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Tuesday 18 November 2014

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des débats
(Hansard)**

Mardi 18 novembre 2014

**Standing Committee on
Estimates**

Ministry of Energy

**Comité permanent des
budgets des dépenses**

Ministère de l'Énergie

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LEGISLATIVE ASSEMBLY OF ONTARIO

ASSEMBLÉE LÉGISLATIVE DE L'ONTARIO

STANDING COMMITTEE ON
ESTIMATESCOMITÉ PERMANENT DES
BUDGETS DES DÉPENSES

Tuesday 18 November 2014

Mardi 18 novembre 2014

The committee met at 0900 in committee room 2.

MINISTRY OF ENERGY

The Chair (Ms. Cindy Forster): Good morning. The committee is about to begin consideration of the estimates of the Ministry of Energy for a total of 7.5 hours. As we have some new members, a new ministry and a new minister before the committee, I'd like to take the opportunity to remind everyone that the purpose of estimates committee is for members of the Legislature to determine if the government is spending money appropriately, wisely, and effectively in the delivery of services intended.

I would also like to remind everyone that the estimates process has always worked well with a give-and-take approach: on one hand, if members of the committee take care to keep their questions relevant to the estimates of the ministry, and the ministry, for its part, demonstrates openness in providing information requested by the committee.

As Chair, I tend to allow members to ask a wide range of questions pertaining to the estimates before the committee to ensure they are confident the ministry will spend those dollars appropriately. In the past, members have asked questions about the delivery of similar programs in previous fiscal years; about the policy framework that supports a ministry approach to a problem or a service delivery; or about the competence of a ministry to spend the money wisely and efficiently. However, it must be noted that the onus is on the member asking the question to make the questioning relevant to the estimates under consideration.

The ministry is required to monitor the proceedings for any questions or issues that the ministry undertakes to address. I trust that the deputy minister has made arrangements to have the hearings closely monitored with respect to questions raised, so that the ministry can respond accordingly. If you wish, you may, at the end of your appearance, verify the questions and the issues being tracked by the research officer.

Are there any questions before we start?

Mr. Randy Hillier: Chair?

The Chair (Ms. Cindy Forster): Mr. Hillier?

Mr. Randy Hillier: The official opposition made a request for live streaming of the estimates committee and simultaneous translation. It looks like the simultaneous translation may be under way, but is the live streaming?

The Chair (Ms. Cindy Forster): Actually, it is impossible to do the live streaming. We would have had to move into 151, and I understand that there is another committee in there this afternoon.

Mr. Randy Hillier: So there'll be no live streaming.

The Chair (Ms. Cindy Forster): There will be no live streaming.

Mr. Randy Hillier: Okay.

The Chair (Ms. Cindy Forster): I'm now required to call vote 2901, which sets the review process in motion. So we will begin with a statement of not more than 30 minutes by the minister, followed by statements of up to 30 minutes by the official opposition first, followed by 30 minutes by the third party. The minister will then have 30 minutes to reply, and the remaining time will be apportioned equally between the three parties.

Minister, you're on.

Hon. Bob Chiarelli: Thank you very much, Chair, and good morning, committee members.

I'm pleased to be here today to speak about the Ministry of Energy's 2014-15 estimates. I'd like to start by introducing the senior ministry officials here today, starting on my left with the deputy minister, Serge Imbrogno. And if the others that I am going to mention would just raise your hand as I mention your name: assistant deputy minister of the energy supply division, Rick Jennings; assistant deputy minister of the conservation and renewable energy division, Kaili Sermat-Harding; assistant deputy minister of strategic network and agency policy division, Michael Reid; and assistant deputy minister of corporate services, Rob Burns.

I want to recognize the hard work, dedication and commitment that these leaders, public servants, have been performing over the last number of years.

Before I go into specifics, I want to use my opening remarks to provide the context for action and framework within which we, the Ministry of Energy, undertake to move Ontario forward. I would like to outline some of the priorities we have as a government at the Ministry of Energy. In doing that, I would like to highlight the five principles that guide our energy policy decisions: cost-effectiveness; reliability; clean energy; community engagement; and an emphasis on conservation and demand management before building new generation.

Reliable electricity at a reasonable cost attracts investment to the province. It is critical to building our industries and driving the modern technology we depend on.

This year, indeed, Ontario attracted more direct foreign investment than any other North American jurisdiction.

At the same time, we need to fulfill our energy needs while protecting our health, the environment and the quality of life of our communities, and our ministry is charged with providing Ontarians with a safe, clean, reliable and affordable supply of electricity. Our system manages everything from the generating stations, the transmission and distribution system, and the millions of consumers across Ontario.

Here I'd like to acknowledge and recognize the hard work of our agencies and partners: the Ontario Energy Board, OEB; the Ontario Power Authority, OPA; Independent Electricity System Operator, IESO; Ontario Power Generation, or OPG; Hydro One; and, of course, the utilities and the local distribution companies, who are the face of energy for the people of Ontario.

These agencies develop, transmit and distribute new, sustainable sources of energy to supply Ontario's electricity needs, when and where they need it, at a total annual cost of between \$18 billion and \$20 billion per year. In saying that, we are also searching out efficiencies and ways to keep costs down.

When we launched our long-term energy plan, *Achieving Balance*, in December 2013, it had the support of generators and consumer groups, of environmental activists and unions, because it was a collaborative exercise, and our ministry and agencies learned that the best outcomes in this sector are those which are driven by collaboration and mutual respect—a tremendous amount of expertise in the private sector and in the agencies.

As I mentioned in my introduction, our plan balances the five principles to guide our decisions. Again, those are an emphasis on using conservation and demand management before building new generation; cost-effectiveness; reliability; clean energy; and community engagement. Our plan and these five principles will continue to guide our efforts.

I would like to address those efforts now and how each, in turn, is helping us deliver on our core mandate of a clean, reliable and affordable electricity system.

A core pillar of our LTEP, or long-term energy plan—I'll refer to it as LTEP for the remainder—is our conservation-first vision. Conservation is the cleanest and one of the most cost-effective energy resources we have. The more we save, the less we need to look for sources of new supply. Conservation initiatives located in specific geographic areas can also eliminate the need and cost to build or sustain transmission and distribution infrastructure. This will result in significant cost savings, and so our aim is to consider conservation as the first option before building new generation or transmission facilities, wherever cost-effective. This means adopting a conservation-first mindset throughout our planning, approval and procurement processes. It means bringing that mindset to work with our partner agencies, local distributors and ministries. And it means building a culture of conservation in Ontario, with current and evolving conservation programs.

The OPA and OEB are in the process of giving life to the government's conservation vision with updated conservation demand management and demand-side management frameworks. These will be administered by our local distribution companies in partnership with customers large and small. These require contracts to be signed by the distributors and the Ontario Power Authority, and those contracts are in the process of being signed.

We have set aggressive targets, but the pace of innovation and technological change in the world today highlights that we must be nothing short of bold and aggressive when it comes to conservation.

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For example, New York state and Manitoba have launched successful on-bill financing programs that better highlight for customers the energy savings associated with upgrading infrastructure, such as heating, cooling and insulation products. In fact, just two months ago the Ministry of Energy held a consultation to discuss how Ontario can move faster in this direction.

Additionally, Ontario's time-of-use pricing has been successful in reducing peak demand, but some jurisdictions have gone even further. For instance, Ohio and Oklahoma have run critical peak pricing events with extremely positive results. Average bill reduction per participating customer over a summer period was around \$260, with a peak demand reduction of about 125 megawatts. This is yet another program we can learn from.

As we move forward, our conservation vision includes working to implement best in class codes and standards to adopt world-leading technologies that can help drive energy consumption and costs down.

At this time, I would like to share a couple of examples of some great commercial partners working with us and taking part in conservation initiatives like the saveONenergy for business program, including the saveONenergy retrofit initiative.

In Ottawa alone, Home Depot's conservation upgrades have reduced energy consumption by 1,659,000 kilowatt-hours, or enough electricity to power over 200 households. That's just in Ottawa—and they are participating in this right across the province, virtually every one of their outlets.

Also in Ottawa, in partnership with the OPA, the Canadian Tire Centre—the home of the Ottawa Senators, I might add, and a very, very major 20,000-seat capacity facility—implemented a new state-of-the-art sport lighting package in their arena. This reduction equates to one million kilowatts each year, or the equivalent of 1,745 60-watt light bulbs running 24/7.

In addition, using our conservation programs, Tim Hortons has announced plans to install LED lighting in all of its newly built restaurants and retrofit nearly all existing restaurants in favour of energy-efficient lighting in the coming years.

These are just some examples of the innovative and practical way that conservation can help drive costs down for consumers, large and small, at the same time as reducing the cost pressures in the system.

In fact, everything we do at the Ministry of Energy keeps the ratepayer in mind. As we demonstrated in the LTEP, we have bent the cost curve down from 2010 to 2013. We have reduced cost pressures as a result of the reduced feed-in tariff—FIT—prices coming down, the ability to dispatch wind generation instead of letting it run holus-bolus, the amended green energy investment agreement—Samsung—and the decision to defer new build nuclear. The total previously projected costs have been reduced by \$20 billion.

Compared to the projections in the 2010 long-term energy plan, the total cumulative costs of electricity service to ratepayers is expected to be \$16-billion less in the near term, that's 2013-17, and \$70-billion less over the life of the plan, 2013-30. For a typical residential customer, that means they will pay about \$520 less than they would have in the near term, 2013-17, and \$3,800 less over the course of this long-term energy plan, 2013-17.

Meanwhile, a typical large industrial consumer is expected to pay \$3 million less than the previous 2010 forecast in the near term, and \$11 million less over the life of the plan, 2013-30. That's by reason of us taking out of our plan \$20 billion of either existing operations, such as Samsung, or not moving forward with new nuclear.

While this represents a dramatic improvement from our government's 2010 LTEP projections, we know that our work to mitigate electricity rates will always be a challenge and must remain a priority. The National Energy Board projects every province as having annual increases in their energy rates for the next 20 years.

We understand that customers, both residential and commercial, are concerned about rates. Our government is committed to an affordable, clean and reliable electricity system for all consumers. We are determined to find efficiencies that can mitigate electricity costs even further and programs to do the same. This is a key priority for our ministry and for this government.

We have merged OPA and IESO into the new IESO, increasing efficiencies by streamlining and consolidating short-term electricity market operation with long-term system planning and reduce overlap. The merger of the OPA and IESO will lower costs through less staff and reduced overhead. But the real savings potential for ratepayers will occur in the long term as system planning is better coordinated and contracting functions become more efficient.

And we recognize that Ontario's LDC sector is balkanized, cumbersome and inefficient. With 77 LDCs serving our customer base of 13 million, compared to four utilities in California serving a population three times the size, we know that there are inadequacies built into the sector. To implement all the robust initiatives of LTEP and drive our conservation agenda, it will be ultimately beneficial to achieve consolidation among these municipal LDCs. In fact, in 2012, a panel of David McFadden, Murray Elston and Floyd Laughren found that nearly \$1 billion in savings to ratepayers could be

possible if Ontario was successful in pursuing a more consolidated vision for the sector. Our ministry will continue to pursue options to encourage these kinds of cost-saving consolidations.

I'd like to turn now to practical solutions for energy consumers. We're determined to deliver savings to hard-working families. The province has programs in place that help consumers manage rising electricity prices:

The Ontario Clean Energy Benefit helps families, small businesses and farms manage electricity prices by taking 10% off hydro bills.

The Ontario Energy and Property Tax Credit saves qualifying individuals up to \$963 per year, with a maximum of \$1,097 per year for qualifying seniors.

The Low-Income Energy Assistance Program provides emergency financial support for families and individuals having trouble paying their bills, and our current budget has improvements to that type of program.

The saveONenergy Home Assistance Program helps income-eligible consumers manage their energy costs by providing home energy-efficiency assessments and energy-saving measures at no cost.

