaning consumption data within certain buckets, whether it be 8 in the morning till 11 p.m. etc. But a portion of the client base has to have what they call interval data, meaning the usage by hour by hour by hour. So our meters provide that granularity of hour-by-hour data, and systems can then roll that up into time used—

Mr. O’Toole: Yes, I’m very happy with understanding that yours have more functionality, perhaps, than is currently envisioned. I’m concerned. There was and still is a working group in the industry under the LDCs looking at this. In fact, Robert Mace has reported to continue to work with the Ontario utilities’ smart meter group, who have already done extensive work on developing and testing various meters. He goes on to say, “A common concern that has been raised by LDCs in their review of the specifications is the need for a fuller explanation of how the overall smart meter system will work.” These are the people who are actually going to have to deliver this. This is what their concern is in their monthly report. “Distributors are finding it difficult to provide a complete analysis of the requirements of the AMI functional specification without a thorough explanation of the requirements for the total system—especially communication systems and how the meter data depository will function.”

They’re moving ahead with some pilots. They are going to collect some data. They’ve committed to implement some 8,000 or whatever in the next short time. This is very poorly managed. Mr. Hampton has pointed out that they’ve got no cost-benefit analysis that they have shared with anyone. Certainly, as the former critic in the area, I see nothing here except that the consumer is going to get some information. They could send a letter saying, “Get rid of the bar fridge,” and these very simple things; it would cost them a stamp. This is going to cost \$2 billion and it’s going to cost \$8 to \$10 a month to start with. It’s not going to be optional, and it’s going to be another charge on a bill that’s already high. This is a poorly delivered—

The Chair: Thank you, Mr. O’Toole, for your questions and comments.

Mr. O’Toole: Chair, I have a question for the researcher. Mr. Hampton raised it. I want tabled with this committee any research on cost-benefit analysis—this is for research—on smart meters, on Bill 21. This should be open to the public.

The Chair: Legislative research duly notes your point.

On behalf of the committee, I’d like to once again thank you, Mr. Feltis, for your deputation.

EMPCO

The Chair: I would now invite our next presenters, and I understand they have a PowerPoint presentation: from EMPCO, Mr. Edgar Wünsche and Mr. Sergiy Rogalski.

Gentlemen, while you’re getting to that PowerPoint, if I might just invite the committee to attend to some busi-

ness. We received through e-mail a request to add one presenter to our deputants tomorrow in Simcoe, which will raise the number from five to six. The organization is called Reduce the Juice, an energy conservation initiative for youth. I would ask if the committee is in favour of allowing them to testify before us. All those in favour? Any opposed? Carried, and noted.

Gentlemen, if you are ready, we will begin.

Mr. Edgar Wünsche: Good morning. Thank you for allowing us to speak about energy. I have to say that micro-electric energy conservation, which is part of the smart meter, is not in our line of activities. Nevertheless, in principle, EMPCO supports the idealistic aim of smart metering. We don’t know anything about it.

However, it is our understanding, based on my personal track record of work—I was for 10 years in charge of the energy department of Czech Praha in Czechoslovakia, with 10,000 people in energy, and we have tried also to save energy in every possible way. However, it is our opinion and our understanding that Bill 21, as presented, is an attempt to legally create a culture of conservation in Ontario. In our guarded opinion, the culture of conservation cannot be realized by legislation. It is a well-known fact that the conservation of all human necessities and essentials, including all kinds of energy, is well embedded into the daily lives of societies and nations having overall low life standards. The societies with higher standards of life do not adhere to a conservation culture; to the contrary, waste is considered normal. We have that, for example, here in Canada.

I’m taking this opportunity to talk about two other subjects: the combination of the statement of the Honourable Minister of Energy, Mrs. Cansfield; and then last week the Ontario Power Authority supply mix report and the final report to the Minister of Energy by the Electricity Conservation and Supply Task Force.

On December 9, it was stated by the Ontario Power Authority that they “recognized three established Ontario current government policies: creation of a conservation culture; preference for renewable sources of energy; and replacement of coal-fired generation for environmental and health reasons.”

A further quote is from chapter 9 of the report of the OPA: “As noted previously, the elimination of coal-fired generation, a policy set by the current government, was used as a starting point by the OPA. The report notes that a number of events must come to fruition if the province is to meet the coal phase-out timetable. As such, the OPA”—Ontario Power Authority—“is recommending that the replacement of the coal-fired generating plants needs to be monitored closely for circumstances that may require the development of alternatives. To have the required capacity in order to phase out coal-fired generation, the Ontario Power Authority estimates that a capital investment of \$70 billion will be required. The bulk of this investment will be nuclear and renewable generation.”

Furthermore the final report to the Minister of Energy, the Honourable Dwight Duncan, in January 2004, of the

Electricity Conservation and Supply Task Force executive summary states: "A key concept, going forward, is that demand reduction should be given the opportunity to compete with supply side alternatives, and be evaluated on a level playing field." In addition, they state: "The government sees the health and environmental consequences of burning coal with existing technology as unacceptable and plans to phase out Ontario's 7,500 megawatts of coal-fired generation by 2007. Consequently, the need for replacement power in the near term is immense. Some members of the task force believe that the phase-out poses large economic costs and that the environmental benefits can be best achieved by other means."

Furthermore, on point 24, with regard to Ontario Power Generation, they say, "The government should maintain existing coal-fired generation units as required and until adequate new power supplies and demand reduction measures are in place. Having made the decision to close coal-fired generation, the government should quickly develop generation, transmission and conservation alternatives including clean coal technologies, if the latter are feasible within the target emissions levels."

All of the above is beyond any doubt supporting a policy and strategy of upgrading air-burning, coal-fired electricity generating plants with clean, coal-fired electricity generating plants using combustion-quality oxygen and pressure swing adsorption vacuum, 95%, as oxidant and propellant for temperature-controlling, partially-high-concentration recirculated CO₂.

I'm going off the text now. We have been fighting for four years to introduce replacing electric energy in Ontario, which is very inefficient, with natural gas and coal-fired metallurgical furnaces. Unfortunately, the steel industry is still making industries very conservative, ultra-conservative, and they always say, "Where can we see it?"

1050

EMPCO is a small company of about 50 people. We now have the means to invest about \$700,000 to prove it. However, once it's proved—you have in our presentation documents of how much is going to be saved. As I say, I'm also a member of VDEh in Germany, UKAS, are very successful in our working on reducing carbon dioxide. We are all working on carbon dioxide, but I want to, for your information, say that eventually methane, which is partially produced also, is about 70 times worse than carbon dioxide.

Actually, as a matter of fact and interest, water vapour contributes the most to the greenhouse effect, not so much carbon dioxide. On top of it, nitrogen oxide, which comes from combustion of the coal with air, is about 2,000 times worse than carbon dioxide for our health. So we have proven—and one of the members here on the committee has seen with his own eyes how it works—that we can practically eliminate, for all intents and purposes, nitrogen dioxide which, in combination with particulate matter and daylight, creates ozone, which is

killing—nothing else. Carbon dioxide is not killing. It is trumpeted, but it's not true. So that is the story.

I would like to say something which you're obviously going to laugh about, because I'm saying a political energy policy and strategy for energy—you see, in Europe, we have 42 million euros from the European Commission for developing internal carbon dioxide and sequestering it. Now, here we don't have any support of the government whatsoever in proving many things. We are saying that small businesses are the spine of the economy, the driving force in the economy. However, only large companies are capable of putting this into operation. We've been approached by some of them, but they are almost at the level of the venture capitalists who want to take your skin off before you get anything else. So we don't go for them.

I'm only saying that all energy options must be kept open, and no energy generation technology should be idolized or demonized. That is on account of saying that carbon dioxide—and that coal is dirty. Coal is not dirty. Air is dirty—air which we are using for combustion. If we use oxygen, we have wonderful, clean fuel. Especially, we have succeeded, with Saskatchewan charcoal, to reduce even the nitrogen dioxide to practically non-existing.

So I would like to appeal to you people to somehow review the philosophy of supporting, because tax incentives are no good, because you have to have money to achieve the tax incentives or a return on the taxes. If you don't have the best idea, it's going to die. Other governments—I've worked in Japan and around the world. We are supplying electrometallurgical equipment around the world. Everybody is clandestinely or openly supporting loan guarantees or incentives to the industry. In Germany they say, "A working man feels good, pays taxes and doesn't have time for crime. An unemployed guy feels rejected, doesn't pay taxes and has too much time for crime."

The federal, regional and provincial governments and their agencies must adopt a more pragmatic approach with respect to the financing of energy systems. Japan realized, Germany realized, France realized, the Italians, and the English are now coming to it, that they have to be the leading force and aggregate the industry under the patronage of the government, so that the government knows what is going on, and also to succeed.

The rest of it is in writing. I would like very quickly to show this graph. You can see energy efficiency in steel-making: I don't know if you can see it very well, but it is quite nice, at 100% on the left with electric energy efficiency and 17% on the end. When you use pulverized core and natural gas, you finish with 66% efficiency, and you also have the benefit of reduced pollution, reduced gases. As a matter of fact, right now, with an American company, we are in the process of saving about 30 kilowatt hours per tonne and reducing completely the nitrogen oxide, outside too, out of the furnace, by sealing the furnace.

We are engineers in energy. We are not working with 200 or 300 kilowatt hours; we work with millions of

kilowatt hours; therefore the slightest improvement is important. For example, we had to finance the sealing of the furnace ourselves. Nobody could do it. Unfortunately, in steelmaking there is the philosophy, “Where can I see it? As soon as I see it working somewhere else, I’ll be the first to be in, at the first second.”

There is one more little presentation. I want to show you what natural gas and oxygen can do. Run the film.

This is in our place. John O’Toole has had a chance to see it with his own eyes—no electrodes, no transformers, no electricity transmission losses, more efficiency, because from 17% efficiency we go to 66%. But nobody wanted to help us, only the Germans. There were primitive trials, and as soon as the Germans saw it, they said, “We’re taking this.” We had to do the laboratory preparation and melt—when they saw it, they said, “That’s it,” because for over one tonne of graphite electrodes, it takes 4,000 kilowatt hours of electricity to graphitize, and you have about two pounds. You see how blue, how clean the steel is, with oxygen and natural gas coming out. It’s only 400 kilowatts. We can show that we have already built for the former Lasco, for Chaparral, for US Steel and for South Africa—40 megawatts, and no problem. That is the charge. You see, it’s very primitive. This shows how it works, but government doesn’t have a policy.

I tried, via the ministry of development when Mr. Flaherty was in charge—“We don’t support that.” You see the blue core? That is not edited. This is how it melts. It’s much more efficient electrically.

Thank you for the time. I’m ready to answer any questions.

1100

The Chair: Thank you very much, Mr. Wünsche. We have about a minute per party, and we’ll start with the government side.

Mr. Leal: Thank you very much, sir, for your presentation. Dofasco in Hamilton recently went through an upgrade and retrofit of their number 2 operation. Did they look at your technology at all? I think that was a rather large upgrade, and Dofasco have always been leaders in the industry.

Mr. Wünsche: We are supplying Dofasco with all the components for their electrical furnaces. What you’re talking about is a BOF site. That has nothing to do with electric arc.

However, the question is—habit is like an ironed shirt: People don’t want to take it off. They want to see it somewhere. Germans accepted it as engineering, our theoretical results plus the practice. You can see, that steel being melted.

Mr. Leal: My colleague Jennifer Mossop has a question for you, sir.

Ms. Jennifer F. Mossop (Stoney Creek): You mentioned early on that we are trying to create a culture of conservation and that you recognize there is none in this part of the world, that it’s more a culture of waste.

Mr. Wünsche: Yes.

Ms. Mossop: What do you think the best approach is in trying to turn that around, to get away from that sense

of entitlement people have to just use and have no sense of responsibility for our resources?

Mr. Wünsche: Make them hungry. I was hungry in my life. I know what it is. Because, you see, the waste is inherited—you know, my children have waste, and I hate it.

Ms. Mossop: Do you think a campaign of education will be of assistance? It has helped in other areas. People never used to wear seat belts—

The Chair: I’ll need to intervene there, Ms. Mossop. Thank you for your question. We’ll move to the Tory side.

Mr. O’Toole: Thank you very much, Mr. Wünsche, for your presentation this morning. I just wanted to re-inforce that I have been to your facility and do represent this as innovative, especially in the industry. The point I want to make is this, for the record: All the attention on demand management at the residential side with smart meters is looking at the least payback of all these solutions. When you look at the profile of energy, it’s my understanding that 60% to 70% of all the consumption is the economy. It’s the steelmakers, the auto makers, the petrochemical—those are the big demand-response programs we need to lock in where you can deal with the low-hanging fruit. In my view, if you look at the steel-making, auto making and pulp and paper industries, the struggle the manufacturing sector is in right now is costing about 80,000 jobs. Without the economy, you won’t need excess capacity on the generation side. If there’s no economy, then this problem will take care of itself.

I want to make sure that what you’re offering here is a chance for industry—manufacturing, steel specifically—to use both the efficient technology you’re recommending, as well as looking at the environmental consequences of waste and poor efficiency. Is that not what your presentation—

Mr. Wünsche: You’re perfectly right. The question is that this system, only for Ontario, would save about 450 megawatts for free.

Mr. O’Toole: Just by becoming more efficient.

Mr. Wünsche: The companies are going to make money too. However, they want to see it operating, and we need help in this respect.

The Chair: Thank you. Mr. Hampton.

Mr. Hampton: Over the last two days, other presenters have come forward and said, “Look, people could make their homes more energy efficient, but government has to provide some incentives.” The actual cost of installing the energy efficiency equipment is in many cases too expensive for individual homeowners. What I think I hear you saying is that we could make huge gains in energy efficiency in steelmaking and in other kinds of metal refining, but that there has to be some kind of financial mechanism to get this started—

Mr. Wünsche: Yes.

Mr. Hampton: —that, by itself, your company doesn’t have the capital money, that many other companies out there don’t have the capital money, and that if government is really serious about energy efficiency, it

wouldn't blow \$2 billion on smart meters; it would be making the investments in these kinds of energy efficiency technologies.

Mr. Wünsche: Mr. Hampton, you are perfectly right, plus this one: that once we prove it—you see, my patent is the split shell. It was in Lasco in Whitby. When we put the first one, we had, for three years—every two weeks only five people came to see it from all around the world, and we sold so much. For seven years I choose my customers—innovation is where we can do it. The Germans understand that; we don't yet. The German government understands it, and that is the important part to transfer.

You probably remember me, because I spoke to you on television—my ideal is to abolish the impunity of ignorance. Do you remember?

Mr. Hampton: Yes, I do.

The Chair: Thank you very much, Mr. Hampton. Thank you, as well, gentlemen, for your deputation from EMPCO.

CARMA INDUSTRIES INC.

The Chair: I would now invite our next presenters, from Carma Industries—Messieurs Williams, Galonski and Pilkey. Gentlemen, if you might come forward and introduce yourselves for the purposes of recording Hansard.

Mr. O'Toole: Chair, if I may indulge upon the committee, I'd encourage the members of the committee to take advantage of the invitation here from EMPCO. I just want to put that on the record. I'm sure they're quite interested in entertaining the committee. It's only in Whitby. It'd be worth seeing, because we are talking about a major industrial suggestion here. I'd encourage the parliamentary assistant, Mr. Leal, to initiate that.

The Chair: Thank you, Mr. O'Toole.

Gentlemen from Carma Industries: As you've seen, there are 20 minutes in which to make your presentation, the time remaining to be distributed afterward to the various parties, beginning now.

Mr. Mark Galonski: Are you wanting us to introduce ourselves?

The Chair: Please.

Mr. Galonski: My name's Mark Galonski. I'm controller of facilities for the Kawartha Pine Ridge District School Board.

Mr. Ross Pilkey: I'm Ross Pilkey. I'm vice-president of Carma Industries.

Mr. Rick Williams: I'm Rick Williams. I'm president of Carma Industries. I'm going to stick to my text here, because if I don't, I'll stray off topic and lose my train of thought. So let me follow through, and hopefully there'll be five or 10 minutes for questions.

First of all, we're pleased to be here, obviously, to present our submission regarding Bill 21 to the standing committee on justice, and wish to thank the committee for its kind invitation. I would like to introduce our group—which I've already done: Mark Galonski, Ross

Pilkey. One other gentleman who couldn't be here because of timing is Wayne Proulx. He's manager of energy and environmental services for GWL Realty Advisors. I might point out too that Mark Galonski is in charge of facilities for the Kawartha Pine Ridge District School Board. He's also the president of the OASBO operations maintenance committee, so Mark has a voice with about 50% of the school boards across the province.

Carma Industries is a Peterborough-based manufacturer of Measurement Canada-approved sub-metering and smart metering products and software. During the past six years, our market focus has expanded into the development of utilities-monitoring technology that allows our customers to monitor and reduce utilities use. Building operations staff have embraced monitoring and graphic profiling of utilities as technology that is required to meet the emerging energy conservation challenge.

The critical issue is ownership: giving front-line operations personnel the tools and a program that allows energy conservation to become part of their daily routine. Secondly, the tools and program have to be convenient to use and understand. Finally, the initiative has to allow real-time benchmarking to demonstrate improvement. Unless the objective of utilities reduction can be documented and displayed, the personal satisfaction of making energy improvements is difficult to establish and perpetuate.

In the case of school districts, our utilities profiling program was launched in 1999 in collaboration with the York Region District School Board. A single-school pilot project provided access to information that led to impressive reductions in electricity use. This pilot program justified a further investment in 29 additional schools, which were chosen on the basis of diverse characteristics, which included age, type of construction, type of heating and the inclusion of mechanical cooling.

In the year 2000, the 29-school project was completed, allowing the launch of two main school-district initiatives. First, the focus at head office was in preparation for electricity deregulation by modelling the electricity profiles for each school type and extrapolating results over all schools to develop a York Region District School Board-wide electricity profile. With accurate portfolio-wide electricity use profiles, optimum electricity rates would be available from electricity retailers. The aggregate profiles continue to be of significant value in preparation for an open electricity market in Ontario.

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The second initiative involved training and implementation of an energy reduction program through front-line staff using graphic profiles of electricity use. Because this program was added to existing staff responsibilities, the program had to be efficient to use. For that reason, sub-meters were installed in addition to the main electricity meter to allow prompt isolation of areas of waste. Electricity savings realized were a combination of daily operational procedure changes, building automation schedule changes and quiet-hours equipment inspections to confirm additional savings opportunities.

Of particular importance was the growing interest among front-line personnel to outfit more schools with graphic profiling equipment. Since the initial 30-school implementation, an additional 35 schools have been outfitted with graphic profiling. Almost all secondary schools are now equipped with sub-metering, and a new wide-area network implementation will allow students, teachers and operations staff access to real-time electricity graphic profiles. Curriculum for selected grades will have energy savings integrated into their studies. This program will help shape an evolving energy conservation culture in York region.

Many other Ontario school districts have undertaken energy profiling programs. The Toronto District School Board launched a real-time energy profiling pilot program that included 31 schools; the Kawartha Pine Ridge District School Board has completed two schools; and seven other school districts have implemented single-school pilot projects. The monetary success of individual initiatives has encouraged other Ontario school districts to invest in graphic profiling tools that support the implementation and perpetuation of energy conservation.

Ontario school districts possess great potential in support of an Ontario electricity demand-response program. School activity is reduced in the summer season, when mechanical cooling is operating at peak capacity, and during early evening peak-load periods on business days between 4 p.m. and 8 p.m., when residential use is at its maximum. Again, school districts are well-positioned to be key contributors to the objectives of Bill 21.

The commercial office building market has historically operated facilities to meet optimum tenant environmental requirements at all times. Individual tenant sub-metering has been helpful in charging tenants on a user-pay basis; however, the need to reduce utilities usage has been concentrated on a few of the users. Building operations staff have used best efforts to maximize the efficiency of automated building control systems. However, energy waste can persist for several months before utility invoice review triggers corrective actions.

In 2004, GWL Realty Advisors Inc. introduced a new approach to environmental and energy saving known as TEMS, tenant energy management service. This program focuses on giving tenants web access to smart meter graphic profiles. The starting point was the installation of a tenant sub-metering system which records all sub-meter information in 15-minute intervals. Interval data is uploaded to a password-protected website, allowing each tenant convenient access to graphic profiles that display their own daily electricity consumption for each sub-meter. The web browser allows convenient aggregation of multiple sub-meters that can be displayed weekly, monthly or for any period of time selected.

The TEMS initiative is the first program of its kind in the Canadian commercial office building market. Tenants are now empowered to become part of the energy conservation program. Tenants can collaborate with building operations managers to challenge their high energy use profiles and change behaviour in the interests of optimized energy utilization.

Within our pilot project in Markham, Ontario, tenant groups from seven properties were invited to an introductory meeting. Subsequently, tenants have requested assistance in better understanding their graphic profiles and taking action. Some tenant premises have been audited, resulting in a wide range of no-cost and low-cost savings opportunities.

Ultimately, all tenant premises will receive operational audits and energy curtailment recommendations. Some operational audits may lead to energy retrofit assessments, giving tenants an opportunity to invest in cost-effective equipment retrofit. The program is evolving and has identified differences in electricity costs of \$1.10 to as much as \$7.90 per square foot per year among tenants. With the recent implementation of monthly tenant billing, we expect to receive more tenant requests to perform operational audits and tenant consultations.

Again, because this program has been added to the already busy schedules of all participants, it had to be easy to use and understand. Tenants and building operations managers are already fully engaged, hence the emerging interest in automated graphic profile variance reporting. On the basis that a floor of an office building is audited and optimized, it is important to remain at optimum efficiency.

In support of evolving customer needs, new software has been developed to offer our customers the peace of mind that best practices will be perpetuated. We recognize that our customers' investment in smart metering technology has to be future-proofed. Although technology will advance rapidly, we believe our customers' investment and ongoing savings have to be preserved.

We believe our graphic profiling and web posting developments could form the basis of a province-wide energy conservation program and expedite the implementation of an energy conservation culture in Ontario.

On behalf of Carma Industries Inc., York Region District School Board, Kawartha Pine Ridge District School Board and GWL Realty Advisors Inc., we applaud the implementation of Bill 21, the Energy Conservation Leadership Act, and look forward to assisting in the acceleration of an energy conservation culture in Ontario. Thank you.

The Chair: Thank you, Mr. Williams. We'll begin with the Tory side. Mr. O'Toole, about two and a half minutes.

Mr. O'Toole: Thank you very much, Mr. Williams and Mr. Pilkey, and Mark as well. I remember quite distinctly meeting with you when I was the energy critic. You worked very co-operatively with Jeff Leal, and here today, putting forward, I think, a very important tool in energy conservation in the broadest sense but, more specifically, in efficient use and monitoring—that's your product—that I've seen and do support. It has a lot to offer in terms of demand management. That's ultimately what it's about.

I would not want to presume, but what is happening is that there are certain thresholds where the regulated price plan only clicks in at a certain kind of consumption level

or below. The others are on demand plans with the government for load shifting and going off grid or whatever the plan is. Most of your application, as I've seen, is kind of institutional, which has a profile of usage—schools, for instance, would have time of day, time of year. When you look at low profiling, there are penalties in fact if you use it off the regulated time of use. Have you seen any relationship between your equipment, tying it to—if you look at the IESO website, there's actually a graph that shows up about what they're buying it for. What is the market price of energy? It's actually about seven cents right now, around 7.2 cents a kilowatt hour. They're charging five, or 5.7. A real smart program would actually intervene between usage and price. Does your product have the ability to intervene on the market side of it or just give you profiles on—you're using 200 kilowatts at 8 and 300 at 9. Is that kind of what it does?

Mr. Williams: I would say, to date, because in many of the markets that we operate, prices have been set; prices are fixed.

Mr. O'Toole: Yes, over 250.

Mr. Williams: So the interest in being able to adapt to certain strategies to reduce consumption when prices hit certain levels hasn't come into play yet.

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Mr. O'Toole: The big discussion here on this whole thing, on metering on the residential side, is in the sub-unit, i.e. tenants. This is a very big question, the shifting of the cost of energy down to the unit, i.e. the apartment. Some would say they're the least able to afford to pay the price. Could your product solve that problem?

The Chair: I'll need to intervene, Mr. O'Toole. Thank you for your questions and comments. We'll now move to Mr. Hampton.

Mr. Hampton: Your product allows, whether it's the building owner or the building tenant, to essentially monitor their electricity usage.

Mr. Williams: That's correct.

Mr. Hampton: One of the points you raised in your brief is that the information you provide would be very helpful to schools to do energy retrofits. Once your metering equipment is installed in a school, it can tell the school board where they're wasting energy and where their maximum energy use is. It can tell them that on a seasonal basis, a daily basis and, I guess, a yearly basis. Is that correct?

Mr. Williams: That's correct.

Mr. Hampton: One of the things we've heard from school boards, though, is that what we really need is the money to do the retrofits. In other words, they've got a good sense of how they can save and how they can reduce electricity and natural gas consumption, but they say the problem is, "We don't have the money to do the retrofits."

You're doing some helpful work here, but where does that helpful work lead to if the money isn't available? I'm talking not just about the institutional side here like schools, but we've also heard it from people on the commercial side, who are saying, "Look, what we need are some financial incentives so we can actually do the

capital work and make the capital investment to make our building or our operation more energy-efficient. Until we see those financial mechanisms, we will have a lot of information, but we won't be able to do anything effectively about it." I wonder if you have any comments on that.

Mr. Williams: I think our experience has been that our systems, when they're used by people who operate buildings, are typically finding what you might call more the operational errors than they are pointing to retrofit opportunities. So essentially, when a building automation system doesn't perform the way it should, it doesn't always tell you it didn't work properly. The metering system, by contrast, essentially never misses anything. It always allows you to see exactly what's being consumed. From a practical perspective, when our systems are installed in buildings, we typically first find the waste. The waste will be the first issue to show up.

The Chair: Thank you, Mr. Williams. Before moving to the government side, I thought that members of the committee might be interested in knowing that Canada officially has a new Prime Minister. Please proceed, Mr. Leal.

Mr. Leal: It's certainly a pleasure to welcome Rick, Ross and Mark from Peterborough this morning. Carma Industries has an excellent reputation and is doing a lot of great work in this field, and I know my colleague Jennifer Mossop would like to ask you some detailed questions.

Ms. Mossop: I was interested in two areas. One was with regard to the schools, which I think is quite interesting because what we are trying to do, as we were talking about earlier, is create a culture of conservation. The previous presenter pointed out that what we have at the moment is a culture of waste. I'm wondering if the students can become involved in any way with these meters and what they're telling these kids.

Mr. Galonski: I'd like to handle that, if I could, and speak to some of the comments by the previous member. Yes, there is a cultural issue at the school level, and these types of devices will help us to educate or at least inform the head custodians and some of the other people acting in the building as leadership with regard to energy, as well as tenants, as was mentioned earlier.

In grades 5 and 10, I believe, there are environmental courses. What is proposed through devices like this is you get a real-time printout of consumption, and that will help in the classroom. That's part of the cultural change that we've talked about and you've mentioned, so that these kids are educated at an early age to conserve. I believe they are, and this will help.

I think school boards need both the money and these devices to make the changes, to create a culture in which we're cognizant of energy. I'm optimistic that we'll get there. It's just the timing of the price of these commodities and the action of conservation which I think we have to be concerned about.

Ms. Mossop: So there's a real opportunity there to help educate these kids and help them be the future and be a more responsible generation with our resources.

The other question I have is around your work with tenants, because we've had some tenants' groups here who have been very concerned about the use of sub-meters. The sense is that the landlords should be targeted, because they're the ones who have control over the big energy users and the changes they could make, like new windows or more efficient furnaces or insulation. How are you finding the relationship between landlords and tenants in your experience?

Mr. Galonski: Essentially, most tenants are generally getting bills, but they don't get the information to know what constitutes the consumption that cause those bills to be as high as they are. I think what you'll find is that as long as systems are put in place to allow tenants to see their consumption, their graphic profiles, then they'll know how to react to reduce their usage and therefore reduce their costs.

The Chair: I'll need to intervene there. Thank you, Messieurs Williams, Galonski and Pilkey of Carma Industries.

ASSOCIATION OF CONDOMINIUM
MANAGERS OF ONTARIO
CANADIAN CONDOMINIUM INSTITUTE

The Chair: I'll now invite our final presenter for the morning, Mr. Andrew Roman, representing the Association of Condominium Managers of Ontario and the Canadian Condominium Institute. Mr. Roman, as you've likely seen, you have 20 minutes in which to make your presentation. The time remaining will be distributed amongst the parties afterward for questions and comments. Please begin now.

Mr. Andrew Roman: Thank you very much. I was hoping to have some other members of the client group with me, but they were unable to attend. I actually think they're stuck in traffic on the highway somewhere.

I've presented a brief which provides at the beginning an introduction to our clients and a background section, which indicates that our clients are generally in agreement with the objectives of the legislation we're discussing, because all consumers want lower electricity bills, and energy conservation, properly conducted, will do that.

We're focusing particularly on the smart metering part of it because that is the area that affects our clients most directly, but I didn't want to give the incorrect impression that what we were seeking was some kind of a general exemption from the legislation for all condominiums. That's not the case. What we have are certain specific problems, which I would really characterize as technical problems, and I'm here to discuss those, and then we will need to work out some method of providing an exemption to solve those particular technical problems only.

These problems arise because of the way condominiums are designed. The typical buildings have heating and air conditioning, which are the major sources of electricity consumption, provided centrally. What that means

is that the individual consumer in an individual unit does not have a very large opportunity to save electricity because there isn't all that much the individual consumer can do. For example, the fan that operates the heating system is something they can operate but it doesn't consume a lot of electricity. Although the refrigerator does consume a lot of electricity, they're not going to turn it off at peak times and let their food go bad.

Also, on the wiring side of it there's another problem, which is that many of the condo units have baseboard heaters, which are wired in a series across four or five different units. If you were going to smart-meter, you'd need a smart meter for the baseboard heaters and another smart meter for the rest of the electricity system in the unit, because they're separately wired. Where they're wired across four or five different units, it means that if you put one meter in, that one unit holder would get a bill for four or five other units, which would be unfair, and there would be no practical way they could get the money back from their neighbours, because they wouldn't know who had consumed what. The only way around that is to rewire the entire building so as to put each baseboard heater on a separate meter and, as well, you'd need two smart meters—one for each baseboard heater and one for the rest of the unit.

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When you put all this together, it gets pretty costly. If you're looking at a typical condominium bill of \$35 a month and then if you look at what Toronto Hydro will charge, typically \$13.64—I'm getting this from page 3 of the brief, in the middle. A new account holder would pay \$13.64 to Toronto Hydro for reading the new account and something like \$3 to \$4 to cover the smart meter cost, which is about \$17 a month. That means that the consumer would have to save half their electricity bill just to break even, and that's not very likely, given the kinds of things they can do to control their electricity bill. I don't think anyone is going to save half their bill; it's going to be very, very difficult.

So the general principle we would propose, which I think is not one that is antithetical to the legislation, is that one should not compel the introduction of smart meters unless it looks clear that the amount of energy savings will be equal to or greater than the cost of installing the meters. Otherwise, you would be compelling people by law to waste money, which is not in the public interest and which is not really defensible.

This tends to arise particularly with condos wired the way I've described them, which is by no means all of them. It also tends to arise in the smaller units, which are typically now being constructed—the 600- to 1,000-square-foot units. So, depending on which way the buildings are wired and set up, some buildings will have no trouble complying with the legislation; a lot of them will. It shouldn't be one-rule-fits-all. So what we will need is a specific exemption for a particular type of unit of a certain size where the costs would exceed the benefits. I don't have a drafting of that today. I think that's something we're going to have to arrive at in discussion with your officials and advisers because this is a

fairly complicated piece of legislative drafting that would be required. I'm here today to talk to you, really, about the principle.

In addition, I do mention at the bottom of our brief, our last part, that there are other methods of energy conservation that would work in these smaller and difficultly-wired units. We mention some examples of that, such as motion detectors that turn off or turn down the heat and turn off lights when people leave the room. These are the sorts of things that would be or could be feasible to install, and various other retrofits and heat pump systems.

Just to conclude, then, the smart metering initiative is one that will save the average detached homeowner money through energy conservation, but it doesn't provide the same benefits to those condo residents living in smaller spaces with shared services. That's why our clients are requesting that the standing committee recommend to the ministry that a specific exemption be made to Bill 21 for condominiums where conversion to smart metering would be wasteful. We'd like to work with your officials to arrive at that wording. We'd also like to work with your officials in developing new ways of conserving electricity that are cost-effective and feasible for the condominium community, and I've set out some examples of those on the last page of our brief.

That concludes my submission, and I'll leave myself open to questions.

The Chair: Thank you very much, Mr. Roman. You've left a generous amount of time. We'll start with the NDP; about four minutes each, possibly more.

Mr. Hampton: The issues you've raised were raised by a number of tenants last week, and they emphasized again what you've just told us: that in many cases tenants do not have any control over most of the items that use energy. Just so that I'm aware of this, the principal appliances—fridge, stove—to your knowledge, are they the responsibility of the tenant, are they the responsibility of the condominium unit owner or are they the responsibility of the building owner?

Mr. Roman: Normally they would not be the responsibility of the building owner, although, again, it may vary with the building. Some are sub-metered; some are centrally metered. Then it would depend on the age or vintage of the architecture. The more modern ones would generally have individual meters, and if the owner lives in the unit, then the owner is responsible; if a tenant lives in the unit, normally the tenant would be responsible.

Mr. Hampton: In any case, if we're thinking about appliances, like refrigerators and stoves, the way to really get at that is to first of all insist on energy-efficient appliances as a provincial standard and, secondly, provide some financial incentives for people to actually acquire the most-energy-efficient appliances. It seems to me that if we really want to get at this issue of how much electricity is being used that might be under the control or might not be under the control of the unit owner or the tenant, a big part of this is to move toward energy-efficient appliances and provide some incentive for that.

Mr. Roman: There's always a danger with energy-efficient appliances, the same as with low-flow shower heads or taps. If it takes me 30 seconds to fill a pot of water and I have a low-flow shower head and it takes me 60 seconds to fill a pot of water, I'll take the 60 seconds and it just inconveniences me because I still need to fill the pot. It's the same thing with a stove that may be energy efficient: If you're going to leave your turkey in the oven or something in the frying pan until it's cooked, if it cooks at half the heat, you're going to leave it there twice as long. So sometimes those appliances don't really work as effectively as the owners would have you believe.

One is not really a substitute for another. Smart metering gives consumers information, which gives them choice. I don't think anybody would suggest that it's desirable to deprive people of information or deprive people of choice. The only thing is that if the meter costs so much to install and so much to read and there's a reasonable payback period that you would regard as a threshold, if in small condominium units you don't reach that reasonable payback period, then you just don't do it. I don't think anybody would argue with that, in principle. It's just a question of finding the right spot at which to draw the line.

Mr. Hampton: So your final position is that in fact the government is not likely to achieve anything, from what you're seeing right now, in most condominiums? In other words—

Mr. Roman: No, I didn't say that. I just said that in those units where the structure or architecture of the condominium, the method of metering and the size of the units all play together to make them uneconomic, the government isn't likely to achieve anything if they force those places to take smart meters. But there will be other units that don't necessarily fit that category. I don't think we can generalize across all condominiums, and that's why our client is not asking for a blanket exemption for all condominiums.

Mr. Hampton: So what, then, is your final position?

Mr. Roman: Our final position is that where you do a benefit-cost analysis and it appears unlikely that the unit holders of a certain size or type of structure will ever achieve reasonable energy savings through smart metering, they should be exempted from it.

The Chair: Thank you, Mr. Hampton. We'll now move to the government side; about four minutes. Ms. Mossop.

Ms. Mossop: Thank you for your presentation. I would say that potentially we've already moved somewhere in the culture of conservation by the mere fact that you've put together—the condominium sector has bent their mind to this issue and obviously come up with some very serious and viable energy-saving options and recommendations. So we thank you very much for all that work and look forward to your continued effort in this area.

I think what we're talking about is the difference between the smart meter and the sub-meter, the sub-meter being the one that would go into each unit in a

building or condominium or apartment, as opposed to the smart meter, which would encompass the whole building.
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Mr. Roman: No. One could also put smart meters in individual units.

Ms. Mossop: Right. That's called sub-metering.

Mr. Roman: Sorry. All right. In a sub-metered building, one would use a different type of smart meter, probably, than one would for an industrial customer.

Ms. Mossop: So your concern is about the sub-metering. Is that right?

Mr. Roman: That's right.

Ms. Mossop: Okay. I just wanted to clarify that for the jargon's sake.

So your concern is around the sub-metering, and there's nothing in this legislation that says that sub-metering is going to be imposed. We have heard concerns about it from other tenants' organizations as well, the sense that what we need to do is be encouraging the landlords or the building owners to do those larger savings. Since the legislation doesn't really say we're going to sub-meter, is there something wording-wise that you indicated you could help us with?

Mr. Roman: Not today, because this is something we would have to discuss. We have not developed or arrived at any consensus on a particular wording. I think there's a general view, though, that the sub-metering efforts that have taken place in the past may not have been as fast or sub-metering as they should be, that it's going to be desirable in the newer buildings to put in sub-metered smart meters where it makes economic sense to do so. There is again a concern there, that if somebody is building a new bunch of condo units today, would they be obligated to give each unit in that building a smart meter, and if so, whether the cost of that would exceed the benefit.

Ms. Mossop: So I come back to, if we're going to talk about newer buildings, then I hope that this research that you've done and the concerns around energy conservation will be taken into consideration there. Probably the most alarming thing I heard you talk about was baseboard heating, because that's one of the biggest energy-guzzlers around.

Mr. Roman: You're right.

Ms. Mossop: So there's a lot of work I think we can do in concert with you on a go-forward for buildings and moving on the culture of conservation. I think we'll take under advisement your concerns with regard to the sub-meters.

Mr. Roman: Thank you.

The Chair: Thank you, Ms. Mossop. There is time, Mr. Delaney.

Mr. Delaney: You had a number of very interesting comments regarding incremental costs. Particularly, and just to generalize it, you quoted Toronto Hydro rates with regard to smart metering and the \$3 to \$4 per unit. I assume that's \$3 to \$4 per unit per month.

Mr. Roman: Yes.

Mr. Delaney: Do you view those charges as immutable? With the development of technology, it seems

inevitable that a human being won't ever actually have to sit down and analyze a specific bill. What exactly does that \$3 to \$4 per unit go for? Do you know?

Mr. Roman: I had the benefit this weekend of being at an energy conference and talking to one of the people who is the largest manufacturers of smart meters, and importers of them. They also believe that it's going to be in the range of \$3 to \$4. That is the cost of installing, which is a wiring cost, and depending on how far away your unit is from the master control room of the floor, you may have to string wires through ceilings and fish and drill holes and fill holes, and that kind of thing.

Mr. Delaney: I have a smart meter at home. It took a minute and a half to install. The old one popped off, the new one went in and that was it.

Mr. Roman: Well—

The Chair: Thank you, Mr. Delaney. Thank you, Mr. Roman. We'll move to the Tory side.

Mr. O'Toole: Thank you very much. I do appreciate it. I've taken the time to read this and I think you make some excellent points. I really do. I want to commend you for your objectivity. However, often people like to just simply agree with the government so they don't get on the wrong side of the debate—excluded, in other words.

There's a point you make here at the bottom of page 1: "CCI and ACMO believe that conservation measures should only be imposed to the extent that the value of the electricity saved through conservation, properly calculated (that is, unsubsidized) exceeds the cost of achieving those savings. Otherwise, the policy would be one of coercing consumers to increase their out-of-pocket expenses without contributing to the goal of energy conservation. That would not be a desirable policy, as it would extract money out of the economy for no useful purpose."

I think you've made that point very well. In fact, I've sort of simplified it down. The government does have a plan. The plan is, they're going to save the consumer, the residential side. They're going to install the smart meter, a clever little device, to tell you when you're using electricity, as if they don't know when they turn the dryer on or have the bar fridge running needlessly. The consumer's going to complain, "But the price is going up." In fact, if you're reading the Ontario Energy Board, they're going to look at the regulated price plan probably in March and April, they're going to realize there's about a \$350-million deficit that's going to be shoved onto the electricity you've already used, because you've underpaid for it, and they're going to say to the consumer, "Well, why don't you use the tools we've given you, the smart meter? Why aren't you going to use the smart meter to conserve?" The point you're making is, it doesn't conserve energy. At least, I've not seen anything except the OPA report, which suggests there may be 500 megawatts saved across Ontario, mostly by demand-response programs on the large side, not on the residential side.

I completely concur with you. You've made an extremely informed argument. I think it's right on. Condos

are a whole other deal. It's clear from the questions raised that they don't get it. They already have cable television, and all those utilities are already monitored in condos and sub-billed for the fees, whether you've got cable or the movie channel. That's how condos are run. Now they're going to have to pull another wire, or at least some device. Who's paying for all of that? From what you've said here, it's not just \$3 to \$4 for the installation; it's about \$13. When you look at your electricity bill today, the greatest majority of it is all this line loss and all these other obscure calculations—debt servicing and all the rest of it. The energy is the smallest part of it all.

Mr. Roman: The energy is about half.

Mr. O'Toole: It's a little less than half, and I look at mine fairly regularly.

Mr. Roman: Yes, that's true. I agree with your point that meters per se don't save money; it's people that save money.

Mr. O'Toole: They don't save five cents. They'll cost you more.

Mr. Roman: But just a second: The meters give you the information to make the choice to save the money.

Mr. O'Toole: They could send you a letter and tell you how to do it. They don't need to install some \$8,000 of sophisticated equipment.

Ms. Mossop: We'll send you a letter.

Mr. O'Toole: Good luck to you.

To me, it's one of the better submissions I've seen. The implication here for the consumer is, "At the end of the day, why don't you use the smart meter to save?" The smart meter doesn't save. All it's going to do is say, "Do your clothes at 2 in the morning, as opposed to 4 in the afternoon." That's what it's telling you. It manages the profile of the load.

Mr. Roman: There's also another factor. I'm advised that in condominium corporations, you may need to change the declaration and—

Mr. O'Toole: The act itself.

Mr. Roman: No, not the act. You will have to change the declaration of the building, because the way it's set up now is one type of metering, and then if you're going to change it and send people individual bills, you'll do others. It does cost something to purchase and install a meter, and it depends on the type of structure in which you have it. But in most places, it should pay. It's only in the very, very small places where there isn't a lot of sub-metering that it doesn't pay.

The Chair: Thank you, Mr. O'Toole. Thank you, Mr. Roman, on behalf of the Association of Condominium Managers.

Unless there's any further business of the committee, I advise us that we are recessed till 1 p.m.

The committee recessed from 1149 to 1303.

CANADIAN UNION OF PUBLIC
EMPLOYEES, LOCAL 1

The Chair: Ladies and gentlemen, I call the committee back into session. We'll be inviting our first

presenter, Mr. Bruno Silano of CUPE Local 1, Toronto Hydro. Mr. Silano, just to inform you of the protocol, you have 20 minutes in which to make your presentation, and time remaining will be distributed evenly amongst the parties. If you have a written submission, I'll have the clerk distribute on your behalf. I would invite you to be seated, and please begin.

Mr. Bruno Silano: I have another member of my local with me to present also.

The Chair: Please begin; your time is running.

Mr. Silano: Thank you. On behalf of the over 1,200 CUPE Local 1 members representing workers at Toronto Hydro, we thank you for the opportunity to present our views on Bill 21, the electricity conservation act, 2005. My name is Bruno Silano and I'm the president of the local.

Toronto Hydro is Canada's largest municipal utility, with over 670,000 customers and approximately 700,000 meters. It is the second-largest local utility in North America, second only to the Los Angeles department of Water and Power.

The women and men of CUPE Local 1 are involved in every facet of the distribution of electricity for the city of Toronto. Our members include those employed in the skilled trades, such as meter mechanics, to members in the customer care area, which includes the call centre, billing, collections and remittance. With me today is Terry Weatherhead, a meter mechanic.

The members of Local 1 are proud of the role we have played in fighting for public power and energy conservation in Ontario and across Canada. Our local has been active in all aspects of provincial electricity policy for decades. We all realize that Ontario's electricity policy is one of the most critical issues that this government will tackle. The policy established in this bill will have a huge impact on the standard of living of all Ontarians and on the whole provincial economy and will be a legacy for future generations. The people of Ontario and the government of Ontario need to make and implement some big decisions to ensure that we have an adequate, reliable and economical supply of electricity now and into the future.