And the Northern Ontario Energy Credit helps families and individuals in northern Ontario by providing tax credits for low-to-middle income families and individuals living in northern Ontario. The maximum annual credit for a single person is \$139, and for a family, including single parents, it's \$214.

In addition, as we announced in April, we are moving forward with a plan to remove the cost of the debt retirement charge from residential electricity bills after December 31, 2015, which is three or four years earlier than originally planned. We are working with the Ministry of Finance to deliver on this commitment.

We also directed the Ontario Energy Board to develop options for the Ontario Electricity Support Program, which would provide ongoing assistance directly on the bills of eligible low- and moderate-income electricity consumers after December 31, 2015. This new program would help families who may be spending a disproportionately high percentage of their income on electricity.

We also understand how important it is to help businesses address rising energy costs. We have a range of programs and incentives already in place. The industrial conservation initiative helps many of Ontario's large consumers—well over 200—save on costs by reducing the amount of electricity they consume during peak hours. Examples of companies already taking advantage of this program include Vale, a nickel-mining company in Sudbury and Port Colborne; ArcelorMittal, a steel producer in Hamilton; and Gerdau Ameristeel, also a long steel producer in the GTA.

Because of these successes and others in the mining, steel, auto, manufacturing, forestry, and pulp and paper sectors, we recently expanded the ICI program to allow for participation from a wider range of companies. Expanding the ICI helps more of Ontario's large consumers save on costs by reducing the amount of electricity they consume during peak hours, shifting consumption to

off-peak periods. By participating in this program, many of Ontario's businesses have been able to lower their electricity costs by a full 25%—25% on average, in fact.

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Across the province, we estimate that nearly 1,000 more businesses will be able to participate in this expanded initiative, which reduces the cost of their electricity. This is excellent news, as it decreases the need for investment in costly new electricity generation by maximizing the value of current assets, and, importantly, delivers lower-priced electricity.

A second, equally important program we have initiated for industrial consumers is the industrial electricity incentive, or IEI, which offers reduced electricity rates for companies starting in or coming to Ontario, or expanding operations in Ontario. The new application window for the third stream closed on November 10.

By expanding the IEI Program, using our surplus power, hundreds of newly eligible companies can qualify for electricity rates among the lowest in North America in exchange for creating new jobs and bringing new investment into the province.

There are already concrete examples of companies taking advantage of the IEI Program, Stream 2 across Ontario. In Pembroke, for example, the MDF paperboard plant has reopened, or is in the process of reopening, after being accepted into the IEI Program, creating 140 new jobs for the area. In Whitby, Atlantic Packaging is expanding their paper mill and creating 80 jobs with the help of the IEI Program. And in Cochrane, Detour Gold says the program will save them \$20 million in 2014 alone while they expand what will be one of the largest gold mines in Canada.

Third, our Demand Response programs compensate participating customers for reducing their electricity use during peak demand in response to price signals or other criteria. For example, Loblaws and other large businesses participate in Demand Response programs by reducing additional lighting and cycling down air-conditioning and refrigeration systems in times of increased provincial demand, reducing their electricity costs.

And we are implementing a five-point small-business energy-savings plan, announced in April 2014. Our five-point program includes roving energy managers who will be available to small businesses on a fixed-term basis to provide support and assistance every step of the way on an energy-savings project, from applying for incentives to installing energy-efficiency measures.

The program is helping small businesses manage electricity costs and save money by offering enhanced conservation programs. For example, Giant Tiger is already saving \$300,000 a year from their participation in a pilot project offered by Ottawa Hydro.

In sum, while we seek to drive down total system costs through conservation initiatives and prudent system planning, our government has also implemented a wide range of programs for industrial, commercial and residential customers with the express intention of helping families and businesses manage their bills.

Our long-term energy plan includes additional principles: our commitment to clean energy and reliability.

This past April, we reached a major milestone when the Thunder Bay generating station burned its last coal supply and Ontario officially went 100% off coal. This is a tremendous achievement. In fact, it was the single biggest climate change initiative in North America, like taking seven million cars off the road, in terms of emissions.

In July, we reintroduced legislation that would, if passed, ensure that coal will never again be used to generate electricity in Ontario. We are saving approximately \$4 billion per year in avoided health care and environmental costs.

Meanwhile, Atikokan generating station completed its conversion from coal and is now North America's largest power plant fuelled completely by clean biomass.

So now, coal is gone, but we know there's still more we can do to support the growth of a safe, affordable and diverse supply mix.

Approximately 50% of our electricity each year comes from safe, reliable nuclear power. It is our government's intention to ensure nuclear power remains affordable for the next generation, as provided for in our long-term energy plan. We will work with Ontario Power Generation and Bruce Power to ensure that the planned refurbishments are carried out efficiently, on time and on budget. Nuclear power will continue to provide emissions-free, safe, affordable power and will sustain a supply chain of 60,000 workers in the province of Ontario.

In keeping with our commitment to a clean and diverse supply mix, we will continue to lead our government's commitment to renewable energy. Our target is to have 20,000 megawatts of renewable energy online by 2025. That's wind, solar, hydroelectricity and bioenergy.

In order to accomplish that, we've set the following priorities:

- continuing to work with the IESO and OPA to implement a new competitive procurement process for large renewable energy projects;

- working with our agencies and municipal partners to ensure communities have an opportunity to identify local needs and inform siting considerations; and

- ensuring contracts signed with energy producers can deliver sustainable, affordable energy to Ontario rate-payers.

Inasmuch as our domestic supply mix needs to be robust and diverse, we are also seeking to expand our reliance on imports from neighbouring jurisdictions as well. When it makes sense from a cost and reliability perspective, we will seek to expand the amount of firm imports that make up our system's reserve requirements from Quebec or Manitoba hydroelectric resources.

As part of our 2013 LTEP, the OPA and IESO were asked to study the role that transmission connections, or interties, with other jurisdictions can play in our supply mix, going forward. The result was a robust study, the Review of Ontario Interties, released just last month. The

review outlines the interconnected nature of our electricity grid with not only our Canadian provincial neighbours, but also US jurisdictions to the south.

Ontario already benefits from the trade of electricity with its neighbours. For example, electricity exports generate revenue for Ontario ratepayers that would not otherwise be received, which, in turn, reduces costs for Ontario consumers.

In fact, in January—just this year, 2014—Ontario exported to Quebec as Quebec was experiencing record peak demand due to colder-than-normal temperatures. Over a nine-day period we generated over \$8 million in revenue from Quebec. Quebec does not have an adequate supply in their peak winter.

Ontario is also committed to working with other jurisdictions to explore opportunities for firm electricity imports to determine if they are cost-effective for Ontario ratepayers. I recently had a series of meetings with my Quebec counterpart, Minister Pierre Arcand, where we continued the discussion about maximizing the use of existing inertia capacity and exploring future capacity exchanges. I'm happy to share with members of the committee that the two provinces are collaborating on a number of energy-related projects that will ensure safe, reliable and affordable supplies of clean electricity pass between Ontario and Quebec to the ultimate benefit of Ontario ratepayers and Confederation.

The fifth and final guiding principle in *Achieving Balance* is community engagement. Our government has taken important strides to bring community engagement to the centre of our decision-making framework. Our policy calls upon municipalities and aboriginal communities to develop their own community-level energy plans to better help inform local and regional decision-making for power. In saying that, we will support these efforts through the Municipal Energy Plan Program and the Aboriginal Community Energy Plan Program, the latter offering capacity funding grants of up to \$90,000 to support the creation of these local energy plans.

Furthermore, we are committed to giving municipalities meaningful opportunities to participate when decisions are being made about siting renewable energy projects. We are providing for a greater local voice and responsibility. After broad consultation, we have increased local control over renewable siting and brought stability and predictability to procurement.

The OPA and the IESO are continuing to implement their report and associated 18 recommendations included in their framework, *Engaging Local Communities in Ontario's Electricity Planning Continuum*.

For large renewable projects, the Ontario Power Authority has developed a new bidding process in which projects that have the support of local communities will be given priority. Indeed, it will be very difficult for a project to go forward without some significant local collaboration.

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We changed the small FIT program rules to give priority to projects partnered with or led by municipal-

ities. We will likewise work with our partner ministries and agencies to ensure that First Nation and Métis communities are consulted on any energy activity that could adversely affect their aboriginal or treaty rights.

Our government is committed to working with local communities to ensure that our electricity planning future reflects their needs as well as the broader needs of the electricity system. There is an important balance, which I know we can achieve if we work together.

Some concluding remarks: In Ontario, we may be focused on addressing our own sector and the challenges we have there, but we also have a role to play when it comes to our country and the world at large. Premier Wynne and Quebec Premier Philippe Couillard announced that they will hold a joint cabinet meeting on November 21, Friday of this week. Exploring increased electricity trade will be on the agenda at the half-day event. Over the last two months, we have held a number of inter-ministerial meetings between Ontario and Quebec, and the two Premiers have met on several occasions.

As part of that process, we will be collaborating, along with other Ontario ministries and with other provinces and territories, on the development of a Canadian Energy Strategy. There is none that exists today. It is essential that we safeguard Ontario's interests in the course of developing that strategy, making sure that it delivers on principles that matter to us, like conservation, combatting climate change and ensuring the safe, affordable transportation and transmission of energy, including pipelines.

But these opportunities do not only confine themselves to our national borders. To the extent that our ministry agencies can help support the Ontario-based energy supply chain—those 60,000 workers—for global economic opportunities, we will continue to do so. For example, wind turbine blades built by Siemens in southwestern Ontario have recently been exported to Sweden. Also, California and Hawaii have recently reached out to the IESO and OPA to learn more about Ontario's early pilot procurement of energy storage technologies. I have personally met with consular officials from India and Japan, as have other officials, in recent months, looking to increase partnerships with Ontario energy and electricity companies, both public and private.

My point here is that while we have spent an awful lot of legislative time examining where our electricity sector is and where it could use improvement, we have ignored our successes. I daresay we're overdue to acknowledge our shared accomplishments. Ontario is a recognized world leader, or very near the top, in a number of areas, including in nuclear power, in scale and technology; in renewable energy; in transitioning out of coal; in innovation; in our smart grid; in our supply mix; in our clean system; in system operations and management; in demand management; in storage technology; and in the reliability of our transmission.

Our ministry's task is to provide Ontarians with a clean, reliable and affordable supply of electricity where and when it is needed. Working collaboratively with our agency partners and with the public and private sectors,

with environmental groups and with unions, we intend to do just that.

Now I look forward to answering any questions you might have. I have to inform the committee that when my staff learned that the member from Renfrew–Nipissing–Pembroke was going to be here, they tried to find a hard hat and flak jacket for me, but they couldn't find any, so I'm totally exposed.

Interjections.

The Chair (Ms. Cindy Forster): We'll move to the official opposition. Mr. Hillier, 30 minutes.

Mr. Randy Hillier: Thank you very much. Minister, it's always a pleasure to see you. It amazes me how you can always have such a straight face when you're talking about energy production and capacity in this province.

I want to first start by asking—I was going through the estimates and I did not see any contingency funds for the number of lawsuits, significant lawsuits, that the Ministry of Energy is facing: the \$475-million lawsuit for the moratorium on offshore wind and, of course, another high-profile lawsuit, the constitutional challenge on wind. Can you explain to me, or can you show me in your estimates where your contingency funds are for those lawsuits, or are you not carrying a contingency fund?

Hon. Bob Chiarelli: First of all, I want to say that given the breadth of the electricity system in Ontario, the number of lawsuits are remarkably small. When you look at the FIT program, the numbers of contracts that were let, you look at all the power purchase agreements we have gone through, it's an enormous system.

As I indicated in my remarks, the whole electricity sector—

Mr. Randy Hillier: But, Minister, are you carrying a contingency fund in the estimates for these significant lawsuits?