As you may be aware, this year, 2006, marks the 100th anniversary of public power in Ontario. The province is at a critical juncture right now and we must make the right decisions today or else the future is very dark—no pun intended. This is why we feel Bill 21 is so important. To this end, our union, via our smart meter committee, has been monitoring the Liberal government's movements involving its conservation and smart meter initiative dating back to 2004. The government's decisions will impact almost 200 members of our local.

CUPE Local 1 believes that the best way to meet energy conservation targets is through publicly owned local distribution companies or LDCs. At Local 1, we support the idea of investing first in conservation and energy efficiency before building new generating capacity. This is the fastest, most economical and environmentally sustainable means of reaching the goal of having an adequate supply of electricity. Publicly owned

and operated utilities are in the best position to manage demand through conservation and energy efficiency programs and balance these with expansion of capacity.

There is much this government can do to reach our shared goal of an adequate, reliable, safe and affordable supply of electricity. We need to, first, address supply issues, first through investment in conservation and energy efficiency measures; and, second, focus on local conservation and demand measures to alleviate pressures on transmission and distribution systems. This route is preferred environmentally in reducing demand as opposed to enhancing supply.

We want to make a few more detailed comments on some aspects of Bill 21, the Energy Conservation Responsibility Act, and propose some alternatives that we believe will better achieve the goals of an adequate, reliable, safe and affordable supply of electricity. But first a few comments.

We were pleased to see that the Electricity Restructuring Act, 2004, included a key role for LDCs in conservation and energy efficiency programs. Unfortunately, there are aspects of Bill 21 that appear to take those measures away from local utilities and place them back in the hands of the provincial government. As such, Local 1 believes that this bill can be improved.

While we appreciate that it is essentially an enabling piece of legislation which allows for the creation of the smart metering entity, we suggest that it is a better strategy to make sure that the bill is not overly broad, with the result that it simply sows confusion.

The establishment of the smart metering entity will surely result in a new bureaucracy. The limitation on the powers of the entity ought to be carefully crafted to ensure that this bureaucracy doesn't simply replicate the functions that are already being performed by more established and experienced corporations like Toronto Hydro.

Our members are very much aware of the conservation demand management initiative at Toronto Hydro and would like to be more engaged in this program and all aspects of energy conservation. There is no need to duplicate or replace these services in the new entity. The result of duplication and replacement will be more money spent on bureaucracy and rediscovering what is already known. There is no benefit to citizens or rate-payers or to the goal of energy conservation.

We have two main areas in the bill for improvement. Since the bill does not describe what the smart metering entity will actually do, but only empowers it to do almost anything conceivable, we are somewhat hampered in giving careful and useful criticism except to suggest that what the entity will do should be decided before the legislation is passed. However, there are two specific areas which we suggest ought to be improved before the bill becomes law. With that, I'll hand it over to Terry Weatherhead.

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Ms. Terry Weatherhead: Installation of smart meters: Section 53.8, paragraphs 1 and 7, do not appear sufficiently clear to us to determine whether the intention

is that the entity will actually own and/or install the smart meters.

Since Local 1 members like myself install, maintain and verify some 700,000 meters at Toronto Hydro, we have the skill and ability to do so in an efficient and competitive manner, and we do not see the need to enable the entity to duplicate this work. There is no basis to believe that the entity would suddenly do any better than what our members have been doing for Toronto Hydro for decades. There is no economic or other argument that would justify a centralized meter installer in Ontario. While the smart meters are advanced meters, their installation is no different than any other meter that I, myself, currently install and have been installing for over 20 years. The entity will have enough to do to encourage conservation; it ought not to be given the task of installing smart meters when there already exists in Ontario the skills and installation infrastructure to perform this work.

We recommend that the bill be amended to make it clear that the smart meter entity will not be empowered to own or install smart meters where existing electrical distribution corporations have the ability to perform installations.

Smart meter data collection and transfer: Paragraphs 2 and 5 are another example of unclear drafting. While it is clear that the entity will require data and will transfer such data, the bill seems to indicate again that the entity will be starting from scratch with respect to data that are already being routinely and properly collected and processed by our members at Toronto Hydro. There is simply no need to duplicate this work, which is essentially the gathering of billing and related data. If the entity needs more data for the purposes of conservation than is currently collected, all it has to do is ask for the data from the sources that are already collecting and processing the information. In some sense, this is already done. I do it myself all the time and have been for 20 years.

The bill should be amended to make it clear that, where local electrical distribution corporations collect and transfer data that are required by the entity, the local electrical distribution corporations shall continue to collect and transfer those data on behalf of the entity.

Similarly, we suggest that the government ought to be careful not to empower huge and unnecessary expenditures. Section 53.8, paragraph 5, seems to authorize the building of an entire telecom system for the entity where more than enough capacity currently exists in the Ontario telecom networks for the transfer of immense amounts of data. The Toronto Hydro telecom network, on its own, could supply the entity with the necessary capacity. The provision is simply too broad and will lead to duplication, and invites waste.

We suggest that this provision be amended to ensure that the entity does not start a new telecom empire, but simply uses the existing capacity.

Mr. Silano: Conclusions and recommendations: The members of Local 1 are proud of their efforts to protect and expand public power and promote conservation.

The ultimate effect of Bill 21 must be to ensure that Ontario has an adequate, reliable, safe and affordable supply of electricity via conservation measures. Otherwise, the province of Ontario will be left in the lurch. That is why the continued utilization of LDCs and their highly skilled and trained staff is the best route for the government to take to achieve its objectives. Given the enormous costs involved and the even greater risks associated with a failed conservation and smart meter program, it would be reckless for the province to proceed otherwise.

The Chair: Thank you, Mr. Silano and Ms. Weatherhead. We will now proceed to the government side, about three minutes each.

Mr. Delaney: I have a number of questions that I think I can ask fairly quickly. Let's see if we can do it. What type of bureaucracy are you concerned that smart meters will engender?

Mr. Silano: We're very concerned that the entity will essentially duplicate what LDCs are already, and traditionally have been, doing for almost 90 years in the province.

Mr. Delaney: Which—just to clarify for me—is?

Mr. Silano: The duplication of services we already provide at the distribution level. So if it's in the collection of smart meter data or in the installation of data, that's all a bureaucracy that would have to be created within the entity.

Mr. Delaney: Okay. What functions that your members now perform might change as smart meters are implemented?

Mr. Silano: I think Terry might be in the best position to answer that.

Ms. Weatherhead: I'm not really sure—you're assuming that we're going to be installing the meters, right?

Mr. Delaney: Regardless of who installs them or how, making the assumption that a large base of smart meters is installed, what functions that your members now perform would change if such a large base of smart meters were installed?

Ms. Weatherhead: In a sense, probably nothing, except that instead of installing other meters, we're going to be installing smart meters. We install meters every single day. I also want to remind you that that's a very specific trade. It took me five years to get that licence. To find that kind of expertise, in a broad manner like we have at Toronto Hydro and at all the other LDCs, is not just going to be difficult; it would be almost impossible. So my job won't change, except that instead of installing other meters, I'll be installing smart meters and using that kind of knowledge to install those meters.

Mr. Delaney: How are your members in Toronto Hydro working to implement new technology that would improve, for example, the collection of data that would be key for residents and businesses to make energy conservation decisions?

Mr. Silano: I know that currently at Toronto Hydro there are several pilot projects under way with different

technologies from some of the manufacturers. They're testing which technology would work best, depending on the urban environment that they're in. I know that Toronto Hydro does use the data right now to be able to describe to any customer—small residential, small business or large institutional or commercial—to be able to show them what their load characteristics look like and to offer advice as to how to reduce their electricity bill. So that information is very important for the local utility. Without it, they're really just poking around in the dark.

The Chair: We'll move to the Tory side.

Mr. O'Toole: I have three or four comments. I'm kind of surprised you're not here commenting on Bill 206 and the fact that there could be a province-wide walkout on the 10th, which is sometime this week. But you're not.

Mr. Silano: It's a separate bill.

Mr. O'Toole: It's a separate bill, but I participate in both of them and find they both somewhat derail from time to time.

I fully applaud the goals of adequate, safe, reliable and affordable power, but I'm finding it difficult to find how they're going to achieve any of those. If you read the IESO report or the OPA report, "adequate" is questionable, "reliable" is questionable—given last summer; you're familiar with that?

Mr. Silano: Yes.

Mr. O'Toole: "Affordable" is certainly—there's going to be about a 25% to 35% increase just based on the OEB's reports. Looking at the deficit under the regulated rate plan—you're familiar with those numbers—\$350 million is going to roll back into the bill for energy we've already used, plus they're going to up it to about 7.2 cents, from everything I've read, which is a fairly significant increase; 30% might be modest. I'm not sure how they're going to achieve any of the goals whatsoever. This thing here is going to add additional money and administrative oblivion to an industry that you've said is already prepared—I agree with the implementation. The interface with the consumer should be the LDC.

In fact, I've cited this report—you probably read *The Distributor*: a good, informative, layman's type of publication that most of us can understand. They have the same concerns. I won't read all of it, but for the record, it's important: "A common concern that has been raised by LDCs in their review of the specifications is the need for a fuller explanation of how the overall smart meter system will work." It goes on to talk about functionality specifics, but more important is the communication system, which you've mentioned, as well as the meter data depository. So this is going to be another big, centralized "government knows best" plan. All the data goes there, and they do the billing and all the customer-interface stuff. I think it's doomed to failure unless they address many of the suggestions you've made.

I have one other comment that I'd like to make. You know that the most recent report by the IESO said clearly, on page 3, that the outlook "reinforces the need identified in the 10-year outlook to have the coal" plants

“available for a period of time beyond” the time announced for the shutdowns. In other words, they can’t fulfill that promise. They have no plan. You don’t know, and you work with it every day, whether your licence is going to be—I just see this lack of planning. They just don’t have a plan.

One other thing too: What’s your position on the new gas-fired generation in Toronto? There are really a lot of questions there, because this whole bill is a framework for failure. What I’m trying to point out—

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The Chair: I need to intervene there, Mr. O’Toole. We’ll proceed to the NDP—

Mr. O’Toole: I wish there was more time. Unanimous consent for more time.

The Chair: Mr. Hampton, please.

Mr. Hampton: I actually do have a question. The government has been talking about smart meters. We’re now into the third year that they’ve been talking about smart meters, yet this bill, as you’ve described here, is extremely vague. It’s still not clear exactly what form this form of metering will take. It’s still not clear—as you point out, will this be centralized, decentralized, partly centralized, partly decentralized? How long do you think this is going to take, given that they’ve talked about it for three years yet have produced a very vague piece of legislation? How long do you think this is going to take, in your experience, to actually do this?

Mr. Silano: I’m going to hand that one over to Terry.

Ms. Weatherhead: I don’t have an answer for you for that. They give us deadlines, but they keep pushing forward the date on which we can start. They give us different messages as to what kind of meters. As Bruno said, I myself have installed a number of smart meters on a pilot project. We’re testing how well they communicate in our worst areas, that kind of thing. As far as the installation, the numbers they’ve given us that would keep us on track we’ve been able to do, but until we get some really clear groundwork and we’re really clear about which meters and who’s going to do this, it’ll be hard to really start.

Mr. Hampton: Have you seen any cost-benefit analyses? We’re being told that this is probably a \$2-billion project. When you start talking about installing these across the province, you’re probably looking at \$2 billion—possibly \$2 billion plus. In your work at Toronto Hydro, have you seen any cost-benefit analyses; in other words, what smart meters are supposed to do, any targets, anything that says, “This is how much peak demand will be reduced,” or, “This is how much overall demand will be reduced”? Have you seen anything like that?

Mr. Silano: No. In fact, that’s the biggest question mark around the whole issue of smart meters as a conservation tool. We have to understand that in an area like Toronto Hydro, 80% of the load is large commercial and industrial; 20% is residential. The trick is going to be to entice the large commercial and industrial folks to shift their usage, and many of them, from what we’ve been told, simply can’t do it.

If you run the TD tower in downtown Toronto or any of the bank towers, their core business hours are 8 a.m., say, till 6 p.m. As I understand the way the rates are being proposed, from 2 p.m. to 10 p.m. is going to be the peak period. Those folks are just not going to let all their staff go home and expect them to come back at 10 o’clock at night. So the amount of peak that may be shifted or moved around on that 24-hour scale is going to be questionable at best, and we’ve seen no hard evidence of where smart meters will actually do that. In fact, any of the studies and reports we’ve seen are that, in aggregate, one’s electricity bill will increase. That, more than anything, will be the carrot for ratepayers to try to shift load, but even that is still very limited in terms of what a homeowner can try to move to after 10 p.m. or wait till the weekend.

The Chair: Thank you very much, Mr. Silano and Ms. Weatherhead.

FEDERATION OF RENTAL HOUSING PROVIDERS OF ONTARIO

The Chair: I would now invite our next presenters, Ms. Venneri, Mr. Butt and Mr. Lithgow of the Federation of Rental Housing Providers of Ontario. I would just advise you, in terms of protocol, you’ve 20 minutes in which to make your presentation. The time remaining will be distributed, as you’ve just seen, for questions and comments amongst the various parties. Please begin.

Ms. Andrea Venneri: I’d like to thank the committee members for allowing us this opportunity to speak to this important legislation, Bill 21. Allow me to introduce myself and my colleagues who’ve joined me today. My name is Andrea Venneri. I’m the director of policy with the Federation of Rental Housing Providers of Ontario. We are the industry association representing multi-residential property owners and managers across Ontario. Joining me today are Mike Lithgow, energy manager with Greenwin Property Management, and Mr. Brad Butt, who’s the president and CEO of the Greater Toronto Apartment Association.

We’re here today to provide the Ontario government with important information that we believe will assist them in successfully implementing the smart metering initiative across the province. Allow me first to frame our discussion by giving you a quick overview of the rental market. I will then speak to some of the data we’ve provided you with in our written submission, both on current consumption patterns and on the impact on consumption decreases through smart metering. Finally, I will address three of the larger challenges we, as an industry, believe the province faces in implementing this policy, as well as some of our recommendations and solutions.

The multi-residential rental industry represents approximately 21% of Ontario households. Our estimates indicate that approximately 90% of those dwellings are bulk-metered: One meter exists inside the building, the landlord pays the electricity costs, and the associated

costs are apportioned by unit type or perhaps by square footage and included in a resident's rent. Clearly, the result of this is a disconnect. Tenants are making energy consumption choices but not having to bear the true financial consequences of doing so. Given the current framework, there's undeniably great potential for energy savings, both in overall consumption and at peak demand times in Ontario.

According to the data we have from comparable jurisdictions and a few sub-metering examples here in Ontario, there have been very strong results in decreased energy consumption when tenants are individually billed for their choices. In non-electrically heated units, which represent the vast majority of dwellings in the province, average in-suite consumption ranges anywhere from 350 to 700 kilowatt hours per month. Therefore, approximately 3.9 billion kilowatt hours in electricity consumption is annually bulk-metered.

Clearly, the size of the market and the potential for saving is tremendous, but what kind of results should we be expecting with smart metering? As we outlined in our written submission, the data indicate that if the province can successfully implement this policy and address the barriers I will speak to in a moment, we believe that building consumption decreases will range from 20% to 30%. This represents an overall provincial consumption decrease of 1% to 2%. We believe that this is a very conservative estimate. One of the buildings we refer you to in our written submission allows for a cross-comparison of unit type within the same building, where some tenants had been individually billed and some had not. The percentage change in consumption ranges from 38% to 51% in that example. Evidently, the effect of paying for your personal consumption is exactly what you hope it would be. Beyond the clear conservation benefits this policy produces, the effect of sub-metering also has the benefit of decreasing demand at peak times.

I think we're all aware of the electricity challenges we're facing in the province, particularly in the summer-time and particularly in downtown Toronto. This initiative can also assist the government in meeting its electricity infrastructure challenges, in particular the pressures on the grid here in Toronto, where there is a very high density of rental apartments.

While many tenant representatives question how a tenant can truly decrease their energy consumption if they cannot control the types of appliances that they have in their suites, the results speak for themselves. There is great potential within this industry to change residents' behaviour, to the benefit of all Ontarians. We're also aware that many opponents to this policy claim that once tenants are made responsible for their electricity costs, landlords will then have no incentive to invest in their buildings through energy-efficient appliances or windows. This is a difficult claim for us to accept. One of the many benefits of today's rental market is increased choice. Vacancy rates are high, particularly at the low end of the market, which promotes a very competitive market for landlords to both attract and keep tenants in

their units. Landlords are now in a position where they must do what they can to distinguish themselves and their buildings from one another. This manifests itself in a number of ways: for example, a free month's rent, renovated buildings, appliance upgrades. The list goes on. We would argue that, should the province mandate this policy Ontario-wide, there would be an even greater incentive for landlords to invest in energy-efficient buildings, as it will be a very important element on which they will compete for tenants who are aware that they are responsible for their electricity costs.

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We also understand that further concern has been raised by opponents with respect to tenants facing increased monthly costs with sub-metering. In fact, according to our data, costs increase for those tenants who make the choice not to conserve or to consume at peak demand time—precisely the effect this policy is intended to have. But in the end this is not an income issue; this is a fairness issue. From our experience, we see that the evidence confirms that a very small portion of tenants are consuming a large portion of a building's energy. In other words, it's the low electricity users who are subsidizing the high electricity users. Given the way costs are currently incorporated in rents, many tenants are paying more in monthly expenses than they otherwise should be. That's why, with sub-metering, we conjecture that anywhere from 60% to 70% of tenants will be in a cost-saving or cost-neutral position, even with any administrative fees for the meters. It's the high users, those currently subsidized by their fellow tenants, who will see an increase in their monthly costs, but it is precisely those households that are the largest target of this policy. Low-energy users should no longer be punished with higher monthly expenses to pay for the choices of others. In the end, we're confident that the results speak for themselves and we applaud the Ontario government for this very bold initiative.

However, we're also aware that there are barriers to moving this policy forward successfully. The first is the need for a clear and fair formula to determine the rent reduction once electricity costs are no longer included in the rent. In order to avoid a deluge of tribunal challenges which could significantly delay implementation, this formula should be based on each unit's pro-rated share of the building's previous years' electricity costs. We believe this is the fairest way to determine rent decreases, as it is the method and the amount that reflects how electricity costs are currently incorporated.

However, from our perspective, we believe the largest obstacles facing our industry are legislative barriers now within the Tenant Protection Act. Currently, there are two provisions within the act that prove to be challenging this initiative. With sub-metering, electricity costs are removed from the rent through what is called a decrease in service. Tenants are then directly responsible for paying their electricity costs through individual billing based on their monthly consumption. However, section 134 of the act says that this should take place "if the landlord

and the tenant agree.” Therefore, mandating this initiative will be extremely difficult if the provision requiring tenant agreement is not amended. A legislative change permitting an exception to this specific requirement of this decreased service would greatly facilitate implementation.

The second legislative barrier is found in sections 145 through 153 of the act, which refer to the provision of vital services. Many of our members are concerned that, once the rent reduction has taken place and the electricity service is provided independently, they may still be held responsible for continuing to provide this vital service even if the tenant does not pay their bills. You can see how a tenant aware of this provision could perhaps use this loophole to their advantage, thereby defeating the very incentive this policy is intended to provide.

In the end, we believe this initiative can be a very positive step for all Ontarians; that is, with the necessary legislative changes to ensure fairness and equity for all involved. While we understand that changes to the TPA are challenging, we firmly believe that changes to these provisions are absolutely necessary to help ensure all Ontarians are given the same opportunity to benefit from energy conservation.

The province has set very aggressive goals with respect to smart meters in Ontario homes and businesses, and FRHPO believes that by including the multi-residential housing industry in the classes of properties subject to this legislation, this initiative can be a success and a benefit to landlords, tenants and all Ontarians. We look forward to developing its successful implementation with the government, with clear solutions to the specific barriers we face in this sector.

Thank you very much for this opportunity. I’ll ask if perhaps my colleagues want to make any comments.

The Chair: Thank you, Ms. Venneri. We’ll now start with the Tory side—about three minutes each.

Mr. O’Toole: Thank you very much for your presentation. You bring up a couple of very interesting observations. I just put to you a bit of a dilemma here. If you look back to the previous presenter, they would not support your observation, given the 80-20 usage profile. You say 21% of the renters in the province are going to be stuck with a fair amount of the problem, because its intended use is really that residential side of the business. There are demand management plans on the other side, the large industrial and commercial side.

There is a real, inherent conflict for the LDCs themselves. The problem is if, instead of load-shifting they do conservation, they actually lose revenue. Do you understand? There’s no formula here for them for the lost revenue in the event that they do save 20%. Their revenue will go down 20%, but their costs are going to go up certainly, during this transitional time frame. So there’s a very important administrative implementation issue to make this work.

I also say that I agree fully with the fairness issue, the formula issue. The issue then becomes that, like the Condominium Act, it’s troubled the same way under the

Tenant Protection Act. There are agreements of law in those legislative pieces that require informed consent. They’re really called disclosure pieces, technically. This bill will have to amend those two bills to allow those new arrangements of fairness to come about.

I would also want to ask you a question: What would be your best suggestion in terms of facilitating affordability and reliability in Toronto? For renters, for the most part, it’s already an economic challenge each month to meet those obligations. Should it help with the retrofit of buildings first, and re-examine the infrastructure where it’s important—people with baseboard heaters and that? You can’t simply isolate one unit, because there’s a panel. Do you understand? If you’ve got some advice on that, that would be helpful. How do you phase it in? Is there any way of bringing this about?

I’ll tell you, for instance, that you can look at the whole profile of usage. Right now, the local distribution company actually buys the power, and they take the heat for the line loss and pass it on to the customer. You’re going to be another interface, like a small LDC. In an apartment with 100 units, you’re going to have a central panel and you’re going to feed the power, but you’re going to charge an administrative kind of thing here for rewiring all the units and having little meters.

This plan hasn’t got any kind of what I’d call a skeleton. Do you understand? There’s a lot missing here. I applaud the idea of conservation, even load-shifting, and as it applies to you, you commend it as well. But how do we get there? What would you recommend they do? The first and easiest thing to do is put the new windows in and stuff.

The Chair: Very briefly, please.

Mr. Michael Lithgow: The way to keep capital costs down is to allow competition between the LDC installing, or private electric sub-metering companies or the landlord himself. The way to keep administrative costs down—the local LDC basically sets a maximum anyway. If Toronto Hydro is charging \$14 a month, the landlord is never going to get away with charging more than that.