Hon. Bob Chiarelli: I intend to provide an answer to that.

Mr. Randy Hillier: We have 30 minutes. My questions will be brief, Minister, and I expect the responses to be brief, as well, and concise.

Hon. Bob Chiarelli: I think it's important for committee members to have some context, and your question is being answered.

Given that there is \$18 billion to \$20 billion being spent to manage the electricity system in the province of Ontario, it would be probably unwise for us not to have contingencies. I'm going to refer this to the deputy minister, but my understanding is the Ministry of the Attorney General has contingencies to deal with lawsuits across the whole government sector. But I'll pass that on to the deputy.

Mr. Randy Hillier: Thank you.

Mr. Serge Imbrogno: The minister is correct: MAG would centrally hold contingencies for these types of lawsuits. I think you will probably find them in public accounts, but we can get that information to you.

Mr. Randy Hillier: If you could get that. Thank you.

Also, going through the public accounts for the last year, Minister, I saw that there was a payment of \$5.4 million to MaRS, and I was wondering if you could

explain to the committee what that payment was for, from your ministry.

Hon. Bob Chiarelli: Yes. We have a number of programs, for example, the Smart Grid Fund, which use funding to incent innovation programs in the energy sector, and I understand that MaRS has been very active in that area. There are a lot of projects which have been successfully implemented through MaRS, providing innovations to the sector. But, again, I will defer to the deputy to give you some more details on that.

Mr. Serge Imbrogno: The \$5.4 million was provided to MaRS for the Advanced Energy Centre.

Mr. Randy Hillier: For the what?

Mr. Serge Imbrogno: The Advanced Energy Centre.

Mr. Randy Hillier: Okay.

Mr. Serge Imbrogno: As the minister said, it is intended to help build on our investments in electricity infrastructure, mainly to help Ontario companies that are commercializing to export that to other jurisdictions.

Mr. Randy Hillier: I appreciate that you won't have all the details, but would you be able to provide a detailed explanation of that Advanced Energy Centre, what the taxpayer got for that \$5.4 million?

Mr. Serge Imbrogno: It's an initial investment with a business plan over the next three to five years, but we can provide you with the details of what the centre is doing, what our review of the centre—

Mr. Randy Hillier: And specifically what that—and that advanced Energy Centre, that is an activity of MaRS, or is that your ministry's program and MaRS is taking advantage of it?

Mr. Serge Imbrogno: It would be MaRS that's setting up the Advanced Energy Centre. We would have provided the initial funding. They are supposed to go out and get private sector funding, as well, to match and then deliver on the business plan over the next three years.

Mr. Randy Hillier: Okay. I'll looking forward to getting those details from you a little bit later on.

Minister, you mentioned in your remarks that your ministry has a view of conservation before new build and that you're focused on conserving energy before you produce any new generating capacity. You also mentioned in your opening remarks that by 2025, you're looking to have 20,000 megawatts of renewable capacity built in. My records show that we have about 4,200 megawatts of renewables already connected and another 4,000 megawatts due online this year. Is that correct?

Hon. Bob Chiarelli: Renewables include hydroelectricity. So the renewables include the Niagara generating station. It includes the very, very significant Lower Mattagami program north of Cochrane, Ontario. So when we talk about clean, renewable energy, bioelectricity and hydroelectricity is included in that—

Mr. Randy Hillier: So you're grouping all those into—

Hon. Bob Chiarelli: That's all included in—

Mr. Randy Hillier: Not just what we generally associate with wind, solar and biomass.

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Hon. Bob Chiarelli: Yes.

Mr. Randy Hillier: Let me ask you this, then: Last year, we lost \$1.2 billion on exports of our energy for 2013. The latest records show that we lost—in the month of October just past, that we produced 1.8 terawatt hours of electricity that we did not have a demand for in this province, but we still have at least another 4,000 megawatts of wind, solar and biomass coming online this year. That doesn't sound like it jives with your view of no new build before—conservation first. We're already in a position where we have greater supply and less demand. We exported 1.8 terawatt hours in the month of October alone and that generated a loss of about \$100 million for the month for hydro for your ministry.

Can you explain to me, when we're in a position where we have greater capacity than what our demand is, why we are building more new generating systems when you've just said you're into conservation first?

Hon. Bob Chiarelli: First of all, the electricity sector is fairly dynamic in terms of—for example, we're looking at a number of nuclear units that are coming to the end of their natural life cycle and we have a process for refurbishment. We either refurbish or we build new nuclear, and so as those units are coming out of use, they're either going to be refurbished or we need new generation for it. As they're being refurbished or we're building new, we have to take the units out of commission and so we need to replace that with new generation. That's part of the answer. The other part of the answer—

Mr. Randy Hillier: Well, let me clarify—

Hon. Bob Chiarelli: I'm sorry, you asked a question—

Mr. Randy Hillier: But I need clarification—

Hon. Bob Chiarelli: I'm going to answer your first question.

Mr. Randy Hillier: You've said something that is confusing to me.

Hon. Bob Chiarelli: I'm going to answer your first question.

Mr. Randy Hillier: Minister, I ask the questions in this committee.

Hon. Bob Chiarelli: And I answer them.

Mr. Randy Hillier: Okay. I asked you about the 20,000 megawatts by 2025, and you included hydro-electric in there. Now you're talking about nuclear as well. That 20,000 megawatts by 2025 does not include nuclear production, correct?

Hon. Bob Chiarelli: Sir, with respect, you are asking about surplus of electricity, among a number of other things.

Mr. Randy Hillier: That's right.

Hon. Bob Chiarelli: So I have to take them one by one.

Mr. Randy Hillier: Let's keep the apples and the apples together.

Hon. Bob Chiarelli: I'm sorry, I'm answering the surplus question. Number one, it is good electricity operations practice to have a surplus and a reserve in the system at all times.

Mr. Randy Hillier: That we lose money on each month.

Hon. Bob Chiarelli: That we have in reserve in case we have another major ice storm that hit eastern Ontario in 1998 that caused all that devastation.

Mr. Randy Hillier: I was there.

Hon. Bob Chiarelli: The reality is, you have to have—

Mr. Randy Hillier: It wasn't from lack of generating capacity, Bob. Let's keep to the facts and not the fairy tales, okay? The 1998 ice storm had nothing to do with windmills or solar panels, okay?

Hon. Bob Chiarelli: It has a lot to do with surplus power.

Mr. Randy Hillier: I asked you a question: Last month, we exported 1.8 terawatt hours—that was for one month, and we lost about \$100 million in that one month. The previous year, we lost \$1.2 billion on our energy exports. Clearly, we have a greater capacity—we do have surplus capacity—than we have demand for in this province. The facts demonstrate that. I'm not arguing that there ought not to be some level of surplus, but I'm challenging your question about conservation over new build when we have all this other new production coming online and we're in a hole right at the moment with our surplus. Why are we bringing on 4,000 more megawatts this year when we're already—just last month we had to constrain both Bruce Nuclear and our wind producers. We had to pay them not to produce last month. We already have surplus.

Hon. Bob Chiarelli: We have electricity trades that happen all the time among the jurisdictions that are connected legally in the grid, from New York to New England, Manitoba and Quebec. We in fact have electricity trades to have a reliable system, and we have more than the actual day-to-day needs, or a surplus and reserves, to help balance the system for a number of reasons, including contingencies like an ice storm, where you are going to have to be able to find that electricity somewhere else in the system in order to be able to turn the lights back on.

We've had that experience. So we know that we need a reserve and a surplus, and what do we do with that? Number one, yes, we sell it, and sometimes it's less than our base cost. We also use that surplus for the IEI Program, for example. It's that surplus electricity that is going into Pembroke and creating 140 jobs for the MDF paperboard plant and for the ones that are going into Detour Gold to help them expand their mine operation, saving \$20 million a year for economic development and jobs.

Mr. Randy Hillier: Okay. So we're going to have all the ratepayers of this province lose \$100 million in October for surplus so that one or two people will get a benefit. We're going to lose \$1.2 billion—maybe I'll ask you this question. We lost \$1.2 billion last year in our energy exports. What is your estimate of our losses for 2014 and 2015 cumulatively?

Hon. Bob Chiarelli: I don't accept the premise of the question that those are losses. I'm going to defer that to

the deputy to indicate to you maybe in more technical terms what that additional energy is for, how it's used and what it does to our bottom line.

Mr. Serge Imbrogno: Sure. Maybe I'll just frame it the way we think of it in terms of doing energy planning and—

Mr. Randy Hillier: Maybe I'll just get to the start. If we can't agree with the facts, then there's no point having a discussion. It's been widely reported that we lost \$1.2 billion last year in our energy exports. Do we agree on that fact?

Mr. Serge Imbrogno: The way I would describe what we do in terms of energy planning is, we build supply to meet our peak demand plus a reserve, as the minister was saying. It's a dynamic system. It's very hard to predict your supply and demand each and every year.

Mr. Randy Hillier: Sure.

Mr. Serge Imbrogno: So you have a plan and you build to that plan. Now, we don't build in Ontario to have exports; we build in Ontario to meet our needs. As you go on, if you have more energy that you have produced because you have additional capacity, then our perspective is, if you can sell it and make some money off that energy, then you're actually helping the ratepayer. We don't build additional capacity to export; we build capacity to meet Ontario needs. If we have additional power, we trade it, and that helps offset our costs.

Mr. Randy Hillier: Okay. So however you want to frame it, on our trades we sell it for less than what we paid for it, resulting in a difference. We pay the producers X dollars to produce and then we sell it for half of X or a quarter of X. We see this. We also see that it's very clear that we pay some of our contracted power generators not to produce at all, correct?

Mr. Serge Imbrogno: We dispatch some of the—

Mr. Randy Hillier: "Dispatch" is a nice euphemism, but you pay people not to produce at times. You do it with Bruce, you do it with all our wind powers, and you use the term "dispatch," right?

Mr. Serge Imbrogno: Well, we try and maximize the system. So at times we would not run Bruce or not run wind—

Mr. Randy Hillier: Yes. So you pay them not to run. While they're running, they produce. When they're not running, they don't produce, right?

Mr. Serge Imbrogno: Well, just on wind, we had some negotiations where—

Mr. Randy Hillier: Sure.

Mr. Serge Imbrogno:—for the first 50 hours, we don't pay them. So technically—

Mr. Randy Hillier: Listen, I understand that we want to have a margin of surplus. We all can understand that, because you don't know specifically and exactly how much is going to be needed at any particular point in time. But let's get back to the question. What are our estimated losses—do you have an estimate—for this year and next year, cumulatively, in our losses of trades?

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Hon. Bob Chiarelli: Can I ask you to give me 30 seconds without interruption? Just a few seconds, okay?

Mr. Randy Hillier: Well, if you can answer the question—60 seconds.

Hon. Bob Chiarelli: Walmart buys snow blowers. They expect to sell X number of snow blowers in a winter. At the end of the winter, if they haven't sold those snow blowers, they sell them at a discount. They're selling them for less than their costs. That's part of doing business.

The electricity system is exactly the same as Walmart. Why do they have sales? Why do they sell a product that is worth X number of dollars in November for less when they're selling it in March or April? Why do they do it? They're giving it away. They're losing money. How much have they lost?

Mr. Randy Hillier: Listen, snow blowers? I think you're trying to snow us here, Minister. We understand that there can be potential losses at different times, but in a cumulative over the year, the facts show you lost \$1.2 billion. I'm asking you, what are you projecting as your losses, total, for this year and for next year? It's a pretty simple question. What are you projecting?

Hon. Bob Chiarelli: I don't accept the premise of the question, number one, that there are losses—

Mr. Randy Hillier: You've just agreed that you lose money on your trades. How much are you projecting to lose on your trades?