The Chair: We’ll now move to Mr. Hampton—again, about three minutes or so.

Mr. Hampton: Do you have statistics on energy consumption for apartment buildings? In other words, where is most of the energy consumed? Is it mostly consumed for heat? Is it mostly consumed for appliances? What do your stats show?

Mr. Lithgow: About 65% of the power is used in-suite. Most of our buildings are not electric-heated, so it’ll be just appliances, lights and things like that. So you’re looking at some fraction of that, 65% of the total bill will be in-suite. The majority of it will be for appliances.

Mr. Hampton: So not heating, but air conditioning?

Mr. Lithgow: Yes, where there is air conditioning. That’s not in every unit in every building.

Mr. Hampton: Do you have a sense, in terms of air-conditioned units, of what amount of that power would be for air conditioning?

Ms. Venneri: I would imagine that would be difficult, because in some buildings the tenants choose to have an air conditioner, and the landlord may not be aware of that. So there's an issue about appliances. We don't necessarily know as a landlord what appliances are in a unit. We know what we provide our tenants with, but in addition to that, there could be space heaters, microwaves, stereos, computers, TVs and other appliances. I think air conditioning would fall into that category.

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Mr. Hampton: I think one of the biggest concerns, particularly, let's say, in southern Ontario, the greater Toronto area, is that summertime peaks are being driven by air conditioning. Tenants have to install air conditioners, in some cases, just to survive. You can sweat in the dark for only so long; after that, it's just not a sustainable strategy. But in terms of buildings, it's often the building owner that controls whether or not the building is, shall we say, energy efficient in the sense of being insulated well enough to keep the cold out in the winter and being insulated well enough to keep the heat out in the summer. So how do you address that? If the owner of the apartment building in effect controls the relative energy efficiency of the building, whether the windows are energy efficient, whether there's insulation etc., it seems to me that just forcing the cost of air conditioning onto the tenant isn't fair either.

Ms. Venneri: I think I spoke to that a little bit in my presentation in the sense that landlords are investing in their buildings, and I believe they will continue to do so, particularly if this is mandated. There will be a great incentive for them to provide their tenants with energy-efficient appliances.

One of the wonderful benefits of having this competitive market is that it has allowed landlords, after many, many years of not having the ability to invest in their buildings—since 1997, they have had that ability, because they can make the capital investments. So I would say that most of the buildings are in the process and have been invested in and will continue to be this way in this market in Ontario. To say that a tenant should not take on the cost—well, they need to be able to make educated choices, and that's what I believe this initiative is going to allow them to do.

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

Mr. Leal: Ms. Venneri, thank you for the laudatory comments on Bill 21. It's interesting to hear your take on Bill 21.

This morning we received a presentation from Carma Industries Inc., which is a meter maker in the great city of Peterborough, Ontario. Have you looked at their pilot project? They had a pilot project in Markham, Ontario—seven properties—to look at smart meters and the advantages of having smart meters and, indeed, individual apartment sub-metering. Have you looked at their data at all?

Ms. Venneri: No, I've not seen their data; I would love to.

Mr. Leal: In their data, they identify cost savings of between \$1.10 and \$7.90 per square foot, depending on

the apartment size and the range of activities that go on within that apartment. I just thought maybe your research may have been able to look into that, because I think it does provide some promise. We've heard some interesting observations, particularly on Friday, from a group from Waterloo concerned about tenants.

My colleague Jennifer Mossop had a question.

Ms. Mossop: There has been some suggestion in these hearings about potentially mandatory minimum standards for buildings in terms of energy efficiency. What recommendations would you have to encourage building owners to become more energy efficient, not just to save on their bottom line but to take part in what we are calling a culture of conservation? We'd like to get away from the culture of waste, as one of our presenters this morning referred to it.

Ms. Venneri: I think that's a very easy question to answer. I think there are two things the government can do: one is to provide certainty in our market. The looming cloud of what we think are very destructive rent controls and the uncertainty surrounding that is having a very bad influence on our market. Investors are sometimes hesitant to make the investments. They have been moving forward since 1997, since vacancy decontrol, but with the Liberal commitment to bring back real rent controls, there is some uncertainty in the market. So if we could have that certainty that we can make these capital investments and that it's a safe, competitive place here in Ontario, I truly believe that landlords will make these investments. In addition to which I would suggest that mandating this policy province-wide and addressing the legislative barriers that we brought forth today would help us because that would create the incentive for landlords to make these investments. I think that allowing this competition amongst the landlords is the most efficient way that that can take place.

The Chair: I'd like to thank the deputation from the rental housing providers: Ms. Venneri, Mr. Butt and Mr. Lithgow.

INTELLIMETER CANADA INC.

The Chair: I would now invite our next presenter to the front, Mr. Beacom of Intellimeter Canada. Mr. Beacom, please be seated. As you've seen, you have 20 minutes in which to make your presentation, time remaining to be distributed for questions and comments. I invite you to begin now.

Mr. Warren Beacom: Thank you very much. I would like to begin this afternoon by thanking the committee for allowing me to appear. My name is Warren Beacom, and I am a business owner in Pickering, Ontario, providing sub-metering systems and electronic meters for the last 15 years.

My company has been in business for 15 years, and we employ more than 30 people in Pickering. Our company puts more than \$3 million a year into the Ontario economy. I am here as a smart metering expert, and I would like to share information with you about the smart

metering business and about the impact that Bill 21 could have on the economy of Ontario.

The metering business works like this: Meters can be developed anywhere. Our main competitors on the development side are in the United States, Korea and China. Once a meter has been prototyped, it has to receive approval from Measurement Canada before it can be used in revenue billing anywhere in the country. This is to ensure not only that the meter is accurate, but also that it meets the safety and operational standards that one would expect here in Canada. This Measurement Canada approval process is neither simple nor easy but one that I personally have gone through on 10 separate occasions over the past 15 years, at large expense, to develop Ontario-developed smart meters.

Once a meter design has been approved for revenue billing, Measurement Canada requires that every individual meter is tested and sealed before it is put in the field. Meter testing and sealing facilities also have to be accredited by Measurement Canada. Traditionally, accreditation was reserved for large corporations and public utilities. My company, Intellimeter Canada, achieved this designation in 2002, and we have put into place 12,000 smart meters since that time. This was achieved at tremendous time and expense. I would hope that the Ontario government will make it mandatory that the sealing of all meters takes place here in Ontario. This will provide a level of quality for Ontario consumers and a source of employment for Ontario workers.

The other thing about the metering business that you should all understand is that metering systems are often married with billing services. Once a building has been retrofitted with smart meter systems and information is being collected and the data is being sent to a computer, someone has to finish the circle by sending the new customer a monthly utility bill, manage payments and provide a variety of customer services.

To address this need for our metering customers, Intellimeter Canada started a billing service a few years ago. Our service provides customer service from a live person in Pickering, Ontario. For this service, we charge a small monthly fee—a fee that is fair and reasonable and lower than the industry.

Unfortunately, not all companies are interested in doing the right thing for customers, and this has created what we consider an explosive situation, with the OEB regulations being abused and ignored. The latest fad in the industry is the free meter system. These are not all that different from the free cellphone package or any other number of free or no-money-down deals that are out there today, with the one important difference being that the person making the deal is not the person who pays the bill.

A large, multinational company will come in and install a free meter system on the condition that the developer or property manager sign a long-term billing service contract requiring tenants to pay exorbitant service fees for a long period of time. As an incentive to seal the deal, the developer or property manager is paid a signing bonus which gives the metering company owner-

ship of the wiring infrastructure in the building. The metering company then charges each resident in the building a penalty fee for buying power. The contract imposed upon residents offers no service guarantees, can be farmed out to call centres in other countries and is generally for the term of 25 years. These contracts benefit property owners and developers as they download the cost of the system onto residents who have no input into the process and who are left to pay the inflated prices year after year.

The Ontario government needs to be aware of these situations and must take steps to prevent them from happening. These companies not only can steal business from smaller, Ontario-based companies like mine, but they can also put citizens, especially those who can least afford to pay, in the position of feathering the nests of large corporations that give nothing back to the province.

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The Ontario government, in its efforts to have 800,000 smart meters installed in homes across the province by the end of next year, must consider carefully the types of companies and organizations it will do business with and how the rights of Ontario consumers are affected.

In the past 14 months, our company has responded to two government RFPs that were put out in the industry. In both cases, we received a letter indicating that while we had met all the requirements for the RFP, we would not be invited to make a presentation. That does not sit well with me. It seems to me that we are welcome to volunteer our time and expertise to help develop a course in green energy technology at the University of Ontario, and we are welcome to hire Ontario workers and pay our Ontario taxes, but when the government looks to hire a company to install the very products we are experts in, we're not welcome at the table, even after demonstrating that we have the expertise and technology to do the job.

The 800,000 smart meters could translate into an influx of \$120 million to \$200 million in the next 22 months. By the time full implementation has taken place, the Ontario Energy Board estimates that the total capital cost of smart metering implementation will be \$1 billion. The government, you, will have to make a choice: Will the money be spent here in Ontario, creating jobs and stimulating the economy, or will it be spent on companies that send the jobs to call centres in the United States and India?

This exporting of Ontario taxpayers' money has already begun. In February 2005, Wasaga Distribution hired Itron Inc. of Spokane, Washington, to implement a smart metering pilot project. Also in early 2005, Ontario Hydro announced the awarding of a 25,000 meter pilot project to two partners: Rogers Wireless and Smart-Synch, a company whose corporate headquarters are in Jackson, Mississippi.

My personal request as an Ontario citizen, taxpayer, employer and business owner is that the Ontario government take action to keep this business here at home. At the very least, establish regulations requiring companies making smart metering installations to have minimum

minority ownership content and provide regulations that protect consumers from contracts they did not sign.

Smart metering will benefit citizens and consumers alike. It will take pressure off our grid during peak hours, and it will help to create the culture of conservation that is part of the goals of our minister. Specialized smart meters will also make it possible to net-meter renewable energy sources, giving credit and advantage to those who invest in the green energy sources that I believe are our future.

The McGuinty government has made a firm commitment to the environment. Now you need to reinforce that message by renewing your commitment to business in Ontario.

Keep Ontario's money at home. Help guys like me hire more assemblers, more product development staff, more programmers, more quality assurance staff and more electricians.

Whether the Ontario government pays for smart meters or consumers are required to pay for their own meter, make the cost of implementing smart metering less bitter by assuring Ontarians that their rights as consumers will not be sold to the lowest bidder and that the \$1 billion will go directly back into Ontario. Give Ontario citizens a financial justification for this whole process that can be counted in jobs and economic growth.

The Chair: Thank you very much, Mr. Beacom, for your deputation. We have ample time for questions. We'll start with the NDP. About four minutes, Mr. Hampton.

Mr. Hampton: As I read your brief, and I've heard some of the other submissions, there's going to be a fair amount of money involved in smart meters, the support systems and everything else that goes along with them.

Mr. Beacom: Definitely.

Mr. Hampton: We've had some folks, particularly from the local distributors, say that they think the cost will be in excess of \$1 billion; that it could be in the neighbourhood of \$2 billion. Do you have a sense of that?

Mr. Beacom: I would say, Mr. Hampton, that it would depend on the infrastructure that goes along with it. It would depend on what else it wants to be added to the infrastructure other than just the meter-reading information. Infrastructure is what will probably cost the majority of the fee for the whole thing, because it's a matter of gaining the data on an hour-by-hour basis in order to do this. There's a lot of entanglement as far as whether they're going to put voice-over IP, whether they're going to use it for Internet resources, whether or not there are many other things that are going to go along with it to make it more economically feasible and to basically hand the costs off to other people. That's really what it comes down to. It's not strictly a metering cost, but it's being boiled into one.

The whole economy and the concept behind it is a great concept, no less than the phone companies used to have. I can remember when our kids were small, we used to come home at night, the kids would pick up the telephone and my wife would yell at them, "You can't do it

until after 6 o'clock." It's the same sort of thing. It's educating the young people to understand it, and then the whole thing will take shape. There's merit to it. But whether it's going to cost over \$1 billion or not depends on how big the infrastructure is that they want to put in place.

Mr. Hampton: One of the issues that was raised the other day is that a lot of customer information—your financial information, your consumption etc.—will now be available to this entity, whether this is a smart meter entity or whether it's a private corporation. One of the issues raised was that there ought to be some privacy protection here: what this information can be used for, who can use it, who can access it. Do you have a sense of that?

Mr. Beacom: Yes, absolutely. It even tells you when you get up in the morning, when you leave for work, when you get home at night. You can tell everything off of this. I'm just being honest. But we have a very strict privacy issue in our corporation where we don't allow anybody any access to that data except for the information they need for customer service. That's very, very true.

Mr. Hampton: Do you think a privacy clause ought to be added to the legislation?

Mr. Beacom: Most assuredly. Unless you're dealing with people who have 100% integrity, it definitely should be, because just watching your electrical usage provides so much information. We can profile things down to a minute in our company. We've been doing it for the last seven or eight years. You can tell everything. Even as dramatic as when somebody flushes a toilet, you can actually tell, because it's 10 litres of water and it gives you one pulse in the middle of the night. Basically, we monitor these things in places everywhere. So it's very important that privacy is maintained. It's a very private thing.

Mr. Hampton: Whether this is a \$1-billion cost or a \$2-billion cost, have you seen any cost-benefit analyses that say that for a \$1-billion cost you can expect to have shifting of peak electricity consumption by this amount, or for a \$2-billion cost you can expect to have shifting of peak electricity consumption by that amount? Have you seen anything, either yourself or from the government or from anyone else?

Mr. Beacom: We have countless amounts of data on metering systems and putting metering into buildings that aren't metered. Basically, there is a shift. We call it the 60-40 shift. Like the people ahead of us indicated, in an apartment, 60% to 65% of their utility is in the suite—that's absolutely true—before it's metered. Then the thing turns from a 60-40 to a 40-60. In other words, the suite uses 40% and the common area uses 60% after the suites are metered. That basically saves you about 32% in your overall energy after about three years. From a metered building to a non-metered building, that's the difference. We've got countless amounts of statistics to prove that right now in our company. We have—

The Chair: Thank you, Mr. Beacom. We'll move to the government side. Ms. Mossop.

Ms. Mossop: Thank you very much for your presentation. Just following along, the information that you have shows that there is definitely a cost benefit from installing a smart meter.

Mr. Beacom: Definitely. Let me be totally fair to everybody. It's too early to tell what the cost benefit will be for the smart meter, because there's nobody billing from a utility side in a smart metering way. But it's definitely a benefit to put meters on people who aren't metered. That will incorporate larger savings down the road, where people are more educated to use power in off-peak periods than they are now because there's no advantage for them. I'm afraid we're all made of flesh and blood and if you don't have an advantage, people won't do it just because they're nice people all the time.

1400

Ms. Mossop: Why did you get into the business of smart meters?

Mr. Beacom: I was in the electrical contracting business for 23 years of my life, and I left it as an owner of one of the largest electrical contracting firms in Ontario in 1989. I travelled North America as a consultant, and I thought that the idea of setting up metering systems and being able to meter people electronically was a unique idea. I started the company as one person behind a desk and now I have three companies that I own in the smart metering business, one in the United States and two in Canada. It was basically a way to pay back from the contracting field—a technology that is available to us that nobody wanted. In 1991, when I started the company, everybody looked at me as if I had two heads—well, they still do, in a lot of ways.

Ms. Mossop: You have mentioned we're all flesh and blood and without some sort of an incentive, we're not likely going to be very effective in creating a culture of conservation. We need something a little more, shall we say, that appeals to our intellect and our pocketbook. In your vast experience, do you think Bill 21 is on the right track to that?

Mr. Beacom: I think it does. It offers a way of leadership which we haven't seen before. It provides an ability and a tool to move forward. It probably needs some culture and some supervision in its implementation, but I think it definitely is a good thing. It can't help but benefit the people of Ontario overall. Whether it's \$1 billion or \$2 billion, when you look at the difference between the debt that Hydro One has created over the last years of \$20 billion to \$40 billion, I think it's a small investment for probably large results in comparison. That's my opinion.

Ms. Mossop: Very good. Thank you very much.

The Chair: Mr. Delaney.

Mr. Delaney: As a consultant, I'd like to tap you for a piece of information here. I'd like to get some information to enable me to assess whether the proposed monthly per-meter billing fees by LDCs are reasonable in the circumstances, so here's my scenario. Presume that 100,000 smart meters are installed in a particular LDC's service area in the GTA. What, in your experience and

your opinion, are the data collection, data processing, billing and other charges that need to be amortized over those 100,000 meters for the LDC to break even; in other words, in your opinion, the reasonable per-unit cost by the LDC to deliver service to a smart-metered household?

Mr. Beacom: I guess it depends on how many golf tournaments they're running that year. I would say that they're probably going to need between \$1 and \$1.50 to handle the data, they're probably going to need between \$2 and \$3 per month to purchase the product and they're probably going to need somewhere in the range of the balance of the money to run their own operations, their line maintenance and their operations. So that's probably in the range of \$10 to \$12.

Mr. Delaney: Does that include just the transaction costs to a smart meter or are you including the cost of the electricity—

Mr. Beacom: There are a number of charges that go into reading the cost of a smart meter. There's the data that have to be dealt with and there's the configuration, depending on how many tiers of rate structures you have. It's a little bit undetermined at the moment what that's going to really involve and how many other factors are going to be composed in the software that's going to require that. All in all, they probably need right now somewhere between \$6 and \$7 to run their infrastructure, I would estimate, so that would be on top of that. They would probably need these \$2 to \$3 figures and \$1 and \$1.20 figures. Their billing process should be much more streamlined. So maybe their \$7 to \$8 cost would drop.

The Chair: Thank you very much, Mr. Delaney, and to you as well, Mr. Beacom, for your deputation today.

JV ENERGY SERVICES LTD.

CB AUTOMATION INC.

The Chair: I would now invite our next presenter to come forward: Mr. Volling of JV Energy Services. As you've seen the protocol, you have 20 minutes in which to make your presentation.

Mr. Jurgen Volling: Mr. Chair, I'd like to thank you and the committee for the opportunity to speak to you today. I would like to talk to you about the utilization of bi-fuel standby generators as a demand-response resource for LDCs. As you know, there are many standby generator sets all across our country, and in the United States there was a statistic that indicates that about 15% of generating capacity is emergency power. So if we apply even 10% to our 30,000 megawatts in Ontario, we have roughly 3,000 megawatts or more of standby capacity.

Some of the issues I'd like to address regarding standby generators: I'd like to propose utilization of these standby generators, because they're idle 99% of the time, the capitalization is already in place, it's been spent, and so, for a very low cost, these can be brought online for peak shaving, and it is the lowest form of immediately available power in Ontario. I'd like to propose that.

We know that with standby generators, some of the issues are limited fuel storage capacity. Also, if they are not utilized, then they become unreliable. We have records that in the August 14, 2003, blackout, 30% of the standby generators did not start. So obviously, regular operation would make them more reliable.

Also, the issues we face in Ontario in the energy sector: One is a shortage of supply; the other is that central Toronto has no generating capacity at all because the Hearn generating station was shut down and the Lakeview generating station is now shut down. It was a peaking station, both coal-fired. Lakeview closed in April 2005. I worked at the Hearn generating station in the maintenance department way back in 1963 and 1964, so I go back a long way in the energy field. I also had an opportunity to look at the Hearn station, and they had about 600 megawatts of peaking capacity. Half of it was shut down because of old technology. Even the later technology made it inefficient.

The other thing I'd like to mention is the fact that the coal-fired plants are going to be phased out, but the interesting thing is that coal-fired plants are excellent load followers, and we really have nothing to replace them with. So in the morning, when Ontario moves up 3,000 megawatts per hour or 60 to 70 megawatts per minute, coal-fired plants are excellent load followers, and when they are phased out, additional capacity will be required.

I'd like to propose a technology that's been around for about 15 to 20 years. It is a bi-fuel technology where we can convert an emergency diesel engine, in about four hours for a small one and one or two days to convert one- or two-megawatt units, to operate on natural gas—typically up to 80% natural gas displacement of diesel fuel, no spark plugs and no maintenance required for 40 years on this installation.

Basically, all we do—I have a sample here—is install this venturi. Natural gas is supplied here at 1 psi. The air comes in, mixes at the other end and goes into the engine. That's a fixed item that requires no maintenance. So we have 3% gas going in, and it displaces 80% of the diesel fuel. The power valve that regulates the flow is this here, and it's fully adjustable. Once it's set, you can let it sit there for 20 years and make no adjustments. That's what I propose for standby generators.

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We have done a pilot installation. There are roughly 20 systems in Ontario now, including OPG, the Toronto Stock Exchange, First Canadian Place—on the 72nd floor, we converted a 750 kilowatt Caterpillar. The Whitby Hydro installation is uniquely different because a fully automated web-based wireless technology has been applied to make it dispatchable based on the IESO pricing. Maybe my friend here, Bill Khashfe, would like to address that as well.

Mr. Bill Khashfe: Committee members, thank you very much for giving us the opportunity to be here. I would like to show you this picture, which is in your lectures here. It describes the system that has been

implemented at Whitby Hydro. Actually, what I'm going to point out in the next two minutes is simply to make you feel comfortable with a technology that is actually very normal for people from the field of automation. It's like when you have a car and you switch it on in the winter; you switch on, wireless-wise, your car from home, and it goes on in the garage. That was not possible 10 years ago. Nowadays, it is very common. In the same situation, we have here a technology that is implemented and we have a pilot project that's up and running, and you can see it at any point in time at Whitby Hydro.

The picture that I'm showing you here is simply that you've got a PC which is linking to the IESO information, and the PC is also connected to the controls that are positioned at the diesel generator, the standby generators. The standby generators themselves can be grouped into groups of networks, and that's it. This is the system, and it is up and running and can be used. That's all. Thank you.

Mr. Volling: It's available for anyone to inspect it, as well. It's a leader in Canada.

If you could maybe also take a look at the sheet called "Some Independent Customers," you can actually see how many standby generators there really are out there. When you look the sheet, Bell Canada, for instance, has 400 megawatts of emergency power. Most people don't know that. There's one building downtown that has between 15 and 20 megawatts in it. Commerce Court downtown: I sold nine of the 13 generators in there. Just recently, the Bank of Montreal put 30 megawatts in a building in Barrie, so they're all over the country. These are available, dispatchable, and with this automated system it can be done very quickly. Even the casinos and other places have large generating capacity.

The government has recently introduced the CDM program, the conservation and demand management program, with demand-response and also with demand-side management. Funds or incentives are in place to put some of these pieces of equipment into force and give excellent payback for the customer and for the utility. The utility has the opportunity to place these where there's constraint, to have a generator run to reduce the load and therefore improve the quality and also get a payback. This is a system that has been around for 15 to 20 years. I believe one barrier that we face is the Ministry of the Environment certificate of approval. It seems to take sometimes over a year to get a certificate of approval.

The last point I want to mention is about opening a third category. They have standby classification and prime power with 24-7 operation. I have an economic model in here where 200 hours per year is more than enough to get a payback on this simple investment. That's my proposal.

The Chair: Thank you very much, Mr. Volling and to your colleague. We'll now move to questions and comments. We'll start with the Tory side. Mr. Yakabuski, you have about four minutes or so.

Mr. John Yakabuski (Renfrew-Nipissing-Pembroke): Thank you very much for joining us today. What you're

really talking about here is emergency power to be used at times that normal power is not available. Is that what we're—

Mr. Volling: That's right; when there's a power failure.

Mr. Yakabuski: That's what we're looking at? It's very interesting stuff. I would only be fooling myself if I thought I was any kind of an expert on it, but it's interesting stuff. Maybe I can ask you a couple of questions about electricity in general, because you seem to have, obviously, a long history and knowledge in this field. You talked about the coal situation. The government is doing a real fancy dance right now about the coal. They don't seem to really know just how committed they are now. We're hearing different things in the newspaper. But it would appear that a lot of experts are coming together on this now and saying—

Mr. Volling: There's a problem there, yes.

Mr. Yakabuski: —that they simply cannot do it. This wasn't a revelation today. Therefore, I guess my question is, why haven't they done something—

Mr. Volling: I'll give you an explanation as to why it will be delayed.

Mr. Yakabuski: But why wouldn't they have done something to clean up these coal plants we have instead of wasting all this time? Now it's becoming more and more apparent that they're simply not going to be able to meet those targets.

Mr. Volling: The issue is that nuclear power plants—I did my thesis on the nuclear reactors, so I'm familiar with the design of the reactors. I also sold emergency generators to all the reactors, to Romania, to Korea and so forth. Nuclear has to be baseload, and right now we have something like 36% nuclear, about 25% water and about 22% coal. If coal is decommissioned—it is an excellent load follower. If a block load is found, if a generator fails, load is picked up by coal. Wind can't do that, and nuclear must run baseload day and night. That's the problem: that they have no replacement for coal. That's why it has to be delayed. The other thing is that Nanticoke has eight 500-megawatt units—4,000 megawatts—and if that's shut down, there's transfer of power into the GTA, which cannot at this moment be blocked. They are going to run some generators as synchronous condensers or capacitors to boost power to our area. So coal is necessary for a little longer than next year.

Mr. Yakabuski: So why do you think the government—is it simply blind ideology or just playing politics with energy, or what would prompt them to make those kinds of promises?

Mr. Volling: I think they have very good plans for bringing in gas-fired to supplement or substitute or displace some of that power, but it sometimes takes three years to get a gas plant on stream. That's the reason. Everything is a bit shifted and delayed, so when something comes on and this goes off—but water is at 25% in Canada, and it is somewhat a load follower. In Niagara Falls, we have water storage in our reservoir, so if there's a load change, we can dump that water and give the

power, but if you don't have storage you can't make up the peak. Coal is excellent for that. I worked at the coal plant for two years, so I know all the systems.

Mr. Yakabuski: On the smart metering, there seems to be a lot of debate as to whether or not it's really going to provide the benefits that they're talking about by instituting it in 4.5 million installations across the province. Do you think we're going to see savings that will justify it for residential use, or is it primarily commercial use where this would be the best bang for your buck, so to speak?

Mr. Volling: I'm not an expert on that, but I have an opinion. There will be a clear delineation as to who uses what and when, but whether the private consumer will be able to adjust conveniently or go through the inconvenience of shifting, or even be available if they work at different hours—

The Chair: We'll have to leave it at that. Now to Mr. Hampton.

Mr. Hampton: I just want to be sure of a point you're making here. I'm aware that, for example, many of the power authorities in New England, when they hit peak electricity periods, offer companies financial incentives to either curtail their operation or in some way reduce their electricity consumption. In other words, the power authority pays companies to start shutting down some of their operations or curtail their electricity consumption. What I think I hear you saying here is that there is extra generation capacity out there, that if you provided the right kind of financial incentives, you could use it to meet peak demand, and that currently this is not being used to meet peak demand, that it is essentially a privately-owned electricity resource that is not being used to meet peak demand but is on standby in case there's a complete shutdown; in other words, a blackout.

Mr. Volling: That's right.

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Mr. Hampton: So I just want to get a general sense from you about what kind of financial incentives would be—in layperson's terms, what would we be talking about here per kilowatt hour? What's required?

Mr. Volling: If you look at this chart here, I have a cost in here: up to 44 cents per kilowatt hour. This is the 2003 hourly rate. For August 2002, it showed 44 cents per kilowatt hour. So if it costs 10 cents or 12 cents per kilowatt hour to generate, we have a signal right now at Whitby Hydro that would start that generator, because you can generate at 10 cents to 12 cents and you're going to pick up that saving here; the utility, when it feeds into the customers, picks that up.

Mr. Hampton: Right now, these generators are solely under the control of, let's say, the bank or solely under the control of Bell Canada.

Mr. Volling: That's right, so there has to be an incentive to release that.

Mr. Hampton: Not only would you need an incentive, but you'd need protocols and everything. In other words, it would be, let's say, Toronto Hydro or Hydro One that would automatically, by wireless con-

nection, say, “We’ve hit this price. We’re now going to use your generating capacity.” Is that right?

Mr. Volling: Right.

Mr. Khashfe: Basically, it is a possibility, as you now consider. The ISO has the price, and that can be issued for the operators on the PCU, on their screens or pagers or whatever technology they prefer. They get the price. At this level, when they see that they are above the penalty price, then there are many possibilities to dispatch the generators, and therefore we have here two situations: they can feed into the grid or they can balance the grid load.

Mr. Hampton: Both of which would be important.

Mr. Khashfe: Exactly.

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

Mr. Kevin Daniel Flynn (Oakville): My familiarity with a standby generator is that the fuel in a plant or in some operation—if the electricity supply is interrupted for some reason, it needs to go to some other source of power either to fuel its emergency systems or pumps that just have to work, that type of thing.

Mr. Volling: A water pumping station.

Mr. Flynn: So what you’re suggesting is that all the infrastructure that we have in place could be used to supplement the electricity supply on a regular basis.

Mr. Volling: And it makes it more reliable. If you drive your car every day, it’s more reliable than if it sits six months in the driveway.

Mr. Flynn: Probably the best buy you could possibly make if a refinery shut down would be to buy the diesel generator, because it’s probably got about eight hours or something on it; it’s almost a brand new engine, these things, when they’re run properly. Would you have to replace the generators on a more frequent basis if you were running them more frequently?

Mr. Volling: Just to give you an idea on life, a slow-speed 1,200-rpm engine takes about 25,000 hours for overhaul, and for a high-speed engine, about 1,800 rpms, it’s about 12,000 to 14,000 hours. If you’re running it at high output, it would be less than that. But we’re running 200 hours a year, so it wouldn’t affect the life; it makes it actually a cleaner operation and more reliable.

Mr. Flynn: To answer a previous question, you were saying you could feed into the grid as well. You wouldn’t need the power interruption; you could simply add to the supply.

Mr. Volling: Just come on stream.

Mr. Flynn: You refer to it as a bi-fuel system. It’s a diesel generator that’s being converted to natural gas.

Mr. Volling: Right. But we use no spark plugs, so we only have gas coming into the air cleaner, into the turbo charger. We do no modification to the engine. This takes 20 minutes to hook up. Everything else can be done ahead of time.

Mr. Flynn: Presumably it would run on biodiesel as well?

Mr. Volling: It’s 80% natural gas, 20% diesel.

Mr. Flynn: Biodiesel as well, not just—

Mr. Volling: Biogas, yes, or sewage or—

Mr. Flynn: There’s a picture in the presentation where there seems to be a containerized sort of compound. Would each one of these contain a diesel generator?

Mr. Volling: Two megawatts each, so 60 megawatts; there are 30 units.

Mr. Flynn: What is that one supplying, the picture you have there? Where is that taken?

Mr. Volling: It’s in Washington state.

Mr. Flynn: What does it do?

Mr. Volling: I’m not familiar with what its function is, but they have SCR, selective catalytic reduction, systems on the roof and the bi-fuel systems inside for emissions control.

Mr. Flynn: Your company—

Mr. Volling: We provide this and install it.

Mr. Flynn: Your interest would be, obviously, that if we had more of these, we’d need more of those.

Mr. Volling: Right.

Mr. Flynn: The one at Whitby Hydro—we’ve got a picture of that here too—what happens? If something happens and they need more power, this kicks in, or they turn it on?

Mr. Khashfe: Exactly. It’s a pilot project to synchronize, let’s say, to read the ISO price level and be able to dispatch loads on and off base on the specific pricing which can be set through contracts.

The Chair: Thank you, Mr. Khashfe and Mr. Volling, for your deputation on behalf of JV Energy Services.

GREEN ENERGY COALITION

The Chair: I would invite our next presenters, Mr. David Poch and Mr. Millyard, from Green Energy Coalition. Could you come forward. As you’ve seen, it’s 20 minutes for presentation and the time remaining for questions and comments. Please begin.

Mr. David Poch: I’m David Poch. I’m counsel to the Green Energy Coalition, which is a coalition of environmental groups active on energy policy regulation in Ontario. It includes the David Suzuki Foundation, Eneract, Energy Action Council of Toronto, Greenpeace and Sierra Club. I assume committee members are familiar with those groups in rough terms. With me today is Kai Millyard, who is the research director of the GEC, so if you stump me, I’ll drag him forward.

The coalition was formed about 15 years ago to intervene in regulatory proceedings. I’ve provided you with slides. I’m basically going to follow through those slides.

Our member groups have, between them, about 40,000 members and supporters in Ontario. We’re active in several hearings every year before the energy board, both on the gas and the electricity sides. Basically our agenda is to get the rules right at the energy board so that these utilities are active on conservation and renewables.

In general, we welcome the advent of Bill 21. We appreciate that it’s just enabling legislation. We have one principal message to you today, which is that the act is an

opportunity to clean up a rather big problem we're having in Ontario right now, and that's the lack of a clear primary directive from the government which the OEB and OPA are obliged to follow. I'll get into some detail here about how the problem has shown up, but first let me give you a little background about what motivates us and what we hope will motivate the committee and the government in particular.

The conservation resource: When we hear the debates raging about supply in Ontario, everybody does lip service to conservation, but it's our perception that a great many of the public debaters at least don't appreciate just how dramatic a role that term has in the equation.

If you look at what's occurred in the States in particular, you see that American programs before 1996—so this was up to a decade ago—had already produced measurable conservation program results—and by “measurable,” I mean that these tend to be independently audited results—where they've netted out free riders who would have done the conservation anyway and what have you. The numbers then, at that point, added up to a lowering of electricity demand by 29,000 megawatts, which is more than the entire load in Ontario, and not insignificant.

More recently, if you flip over, you'll see some California information. You can see from the graphic that a lot of this has occurred more recently than the 1996 number I just spoke of. California, obviously feeling the pinch more than most places, got into this in a bigger way than others. They've already displaced something in the order of 12,000 megawatts of generation—huge numbers.

But we don't have to go just to California. If you look overleaf, you'll see some statistics there. A recent survey conducted by the American Council for an Energy Efficient Economy, published in 2004, found that in 10 US states where they were getting serious about conservation, they could reduce overall utility electricity sales an average of 0.4% per year. Each year that they conducted these programs, they brought down the slope of the line almost 0.5%, and the leading ones—which aren't just California, but also Connecticut, Rhode Island, Massachusetts and Vermont—were doing twice that.

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Keep that one number, 0.8%, in mind when you look at the next page and you see what the growth rate of electricity consumption in Ontario has been, and is. There's that steeply declining set of blocks. Back in the 1950s—“Live Better Electrically”—every year, 7.9% more power than the year before was required. But when you go to the most recent 15 years there, we're down to 0.5%. In the last 15 years, Ontario's demand for electricity has been increasing only by 0.5%. Referring to the slide before, we see leading utilities that get into conservation in the States producing savings of 0.8%; in other words, more than enough to offset growth and put us on a negative trend line.

I make the point in the next slide that perhaps the two leading jurisdictions, California and Vermont, did this in

part by a goal—a systems-benefit charge, a spending target—that was put in place for the utilities. You might think that these would be the utilities that had picked all the low-hanging fruit and exhausted matters, but in both jurisdictions in the last year, the regulators—or the legislators, in the case of Vermont—have removed the cap on spending and said to the utilities, in the case of California, and to the efficiency utility, in the case of Vermont, “You know what? If you can do more, great. Tell us what you can do. We'll take anything that's cost-effective,” and they are going back and trying to do that.

In contrast, if you look at the next graphic with the many vertical bars, here's what's happening in Ontario so far. I think it's fair to say we're off to a slow start. This graph shows the amount of spending on efficiency programs as a percentage of the total revenue that's taken in by the utilities in each of these jurisdictions. Indeed, you can see Canadian examples there, with Manitoba leading the pack at 3.44%, British Columbia in the middle of the pack and Quebec at 1.46%. It's common practice in all these utilities that all of the spending has to be on programs that have been screened for cost-effectiveness compared to the supply alternative. So far, what we have in Ontario is what I thought was a great idea. The government, getting the ball rolling, said to the utilities, “You can have the last tranche of your return on equity that had been frozen in the rate freeze. You can get it a year early if you pledge to spend it on conservation.” That was great. That amounts to the number you see there, 0.17%. But it's clear from this chart that that's just the tip of the iceberg. All these utilities in Canada and the United States have shown THAT you can cost-effectively spend far, far more, and we want to see that happen.

Overleaf, we have a little more history on the gas side. We discuss the Enbridge example. Enbridge is doing a good job as the leading example of gas utility conservation in Ontario, but still, they're spending seven tenths of a per cent of their revenues on efficiency programs. The DSM budgets in North America average 1%, and leading utilities, two or three times that amount. Even the Canadian example, Gaz Métropolitain, is at 2.3%. We haven't been able to overcome resistance, either at the regulatory board or amongst some consumer groups that tend to have a very near-term focus on rates, instead of looking at customer bills overall. So there's been a lag in Ontario.

Even though these are highly cost-effective—Enbridge in the last 10 years has spent \$80 million on these programs, and they've saved over \$1 billion for their ratepayers; those results are vetted by valuation reports, by a committee of stakeholders and by an external expert auditor, and then accepted by the Ontario Energy Board—the problem boils down to this: At the energy board, the board, despite very nice general objectives in its act, does not have clear authority to tell the entities it regulates—such as the local distribution companies, the transmission utility or the Ontario Power Authority, which it regulates at some level—that it wants them to go and get the stuff, and it can't insist on it.

The most recent clarification on that—we're awaiting another one at this point; there's been another motion since then. In November, chair Howard Wetston of the energy board gave a decision; this was in the context of the York region supply discussion about added transmission there. We've reprinted it here. He says that LDCs, and indeed the OPA, are at liberty to invest in conservation "at their discretion," but "the board does not have the authority to direct them to do so."

I think that's a pretty stunning gap, in the regulatory context. We're talking about the Energy Conservation Leadership Act here. We thought this was a perfect opportunity to fix this problem, and we hope this will be seen as a friendly suggestion to all sides of the debate.

The OPA: Similarly, there has been a problem. I think, to be perfectly frank, what's happened with the OPA is that the government was reasonably clear in what it asked of the OPA. It said, "Go out and tell us what we can do on conservation, what we can do on renewables, and then give us some advice on what we do to meet any gap, if there is one, after that." That's what the government said, and I give them credit for that. The OPA, on the other hand, didn't seem to hear that, although if you read their report—and it says what they were asked to do—it fairly clearly recites that. What the OPA did was spend a year. They didn't have the data, and there are some good reasons why that data wasn't readily available, but that didn't stop them. They didn't have the data on conservation. That didn't stop them. They took the lowest in the range of conservation estimates that their conservation adviser gave them, built that into their forecast, and then said, "We're going to build nuclear and we're going to go with renewables." They say they're open to more conservation emerging, but what happens, if you look at their scenarios, if the conservation emerges? What do they change? They back out the renewables.

So what they're effectively doing is saying they are going to commit to nuclear come hell or high water, and conservation or renewables have to yield even if they are more cost-effective than the nuclear. They feel pressure. They want to get on with it and commit to nuclear. So they haven't heard the government speak about what priorities the government again and again has said, although I think—I don't want to be too nice to you here—the Premier's office has been perhaps a little too welcoming of nuclear for the taste of my clients. I should be clear about that. But I think the OPA needs a clear direction. Here again, by giving a clear list of priorities in this act, you have an opportunity to direct them to do the job that has to be done on conservation. If they want to make a case for conventional supply, they first have to do the job that has to be done on conservation and renewables.

We've given you some examples here. I won't deal with them in detail, but they're predominantly examples from the States, the Northwest Power Planning Council. We give examples of where they have broad legislative priorities such as least-cost planning, and then they'll also give specific lists of priorities. They'll say, "This

first, then this, then this." We suggest that kind of approach works. We see it in Wisconsin. We see it in California; they call it a loading order. It came there from the regulator as opposed to the Legislature, but it was approved by the governor in that state.

So we come to our recommendation: that you add a prioritizing directive—not just a preamble but an actual directive—to the OPA and the OEB, saying, "Here are the priorities when you conduct your business." We've listed them; I think no surprise coming from the environmental groups.

The first priority: all cost-effective conservation and demand management; second, all cost-effective renewable generation; third, imports of renewable generation and acquisition of all cost-effective cogeneration; fourth, and only to the extent that these higher-priority resources cannot provide for Ontario's energy needs, centralized, non-renewable generation can be considered.

I think if that were said with a firm hand, it would go a long way to getting the OPA back on course and, in the process, might help take a little pressure off the government, to be frank.

We had two caveats: first of all, that in considering the mix of these options, due regard be had to the benefits of decentralized options such as the reliability, reduction in wire losses—in Ontario, something like 7% or 8% of electricity goes out the window from the wires—and the long-term saving in distribution and transmission wires investments when you go with a decentralized option; and finally, that the words "least cost" be the marching order for the OEB in its regulation of all the entities, including the OPA that it governs. In fact, if you use that, you've really captured the first caveat, because they should account for all the costs when they do the calculus.

That's our presentation. I'm happy to receive questions.

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The Chair: Thank you, Mr. Poch. We'll have about a minute and a half per party, beginning with you, Mr. Hampton.

Mr. Hampton: I want to ask you about your graph about California. It's got appliance standards, and it looks like appliance standards in California now get you about 2,000 megawatts a year saved. It looks as if building standards get you about 4,000 megawatts a year saved. Just so I can define "utility efficiency," is that demand response?

Mr. Poch: No, that's predominantly conservation programs. The utility goes out and runs programs of various types, offers incentives for people to invest in conservation. I should say, there will be some demand response in there as well. They're probably all rolled into the same group of programs.

Mr. Hampton: So could you give me some examples?

Mr. Poch: Conservation programs? Well, we have some in Ontario: the EnerGuide for Houses program, where typically utilities sometimes chip in, the federal

government chips in, and groups like the Green Communities groups go out, audit homes, provide homeowners advice. If they invest in the conservation, there's an incentive—

Mr. Hampton: You're talking about retrofits.

Mr. Poch: That's a retrofit example. You have programs for new construction in commercial, industrial and residential. There's a wide range of programs.

Mr. Hampton: So you're talking about building retrofits above and beyond building standards; in other words, taking older buildings and retrofitting them.

Mr. Poch: Yes. And standards can't always fit every situation. So even for new building construction, you need incentives for architects and engineers to design in efficiency beyond code.

Mr. Hampton: So can I ask you, based upon that and your other statements, is that where you would advocate government put its money?

Mr. Poch: I hear you. I think you need a mix of strategies. I don't disagree with a mix of strategies. Demand response is very important. It deals with the narrow peaking problem. Strategies such as we just heard for the needle peak are important. Obviously, renewables have a huge role to play, but what we're here to say is, conservation is.

Mr. Hampton: One more question—

The Chair: Thank you, Mr. Hampton. We now move to the government side. Mr. Brownell.

Mr. Jim Brownell (Stormont-Dundas-Charlottenburgh): Thank you for your presentation. You made comments about other jurisdictions and what was being done. You commented about Northwest Power Planning Council's goal. What have they done to be effective, and how effective has it been? You commented there with the least-cost planning context being used. You brought these examples. I just wondered, what were they doing?

Mr. Poch: I don't have hard data for you. It's the same strategy. It's a broad spectrum of approach. I think the point here is, you shouldn't as a government say, "Let's do this program and let's do that program," because the programs are many and varied and evolve over time. I think the task for the Legislature is to say to the regulators, "You make sure, on an ongoing basis, that we get the least-cost result." You regulate the utilities and the power authority—the local utilities and the transmission utilities—so that, on an ongoing basis, it's their business to find these savings.

Avery Lovins once said that conservation is like eating lobster: You've got to pick out all the little interstices to get the meat. There's no one magic bullet. You need a broad and ongoing and flexible approach, and the way to do that, in our view, is to harness these various businesses that you're regulating anyway, many of them publicly owned, but public or private, harness their ingenuity, give them the right incentive, and give the regulator the teeth it needs to insist on the job getting done.

The Chair: Thank you, Mr. Brownell. Mr. Yakabuski.

Mr. Yakabuski: It's interesting in this graph that the province of Manitoba, which doesn't have any issues

with shortage of supply of power, is the leader in North America in funding conservation. Talking about conservation, the present government inherited a program for energy-efficient appliances, which was an incentive program to encourage the purchase of them. They cancelled it sometime in 2004, I think—July, September, somewhere there. One of the excuses that they've given is that it wasn't working because people were taking the old fridge and putting it in the basement. Unless you have a need for a fridge in the basement, it's highly unlikely you're doing that, simply to run a fridge. But it also applied to dishwashers and washing machines, and they withdrew support for all appliances. What are your feelings on that?