Hon. Bob Chiarelli: You know what? The Walmart auditor says, "How much are you going to lose because you didn't sell those snow blowers?"—

Mr. Randy Hillier: Give me a nice Walmart greeting today, Bob, instead of snowing us here.

Hon. Bob Chiarelli: I'm trying to make it simple for you.

Mr. Randy Hillier: Just answer the question: What are you projecting your losses are going to be? You know what new production is coming online. You know what you have presently. You must be projecting demands, so there must be a margin there that you're working with, hopefully. If you guys aren't working with some margins and looking at what is going to happen, then we have to question your whole operation, right? You would be absolutely negligent if you didn't forecast your generating capacities and the demands.

Mr. Serge Imbrogno: I would just say we pay generators for the capacity as part of our market. There's also a market-clearing price. We've already paid for that capacity. What we're saying is that when we export, it reduces those fixed costs that we've already incurred. So when the IESO does the study for us to say, "What is the benefit of exporting?" their number is that it reduced costs by \$300 million.

I think we just have a different perspective. We're building a system to meet capacity. If we have leftover energy, we sell that and it reduces our costs.

Mr. Randy Hillier: Right, and that's what I asked. You've got 4,000 more megawatts of contracted power coming online this year. How is that going to affect that position?

Mr. Serge Imbrogno: I don't have those exact numbers, but just to give you context, we're saying that by

2019-20, the province is going to be short on capacity. We need to add now to make sure that we're in a good position by 2019.

Mr. Randy Hillier: Now, in 2019, if we're going to be short of capacity then, is that because you're expecting some of our nukes to be non-operational at that time?

Mr. Serge Imbrogno: Part of it is we're anticipating Pickering will be out of service by then, so that's 3,000 megawatts that will come off. So we need to build the capacity to make sure we're—

Mr. Randy Hillier: So you do do projections.

Mr. Serge Imbrogno: No, it's in the long-term energy plan. All our projections are here.

Mr. Randy Hillier: That's right. So what is the projection for your loss on trades, or your dispatching—whatever euphemism you'd like to use. What is your projection?

Mr. Serge Imbrogno: I don't have it readily available, what we think our exports are going to be.

Mr. Randy Hillier: Would you be able to provide that to the committee after?

Mr. Serge Imbrogno: I think, based on what we predicted in LTEP, we could provide that to the committee.

Mr. Randy Hillier: You could provide that. Okay. That would be most wonderful, and then we can get on to further questions.

How much time have we got left?

The Chair (Ms. Cindy Forster): About 10 minutes.

Mr. Randy Hillier: Ten minutes. Would you like to have a question too, John?

Mr. John Yakabuski: Okay, Randy. I would like to ask on a similar line of questioning, maybe in a different way.

You're talking about conservation and demand management being the cornerstone of your energy policy. That's your number one priority in your opening statement today, Minister.

To Randy's point, we're still talking about bringing on significant amounts of renewables into the system. You can slice and dice it any way you want, but it is the non-dispatchable nature of renewables that has led to much of our problem with respect to exporting power at a loss. As you say, it's a loss, because the market at the time that we're exporting, that is the time when the demand in those jurisdictions is not forcing them to buy power at a premium. They're buying power at a negative cost because they have the ability—in the case of Quebec—to store energy, with holding back their water in their large power developments. They can operate their system somewhat differently than we do, so they're taking advantage of the problem that we've created through your Green Energy Act back in 2009.

When you talk about \$20 billion in savings by the changes you've made in your new long-term energy plan, it must give you some idea of how bad the old one was, if you can save \$20 billion by making those changes. The old one must have been really, really bad.

So what we've got here, then, is continuing to build generation capacity, yet paying people to use less energy

through conservation programs, which is only going to likely exacerbate our problem until such time as we start taking nukes offline to refurbish them. We understand that, but until that time, the problem is likely to get worse, not better, unless there's some other significant growth in the province of Ontario—and based on Minister Sousa's fall economic statement yesterday, that's not likely to happen any time soon. So, for the near term, we're looking at an increase in that excess capacity, which will only lead us to export more, likely at a loss, because it's happening at times when the demand is not going to force people to pay us a premium. It's supply and demand, just like your snow blower story. When there's no snow, somebody is going to get that snow blower for less. When there's no demand for that energy, they're going to get it for less.

I think it's a fair question as to: Do we need those projections going forward as to what the expectation is? Because that \$1.2 billion—whatever saves money, somebody else pays it in our energy system. The demand must meet the supply. However you're spending the dollars, somebody else has to pay them. Randy made the point of your IEI Program. I'm thankful to have that in Pembroke. I think it's good for the job market in Pembroke. But if we didn't have the energy policy that you folks have, those programs wouldn't be necessary because the price of electricity would be more competitive. But it's because the price of electricity has been driven so high that you're forced to make all of these demands, and we'll get through them as we go through this estimates procedure.

All of those things have led you to have sales, if you want to call it that, on energy, because of the fact that you've driven the price up through your energy policies. I think it's a fair question to the minister and the deputy minister that you must be able to tell us, for the next five years, at least until Pickering goes down in 2020—or at least half of the units, 2,000 megawatts—we need to know what our expectations should be, because the rate-payer, the senior citizen on a pension who is on the Ontario Clean Energy Benefit, which you say you're going to eliminate. When those things start to disappear, they're still paying for all of those other programs. They are in their hydro bills. How is this going to affect them over the next five years?

Mr. Serge Imbrogno: Maybe I can just try and answer some of that.

Mr. John Yakabuski: I know I said a lot.

Mr. Serge Imbrogno: In terms of what's in our long-term energy plan, we have six modules that have lots of the underlying information, so we'll get you the details that you're looking for.

But at a high level, I just want to say in terms of conservation, when we do our planning, we do a projection of what we think gross demand is going to be, and then we say, "Well, what can we do that's economic in terms of conservation, both programs and energy efficiency codes and standards, and that reduces that demand?" Then we build our supply up to that reduced demand. What conservation really does, it allows us not to build

additional capacity. When we say we do conservation first in our planning, we're saying that we're going to take into account all these conservation measures and when we do our system planning for new capacity, we only build to that reduced line.

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The other innovation I think we introduced in this long-term energy plan is we said that we usually get our demand forecast wrong, even though we're trying to keep it flat. When we look back at other plans, we usually over-forecast our demand. So we introduced a concept called plan flexibility that says we're not going to commit resources today for what we think might be a capacity gap; we kind of left that unallocated. That's another thing. As we go along and we do our updates each year, we'll say, "Are we tracking to our plan?" If we are, then we might need to add additional capacity.

I think we take conservation into account as a first resource, and then in our planning we're also very conservative in terms of what we're committing to.

Mr. John Yakabuski: We don't necessarily expect to get the answers we want, but we do understand that you are giving us an answer, whether we like it or not; it may not be the answer we want. I'm going to move on because I think we've exhausted that issue for the time being.

The Chair (Ms. Cindy Forster): You have about three minutes.

Mr. John Yakabuski: I find it a little rich sometimes that you make a statement talking about the money that's going to be saved by the merger of the OPA and IESO, yet you don't talk about the \$1.1 billion that the decision to cancel and relocate the gas plants in Mississauga and Oakville led to. You trumpet the savings and you say "millions."

I'd like to know what your expectation is over the next 20 years, which is how long we're going to be paying for those gas plants. Over the next 20 years, let's compare the two figures. You made a comment at one time that this was a cup of coffee a month or whatever it was—I don't remember the exact quote—for the cancellation and relocation of these plants. Well, if that's a cup of coffee, I don't think the amount that you're saving at the IESO and OPA merger would even amount to anything measurable.

What are the yearly savings? You say "millions." What are the yearly savings expected to be for the merger of the OPA and the IESO?

Hon. Bob Chiarelli: First of all, the merger of those two organizations had two goals or two ends, or maybe three. Number one, it was to provide better-coordinated service. There was significant overlap in terms of system planning, for example, so that has all been consolidated. In consolidating the organizations, the savings I think they're projecting are somewhere in the order of—and they're still working on them—\$20 million or \$25 million per year, and I'll ask the deputy to confirm that. So the two goals are, number one, to have more efficient operations, to prevent the overlap—

Mr. John Yakabuski: I understand the goals. I appreciate that.

Hon. Bob Chiarelli: That was a significant problem—moving forward. The other is to have the operational efficiencies, and that is being worked on. The number of employees that will become redundant—it's not a large number. I think the range is somewhere between 30 and 40. We've had discussions with the unions, so they're okay with the transition—

Mr. John Yakabuski: Can I move on? I got the figure; that's what I'm looking for. So was it \$20 million to \$25 million, or \$25 million to \$30 million?

Mr. Serge Imbrogno: The number is in the \$5 million to \$7 million range, but we're—

Mr. John Yakabuski: Oh, \$5 million to \$7 million—

Mr. Serge Imbrogno: Each year.

Mr. John Yakabuski: So for 20 years, we'll give you the high. That's \$140 million over 20 years versus \$1.1 billion over 20 years, the cost of cancelling and relocating the two gas plants. We're talking about an 8-to-1 ratio.

Hon. Bob Chiarelli: You may recall that—

Mr. John Yakabuski: No, but would we agree that that's the factor then? I've given you the high, \$140 million over 20 years versus \$1.1 billion over 20 years. Those are the two figures we're talking about here. Would we agree on that? A simply yes or no.

Hon. Bob Chiarelli: Yes. The number that the auditor presented—

The Chair (Ms. Cindy Forster): We're out of time. We're going to move on to the third party—

Hon. Bob Chiarelli: The numbers that the Auditor General had presented—

The Chair (Ms. Cindy Forster): Mr. Tabuns?

Hon. Bob Chiarelli: —when you add them all up—

Mr. Peter Tabuns: Thank you, Chair.

Hon. Bob Chiarelli: —the highest option that you could look at is \$1.2 billion, but it could be less than that—

Mr. Peter Tabuns: Minister, I apologize. I know my colleagues will bring you back to that question when it's their turn.

Your ministry is responsible for overseeing OPG and Hydro One, and is intimately involved with them. As you're well aware, Mr. Ed Clark's panel is suggesting partial sale of Hydro One's distribution assets. It could be a majority privatization; it could be a minority. That's not clear yet. But you have the same understanding as me, that he's recommending a privatization of Hydro One distribution assets?

Hon. Bob Chiarelli: He's recommending that Hydro One dispose of a portion of its distribution business. To use the term "privatization," I think, might be jumping to a conclusion. It may very well be that there will be one or two large distributors, LDCs, who would want to make an acquisition of those. As a matter of fact, you're probably aware of the fact that the Electricity Distributors Association has actually created—and they might

likely be one of the potential bidders for Hydro One distribution. I'm not sure—

Mr. Peter Tabuns: I think you've answered my question. We're agreed that it's looking like there will be a sale of Hydro One assets.

Hon. Bob Chiarelli: To some entity.

Mr. Peter Tabuns: To some entity.

Hon. Bob Chiarelli: The due diligence is still being done on that.

Mr. Peter Tabuns: My understanding is that Mr. Clark's mandate is to retain public ownership of core assets. Is that also your understanding?

Hon. Bob Chiarelli: Yes.

Mr. Peter Tabuns: In the context of peripheral versus core assets, I understand—and I had a sheet distributed. I think you have it there. This is page 24 from Hydro One's 2013 annual report. If you look on the sheet, you'll see the revenue from distribution in 2013, at roughly \$4.4 billion, and the revenue from transmission, at roughly \$1.5 billion.

Hon. Bob Chiarelli: I'm having trouble finding it.

Mr. Peter Tabuns: If you look at the bottom half of the page, you'll see "Year ended December 31" and then "Transmission" and then "Distribution." The 2013 numbers are bolded.

Hon. Bob Chiarelli: Yes.

Mr. Peter Tabuns: So as I see it, distribution accounts for \$4.4 billion in revenue, and transmission accounts for \$1.5 billion in revenue. Is that a correct reading?

Hon. Bob Chiarelli: Yes. I think the deputy is going to answer that.

Mr. Peter Tabuns: That's fine.

Mr. Serge Imbrogno: Technically, that's correct, but the \$4.4 billion includes the cost of electricity that is collected and goes to the ISO. So in terms of what Hydro One retains, it's a small portion of that \$4.4 billion.

Mr. Peter Tabuns: Those are the questions that I need answered. Given that this is a very big chunk of revenue, how is this seen as a peripheral rather than a core part of the business?

Hon. Bob Chiarelli: Sorry?

Mr. Peter Tabuns: If you're getting \$4.4 billion in revenue from a particular activity, and your other major activity, transmission, is \$1.5 billion, how is it that distribution is seen as a peripheral activity?

Hon. Bob Chiarelli: First of all, there has been no determination yet as to what percentage of distribution might be disposed of, so that number could be very, very flexible. It could be quite modest, or it could be more significant.

Again, as the deputy said—explain again what the flow-through is.

Mr. Serge Imbrogno: Mr. Tabuns, what we look at is a net income. What does it contribute to the bottom line of the province? I'd say there, about 40% is distribution and about 60% is transmission. As the minister said of that 40%, it's not clear how much of that would be subject to transaction.

Mr. Peter Tabuns: Okay. So if I'm reading this correctly, you'll see the net income figure is \$803 million. You're saying 40% of that—

Mr. Serge Imbrogno: Approximately. Just from my days at finance, sometimes when they do consolidation, it might be a different number that's consolidated onto the province's books, so I would just caution on that. It might be a different number if you check it with public accounts. But I think it's in that range.

Mr. Peter Tabuns: I'm going to ask if you could provide that number to us, say, possibly tomorrow. If it's in public accounts, it should be easy to secure.

Mr. Serge Imbrogno: It should be. I just don't know if they separate it from OPG and Hydro One. But we'll get you what's publicly available.

Mr. Peter Tabuns: Okay. But your best assessment at this point is that 40% of that net income comes from the distribution side.

Mr. Serge Imbrogno: About 40% would be distribution.

Mr. Peter Tabuns: Does that whole \$803 million go into the provincial treasury?

Mr. Serge Imbrogno: We would consolidate that, so it would—I'm just saying it might not be the full \$800 million. As we consolidate, the province might pick up most of that. But, yes, that would come in to the province.

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Mr. Peter Tabuns: And if the province doesn't keep all of that \$800 million, where would other portions go to?

Mr. Serge Imbrogno: What we've done in the province is that it comes in and it gets dedicated to the Ontario Electricity Financial Corp. to help pay down the stranded debt. It gets used in that fashion.

Mr. Peter Tabuns: Okay. So the money doesn't stay with Hydro One. It doesn't stay—

Hon. Bob Chiarelli: The consolidation issues—the transactions of this type are usually done through finance, so we'd have to get that information from finance.

Mr. Peter Tabuns: Okay. I think you've answered my question in terms of what percentage.

If, say, half of the distribution assets were sold off to another operator, whether they be private or partially private or public—40%—you're talking maybe \$120 million, \$150 million that would no longer be flowing into the province's coffers. Is that correct?

Hon. Bob Chiarelli: Mr. Clark has presented an overall picture of the various recommended—at this point we have to keep in mind that these are recommendations that are being made, and that there has been an acknowledgement that there would be a loss of revenue or net profit to Hydro One.

Mr. Clark at this point in time is saying that that would more than be made up through the additional revenues that would be coming from LCBO, and that would net off that way. But there would still be a significant net benefit on the fiscal side.

Mr. Peter Tabuns: That's interesting to me. We would be increasing our revenue from LCBO to pay for the loss of revenue from our hydro assets. How does that increase the province's total income if the gain in one is offset by a loss in the other?

Hon. Bob Chiarelli: You're asking very good questions.

Mr. Bob Delaney: Point of order on that.

Hon. Bob Chiarelli: You're asking very good questions.

The Chair (Ms. Cindy Forster): Excuse me. Point of order: Mr. Delaney.

Mr. Bob Delaney: Chair, while the question is a fair one, it might better be directed at the Ministry of Finance, who follow this ministry in estimates. I understand Mr. Tabuns's question, but I think he may be directing it to the wrong minister.

The Chair (Ms. Cindy Forster): I guess that's up to the minister to decide.

Mr. Tabuns.

Mr. Peter Tabuns: I guess the key thing is, from your side of the operations, you're going to see a drop in revenue. I'll set aside the LCBO, because I didn't ask about it initially. But you will see a drop in your revenue if this sale goes forward. Is that correct?

Hon. Bob Chiarelli: There is likely going to be a loss of revenue to Hydro One.

Mr. Peter Tabuns: And if it's lost to Hydro One, it's also lost to the treasury.

Hon. Bob Chiarelli: No.

Mr. Peter Tabuns: Well, sorry—

Hon. Bob Chiarelli: Because there are a number of transactions that are taking place, and those transactions will have an overall very significant positive net impact on the fiscal position of the province.

Mr. Peter Tabuns: I'm actually not as interested in that side—

Hon. Bob Chiarelli: We're very interested in that.

Mr. Peter Tabuns: I know you're very interested in that. But in terms of my questions, Hydro One revenue that will go to the province will be reduced. Correct?

Mr. Serge Imbrogno: If there is a transaction, we would get a lump sum payment, and then we would lose—

Mr. Peter Tabuns: The ongoing revenue.

Mr. Serge Imbrogno: —whatever portion that is, if it's 40%.

The Chair (Ms. Cindy Forster): One more minute, Mr. Tabuns.

Mr. Peter Tabuns: Have you done an assessment of the reduction in efficiencies at Hydro One if it loses a big chunk of its distribution assets? Because it's consolidated now; it's the biggest consolidated distributor. Surely there will be loss of efficiency if part of it is broken up.

Hon. Bob Chiarelli: There are expectations that there will be improvements in efficiency through these initiatives.

Mr. Peter Tabuns: How will Hydro One be more effective if big chunks of it are sold off?

Hon. Bob Chiarelli: Mr. Clark is working those out right now.

Mr. Peter Tabuns: And he has not talked to you about your operations and what impact—

Hon. Bob Chiarelli: Well, you know what? He has presented a report, and the report speaks for itself, as far as it's gone. I'm not going to pre-empt what additional due diligence he's—

Mr. Peter Tabuns: Has he not talked to you already? Has he not asked you questions about the impact?

The Chair (Ms. Cindy Forster): Mr. Tabuns, our time is up so we will return after routine proceedings this afternoon. Committee is adjourned.

The committee recessed from 1015 to 1600.

The Chair (Ms. Cindy Forster): Ms. Armstrong, you have 19 minutes to ask the minister and the Ministry of Energy your questions.

Ms. Teresa J. Armstrong: Thank you, Chair. Hello, Minister.

Minister, we're talking about energy in the estimates committee. According to the IESO, Ontario exported 18.3 terawatt hours of electricity, or 18.3 billion kilowatt hours of electricity, in 2013. I'd like to ask you if this is correct.

Hon. Bob Chiarelli: Sorry, can you repeat the question again?

Ms. Teresa J. Armstrong: Sure. According to the IESO, Ontario exported 18.3 terawatt hours of electricity, or 18.3 billion kilowatt hours of electricity, in 2013. Is that correct?

Hon. Bob Chiarelli: I don't have those numbers in front of me. I can ask my deputy if he's got those numbers.

Ms. Teresa J. Armstrong: Or if we could—

Hon. Bob Chiarelli: The IESO puts out a lot of reports with a lot of statistics that are very transparent with respect to those issues, but I don't have—I might have them here in my notes if you can give me a minute.

Ms. Teresa J. Armstrong: Could I request that we get that in writing later? Because it may be a lot of notes to go through—for the sake of time. Is that okay? Could we get that later on from the report?

Hon. Bob Chiarelli: We might have it here. I think the deputy—

Mr. Serge Imbrogno: What number are you using?

Ms. Teresa J. Armstrong: According to the IESO, Ontario exported 18.3 terawatt hours of electricity, or 18.3 billion kilowatt hours of electricity, in 2013. I'm just trying to determine if those numbers are correct.

Mr. Serge Imbrogno: I'm just looking through their 18-month outlook, but I can't find that figure. I'm not saying it's correct or not—

Ms. Teresa J. Armstrong: No, I understand, but if you find it, could you maybe let us know later on so we can move on to the next question? How about we do that. Could I request that we get the information upon receipt now, or later on? They are big numbers, there.

Next question: It sold this electricity at 2.65 cents per kilowatt hour and it cost \$8.55 per kilowatt hour to

generate. Do we know if that's correct? Is that something you could readily find while in committee?

Hon. Bob Chiarelli: Sorry, where are you getting those numbers from?

Ms. Teresa J. Armstrong: We're getting them from the IESO—according to the IESO.

Hon. Bob Chiarelli: Assuming that they're from the IESO, we can make an assumption that they're correct, unless you're misreading them.

Ms. Teresa J. Armstrong: Okay. So you're going to say that is correct.

Hon. Bob Chiarelli: If you can tell me what document you got the numbers from, then we might be able to resolve that issue at this point.

Ms. Teresa J. Armstrong: I can check, but I understand it's from the IESO documentation that we have. I'll check in a moment.

The next question I've got is: The \$8.55 per kilowatt hour cost that Ontarians paid out of their pocket to generate this energy includes the average weighted wholesale market price—

The Chair (Ms. Cindy Forster): Ms. Armstrong, do you want to move a little bit away from the mike? That's good.

Ms. Teresa J. Armstrong: Sorry. The next question is: The \$8.55 per kilowatt hour cost that Ontarians paid out of their pocket to generate this energy includes the average weighted wholesale market price of 2.65 cents per kilowatt hour and the average global adjustment of \$5.90 per kilowatt hour. Is this correct?

Hon. Bob Chiarelli: Again, if that's coming from an IESO document, then we would assume that it's correct. If you can tell me what document it comes from, what the source of it is. The IESO puts out statistics on a regular basis. They do quarterly reports, indicating multiple statistics with respect to the operation of the electricity system. I accept the numbers that the IESO puts out. So if you could just let us know what the source is, then we could probably resolve that issue some way.

Ms. Teresa J. Armstrong: Okay, we'll get that for you.

Next question: Hydro users in five neighbouring jurisdictions—Michigan, New York, Minnesota, Manitoba and Quebec—paid on average only \$2.65 per kilowatt hour for Ontario-produced energy that cost \$8.55 per kilowatt hour to generate. Do you know if that's correct?

Hon. Bob Chiarelli: I can't confirm those exact figures. If you're getting them from the IESO, and let us know what document they're from at the IESO, then we can have a discussion.

Ms. Teresa J. Armstrong: Okay. Can I ask for a five-minute recess? May I ask for a five-minute recess so I can actually see if we can get that document?

The Chair (Ms. Cindy Forster): Is it agreeable?

Mr. Bob Delaney: Chair, the member is welcome, on her next round of questioning, to use the period in between this round and the next round to verify whatever she—

The Chair (Ms. Cindy Forster): We're not going to debate this issue. The issue is, do we have unanimous consent for a five-minute recess?

Mr. Bob Delaney: No.

The Chair (Ms. Cindy Forster): If not, Ms. Armstrong, just move on with your questions.

Ms. Teresa J. Armstrong: Okay. Again, the questions I have—based on that, I think, we're going to say this exported electricity cost Ontarians \$1.564 billion to generate, and hydro users in the neighbouring provinces and states paid us only \$485 million to use it. Again, any thoughts on those numbers, if they're correct?

Hon. Bob Chiarelli: What is the source of those numbers?

Ms. Teresa J. Armstrong: That's the source in question, which I'm trying to get a recess for, that your colleagues won't grant.