Mr. Poch: In fact, some of the utilities have taken their share of that \$166 million a year—or in total from that third tranche of money and started to do some of this. I think Ottawa Hydro has been very successful, and they've designed around this problem. They have a bounty on the old fridge as part of the program. You want to get the incentive. You get them to come and they pick up the old fridge and they give you a cheque toward a new one; that sort of thing.

I think, if you have clever program design, you can make these programs work quite effectively. Obviously, you want to be careful in the design of them so you're not just rewarding people who were going to do it anyway, but you have to expect that you do end up rewarding some people who were going to do it anyway. There's no cost to society in that. It's just a—

Mr. Yakabuski: You're going to do that with a retrofit of homes, too. Somebody is going to be prepared to do it whether they're being paid or not.

In general, was it a good idea for this government to discontinue, at the provincial level, a rebate program for energy-efficient appliances, with nothing to replace it?

Mr. Poch: Our recommendation would have been just to fine-tune the program to resolve those problems rather than to discontinue it. In the end, we haven't lost that opportunity. We have the OPA and we have the local distribution companies that, with direction, could go after that.

The Chair: Thank you very much, Mr. Poch, for your deputation on behalf of Green Energy Coalition.

ROGERS COMMUNICATIONS INC.

The Chair: We'll invite now, on behalf of the committee, our next presenters, from Rogers Communications, Messieurs Harrison, Robinson and Harvey. Gentlemen, please come forward. As you've seen, it's 20 minutes' initial presentation and the time remaining is distributed among the parties for questions and comments. Please identify yourselves, as well, for the purposes of Hansard.

Mr. David Robinson: My name is David Robinson. I'm vice-president, business implementation, for Rogers Communications. I work within the chief technology officer's department within Rogers Communications. I'm

joined today by Mike Harvey, who is with the Rogers business solutions group, and Lee Harrison, who is with Convergent Thinking.

I have to say, it's a pleasure to be here today. It's been a long road for Rogers. About five years ago we started looking into how Rogers could play a part in solving this problem. Mr. Harrison here explained to me the situation and I thought, "This bears some resemblance to our business." Initially, perhaps, you think, "What does this have to do with power?"

We run some fairly substantial communications networks today, and what we find without a doubt in every circumstance is that when you put an infrastructure and an enabling pricing structure in place, customers swarm to whatever it is your pricing indicates they should swarm to. Some of our pricing examples in the past have led to enormous changes in our economics. For example, many years ago we introduced the concept of flat rate, unlimited evening and weekend calling on our cellular networks. The reason for this was that, not unlike the energy industry, we had a peak and we had an off-peak. So it only made sense that, if we were burying billions of dollars of capital in the ground to support the peak supply and extracting our rent for that, we may as well garner some revenue from the off-peak. So we put in place pricing that allowed people, for a discount, since it was "free," to use that network asset for a discount.

What did that do? Incredibly, it drove our capital program to reverse itself. So rather than networks being built for business users in the downtown core during the hours of 11 and 2 o'clock in the afternoon, which was the case 10 years ago, not surprisingly now our peak demand for cellular service is after hours, 6 o'clock and thereafter, in the suburban area. Yet we were extracting a flat fee for an increasingly growing capital base. This is not particularly good economics. At least we have, in our case, the ability to receive an enormous amount of information and to bill for different rates based on the time of day that service is delivered. Whether it be cellular or whether it be IP connectivity over cable or whether it be wireless IP connectivity over WiMAX or WiFi or any of the other wireless networks we deploy, in scale, it's exactly the same problem. If you reward people to do things that are in their best interest, they will flock to it and they will drive your economics accordingly. Five years ago, I was faced with, "This industry looks like it's in a similar situation."

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I won't go through this entire presentation. I'm just going to flip to particular pages. If you look at page 5, this is a one-page view of what Rogers is today. It's certainly a very vibrant company. We are the largest cable television operator today and have a vast majority of our services here in Ontario. We are by a large margin now the largest cellular operator and, very importantly, operate the country's only GSM/GPRS, which is a world-standard, wireless cellular infrastructure.

Recently we acquired the assets of Call-Net, known as Sprint Canada to most of you, getting us into the telecom

business, particularly the long haul. Very important to this discussion, we're also a very significant media player with television and radio stations, very substantial ones, and specialty magazines and Internet content across the country. We are a very strong company in Canada. Just so you know, the page numbers are in minuscule print on the very bottom left-hand corner. It's sort of a test thing.

With respect to Bill 21, we are very much supportive of the objectives of Bill 21. This is on page 7. We think it offers a reasonable framework and allows for a diverse series of solutions to meet the needs around the province. We do not believe there is a single solution to this problem. A lot of times, if you have a hammer, every problem looks like a nail. We come at this thinking, "Depending on where you are and what the needs are, the solution may be a little bit different." We apply the same concept in our core communications business. We invest in cable networks; we invest in wireless networks; we invest in several different forms of wireless—WiFi and WiMAX and all sorts of jargon. But more or less, we believe there is no single communications network to solve the needs of our customers, and the province's customers are the people of Ontario. We don't think there is any one solution that can solve the need here.

We also think any individual solution is likely going to have different communications elements behind it. We see ourselves as the communications provider for a lot of these solutions. Although you may use different technologies, having a diverse set of communications technologies behind us, communications networks, is going to mean that we should be able to fit the lowest-cost network to the solution at hand. We don't have a particularly expensive network and say, "The solution for everything is to utilize this network as part of a solution." We say, "What is the best technology," or communications technology, in our case, "to apply to the problem?"

If you flip to page 9, which has this very simple two-by-two matrix, this basically is the heart of it. We believe that if you're in a downtown, heavily populated area, or if you're in northern Ontario, the probability of having the same solution to solve both of those problems, particularly with the same communications component, is very low. What works in the urban core isn't necessarily going to work in the rural outback, as it were.

If you look at the platform requirements—a lot of the pages after this get into more detail, but more or less we think open standards is absolutely critical. This is where you get to the future-proof world. We have lived at Rogers in an area where we didn't deploy the world standard. We used to deploy a technology known as TDMA cellular. It was an excellent technology. There was nothing really wrong with it. Its only problem was it wasn't the world standard. So it went from 40% of the market to 30% to 20%, and when it got to about 14% of the market, we had to make a very significant decision within Rogers: Do we switch technologies and move to this GSM technology? We decided that was the answer. We looked at the other technologies that were available, but betting on the world standard was, we thought, the

surest thing we could do. Sticking with open standards, IP being one of them, is critical.

Betamax was a superb technology; it's probably better than VHS. Where is it today? The standard is VHS. Mobitex, which is a network that runs those parking meters that give you tickets—they're wonderful things—brilliant technology, probably better than the GPRS network we own today; don't tell anyone. Where is it today? Well, it didn't become a world standard, and as a result, it has fallen away. The developers don't develop for it. All the applications that attach to it cost more. Sticking to standards keeps the cost down, ensures longevity and makes sure the largest number of developers in the developer community write to it.

Public networks: We think that if you're going to provide smart-metering solutions, reusing the public networks that are available is going to keep the cost down. We're in the business of operating networks. We operate them for all sorts of different reasons, providing services to different types of customers. If they're there, it seems logical to use them, rather than building something that's either proprietary or specialized to the task at hand. I just think that's going to keep the cost down.

Security: This kind of goes unsaid, or should go unsaid; unfortunately it can't be. This is critical information. All solutions are not the same; all communications infrastructures are not the same. When we get into discussions with the IT departments of companies about the solutions we support and about what our communications element is to that solution, we have long conversations about the security of our particular networks and about the securities of the partners we bring to the table. It's critical that that be the case.

Future paths: I've sort of spoken to this, but if you're not the world standard—I mean, we're talking about a solution that needs to be in place for 15, 20, 25—a long time. Banking on the wrong solution partner is really going to be a false economy. That sort of ties in to the last point, which is cost-effectiveness. If you save a few pennies here but you end up replacing something in five, seven or eight years, there goes your cost savings up front. Total cost of ownership and the risk associated with betting on the wrong partners are fairly important.

If you flip to page 13, another chart, it looks like that one, we have had some successes in the industry to date. Rogers led a consortium for the Hydro One bid and we were successful in winning a trial of 25,000 smart meters using SmartSynch technology. I believe SmartSynch was here earlier today talking a little bit about that solution. I'll just spend a minute on this page. First of all, SmartSynch was the right solution for their particular problem. Obviously, you're familiar with the mix of customers that Hydro One has. They have some particularly difficult problems to solve. This was a good solution for them. We don't say we're SmartSynch's partners; we say we partnered with SmartSynch for this initiative, and it was effective. Also, if you see under Rogers, it says, "connectivity." Again, for the SmartSynch Rogers solution, we proposed GPRS, because it fit, because it worked for Hydro One in that case. It's not

to say we wouldn't deploy another technology from a communications point of view to get the job done at the lowest possible cost.

If you flip to page 19, I talk a little bit about the media assets. What I see being proposed here is an enabling architecture. If the users aren't aware of how it works or what's in it for them or how to shift their behaviour, understand how to do it and have the response capability of doing something about it, they won't do it, and this whole program would be pointless. Having strong media assets, I think, is something that is going to have to come into play here. Whether it be television commercials or ad inserts, or SMS—we have 5.2 million cellphones. Every single one of our cellphones that goes out the door, whether it be a BlackBerry or a simple zero-dollar phone that we sell, you can get messages to it, whether that be "power prices peak to 20 cents" or whatever. That's the sort of information that gets out there. They're also two-way. It's possible to use them as devices that evoke a conservation effort. We have radio stations all over. Getting this message across to the end user is going to be critical if it's going to be successful.

How's our time? I think we should be all right.

The Chair: You have seven minutes remaining.

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Mr. Robinson: We'll end early then and we'll get to questions. I'm sure you want to grill us on all sorts of things. Just make sure that you have our contact information, which is at the very end of the presentation. With that, I'd love to take questions.

The Chair: Thank you very much. We'll start with the government side. Mr. Delaney, about two minutes.

Mr. Delaney: I have a short question, two parts, and both of them are pretty direct. I've been asking deputants to use their expertise to assist this committee with an estimate of what an LDC's actual cost might be to gather, transmit and process smart-metered data and then generate a monthly statement. So here are the two parts of the question: Will you estimate for me what volume of data might be sent on a daily basis over the LDC's proprietary network or over a public network like yours, be that wireless or otherwise? The second part is, based on your expertise with cellphones, where the data is far more extensive than that coming out of an electricity smart meter, what is your actual cost to process the data and generate a customer's bill, net of the amount of airtime consumed and all other charges?

Mr. Robinson: I'll try. On the first part, the volume of data, it's the usual answer: It does depend. A lot of the solutions compress the data. What the actual raw amount is and what actually goes through the network isn't necessarily related. Again, in SmartSynch's case, they encrypt it and compress it so that the data actually go through the network.

Mr. Delaney: A few kilobytes per day?

Mr. Robinson: Yes. It's fairly small.

Mr. Delaney: That's what I thought.

Mr. Robinson: As far as the cost, what's our real cost?

Mr. Delaney: Yes. Your real cost to generate an invoice for a cellphone customer—just the invoice.

Mr. Robinson: Oh, just the invoice itself.

Mr. Lee Harrison: Your overhead on that.

Mr. Robinson: I'm not actually sure. It's under a dollar.

Mr. Delaney: Okay, that's fine. Thank you.

Mr. Robinson: That includes the stamp.

The Chair: I shall have to conclude the government questioning and move now to the Tory side.

Mr. Yakabuski: Thank you very much. I guess one of the things we're getting at is the cost of administration. Your presentation today would indicate that you'd have some interest in administering this program, should it be implemented. Similar programs in the United States are costing upwards of \$2 a month for administration alone, so I guess that would be one of my questions.

The other thing is that others who have been here in a similar position as yourself have had some privacy concerns with sections of this legislation. Do you share that and would you be proposing specific amendments in that regard?

Mr. Harrison: Would you mind if I answered that?

Mr. Robinson: Please.

Mr. Harrison: In terms of the privacy side of things, I think Rogers is a great example of running some key public safety implementations across the province and the country. There is no question of security there. I think it's a matter of how it's applied in the context of that. I think that's part of the specifications that are coming out underneath this legislation when they're talking about the metering.

Mr. Robinson: We're certainly not concerned about the security. In fact, when we compare ourselves, when we sit down with some of these public safety—our government has very high expectations for security, and rightly so. It usually works out in our favour. We've had a lot of success in that area because it is secure. Whether it's the GSM SIM that we use on our cellphones, for example—that encryption has never been compromised. That's not to say it won't be, but to date, with the three billion SIMs that are out there, we haven't had a breach yet. Of course, that encrypts the air link and you can add more encryption.

The Chair: I'll need to intervene there, gentlemen. Mr. Hampton?

Mr. Hampton: Just to follow up on Mr. Yakabuski's question, this was raised by a couple of people who were here last Friday, who said the legislation needs a protection-of-privacy clause. As one of the deputants said earlier, you could tell what time somebody leaves their home every day, you could tell what time somebody goes to bed every day and you could tell when the house is vacant every day just by this kind of information. Therefore, the legislation needs very strong, very clear protection of privacy in it so that whoever is involved, whether it be a company such as yourselves or somebody selling the meters or somebody collecting and manipulating the data—very clear standards and real liability should something ever happen, either accidentally or

otherwise. That's really the question. Do you think this legislation needs to have strong protection-of-privacy terms added to it?

Mr. Harrison: We're under big terms for privacy anyway. It's something that Rogers believes in. From the standpoint of how we've looked at the legislation, ours has always been—going all the way back to Rogers being the only telecommunications company that was part of the electricity supply task force. We actually contributed to it. We've always come to the table. The policy side for the power market is not something that we are necessarily the experts in. We're the experts in getting you to the point of what you want to accomplish. From that side, it's not something that has necessarily come up in our discussions yet, because we've always looked at our network as being secure. Not having an interest in the back end of it, it's just not something that has come up in our discussions.

Mr. Hampton: I'm surprised that it hasn't.

Mr. Mike Harvey: If I may, the reason is because we deal with the banking institutions and whatnot and, as David said, governmental institutions, so their privacy laws and security around that have to, at the very least, be adhered to. That's why it's actually a given. It's not something we take lightly, but it's actually a baseline that must be brokered, if you will.

The Chair: Thank you, Messieurs Harrison, Robinson and Harvey on behalf of Rogers Communications for coming and as well for your deputation.

AZTECH ASSOCIATES INC.

The Chair: I now invite our next presenters, Mr. Peter Zuuring and Art Skidmore of Aztech Associates. Gentlemen, we've already received your written submission and you are welcome to begin as soon as you're seated.

Mr. Peter Zuuring: Good afternoon, everyone. Art Skidmore sends his regrets. The weather has been playing a bit of a role in traffic this morning. It nearly prevented me from getting here, so I'm glad to be here just the same.

A quick comment on your last presenter, just for interest to the committee: Rogers' cell network would be great for smart metering, but the access charge of \$5 a month is punitive because the actual data charge to transmit is a couple of pennies a month, but you have to pay the five-buck access fee. That's what's stopping it from being used in smart meters.

My presentation to you today is geared to the bill itself. I'm not so much talking about conservation as the bill itself. The first point I want to bring along is that the bill has a number of definitions in it that could exclude Ontario-based development. This is an important aspect. The second issue is that there are no hard goals in the bill other than the deployment of meters. This is very much like suggesting that we need speedometers in cars without having speed limits or an ability to read what your speedometer says. Thirdly, the bill creates further bureaucracy which seems to be ever-spiralling, and I don't know whether that's necessary.

To get specifically into it, I have a bit of a preamble to start with. We're talking about four million meters at a cost of \$100 to \$150 each, so we're talking millions of dollars to be spent over the next little while, with \$800,000 by 2007 and the remaining \$3.2 million by 2010. This is a lot of money that will go out of this province. It behooves us to spend some of that money with companies that have developed the technology here. We've got time. In the first wave, perhaps you buy offshore meters—and most of the meter companies are offshore or in the United States—and in the second wave, there's time for Ontario-based corporations to develop meters, get into this business and keep some of that money in Ontario, for Ontarians and made by Ontarians.

1510

The proposed bill is flawed in some ways in that it is a deployment bill and not a conservation bill. It is really talking about putting smart meters into homes; it's not talking about conservation as such. Very specifically, if you go to schedule B of the bill, section 1, under definitions, the very first definition is "smart meter." "Smart meter" should be changed to "smart metering system." Why is that? Because the meter that we know today is what I'm going to hold up for you. This is the meter that everybody is familiar with in their home. This can be a smart meter; this can be a radio frequency meter; this can be a digital meter; this can be the old-fashioned meter with mechanical parts inside. If we stick with this definition, all the issues of smart metering get done underneath the glass. It's not necessary. Metering is known; metrology is known. What we need beside it is a communication device. So there is metering and there is communication. They don't need to be together, and they are moving in different directions. So the definition of "smart meter" should be "smart meter configuration" or "smart meter system" to allow for developments of various sorts.

When meters first came out, they were mechanical meters. Then the mechanical meters went to digital meters, and digital meters went to RF meters—"RF" meaning radio frequency—so that a guy who had to read the meter, who was making mistakes and had to approach the house and was bitten by dogs, could now walk around the neighbourhood with a receiver in his hand and the meter would transmit the reading, the watt hours, to his hand-held device. The smart meter gets rid of the guy who walks around. The smart meter sends it over a wireless or wired network to the LDC or to some central authority. So it gets rid of that.

This is the latest of the RF meters, before the smart meter. There are thousands of these meters that will become redundant if you go to smart meters. However, if you do what we've done here; we've added a slice, which is a communication device—it can read the meter and transmit it. It can also read the water meter and the gas meter. I'll just pass this around so you can have a look at what's inside. This is an Ontario solution to save money on existing meters. By the way, there's a cellphone on the inside. We don't like using cellphones because of the \$5-a-month charge.

The "smart metering initiative," the last part of the definitions: The government has set a 5% to 7% reduction in the use of electricity as a goal. Why not have that in the bill in some form, some numerical quantity that says, "This is what we're going for"? The meters are only a means to an end; the end is the saving of electricity.

We're talking about saving money without involving the consumer, because this whole smart metering initiative really is a large infrastructure involving LDCs and government and billing people and so on, but it doesn't involve the consumer. That particular slice that you see going around is also involving a home monitor so that the consumers themselves can see what electricity they're using at the time they're using it, not the following day, which is what the specifications call for. You can see what electricity you used yesterday at 8 o'clock the next day. This is like going down the highway with a speedometer, and the cop pulls you over and says, "You were speeding but, I'm sorry, I can't tell you that until tomorrow morning." Or it's a bit like having a speedometer in the trunk of your car and not having it visible to the consumer. The consumer must have the information as it's happening to be able to conserve. You must involve the consumer, and this legislation should reflect that.

When we're talking about increasing bureaucracy, the government is talking about developing an agency that will buy these smart meters. This is a mistake. I think that clause should be removed. The LDCs are buying meters every day. They have been for years. They know what their needs are; they're capable of doing this. We don't need another layer of bureaucracy in the system to buy meters.

The other point is that there is a cost recovery for this entity. Well, you know who is going to end up paying. That clause should be removed also or some very strict limits put on it, because we're talking cost recovery. If it's cost recovery for this new entity, it's the consumer who's going to pay that.

The next issue is one of limiting, again, a small business that could develop innovative solutions for smart metering by having some specifications that make it difficult. You may be familiar with the advanced metering infrastructure specification, which is a subset of this legislation. It gets the smart meter out there, but there's a specification involved. Anybody who wants to bid on it must have 5,000 already installed in the field. When this was brought up during question period, the 5,000 was challenged. The challenge was, "Is there anybody that has such an AMI setup already?" The answer was no. The reason for the 5,000 was to get rid of the so-called basement operators. Is that what we call development in Ontario? Small companies are basement operators that are no longer able to bid on large contracts? It's a Catch-22. We should stop it and not put in definitions that limit the development and possibilities for small Ontario-based development companies.

There's another clause—the very last comment I'll make—talking about discretionary metering activities.

You'll note that after November—I think it was November 5—after that point, no LDC was going to be allowed to have anything to do with metering activities. This is just another example of a clause that's put in that will prevent small companies from getting involved in this business. Anything we can do to remove and keep an eye out for this kind of activity will help Ontarians.

That's my presentation. It's very short and to the point. I'll take some questions.

The Chair: Thank you very much, Mr. Zuuring. We'll have about 10 minutes remaining for questions, beginning with the Tory side. Mr. Yakabuski, you have about three minutes.

Mr. Yakabuski: Thank you very much, Mr. Zuuring, for your presentation. This little device here, you're saying, is something that could accompany many of the meters that we currently have installed, and would extract and extrapolate and send that information in a meaningful way that could actually be used to determine where savings could be made.

Mr. Zuuring: It provides the information of the watt meter. It does it in bins; it does it in the on-peak, off-peak and mid-peak, and of course handles critical-peak as well. Critical-peak was one issue that everybody was concerned about, and, again, a reason for the home monitor, which that device can communicate with and let the consumer know, "In 15 minutes, critical-peak pricing is coming, so get ready."

Mr. Yakabuski: There's been little real information as to where we're going to end up here with smart metering and what we're actually going to get as the meters. There hasn't been a whole lot of information to—

Mr. Zuuring: I can tell you that this is well advanced and that there are several large corporations—one I could name is Itron; another one is Elster and another is GE, those kinds of corporations—which have been in on the conservation and demand management trials. They are very well set up to take a large chunk of this initial purchase. I think you will find that the way the bid will be spec'd, only the large companies can respond.

1520

Mr. Yakabuski: Some of the things we're hearing about is that they're saying, basically, that you've got a meter that can tell you you used X amount of power from 11 at night until 7 in the morning, from 7 in the morning until 11 in the morning, from 11 in the morning to 5 in the afternoon, and from 5 in the afternoon back until 10 or 11 at night. With that kind of limited information, is smart metering going to be of any benefit to the average consumer at all?

Mr. Zuuring: I think it will. To some extent, people will try to use electricity in the low-price period. Some will make those changes; others won't. Load levelling might be a big result, and that would be advantageous, but as far as reducing electrical usage is concerned, it's still out.

Mr. Yakabuski: It's what?

Mr. Zuuring: It's still out.

Mr. Yakabuski: The jury is still out?

Mr. Zuuring: The jury is still out.

The Chair: Thank you, Mr. Yakabuski. We'll now hear from Mr. Hampton.

Mr. Hampton: I'd like you to elaborate on your last comment.