Could I ask for a bathroom recess? No? Okay, good try there.

Mr. Bob Delaney: Chair, I mean, look—

The Chair (Ms. Cindy Forster): Ms. Armstrong, just continue on with your questions.

Ms. Teresa J. Armstrong: All right. Again, the next question leads into the numbers, so I'll go there. Based on those numbers, this means that hard-pressed Ontarians subsidized hydro users in five neighbouring jurisdictions to the tune of \$1.07 billion in 2013. This works out to \$220 for each of Ontario's 4.9 million ratepayers. Is that correct?

Hon. Bob Chiarelli: Again, I need to know the source of the numbers. I can't—

Ms. Teresa J. Armstrong: I understand.

Hon. Bob Chiarelli: The question is, from my point of view, somewhat imprecise, without knowing the context, like who provided the numbers. I wish I could be more helpful, but I can't answer a question that I don't understand.

Ms. Teresa J. Armstrong: Okay. We'll try this one. Maybe there's some answer we can get here. Hydro-Québec recently signed a long-term contract with Vermont at 5.7 cents per kilowatt hour. Any knowledge around if that was correct?

Hon. Bob Chiarelli: No. I haven't been tracking the prices that Quebec is selling their power at.

Ms. Teresa J. Armstrong: Okay. May I request to make a motion for a 20-minute recess at this point?

The Chair (Ms. Cindy Forster): Yes.

Ms. Teresa J. Armstrong: Okay. Motion requested.

The Chair (Ms. Cindy Forster): Is there any comment or debate on a 20-minute recess? All those in favour?

Mr. Randy Hillier: Of the recess?

The Chair (Ms. Cindy Forster): Yes. Opposed? Carried.

The committee recessed from 1610 to 1630.

The Chair (Ms. Cindy Forster): Ms. Armstrong, you have nine minutes.

Ms. Teresa J. Armstrong: Okay. So just to clarify, then, this information, Minister, is from the IESO web—

site, and our critic and staff met with the IESO staff and they confirmed that these numbers are correct. So let me start from the first question—and I also want to correct the record: When I quote the kilowatt hour, it's in cents, not dollars.

So, first question: According to the IESO, Ontario exported 18.3 terawatt hours of electricity, or 18.3 billion kilowatt hours of electricity, in 2013. Is that correct?

Hon. Bob Chiarelli: If it's on the IESO website, I will accept those numbers.

Ms. Teresa J. Armstrong: It sold, this electricity, at 2.65 cents per kilowatt hour, and it cost 8.55 cents per kilowatt hour to generate. Is that correct?

Hon. Bob Chiarelli: If that's on the website, that's correct, yes.

Ms. Teresa J. Armstrong: The 8.55 cents per kilowatt hour cost that Ontarians paid out of their pockets to generate this energy includes the average weighted wholesale market price of 2.65 cents per kilowatt hour, and the average global adjustment of 5.90 cents per kilowatt hour. Is that correct?

Hon. Bob Chiarelli: If that's on the IESO website, yes.

Ms. Teresa J. Armstrong: Hydro users in five neighbouring jurisdictions—Michigan, New York, Minnesota, Manitoba and Quebec—paid an average of only 2.65 cents per kilowatt hour for Ontario-produced energy that cost 8.55 cents per kilowatt hour to generate. Is that correct?

Hon. Bob Chiarelli: If that's on the IESO website, it's correct.

Ms. Teresa J. Armstrong: So this exported electricity cost Ontarians \$1.564 billion to generate, and hydro users in neighbouring provinces and states paid only \$485 million to use it. Is that correct?

Hon. Bob Chiarelli: Well, I think just on the fact of the bold statement, I would suggest that it's not correct. I understand that you met with the IESO and that the IESO provided information to you. They also provided to you information that said—and I can recall questions coming up in question period with respect to this after the meeting you had with the IESO, where the IESO said quite specifically that in 2013, revenue from electricity exports reduced costs for Ontarians by \$300 million. So that number is also correct. That number comes from the IESO. I'll try to explain why or how those numbers are rationalized.

The electricity system is planned to meet peak demand, which could be four, five or six days a year, and it's planned to have enough electricity to meet contingencies and reserves—contingencies like ice storms and other things that happen. The electricity system, as it's managed by the IESO, really has two redundancies or two backups. Those backups require us to have the capacity to meet those peaks and those contingencies.

Ms. Teresa J. Armstrong: Okay—

Hon. Bob Chiarelli: That means to have those redundancies, to have those backups—

Ms. Teresa J. Armstrong: With all due respect, Minister, I have to interrupt you. I just want to get a yes-or-no

answer, if you can provide it. In other words, this exported electricity costs Ontarians \$1.564 billion to generate, and hydro users in neighbouring provinces and states paid only \$485 million to use it. Is that correct? If you can answer yes or no, I would appreciate it.

Hon. Bob Chiarelli: I will say that the IESO, the same source that you're quoting, has said, "Revenue from electricity exports reduced costs for Ontarians by \$300 million in 2013." That information was provided to you at the same meeting where you received these numbers, and from the meeting that you had with the IESO.

Ms. Teresa J. Armstrong: Okay. I'm going to go to the next question. Minister, this means that hard-pressed Ontarians subsidized hydro users in five neighbouring jurisdictions to the tune of \$1.07 billion in 2013. This works out to \$220 for each of Ontario's 4.9 million rate-payers. If those are the numbers we're using, Minister, would you say that is correct?

Hon. Bob Chiarelli: That is an incorrect characterization of what the facts are. The reality is, the electricity system has to have more capacity than in fact the demand, on a regular basis, to account for those four or five times a year when we do reach peak. We have to have that in reserve. By having that generating capacity in reserve, that means we have the opportunity, instead of just having it in reserve, to make good use of that unused capacity by selling it at the market price.

Ms. Teresa J. Armstrong: Good point. That leads right into my next question. Hydro-Québec—

The Chair (Ms. Cindy Forster): Ms. Armstrong, you have about two minutes left.

Ms. Teresa J. Armstrong: Hydro-Québec recently signed a long-term contract with Vermont at 5.7 cents per kilowatt hour. Do you know if that is correct?

Hon. Bob Chiarelli: What I do know, after having had three meetings with the Quebec Minister of Energy, Pierre Arcand, is that he confirmed—and at the meetings, we also had Hydro-Québec in attendance. They confirmed that the price they are selling their electricity for—we can produce it for less than that in Ontario. That's the information that we have from Hydro-Québec, out of the mouth of the CEO of Hydro-Québec in meetings that we had.

Ms. Teresa J. Armstrong: If Quebec can get 5.7 cents, why are we getting 2.5 cents per kilowatt hour? Can you answer that question, please?

Hon. Bob Chiarelli: It depends on the market and the terms. The reality is, Quebec's power deals are what are called firm commitments. They're long-term commitments over 10, 15, 20 years. The capacity between Quebec and Ontario is for about 500 megawatts. We don't have the capacity, nor does Quebec have the capacity, between us to sign long-term firm contracts.

Ms. Teresa J. Armstrong: So according to you, does there not seem to be a compelling argument for greater use of long-term contracts in Ontario energy rates trading, based on the numbers we just talked about from the IESO and the Vermont contract?

Hon. Bob Chiarelli: If you read our long-term energy plan, it said quite specifically that we will engage Quebec

and Manitoba to see if we can get firm long-term contracts with them. We've had a series of meetings with them. It's also in the IESO report—what's it called?—the intertie report. The intertie report, which IESO put out, indicated quite clearly that we do not have the transmission and infrastructure capacity to do long-term firm contracts with Quebec. Again, Quebec has verified that.

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We require more than \$2 billion in infrastructure investments—

The Chair (Ms. Cindy Forster): Your time is up.

Hon. Bob Chiarelli: —in order to have long-term contracts with Quebec—

The Chair (Ms. Cindy Forster): Minister?

Hon. Bob Chiarelli: —and they also have very significant infrastructure costs—

The Chair (Ms. Cindy Forster): Minister, you're now into your 30-minute response time.

Hon. Bob Chiarelli: How much into it am I?

The Chair (Ms. Cindy Forster): Thirty seconds.

Hon. Bob Chiarelli: Oh, okay. I'm going to get into my response time now. I want to say that some of the comments will overlap a little bit with my comments this morning, but essentially there's new information.

What I want to say, basically, is that when I took over the energy portfolio in February 2013, Ontario had already made significant advances in our electricity system. We had broadened our supply mix, with one third of our electricity capacity coming from wind, solar, bio-energy and hydroelectric energy. We went from deficit to surplus, from dirty to clean. We had invested in modernizing our electricity grid, but there was clearly more to be done.

When I took this job, one of the first commitments I made was to produce a new long-term energy plan, because with an important mandate like ours—providing Ontario homes and businesses with a clean, safe, reliable and affordable supply of energy, specifically electricity—a strong, cohesive plan is a must.

Today our plan—Achieving Balance is what it's called—continues to be the framework from which all of our policy decisions emanate and from which we will derive an energy system that will continue to be sustainable and cost-effective. Now that close to a year has passed, I want to use my additional time today to focus on our accomplishments and to mark our progress against the long-term energy plan yardstick.

Conservation first: Probably the most significant change in the new plan is our commitment to consider conservation and demand management before building new generation and transmission. In fact, the plan focuses on conservation as the first resource for meeting our electricity needs. This is important because conservation is one of the cleanest and most cost-effective energy resources, and it is one way that consumers can reduce their energy bills. That's why our government is committed to ensuring that conservation will be considered before building new generation and transmission facilities, wherever cost-effective.

More broadly, we want to make conservation the default starting point in anyone's planning, and I'm pleased to say that Ontario, with the help of our partners, has already made great progress in building a culture of conservation.

For example, just this past month I visited Tim Hortons and Home Depot Canada locations to highlight their commitment and engagement in conservation. This is a win-win scenario. Saving energy helps Ontario and it makes good economic sense for these companies. It helps them compete and succeed, meaning they can grow and create good jobs.

We know we can do much more, and we are committed to expanding and enhancing our conservation efforts. In saying that, we started down that path with smart meters, because to manage your electricity use, you first need to know how much you are using and when you consume it.

We launched the Smart Grid Fund, which supports the development of new and emerging technologies that bring system-wide benefits to Ontario's homes and businesses, like fewer service disruptions, less wasted energy and increased grid security. This funding supports advanced energy technology projects such as energy storage, demand response and electric vehicle integration. The first round of the Smart Grid Fund supported nine projects and created more than 600 direct and indirect jobs. In fact, I'm looking forward to announcing a new round of projects in the next couple of weeks which will build on existing successes.

We also launched the Green Button Initiative, which gives consumers the opportunity to access and to download their smart meter data and connect it to software applications—new technology.

This past February, we took the next step in the Green Button Initiative when we announced the winners of the Energy Apps for Ontario Challenge. The challenge celebrated the best new apps to use smart meter data to help Ontario families and businesses better understand and manage their electricity use.

I want to note that this challenge delivered two main benefits. First, the apps themselves will give Ontarians greater information about their energy use, and second, developing the apps helps the province extend its leadership in innovative smart grid technology.

Our next step was to introduce the new Conservation First Framework. Ontario has had a conservation framework in place with their LDCs since 2011, but the current framework is winding down and we know we can do more. We want to build on the successes we've achieved. So our government worked with local distribution companies and energy agencies to develop a new framework. We received valuable feedback from our partners and now the new Conservation First Framework is set to roll out in January 2015.

It will run for six years. It will give local distribution companies more autonomy, flexibility and independence, and the ability to unleash their own creativity to best serve the customers that they know best. They will have

the latitude to design programs to serve their regional customers and that reflect the constantly changing needs of Ontario's homes and businesses.