Mr. Zuuring: Unless you give the tools to the consumer, it's going to be very difficult to monitor your own use of electricity. If there are no home monitors involved, you'll be able to go to a website, if you happen to have a computer, and see the next day what the usage was.

Mr. Hampton: From the day before.

Mr. Zuuring: From the day before, which is not that useful. It's like knowing what your speed was on the 401 yesterday. As far as your monthly bill is concerned, it will show you what your different charges are for those different periods, and you may change your habits. I don't think that's a very powerful tool, whereas if you know in your home—"Hey, I'm moving to mid-peak," and you turn the dishwasher off—if there is some indicator the consumer can understand and likes, then you're going to see some results. I think you need to involve the consumer, and the act does nothing about that.

Mr. Hampton: We heard other people say that smart meters may provide people with some helpful, useful information. But the last group of presenters showed us that in California, where you actually get the energy savings is that you buy high-efficiency appliances, or you change the building code so that you have to build energy-efficient buildings, or you provide some incentives for older buildings to be retrofitted. If all you do is provide people with information and the other tools aren't there, there seems to be a hole in this.

Mr. Zuuring: I think there are many approaches, as your other presenters have said, and there isn't one solution. There are devices around that: With your home computer, you can pre-program to turn your fridge off, turn the air conditioning off, at certain peaks. There are all sorts of potential software that can come to bear that can help in this process. There are devices that can be built into homes to shut things off. But you've got your finger, and if you know what's happening, you can turn that air conditioner off. But you've got to know.

Mr. Hampton: One of the disturbing things is that when the Ontario Power Authority did their study looking ahead to 2025, both in the immediate years ahead and in 2025 the most they will give smart meters in terms of reducing peak electricity is 500 megawatts.

Mr. Zuuring: I don't have those figures, I don't know that, but I think smart metering is a step in the direction of paying for electricity at different rates, and it's a step in the direction of perhaps paying for what it costs. It's a step in the process. It's not the end-all story; it's a start. Those meters are able to read every few seconds, but they only report every few hours and they're only mandated at this point to report every hour. So it's hard to say.

Mr. Hampton: One last question, and your brief raises this: Some of the local electricity distributors have said this is really going to be a \$2-billion project, that when all is said and done it is not going to be \$1 billion;

it'll be \$2 billion. So somebody stands to make a lot of money off this.

Mr. Zuuring: That's why we want to keep it in Ontario.

Mr. Hampton: I take it from what you're saying that you're not satisfied so far, from what you've seen of the procedures so far, from what you've seen in terms of the process so far, what you're seeing from the legislation—

The Chair: I'll need to intervene there, Mr. Hampton. I apologize. We'll now move to the government side.

Mr. Delaney: I have a question and Mr. Leal has a question, so I'll get mine done very quickly. Thank you for your very thoughtful, focused, intelligent and very interesting deputation. With regard to the technology, one of the constants of being in the technology business is how quickly competition and the economies of scale drive down the cost of providing the technology itself. Give me a very rough ballpark estimate, in your opinion, what type of per-unit cost you think Ontario LDC purchasers are looking at for, say, the first 50,000 smart meters and perhaps the lot manufactured after about five million have been put into service.

Mr. Zuuring: I think you'll find very little changing in price. I think the price will be over \$100 per meter. There's a discussion of a price per point, which means that it not only involves the cost of the meter but the cost of installing it and the cost of installing the network that feeds the data back to the LDCs or to the central authority, so the prices could be much higher than that. There is a restrictive trade within the meter industry at this point; for example, Itron bought Schlumberger, and Elster is a formation of ABB. There is a consolidation taking place of the large guys, and they're buying out the small ones. With that, you're not going to see a drop in prices. The sale of meters in Ontario, although a big blip at this time, I don't think is a big thing for any of these larger corporations. They see the market in California as much larger. A four-million purchase here? Sorry, "Just buy what we have. We know what we're doing. Thank you very much. Send us your money."

The Chair: Very efficiently, Mr. Leal.

Mr. Leal: Thank you very much, Mr. Zuuring, for your presentation. You spent a lot of detailed time—I appreciate it—on smart meters. The other half of the bill is conservation. Your thoughts on conservation, sir?

Mr. Zuuring: I'm all for it. I think you've got to put the tools in the hands of people to make the decisions. If you don't give them the tools, then you won't get it.

The Chair: Thanks very much, Mr. Zuuring, on behalf of Aztech Associates.

STRATACON INC.

The Chair: I would invite now our next presenters, Mr. Mills and Mr. Brown, on behalf of Stratacon. The clerk has already distributed your written materials, and I would invite you to please take a seat. As you've probably seen from protocol, you have 20 minutes in which to make your deputation; time remaining will be distributed

evenly amongst the parties for questions and comments. Please begin.

Mr. Peter Mills: Thank you very much. My name is Peter Mills, with Stratacon. We're a sub-metering and billing services provider in the province and across Canada. I'd like to thank you for the opportunity to present today.

What I'd like to go over is really the existing stock of high-rise buildings in the province. There are roughly about 2.6 million rental apartment suites, condominium suites and social housing suites. Of those 2.6 million suites, only about 15% of the suites actually receive a monthly electricity bill. A huge portion of residents in the province do receive a bill every month, hundreds of thousands of residents, either from sub-metering companies like ourselves or from existing LDCs. What we'd like to focus on is the other 85% of the existing apartment and condominium stock in the province that currently has essentially all of the electricity costs hidden in rent and in the common element fees. Those residents currently have no incentive to conserve; they have no idea how much electricity they use on a monthly basis. By sub-metering these units, there is a huge potential demand-reduction opportunity that the province can obtain, roughly about 530 megawatts of power reduction in the province, and 210 megawatts of that 530 would occur directly in the city of Toronto.

If you can turn your attention to the next chart, essentially in multi-residential buildings there are three types of users, and this really details the reasons why sub-metering makes a lot of sense: 10% of the residents in a typical building are using 25% of the electricity, and the low users, which represents about 70% of the residents, are only using about half of the electricity. So essentially, 70% of these low users in the building are subsidizing the very high 10% of the residents.

1530

Mr. Paul Brown: This breakout is typical of almost every building we've ever done, whether it's a high-income building or what you might call a low-income building. It's amazing how consistent the spread is, both in the province and other jurisdictions as well.

Mr. Mills: On the next sheet there is a pie graph that details—this is the exact consumption of a rental building that we're doing in Toronto, where each resident is being metered. During the month of January, the highest user was using about \$60 in electricity that particular month, some of the lowest users were under \$2, with the average user probably around \$15. This is an actual building in Toronto, with actual results, and it really shows the discrepancies that are occurring in terms of electricity use in multi-residential buildings.

Mr. Brown: This is in a gas-heated building, so it shows you that there are huge differences between all the different suites in a typical building. This is very typical; we have more information that we'll provide as well if you want.

Mr. Mills: Sub-metering is fairly straightforward, fairly simple to execute; it can be done very quickly and

it's reasonably inexpensive. Most apartment or high-rise buildings currently have one bulk meter. The building owner or condominium is billed by the LDC, and they then in turn pay the utility for that bulk meter cost. The apartments have no idea what their in-suite electricity costs are. We place our meters after the LDC bulk meter and measure the residents' consumption on a month-by-month basis and then provide billing and collection services to those residents in the building. All of our meters are smart meters. I dare say, in terms of smart meter installations, our company has installed over 5,000 smart meters in the province of Ontario. We're currently reading those meters, collecting, in some cases, five-minute interval data, in most cases hourly data, on all of those meters, and performing billing services based on hourly usage. All of the equipment we install is approved by Measurement Canada for revenue billing. Essentially, we sign long-term agreements with the building owner and the condominium corporations in return for the supplying and installing of the hardware and the billing and collection services.

Typical results: In a gas-heated building, we're saving anywhere between 15% and 20% of the bulk electricity costs; and in electrically heated buildings, the consumption drops by 20% to 30%, and that's strictly because residents now are getting information on a monthly basis through an electricity bill and changing their behaviour accordingly.

The next chart just shows the flow of services. The utility continues to have a relationship with the building and continues to have a bulk meter there; the building continues to purchase power on a bulk basis. All we are doing is allocating that bulk bill on a monthly basis to the residents. So the residents get a flow-through of the bulk purchase rates from the building; we flow that through directly to the residents. Stratacon bills the residents, collects from the residents and remits the energy collections from the residents back to the property manager, who in turn continues to pay the bulk meter bill.

Mr. Brown: The advantage of the sub-metering, as opposed to typical residential direct metering, is that the bulk rate is lower than typical residential rates—it's a commercial rate—and that lower rate is passed on to the individual residents in the suites.

Mr. Mills: The next slide just shows a picture of a typical smart meter for multi-residential applications. Technology has advanced an extreme amount in the last few years. This particular smart-metering technology that we're using now is about the size of a clipboard. It's about one inch thick. It allows us to provide smart metering to 20 suites. It's made in Ontario, manufactured by Triacta, just outside of Ottawa. Again, it's Measurement Canada-approved for revenue billing, just like all the meters for single-family homes.

Mr. Brown: In each one of those panels are 20 smart meters. If you were to open that box that we have a picture of, there are 20 meters, and they look like typical chips. Then that box is installed, and we'll explain next, in the utility closet on each floor or every other floor, so

there is no need to access individual suites. There is no need to rewire the building. We simply go to the utility closet, install this panel on each floor or every other floor, connect it to the existing box and we're gone. It usually takes less than two days; sometimes a day.

Mr. Mills: We follow a fairly systematic approach to the implementation of sub-metering. We carry on energy audits at the buildings to determine how much energy has been used in-suite historically, and then provide a calculation so that the residents in the building will receive either a monthly reduction in their rent or a reduction in the common element fees if it were to be a condominium. That rent reduction and fee reduction then take place, we commence billing and consumers then move from a situation where they've had no information about their electricity to complete information about their electricity usage.

We charge our administration fees and capital fees directly on the residents' bills. Most of our fees are typically 30% to 40% lower than what an LDC would charge for similar services, so we're extremely efficient in terms of how we provide our services. Again, the relationship between the utility and the bulk meter and the building owner is maintained. All of our billing and collection services are consistent with OEB procedures and precedents. In fact, we have submitted a code of conduct for the industry to various officials, as well as to the OEB for their oversight, and have been encouraging them to look at some further regulations in relation to sub-metering in the province.

Mr. Brown: We've recommended a number of measures to ensure there's adequate consumer protection for sub-metering should it go forward. There are existing procedures in place at the OEB to ensure that consumers are adequately protected. There's a code of conduct that has been developed. Fortunately, that's all in place at the OEB already, but it needs to be looked at in terms of sub-metering, and that's a fairly straightforward process.

Mr. Mills: In terms of barriers to achieving some very significant conservation through sub-metering, the Tenant Protection Act currently requires that each resident has to give consent to the rent reduction to become a bill payer. We've completed many thousands of retrofits across the province, and in every single case have had to go and get resident consent. It's a very difficult and time-consuming process and really does need to be removed from the Taxpayer Protection Act so that landlords can unilaterally implement sub-metering and complete an entire building at once, not half the building or a quarter of the building.

Mr. Brown: The current provisions simply are an inhibition to sub-metering and reducing energy consumption. It also adds tremendous cost to the process that somebody is ultimately paying for. That's why we've recommended that if the province is serious about conservation and allocating costs fairly, those provisions have to be removed. Of course, in return, the rent or the common area expenses are reduced accordingly. That has to be—and we've recommended to the government—fair

and it has to be clear so that everybody understands the amount of rent they're getting. We do that in all the cases we do now. We do an energy audit prior to conversion and then the tenant or the condominium resident gets a reduction in their common area expenses or their rent.

Mr. Mills: Similarly, the Condominium Act, and most declarations of all individual condominium corporations in the province, requires currently about an 80% positive consent vote from all unit owners in a condominium corporation. It's very difficult to get 80% of the owners to vote on anything at all, let alone get a positive consent vote. That particular requirement really needs to be removed so that the implementation can be done smoothly—again, with less cost. We recommend that these get removed, as well as looking at mandating of sub-metering in all multi-residential buildings, along with the smart metering time frame as well.

I guess the reasons why smart sub-metering in condos—obviously the biggest impact is 530 megawatts of demand reduction in the province. It's a significant contribution to the province's goals in terms of conservation. It will put into the hands of millions of residents the information they need to become smarter in terms of the way they use electricity. They don't get any of that information right now.

The current system is very wasteful. It's not fair. Low users are subsidizing high users in apartment buildings and condominiums. It's really the only sector in the province where the users have no relationship with their consumption and their cost. If they use a lot, they still essentially are paying the same in their rent or common elements fee. If they use very little, they're still paying the same as their neighbour in their common elements fees and rents.

Most residents want to participate in conservation in the province, and without being metered, they can't participate. They don't understand the impact of their changes in behaviour or their purchases of hardware to make them more efficient. So without metering in place first, it's going to be very difficult for all of those residents to participate, which they want to do.

Again, just the demand reduction: certainly, in the province, 530 megawatts; and in Toronto, 210 megawatts. It can be done very quickly as a very beneficial conservation opportunity.

That's the end of our presentation. We would take any questions at this time.

1540

The Chair: Thank you, gentlemen. We'll begin with the NDP. Mr. Hampton, under two minutes each, please.

Mr. Hampton: The problem with apartments—I guess, to a lesser degree, with condominiums—is that, to a large degree, the real energy conservation in any building arises from having energy-efficient appliances, having an energy-efficient building to begin with—windows, insulation etc.

When I look at the information from California, for example, out of 12,000 megawatts saved, they ascribe about 2,000 megawatts to appliance standards, to having

energy-efficient appliances. They ascribe about 4,000 megawatts to building codes. Then they ascribe about another 6,000 megawatts to other efficiency measures, retrofitting buildings, demand-side management, and so on.

In apartment buildings, the tenant has very little control over those things. If the building is badly insulated, the tenant has no control over that. If it's got single-pane windows that were installed in the 1960s or 1970s, they've got no control over that. If the owner of the apartment building puts in the appliances, they have no control over the appliances. I can see where sub-metering in an apartment building and my having a much higher electricity bill might get me to turn off my air conditioner and sweat in the dark, but again, looking at the California example, they're saying that the real opportunities, the real meat in the sandwich, is appliances, building codes and then retrofits of buildings, and those kinds of things.

Mr. Brown: If I can, part of what you say is true; part is not accurate. The savings we've seen in every building we've sub-metered, whether it be electrically heated or gas-heated, have all occurred immediately based on changes in behaviour. There has been no change in capital infrastructure, no change in energy consumption, appliances. All the change has happened, and we have and could provide you with lots of reports on individual buildings that would—

The Chair: I need to intervene there. We'll move to the government side.

Mr. Leal: I would appreciate seeing those reports. I think they would be handy.

Second, your presentation today certainly debunks some information we received earlier today. It was suggested that if we went into condominiums and apartments, a lot of rewiring would have to be done, a lot of sophisticated equipment would have to be employed. You're telling me today that with this little device right here, we can prevent a lot of that capital cost, and the red flags that were being put up—

Mr. Brown: Within three years, you can have the entire province sub-metered.

Mr. Leal: My colleague Kevin Flynn has a question.

Mr. Flynn: It seems to be saying that smart metering seems to be the way to go, and sub-metering would be the next logical step.

Mr. Brown: No; if you were to ask me the best way to conserve, sub-metering is the first logical step. Currently, apartments and condominiums have no metering.

Mr. Flynn: I'll buy that. I think I understand what you're saying. Is there any other jurisdiction that would be famous for sub-metering in North America?

Mr. Mills: Certainly in Europe, for example, Germany went through a mandate for sub-metering of high-rise rental and condominium properties, from 1979 to 1984. They completed 10 million suites in five years and achieved very similar results to what we're achieving here in the province. In terms of North America, there have been various mandates, but certainly not on a provincial scale.

The Chair: We'll move to the Tory side.

Mr. Yakabuski: I'm not aware, but you probably are: Even if a building is being built new today, is sub-metering mandatory?

Mr. Brown: No.

Mr. Yakabuski: That would certainly refute the argument of an old building or poor appliances or aged, inefficient appliances. If a building were being built today, it would be built with new appliances etc., and we're still not mandating sub-metering, so we're still opening the door to inequity in how that power in that building is being used.

Mr. Brown: Our company, Stratacon, has been in the business of supplying water management—in layman's terms, better-flushing toilets—for hundreds of thousands of suites, so we've been in those suites. Most suites have energy-efficient appliances. It's a bit of a mythology that they don't; most suites do. The reduction that we've seen all comes from changes in behaviour because people have to pay.

There is an issue that you might want to look at for those portions of the buildings that are electrically heated. That's where Mr. Hampton's point deserves some attention. In electrically heated buildings, there are issues in terms of windows and where they are in the building, north versus south. That portion of the building stock, which is not large, deserves some attention in terms of ensuring that there's fairness to residents. But for the vast bulk of gas-heated buildings, it's all behaviour.

The Chair: Thank you, Mr. Mills and Mr. Brown, on behalf of the committee for your deputation from Stratacon.

Mr. Leal: On a point of order, Mr. Chair: Could we ask our research officer, Mr. Richmond, to be in contact with these gentlemen? They seem to have a lot of data. I think it would be useful for our report.

The Chair: Your request has been noted and directed to legislative research.

TRIACTA POWER TECHNOLOGIES INC.

The Chair: I now invite our next presenters, from Triacta Power Technologies. Mr. Brennan, you may come forward. As you've seen, 20 minutes for your deputation; the time remaining, questions and comments distributed among the parties afterward. Your time begins now.

Mr. Bob Brennan: It's a pleasure to have an opportunity to speak today. You'll find my presentation to be brief. I'm looking forward to your questions at the end.

Triacta is a manufacturer, as you've seen already, of smart metering technology, particularly for high-density, multi-unit residential buildings.

Maybe to address a point that came up a few minutes ago, by way of background, there are about 1.5 million tenants in Ontario without meters at all. The point here is that there is a two-step benefit to sub-metering multi-tenants: (1) to meter them in the first place to curb poor

consumption behaviour; and (2) the benefits of smart metering on top of that.

Currently, as you heard earlier, costs are built into the rent and allocated without individual measurement. So indeed, the landlords, property owners and managers have no actual data—tenant by tenant, floor by floor—of the consumption in their building, regardless of consumption patterns of the individual on a like-for-like, floor by floor. Even those data are missing. There are other data to be provided to the industry as well.

Being a technical type, I went back through our database. Time over time, above one third of the tenants in a building are using half of the power. It's very consistent. Of these approximately 1.5 million tenants, about 60% are in the Toronto area.

1550

There are a number of studies which support sub-metering. On the behavioural impact, there is about a 20% reduction in consumption. Again, this is strictly because people are starting to acknowledge—to coin a phrase—that it's no longer a free bar at the wedding. People actually do react to getting the bill. With our technology, customers can go online and see their consumption immediately. They can see it in one-minute increments, if they so desire. Customers who are interested after they get their bills will certainly react to that.

One of the things we've also seen when we do an energy study in a building is that two thirds of the tenants are very keen to get their meters because they realize that they are now currently subsidizing the other one third in the building. That has rung true, both in apartments and condominiums.

My last point here in the background section is that the next benefit of smart metering these units is obviously for peak reduction. There are a number of studies available on the possible impact of smart metering. It could be up to 30% by a 50% reduction in peak.

What I did next was take a look at the total consumption impact that we project with the metering of tenants. We went back to our database. We have several thousand meter points in place in the province right now, and we took our measurements from August to just the end of last month. The example I've chosen to use is gas-heated stock, and I'll note that the average electrically-equipped building has about a 50% higher consumption per suite. However, in the gas buildings that we've done, the average tenant use was about 27 kilowatt hours a day. Conservatively speaking, I took not the 20% documented impact of metering but half of that. We could save 1.4 billion kilowatt hours in Ontario. To put a frame around that, that's about one quarter of the output of a reactor operating 365 days of the year, 24 hours a day. It's also about 5% of the annual coal generation in the province and about 12% of the gas generation in the province. Maybe to bring a finer point to it, about a billion of these kilowatt hours are in the Toronto area, so this is where the density is right now.

The next point I want to try to make is the impact on peak. Actually, I didn't take any calculations based on

time-of-day rates; this is strictly an analysis of a 10% reduction through the use of—it's roughly 300 watts per tenant. For those of us who have been upgrading our light bulbs, that's probably about three light bulbs that would have this impact. Again, because of the large number of units, this adds up significantly to about 450 megawatts in the province and, again, in the GTA it's about 270 megawatts of peak production. Given the concerns with transmission facilities, supply and demand at a macro level, just putting meters in in the first place has a significant impact both on demand and on consumption. Again, I'll note here that time-of-day pricing impacts have not been built into these models.

Lastly, I want to make note that there are a number of Ontario companies available with products now, not only ourselves. They are proven technologies, on the measurement, the networking, the back end and on the service offerings. A key point here is that because these are high-density meters into a high-density market, they actually deploy very quickly. With the government's target of 800,000 meter points in roughly the next year and a half, certainly a high percentage of that is available with the multi-tenant residential markets.

More importantly, and maybe in a broader sense, Ontario is developing a centre of expertise, if you like. Our company has been approached by other jurisdictions across Canada and around the world. The world is watching Ontario with our smart metering rollout and we're gaining quite a bit of attention for other markets as well.

To sum up, in a nutshell, what we're asking of the committee is a very clear mandate to property owners and condo boards to remove any of the obstacles in place to allow them to proceed. There's a double impact available here, both on metering and then the advantages of smart metering on top of that. Thank you. Any questions?

The Chair: Thank you very much. You've left a generous time for us to have questions. We'll start with the government side. You have about four minutes each.

Mr. Leal: Just quickly, and then Mr. Delaney and Mr. Flynn. Thank you very much for your presentation. My first question, and I suppose a comment, is that it looks like you've done a bit of a cost-benefit analysis on this smart metering issue.

Mr. Brennan: Certainly when you look at the impacts that can be attained in a high-density building, it's very quick. Again and again we see that one third of the consumers are using half the power, and that's taking out some of the outliers who, let's say, have other activities going on that add to that.

Mr. Leal: My next question is just going to your concluding statement, "A clear mandate to allow and encourage property owners and condo boards to implement smart metering" technology, and the three suggestions or priorities to do that.

Mr. Brennan: Anything that will remove a high-majority vote for the condo boards, I would reiterate that. On the multi-unit apartment buildings, changes to the Landlord and Tenant Act that would allow the landlords

to implement quickly. We do have a number of clients who have come to us and said, "This is all great, but the chances of me rolling this out quickly, given that I have to go through these steps, is quite tough."

Mr. Flynn: Just trying to follow through on the concept, in a sense you would have a private meter. Each individual unit would have a private meter.

Mr. Brennan: Just like in our homes.

Mr. Flynn: I notice that a previous company was doing a little bit of advertising for you. They've got a picture of one of your units in here. Who actually owns the Triacta unit after it's put into a building?

Mr. Brennan: In the model, it can be owned by the landlord. In this case, with the previous company, they own the hardware and they keep it up to date.

Mr. Flynn: They add something onto my fee as an individual tenant.

Mr. Brennan: They go through an analysis, a rate reduction, and then it's very much like we pay in our single-family homes. There's an administration fee.

Mr. Flynn: Is a contract entered into for a given period of time?

Mr. Brennan: With the landlord, yes.

Mr. Flynn: So a landlord would enter into a contract on my behalf as a tenant, under the—

Mr. Brennan: That's correct.

Mr. Delaney: A very interesting presentation. My question is this: What are the transaction costs that you add on per month to a typical unit? I'm wondering whether you could provide us—we don't need any personal information, obviously, as to the name of the owner of the building—with an analysis of what a resident's cost was before the sub-metering came in, what it was in a building after sub-metering, plus whatever monthly fees and other transaction costs you add on. Also, what does it cost you? What is the cost to your organization to generate an invoice?

Mr. Brennan: First of all, it depends on the model we are using to deliver our product to market. In some of the models, we sell hardware and the data collection service. In other models, we would lease the meter to a commercial entity, as another example. So it very much depends on the model.

If you look at where the costs exist, if you like, there is a cost, obviously, in the hardware itself and installation, and then there's a cost in the data collection fee, very much like meters for single-family homes. Then the generation of a bill is included in the administration fee.

The Chair: I'll need to intervene there. We'll move now to the Tory side.

Mr. Yakabuski: Thank you very much for your presentation today, and thank you for the time you gave me earlier in the year to tour your facility and have a better look at your technology. I must say I was impressed, not only with the principle behind it but also the immediacy of information, being able to access it through the computer and everything. It is a very impressive system.

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I just wanted to point out maybe a little difference with Mr. Leal, where you guys have done a cost-benefit

analysis—he said “smart metering.” You guys have done a cost-benefit analysis of sub-metering, unlike the government, which has not done very much cost-benefit analysis of smart metering at all. That’s just for the record, Mr. Chair.

Anyway, I guess what we’re looking at here is, it’s part of a conservation act and part of trying to conserve energy. We’ve had previous submitters who have had significant opposition to what you’re doing, which is sub-metering, or what your plan is to get apartments sub-metered. I guess one of their arguments was what Mr. Hampton talked about: The tenant hasn’t got much control over the electricity use. What Stratacon said today is that that’s not quite the case. Would you concur?

Mr. Brennan: In a building with the same layout, the same type of apartments, you will often find two tenants side by side with the same equipment with radically different consumption patterns. It’s purely personal habits that are driving this. What we have seen is, people do react to a bill. The other side of that is, by our counts, two thirds of the users are quite conscious of their consumption, and yet they’re currently being penalized for those who are not.

Mr. Yakabuski: There’s no question that, on principle, I think most people would agree that if you’re using something, your neighbour shouldn’t be the one paying for it if you’re exactly in the same basic circumstances. Thank you.

The Chair: The remaining time is yielded to you, Mr. Hampton.

Mr. Hampton: I wonder if you could tell me, since you’ve looked at some of these things: What would be the major electricity use in the apartment buildings that you’ve been sub-metering?

Mr. Brennan: It’s usually heating, air conditioning, lighting. If there’s individual heating or cooking—some people tend to use their cooking utensils or cooking equipment for additional heating as well. We see this as we actually take the measurements.

To be fair, with landlords who are looking at places to save, it’s very hard for them to target an area of saving when you can have two apartments side by side on the same floor, on the same side of the building and have 100% difference in their consumption. Landlords are looking for assistance. They will react to a tenant coming and saying, “Hey, my bill just went up 30% because I’m getting a bill now.” There’s opportunity there for that data to help.

Mr. Hampton: So when you say “heating”—electric heat, then?

Mr. Brennan: No; what I’m saying is that people have used additional heaters in their apartments, extra air conditioning, and right now there’s no way of catching them.

Mr. Hampton: So, electric heat, in addition to whatever the heating system may be. Additional heating, air conditioning—and what was the third?

Mr. Brennan: Additional lighting.

Mr. Hampton: Do you sort out lights and appliances?

Mr. Brennan: Because we can actually measure in very fine granularity and because we have access, the customers, back to our database and our knowledge base, we can show them the patterns of use and highlight to them that this is likely heating or lighting or air conditioning cycles. It is that fine in measurement.

Mr. Hampton: So if I take what you’ve given me here, the target, then, would be heating and air conditioning for the most part?

Mr. Brennan: A target for retrofits? Oh, of people reacting—I would say that most people will, first of all, realize how much they’re using and just get more conscious about it. It doesn’t take a large impact, in that large a stock, to have a pretty significant impact. Most users will get a little more conscious about their lighting, about when they’re running their appliances and how long they’re running them. Things that we’re doing in single-family homes have never translated to the apartments, because they’re not paying for them.

Mr. Hampton: What strikes me is that the Ontario Power Authority, in their prediction, ascribe to smart meters about a 500-megawatt saving—

Mr. Brennan: At a provincial level.

Mr. Hampton: —at a provincial level. You’re saying that just in terms of apartment buildings, by proceeding to sub-metering, you think you could achieve 500 megawatts.

Mr. Brennan: Bear in mind that, to my knowledge, the estimates by the Ontario Power Authority did not assume any impact to multi-tenant buildings.

Mr. Hampton: No sub-metering?

Mr. Brennan: Correct.

Mr. Hampton: That’s where you see the difference?

Mr. Brennan: Absolutely.

Mr. Hampton: They see smart meters adding 500 megawatts across the province. You see an additional 500 megawatts from sub-metering.

Mr. Brennan: Correct; again, most of it in the GTA.

Mr. Hampton: One of the issues that has been raised a lot over the last couple of days—and I’d appreciate your views on this—is that a lot of tenants are saying, “Look, we have no control over the energy efficiency of the apartment. The landlord can get the cheapest appliances, which use a lot of electricity. The landlord can refuse to retrofit and continue to have windows that are leaky etc.”

Mr. Brennan: If you project ahead in time a little bit, when everybody has their smart meter, they can ask what the power use was in that unit for the last 18 months. Right now, there is no way of knowing, when you’re going into a unit, what’s being built into your rent. So, while I agree that there are opportunities for retrofit, I would say that most landlords would look at it and target it from that top 30% first. Behavioural changes are probably going to have the largest impact on that. Then, indeed, if there’s old equipment or faulty equipment, they’ll have the data to make changes.

The Chair: Thank you, Mr. Brennan, for your deputiation on behalf of Triacta Power.

We'll now invite our final presenters of the day-two Toronto committee hearings—

Mr. Delaney: On a point of order, Chair: A request for legislative research. We've had a number of very interesting deputations from not merely tenants' groups but from companies that provide sub-metering. I'm wondering whether or not we could ask legislative research to contact some of the organizations that have given deputations here and establish, on a common basis, what some of the costs for providing the service are and what some of the savings that they've incurred are, and see whether or not we have a clear trend.

The Chair: Your request has been noted. I believe legislative research is in fact already on the case.

ONTARIO ENERGY ASSOCIATION

The Chair: We'll now invite Mr. Pospisil—have I got that correct?

Mr. Shane Pospisil: That's good. Shane Pospisil.

The Chair: And Mr. Busaan and Mr. Robinson, on behalf of the Ontario Energy Association. Gentlemen, you have 20 minutes, as you've seen. Please begin.

Mr. Pospisil: Thank you very much. Just a quick comment as well, on the information side: We've provided two slide decks today, one I'm going to speak to, and the second one a presentation at a round table session that I participated in in Barcelona recently. There were 1,400 participants from jurisdictions that have implemented smart meters technology—the doers in this area. We're still talking about it. There are all kinds of papers that were released at that conference.

Mr. Hampton, you talked about some of the social policy impacts on multi-residential units. There were all kinds of papers presented in that area, looking at demand sensitivities and elasticities, depending on your price spread between peak and off-peak, and what we can expect in terms of impacts.

We can certainly do some of our in-province research, but there's a lot of information to be gathered by those progressive jurisdictions that have gone before us. I will get the clerk information on all the papers that were presented. You may well find some of those papers quite interesting.

Just a general comment as I go through the first slide: I'm not going to delve into the details on specific technology platforms and what have you. A number of our members have been in front of you in the last couple of days, and you'll hear a lot from our members in the days ahead. We're going to step back and offer some comments and perspectives more at the policy level and the strategy level.

We're definitely not here today to lobby or advocate for any specific changes to the proposed legislation. We see it as another important piece in advancing and promoting and building a culture of conservation in Ontario. We also recognize that, as is often said, the devil is in the details, and the regulations are yet to come, both on smart metering and some of the conservation initiatives that are

outlined by the government in the legislation. So from our perspective, it's very difficult to comment with any fair level of specificity at this point in time.

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Just a quick comment on who the Ontario Energy Association is: We have 170 members representing both the electricity and gas sectors in the province. Our 170 members represent about \$34 billion in annual market revenues in the province each year and employ about 32,000 folks across the province, the men and women who really keep the lights on, the front line in servicing the consumers here in Ontario. It's very important to remember that when we talk about smart meters and conservation initiatives. These are the folks who make it happen. A lot of the comments I'm going to raise here in the next few minutes are reflective of a planning retreat we had in early January, talking about where we are on the conservation front and where we need to go; so some consensus points coming up later.

Our members cut across all elements, and you're going to hear from a lot of them over the next few sessions. We have the consulting services companies. These are the people who really drive innovation. They come up with solutions, not 101 reasons why something can't happen: "How are you going to make something work?" The equipment suppliers are here and they're well represented within our membership. The utilities, both gas and electric: On the electric side, as I think everyone here is aware, our members have been quite actively involved, have spent \$160 million on various energy conservation measures across Ontario in recent months, and there are still many planned and proposed. Retailers and marketers: a group that provides price security to a lot of consumers who are looking for that as part of their choice option. Again, there are a number of other ancillary services that look at in-house conservation and energy-efficiency initiatives.

One of the key things coming out of the planning session, and something all our members embrace as we go forward in Ontario with some of the energy challenges we have, is the notion that informed consumers are empowered consumers. We need to ensure that Ontario consumers, whether they're residential, small business or industrial, have information. I can tell you that, going out and doing a lot of community service sessions with seniors' groups and what have you, I think people want to contribute, want to help out. They just don't know what to do. So information is really critical.

The next component is the tools, and of course the smart meters fit into that category. If you're going to act, you need the tools to be able to measure when you're using electricity, how much it costs at that point in time, and of course, together with tools, you need the pricing incentives. You can't just have one price for the whole day. You need smart pricing: different prices reflecting peak, mid-peak, and off-peak pricing scenarios.

Fourth, we would argue that you also need choices. There may well be some consumers who don't want to put up with that volatility, who don't want to be monitor-

ing their smart meter on a regular basis, who just want to lock into a long-term, three- or five-year contract and be able to budget accordingly, knowing what the overall price is going to be. So that's another option of consumer choice that we feel it is very important to keep in the mix.

Turning to the page "Conservation Leadership Act": a few general comments on Bill 21 and what the government is doing in terms of getting its own house in order, and the bold target they've set for a 10% reduction in their own in-house electricity usage—certainly a very bold commitment, one that we believe shows leadership in the conservation area. It's not just government talking and lecturing; they're actually setting a larger target than they have for the economy as a whole, and I think that's very important. I think the notion, as well, of looking at energy efficiency and conservation and a lot of their capital projects going forward is critical. Having spent many years in government, I can tell you that a lot of the capital projects I saw in the Ministry of Finance didn't have that element reflected, and I think to have that come up now as these projects are being evaluated is very important.

The big issue on this page is the comment I make here: "Critically important to remove barriers and not create new regulatory burdens—learn lessons from the supply side!" One of the things coming out of our planning retreat back in January was the notion that Ontario's regulatory environment, its regulatory framework, is burdensome in this province, whether we're talking about environmental assessment on the supply side, about local development approval processes, about leave-to-construct applications at the Ontario Energy Board, about removing impediments in the building code to allow us to do a lot more efficient things in the conservation area. There's absolutely no doubt about it.

Right now, with our association, we're starting to benchmark Ontario's regulatory processes and systems relative to other progressive jurisdictions in North America: British Columbia and Quebec; we're looking at Minnesota and some of the more progressive US jurisdictions. The regulatory frameworks we have are not exactly the most streamlined in terms of achieving the objectives. I think we'd all agree we want to see changes to the building code, being one that came up earlier; again, accelerating the development of some of these clean energy projects on the supply side as well. This was the number one issue flagged by our membership at the planning retreat, and over the next six to eight months we're looking at developing a regulatory cost index that will show us where we stand relative to other jurisdictions, not only in Canada but in North America. So just put that on your collective radar screens.

The other comment I would make is that, when we look at energy prices in Ontario now, the sense I get as I go around the province and meet with various groups is that there's a sense that this is an issue that is unique to Ontario, that we're an island unto ourselves and these increasing energy prices are something only we're suffering with. The reality is that all industrial juris-

dictions, all jurisdictions in North America, are seeing crude oil prices go up, have seen the recent increases in natural gas prices, are seeing increases in electricity prices. In Ontario, the big challenge we face right now is our ability to really innovate, adapt and reposition ourselves within a higher-cost energy environment. We can sit back and collectively take approaches that delay or frustrate adjustment, or we can look at how we facilitate adjustments to the new energy cost environment. With regard to the smart meter, we see it as a tool to facilitate adjustment in that it gives consumers the tools they need to better manage their energy bills. So in that sense, we're very supportive of the initiative.

A few general comments on smart meters: I've circulated the slide deck that I used at the round table in Barcelona. We actually discussed that slide deck. Probably we spent three hours on our slide deck alone, and then we looked at a presentation from Germany and one from Italy as well. So it was a very interesting session. Unfortunately, there are a bunch of bullets there which probably don't give you a lot of the context you need.

As I mentioned, we're very supportive of the smart meters initiative in that it provides consumers with the tools they need, and, combined with the price differentials between peak, mid-peak and off-peak, there should be an incentive structure there that incents people to shift load to off-peak periods and also to conserve.

The one area where we're very sensitive, and I think Mr. Hampton raised this during earlier questions, is to those who are on fixed incomes or lower incomes. There could potentially be some pressures there. Some of the accommodations these folks live in may have electric heating, not be the most insulated buildings, have appliances that aren't exactly the most efficient. As we go forward, we need to be very cognizant of that. Getting back to the conference in Europe, it was very evident in what the Germans, Austrians and Italians had done that they hadn't overlooked those folks who are in those categories and are struggling to pay some of their bills in spite of the fact that they have this new technology, and there were assistance programs put in place to help them manage.

Overall, looking at the government's agenda on the conservation/energy efficiency side, I think it's safe to say that our membership would give the government full marks for acknowledging that we face a very significant supply-demand situation right now in Ontario and will be facing that for years to come. They've acknowledged the issue, they've developed an action plan and they are implementing that action plan, smart meters being one of the items, and how government gets its own house in order in terms of energy efficiency, conservation and providing incentives for others to get on the bandwagon as well.

The association often disagrees with the government. There may well be specific issues where we have disagreements or nuances in terms of how something is being implemented. As you might expect, I have a very diverse membership. But overall, we're quite encouraged

that the government has an action plan. They're very open to consulting on the action plan and listening to other perspectives and views. I think we find that quite encouraging.

As I mentioned up front with regard to Bill 21, it's very difficult to comment given that the regulations aren't on the table right now. As a framework piece, I think it's quite encouraging, but we're actively looking forward to seeing the regulations as they come out with regard to the smart meters initiative, fleshing out a little more elements—the conservation elements as well. We would provide further input and details at that time.

With that, I think we could probably open things up for questions.

The Chair: Thank you, gentlemen. We'll begin with the Tory side. Mr. Yakabuski, about three minutes.

Mr. Yakabuski: Thank you very much for coming today. You commented that you were very much in favour of the smart meter initiative because you felt it was going to give consumers that information, but as we know today, we really don't know what kind of information it's going to offer consumers. It could be very broad or it could be very specific, but no decisions have been made on what kind of technology and information the consumer is going to get. So I think we may be a little ahead of ourselves on that.

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Mr. Pospisil: Just a general comment there: The draft specs have been provided to the LDC committee. I think they're posted on the website as well. They're generally consistent with what we were expecting. Again, it's a base platform technology, which should help keep the costs down. For those consumers who would be looking for some bells and whistles, they'll have an opportunity to contract for that. For those consumers who are just looking for a basic technology platform, they'll have that. That's what the draft package conveys right now.

In terms of your comment, though, that there are a lot of details that remain to be sorted through, that is right on. Dataco, the central data agency—how that works, the costs associated with that. Obviously, a big issue for a lot of our members as well is how the pieces fit together. And the timing for getting those pieces to fit together is very critical as well.

Mr. Yakabuski: You also mentioned the German technology that you were lauding. I find it peculiar sometimes that we always talk in this country about, "Look at what the Germans are doing," but when we look at what the Germans are doing with regard to clean-coal technology, this government all of a sudden goes into—the ostrich comes out, down goes the head and we don't even want to talk about it.

You are also lauding the government for its goal of conservation, but of course, it's just a goal until it actually bears some fruit. That's a little farther down the road; that's 2010. But every day we're hearing more and more experts in the field saying, "We told you so. You can't do this—this timetable, this commitment to shut down coal by 2007," and hence revised to 2009 for

Nanticoke. If they're as good at forecasting their conservation as they are about coal shutdown, do you still have the same faith?

Mr. Pospisil: I'm here today as well to talk about Bill 21, so I won't comment on the government's coal phase-out commitments. But there is no doubt that the 5% peak electricity demand commitment the government has made is a bold commitment. When you look at peak—

The Chair: I'll need to intervene there, Mr. Pospisil, and move to the NDP side. Mr. Hampton, three minutes.

Mr. Hampton: On Friday, we heard from the Pembina Institute. They made a couple of very specific recommendations. One of the things they said is that smart-metering would allow several corporate entities perhaps—or one big corporate entity called the smart metering entity—all kinds of private information. They'd be able to tell when somebody left their home in the morning and when they came home in the afternoon, when they went to bed, when their home was vacant. They made the recommendation that the smart metering entity be a designated institution for the purposes of the Freedom of Information and Protection of Privacy Act, because this information, should it be used improperly or negligently, could be quite damaging. Would you support that?

Mr. Pospisil: The issue you've raised in terms of personal security—there's no doubt that a very sophisticated smart-metering technology platform can provide all kinds of additional services as well: home security; it could look at water metering. The platform we're seeing now is actually very basic, and there's a one-way element to it now rather than the two-way technology interchange. So I think that really mitigates a lot of the risks that you're alluding to. Having said that, the issues you raise are very important, and in the rollout of the smart meters technology they certainly need to be fully considered in the context of some of our broader public policy goals.

Mr. Hampton: The other point that they made is that indeed the whole smart metering initiative creates a platform for the marketing of all kinds of services, that in effect this is just the first very narrow sliver, that this could turn into a very large marketing opportunity with large amounts of money involved. So the recommendation they made is that the smart metering entity—as a body that's going to be created by public legislation and will have a lot of power, or at least it looks as if it will have a lot of power—should be subject to auditing by the Provincial Auditor. We're talking here about a lot of powers, public powers—powers that could infringe on people's privacy—and substantial amounts of money.

The Chair: I need to intervene there, Mr. Hampton; my apologies. We'll go now to the government side.

Mr. Leal: Thank you very much for the presentation. You said you worked for the provincial government in the Ministry of Finance. What years were those?

Mr. Pospisil: Finance would have been 1999 and 2000, and the Ministry of Energy, 2002 through 2005.

Mr. Leal: My next question: You indicate you attended a rather large conference in Barcelona. Is it safe

to say—and I'll get you to comment—that a forward-looking economy, like I think Ontario is a forward-looking economy, would bring in this kind of smart metering initiative and a conservation program?

Mr. Pospisil: The sense amongst those in attendance was that it's about time that a North American jurisdiction is actually taking such a bold move in terms of empowering consumers. Most European countries have been moving in this direction for a long time, empowering consumers, and we're really the first to roll it out on a large scale.

Mr. Leal: So they were somewhat struck that nobody in North America has really moved aggressively down this road? Ontario's going to be the groundbreaking jurisdiction?

Mr. Pospisil: Correct. There were concurrent sessions. When I spoke, there were over 800 people in the room, so there was a lot of interest in what we were doing.

Mr. Leal: I think Ms. Mossop may have a question too.

Ms. Mossop: Just moving over to the conservation angle of this: We've talked a number of times about the culture of waste in our society as opposed to a culture of conservation, on this side of the Atlantic anyway, and the work that needs to be done. While the 5% is bold, would you say it's doable?

Mr. Pospisil: Yes.

Ms. Mossop: Would the education components that we're planning and the request that we have all oars in on this, on using our resources responsibly, be effective tools?

Mr. Pospisil: Yes. Again, in this area, there's no one magic silver bullet. It's going to require education and public awareness and continuing to reinforce that. It's going to involve activities that really underscore best practices in our industrial sector. Smart meters and price spreads there are very important, because with demand elasticity you need a spread to get a reaction from consumers. If there is no spread or it's too narrow, most people won't pay too much attention. The OEB draft pricing numbers that were put out earlier this year look pretty good from my perspective, from a demand elasticity perspective, and that was the sense at the European conference as well.

Ms. Mossop: Excellent. Thank you very much.

The Chair: Thank you very much, Mr. Leal and Ms. Mossop. I'd like to thank the gentlemen from the Ontario Energy Association, Mr. Pospisil, Mr. Busaan and Mr. Robinson.

I remind members of the committee that we are meeting tomorrow morning at 9:30 a.m. for our chartered bus leaving for Simcoe for day three of these hearings. Just to remind you, it's at the Best Western Little River Inn, in Simcoe, Ontario. Seeing no further business, this committee stands adjourned till tomorrow.

The committee adjourned at 1629.

Continued from overleaf

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