In fact, just yesterday, PowerStream announced that it has already signed on to the Conservation First Framework for 2015 to 2020, making it the first distribution company to do so. PowerStream has been assigned a target of 535 gigawatt hours for its service territory. In total, the Conservation First Framework is expected to achieve seven terawatt hours of savings by the end of 2020. That's an important step in helping Ontario meet its conservation target of 30 terawatt hours by 2032.

The 30-terawatt-hour target represents a 16% reduction in the forecast gross demand for electricity. We will reduce our electricity needs by 16%. It is equivalent to more than all the power used in the city of Toronto in 2013, and an improvement over the 2010 long-term energy plan.

Now, before I move on, I just want to say a few words about energy literacy. For conservation programs to reach peak effectiveness, we need an energy-literate public. Indeed, we heard this message in the Drummond report, the Auditor General's annual report and in the long-term energy plan consultation sessions—wide consensus that the public needs to have more information and more knowledge.

We're responding. At the same time as we released the long-term energy plan in 2013, we also launched emPOWERme, a new section of our website packed with videos, interactive tools, infographics and other resources. We're supporting the Mowat Centre's and Pollution Probe's research and contributions to Ontario's literacy efforts.

While we can show real leadership in the Conservation First Framework, I just want to highlight that the PCs have opposed all conservation initiatives in the past 10 years, and they fail to even mention conservation in the PC energy white paper. I think maybe they have trouble spelling the word "conservation." As for the NDP, they used to support conservation initiatives, but when in government they actually cancelled conservation programs.

Now for a word or two about rate mitigation: Along with conservation, the long-term energy plan makes rate mitigation a priority. We know that Ontarians have real concerns about the rising costs of electricity and we want to address those concerns. We have taken several steps where we expect to achieve significant ratepayer savings.

(1) We've reduced the feed-in tariff prices for renewable energy, saving \$1.9 billion through the reduction of domestic content requirements and a reduction in technology prices.

(2) The IESO has brought in new rules that allow wind generation to be dispatched off when the system doesn't need it. That's a big change in terms of how we use wind. This means wind will participate in the market much the same as other generators do, thus saving money for ratepayers across the board. That's roughly \$200 million.

(3) We renegotiated the green energy investment agreement with Samsung, reducing contract costs by approximately \$3.7 billion in the coming years while ensuring continued clean energy investment and protecting and creating jobs.

(4) We decided to defer building new nuclear, which reduces capital costs by up to \$15 billion—new nuclear that the Conservatives would have built. Even though they were saying this morning that we don't need new generation, they're prepared to spend \$15 billion on nuclear.

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Instead, we are refurbishing existing facilities at Darlington and Bruce, so that nuclear generation will continue to be the backbone of Ontario's supply, providing low-cost, reliable and emissions-free power.

The Bruce and Darlington nuclear refurbishments will be subject to the strictest possible oversight to ensure safety, reliable supply and value to Ontario ratepayers. This oversight at OPG includes independent advisers that report directly to the OPG board of directors, and annual, transparent and public reporting of progress to Ontarians.

But one thing must be made very clear: If either nuclear operator is unable to deliver their refurbishment to the safe, emissions-free nuclear assets that we have in place, the plan also contemplates the use of off-ramps to safeguard ratepayers from cost overruns.

We will accomplish the refurbishments.

We will adhere to the following seven principles, which are also outlined in the long-term energy plan:

- minimize commercial risk on the part of ratepayer and government;
- mitigate reliability risks by developing contingency plans that include alternative supply options if contract and other objectives are at risk of non-fulfillment;
- entrench appropriate and realistic off-ramps and scoping;
- hold private sector operators accountable for the nuclear refurbishment schedule and price;
- require OPG to hold its contractors accountable to the nuclear refurbishment schedule and price;
- make site, project management, regulatory requirements and supply-chain considerations, and cost and risk containment, the primary factors in developing the implementation plan; and, finally,
- take smaller initial steps to ensure there is opportunity to incorporate lessons learned from refurbishment, including collaboration by the two operators in Ontario.

As part of ensuring this is open and transparent, we're making refurbishment physically accessible to Ontarians. Recently, I and a number of my staff and others, including the media, had the opportunity to visit the Darlington Energy Complex, and we were truly impressed. Actually, I would like to invite all members here to tour the facility for themselves, to see how the refurbishment will take place and to answer all questions that you may have.

Ontario's leadership in this field is shown once again as Darlington is the first nuclear refurbishment project in the world to use a full-scale mock-up of a replica reactor

for training and tooling development as it proceeds. This state-of-the-art training centre will be vital to prepare, test and qualify the many people needed to complete the refurbishment project work, which is scheduled to begin in 2016 at the Darlington Energy Complex. It will serve as the headquarters for the refurbishment of the Darlington nuclear station, and support ongoing operations at the Darlington station for many years to come.

In fact, in a first for OPG, the Darlington Energy Complex had thousands of visitors who took the time out of their busy lives to view the training reactor for themselves.

As you know, this coming January 1, the Ontario Power Authority and Independent Electricity System Operator will be formally merged into one entity that will have, under one roof, the knowledge and expertise to undertake short-, medium- and long-term planning for the electricity sector and administer procurement processes for electricity that are more efficient and effective.

We've also made adjustments to several rate-mitigation programs this year. For example, for businesses, we expanded the industrial conservation initiative to enable more consumers, from additional electricity-intensive sectors, to participate. Beginning this summer, newly eligible businesses will be able to decrease their electricity bills by shifting consumption away from peak periods.

We broadened eligibility criteria for companies to participate in the industrial electricity incentive under the new stream 3 of the program. The application window just recently closed, on November 10, 2014.

We developed a new five-point plan to help mitigate electricity rate increases for small businesses by offering enhanced conservation programs. In partnership with local distribution companies and key agencies, the plan is helping small businesses conserve energy, manage costs and save money.

Meanwhile, for consumers, we are moving forward with our plan to remove the cost of the debt retirement charge from residential electricity bills after December 31, 2015. We are working with the Ontario Energy Board to develop options for the Ontario Electricity Support Program, which would provide ongoing assistance directly on the bills of eligible low-income electricity consumers after December 31, 2015. We are pursuing our goal to make new financing tools available to consumers starting in 2015, including on-bill financing to help them with the upfront costs of making energy-efficiency retrofits. I referred to other jurisdictions this morning that are actually doing this. This way, consumers could save money on their energy bills thanks to the benefits of conservation while paying off their investment over time.

Also, in the months ahead, the Ministry of Energy will work with the Ministry of Economic Development, Employment and Infrastructure to develop a new natural gas access loan and a natural gas economic development grant that will help ensure that rural Ontario residents and industries are able to share in affordable supplies of natural gas. That was in our budget. Those three previous things are in our budget.

The ministry is working with the Ontario Power Authority and our federal counterparts at Aboriginal Affairs and Northern Development Canada and Natural Resources Canada to realize a plant to connect up to 21 remote First Nation communities to the electricity grid in northwestern Ontario. Moving away from diesel-fired electricity generation will result in cost savings and will also create growth opportunities for these communities. It will also significantly enhance their quality of life. The ministry is also working with the Ontario Power Authority regarding four remote communities in which transmission connection is not currently economic or feasible on options to reduce their reliance on diesel generation, including renewable power and micro-grids.

Finally, this past August, Premiers Wynne and Couillard announced that a joint cabinet meeting will be held before the end of the year—this Friday, in fact. As part of that announcement, both Premiers committed to exploring opportunities for increased electricity trade between Ontario and Quebec. There has been a lot of groundwork done in that regard. Following that announcement, I met three days later with my Quebec counterpart, Minister Arcand, at the Energy and Mines Ministers' Conference in Sudbury, where we agreed to launch a working group to address our shared interests on a number of key energy initiatives that will help both our provinces to provide residents and businesses with safe, clean, reliable and affordable energy.

The working group oversees three joint working group subcommittees. The first is exploring ways to reduce diesel use in remote aboriginal communities currently not connected to the grid. The second joint working group subcommittee is charged with exploring common interests and positions on pipeline projects, in particular, the proposed Energy East pipeline; it is also reviewing the competitive viability of the refining and petrochemical sectors in both Ontario and Quebec. The third subcommittee is focused on electricity trade. It is studying both short- and longer-term trade opportunities of mutual benefit to both provinces, including the potential for taking advantage of the fact that Quebec is a winter-peaking jurisdiction while Ontario has its highest demand period in the summer.

This collaboration with Quebec is unprecedented and most welcome. It is in our long-term energy plan from December 2013. Working together towards our mutual goals only stands to strengthen and improve Ontario's position as a leader in energy innovation.

As we work to bend the cost curve down in the future, both opposition parties do not have realistic plans for the energy sector. The NDP opposes electricity imports that reduce the cost of Ontario customers, and they oppose emissions-free and reliable nuclear power, which makes up the backbone of our energy mix. They have no plan to replace nuclear. On the other hand, the PCs claim they want to lower rates, but they confirm that they would spend \$15 billion on building new nuclear reactors we don't need. In fact, this morning, they were saying we don't need new generation, and yet their plan incorpor-

ates \$15 billion of spending on new nuclear. Our government has been successful in implementing rate mitigation programs that are benefitting Ontarians today.

With respect to reliable and clean supply, while conservation and rate mitigation are essential from a financial perspective, our long-term energy plan also calls upon us to ensure that our energy system stays strong. This means a relentless dedication to growing a safe, clean and reliable supply. First, it means getting rid of what doesn't belong, like coal.

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As I mentioned in my opening remarks, I'm really proud, and we are really proud, that this past summer, Ontario became the first jurisdiction in North America to eliminate coal as a source of electricity generation.

We must continue to diversify our supply mix. That's why this past spring we were pleased to announce some important local energy projects. We had three successful applications to the Hydroelectric Standard Offer Program, a program designed to bring more water-powered energy into the province's supply mix. Successful applicants are located in Renfrew—again, located in Renfrew—the member doesn't hear me. In any case—

Laughter.

Hon. Bob Chiarelli: —and St. Catharines and Ottawa. In the case of the Ottawa applicant, Chaudière hydro was offered a contract—

Mr. John Yakabuski: Did he say something funny?

Hon. Bob Chiarelli: —I'll come back and read it again in a minute—for the development of a new facility, creating 150 construction jobs in the process. The facility will raise Hydro Ottawa's capacity to 58 megawatts, enough to power over 20,000 homes each year.

Meanwhile, in July we introduced a new competitive procurement process for large renewable energy projects. Right now the OPA is evaluating the RFQ submissions. Combined heat and power can be an efficient way—this is additionally—to meet local energy needs. We made a commitment in the long-term energy plan to undertake targeted procurements for combined heat and power projects, and we currently have the Combined Heat and Power Standard Offer Program 2.0 available to applicants in the agricultural industry sector and district heating projects.

Finally, following through on other long-term energy plan commitments, in the spring, the IESO ran the first phase of an energy storage procurement, and last month released a robust study of Ontario's intertie capacity.

Looking at our energy supply situation more broadly, we need to look at our procurement practices and determine if we can deliver the same clean, reliable electricity supply for Ontario consumers by tapping more into the entrepreneurship and creativity of the businesses in our sector, and by the IESO and the OPA being less prescriptive. That's why our updated long-term energy plan called on the IESO to undertake studies and consultations regarding the implementation of a capacity auction to help guide our future supply mix needs and how we will procure them. This also means government re-evaluating

its role in the electricity system while maintaining our strong commitment to a reliable, clean and affordable system.

We are contemplating a future where the IESO runs a capacity auction to secure firm resources unconstrained by government's predetermined supply mix objectives, including Quebec having the opportunity to bid. For example, to fill a particular megawatt requirement, rather than directing procurement from specific types of resources, such as hydro, solar, wind and gas, the IESO could instead procure based on metrics such as emissions, system benefit, price, involvement, demand-side resources or, indeed, a combination of those to meet the megawatt and other requirements of the system.

At the same time, we understand that a truly dynamic capacity auction cannot operate in a vacuum, so IESO's current market rules that constrain Ontario's generators' ability to supply or sell to external markets beyond Ontario's borders, such as the US, will need to be reviewed, just the same as we are reviewing the ability of our interties to support longer-term electricity trade or imports within our borders from our neighbours.

Other system operators in other jurisdictions have been able to optimize system needs and reliability by reforming their procurement and contracting models, including use of capacity auctions. Ontario's energy infrastructure is increasingly integrated with that of neighbouring jurisdictions, and we are determined to ensure that Ontario ratepayers can benefit from this kind of market evolution to help create a system that is cleaner, more reliable and more affordable.

This was not always the case. While in office, the PCs had no plan for supply. Supply from 1995 to 2002 could not meet the province's demand. We were in deficit. From 1996 to 2003, overall installed generation capacity under the Tories fell 6%. That's like Niagara Falls running dry. At the same time, demand grew by 8%, a 14% differential. Reliability was a concern, and because of that, the Tories increased dirty coal usage by 127%. We do not want to go back to those days.

So, by way of wrap-up, we are moving forward with fulfilling the commitments we made in our 2013 long-term energy plan. Just as we did in the creation of our long-term energy plan, it is our ministry's intention to continue to work together closely with a broad array of effective sector associations, such as APPrO, the Ontario Energy Association and others; with individual stakeholders, including the private sector and environmental groups; with union associations, as we have been doing; and with our own agencies. I believe we have a commitment to do so.

Looking ahead, we see dynamic yet practical changes to our system that will ensure that we not only keep pace with other leading jurisdictions, but continue to foster innovation, the smart grid, a smarter collaboration with industry and our LDC partners. As a government, we will continue to work to provide stability, predictability and sustainability for our business and sector partners and for a reliable, clean and affordable system for our ratepayers.

By following our conservation first model, finding efficiencies and helping people address their electricity bills while keeping our energy supply reliable and updated to meet our daily needs, we will realize our commitments to Ontario families and businesses under the long-term energy plan.

Just again, I'm going back five or six pages because the member from Renfrew–Pembroke–Nipissing was not paying attention—

Interjection.

Hon. Bob Chiarelli: —when I referred to the new water power project that we are installing into Renfrew—and I didn't mention the one in Almonte. The one in Almonte is going to generate about \$12 million of investment in that community and create lots of jobs. We are doing so much for Renfrew–Pembroke–Nipissing, this guy should cross the floor.

Interjections.

The Chair (Ms. Cindy Forster): You have two minutes left, Minister.

Hon. Bob Chiarelli: Two minutes left?

Mr. Randy Hillier: I think he's exhausted from all the—

The Chair (Ms. Cindy Forster): If you've had enough, we'll move on to the official opposition.

Hon. Bob Chiarelli: Well, let me just go to one of my pages here and see what I can do. Let me see.

Mr. Randy Hillier: Talk about the Lennox generating facility, Bob.

Hon. Bob Chiarelli: I will find something to fill my last two minutes in. Let me see what we have here.

Oh, let's talk about gas plants. We'll talk about the 20 gas plants that we built because we had such a deficit of supply when we took over government, we had to rebuild the system. People talk about renewable energy, but we built 20 gas plants to get us to where we're reliable and we have that redundancy background. We also expanded the Niagara Falls generating facility. I think it's 600 or 700 megawatts that are there. We created hundreds, if not in the thousands, of jobs in Niagara Falls to get us back out of the deficit and to where we would have a surplus, so we could create the IEI programs that are helping the businesses in Renfrew–Pembroke–Nipissing. We also are expanding the Lower Mattagami power dam: clean, reliable, emissions-free electricity, a \$2.6-billion investment in water power—

The Chair (Ms. Cindy Forster): Thirty seconds, Minister.

Hon. Bob Chiarelli: —in order to fill that deficit that the Tories had created.

Do I have another two minutes? I can keep going.

The Chair (Ms. Cindy Forster): Seconds—and you're done.

Mr. Randy Hillier: Get back to Wesleyville.

Mr. John Yakabuski: Thank you very much, Minister, for your wonderful—

The Chair (Ms. Cindy Forster): So we'll move to the official opposition, and you have 20 minutes. Mr. Yakabuski.

Mr. John Yakabuski: Thank you very much, Madam Chair.

First of all, I hope you got a discount on that second speech this afternoon, because much of it we heard this morning. So I hope you didn't pay the full price for this afternoon's—

Hon. Bob Chiarelli: Propaganda: repeat, repeat, repeat.

Mr. John Yakabuski: You said it, not me.

Also, while I have you, Minister, in such a good mood, can you spell “conservation”? If you can spell “conservation,” you can probably spell “Conservative.” All but two of the 12 letters in those two words are shared, because the whole basis of the Conservative Party is to conserve and protect. Are we in favour of conservation? Oh, my goodness, I guess we are. It's right in our name.

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Hon. Bob Chiarelli: I gave you a commitment—

Mr. John Yakabuski: It's right in our name.

Hon. Bob Chiarelli: I gave you a commitment that I'd answer all your questions.

Mr. John Yakabuski: Yes, you did.

Hon. Bob Chiarelli: So, C. What's the next letter?

Interjections.

Hon. Bob Chiarelli: Next letter?

Mr. John Yakabuski: As a matter of fact, I believe you can do it.

Hon. Bob Chiarelli: Chair, he asked the question. Do I have the right to respond?

Mr. John Yakabuski: Okay.

Hon. Bob Chiarelli: Do I have the right to respond, Chair?

Mr. John Yakabuski: No.

Hon. Bob Chiarelli: I have the right to respond.

The Chair (Ms. Cindy Forster): Actually, Minister, it's Mr. Yakabuski's time.

Mr. John Yakabuski: Yes. Thank you very much. I concede that you can do it. I know you can do it, and I can spell Chiarelli.

Minister, you would think that with this wonderful plan that you people have—you just kept talking in your speech about money saved here, the money that's going to be saved there, and all of these wonderful things. You would think that the world would be at our door saying, “We want to build our businesses in Ontario because of their energy policy.” I have not heard one company ever, since you guys took office, say they're coming to Ontario because of our energy policy, but I have heard—

Interjection.

Mr. John Yakabuski: You'll have your chance. I have heard many companies cite energy policy as the reason they're leaving Ontario or are planning to leave or have already left Ontario. So it's really lovely to have that optimistic view of Ontario's power system, but it's a little bit jaded.

I also want to touch on—you referred to it several times, both this morning and this afternoon, talking about the need to have this extra capacity for something like an

ice storm. I was around for the ice storm of 1998 as well, and capacity wasn't the issue. Transmission was the problem. There were hundreds of thousands—millions of people who had no power. We couldn't get the power to them because the grid was not functioning because of damage to towers and poles, trees on lines etc.

I really have a hard time with your process about requiring capacity for an event like that because the issue when an event like that hits is our ability to actually get the power that we have the capacity to produce to the people who need it. It's a transmission issue.

The Fraser Institute came out with a very good report which indicated—you people keep talking about your renewables—"That was the way off coal." We've heard it many times. Coal produced 25% of our power when you guys came to power. Wind and solar today produce about 4% of our power. That's about a 6-to-1 ratio, coal-produced versus wind and solar. Wind and solar make up 20% of the cost of generation because of the contracts you have signed, yet you plan to keep signing more and more of these contracts.

You talk about saving money on the Samsung deal based on the fact that it was such an awful deal for Ontario ratepayers in its previous incarnation. Anybody could have saved money by negotiating a better deal. It was such a bad deal when you folks negotiated it originally that it didn't take much to negotiate a better deal, so you can't talk about saving money. That's like somebody going to your Walmart snow blower story and saying, "Oh, I bought a snow blower. It was \$1,200, but I got it on sale for \$800, so I saved \$400." But then you find out he's from Miami, Florida. He didn't really need the snow blower in the first place. He didn't really save \$400; he wasted \$800. That's sort of like your Samsung deal—the money you have wasted on some of these wind projects across the province of Ontario because they were generation that was not needed but you kept building because you were tied into the Green Energy Act and paying whatever price was needed to build, and you're still building them. You're still building them in places like the Collingwood airport.

Will you confirm that coal made up 25% of our power system when you came to power; wind and solar are generating 4% of our power today, yet it is 20% of the cost of the contracts through the OPA and makes up 20% of the global adjustment cost to the people of Ontario. Would that be correct?

Hon. Bob Chiarelli: I will confirm that coal represented 25%. I will also confirm that it was being ramped up and used more and more, to try to catch up, because we were in a deficit situation. In order to address that deficit situation as well as replace coal, we needed a lot more generation. The planning for generation is to have a supply mix. The supply mix—I just referred to the fact—

Mr. John Yakabuski: I just gave you a couple of direct questions, Minister.

Hon. Bob Chiarelli: But the issue—

Mr. John Yakabuski: This is not the place to be political.

Hon. Bob Chiarelli: No, but the issue is, we had a double whammy of a deficit and dirty coal. We needed huge new capacity of generation. We did it in the Niagara Falls generating station. We did it in Lower Mattagami—

Mr. John Yakabuski: Did that come in on budget?

Hon. Bob Chiarelli: Right there, there is probably 1,200 or 1,500 megawatts that's required. We did it—

Mr. John Yakabuski: Did the tunnel come in on budget? The Niagara Falls tunnel.

Hon. Bob Chiarelli: I can't recall what—

Mr. John Yakabuski: Oh, I can tell you that it didn't.

Hon. Bob Chiarelli: Anyway, I would like to just finish my sentence, if I may. Okay?

Mr. John Yakabuski: Okay.

Hon. Bob Chiarelli: We wanted to create a proper supply mix as we ramped up the generation that was required for the deficit, and to make the system clean. We used all of the generation capacities that were available, and we used it in different capacities or different amounts. That's why we did the Niagara tunnel, the Lower Mattagami, a number of other dam expansions and new dams—20 new dams, perhaps—

Mr. John Yakabuski: Yes, I heard all of that in your first speech.

Hon. Bob Chiarelli: We did all of that, because it was responsible to make it clean. It was responsible to have a surplus. It was responsible in the electricity system—any of the operators in North America will tell you that you need a double redundancy—

Mr. John Yakabuski: You generated a surplus by cutting 300,000 manufacturing jobs out of the province of Ontario.

Hon. Bob Chiarelli: —you need a double reserve or a double backup. We got the system to a point where it was really, really healthy.

Mr. John Yakabuski: Demand dropped because you cut 300,000 manufacturing jobs out of the province of Ontario.

The question is, does wind and solar make up 4% of our generation, and does it make up for 20% of the global adjustment?

Hon. Bob Chiarelli: I'm going to pass this over to the deputy, because he has got some numbers with him there.

Mr. Serge Imbrogno: I'm not sure where you're getting the 20% number, but when we do the calculation on the average consumer bill, we get about 8% for wind and solar in 2013.

Mr. John Yakabuski: For the global adjustment?

Mr. Serge Imbrogno: For the impact on the average consumer bill, wind and solar makes up about 8%.

Mr. John Yakabuski: I asked about the global adjustment, the amount of the global adjustment that is dedicated to contracts of wind and solar.

Mr. Serge Imbrogno: When we look at it—

Mr. John Yakabuski: I'm not asking you how you look at it; I'm asking you what it is. Is it 20% of the global adjustment?

Mr. Serge Imbrogno: Global adjustment is a portion of the combined cost.

Mr. John Yakabuski: I understand, but you guys are going to shade the numbers any way you want, to make it look best. But the Fraser Institute report makes it very clear that wind and solar is not a very good deal, cost-wise, for the people of the province of Ontario. Are you challenging—are you saying that it is a good deal, cost-wise?

Mr. Serge Imbrogno: When we do the supply mix, we go for a balance of supply, including nuclear, renewables and non-renewables, including wind, solar and hydro. I think it's that mix. We took out coal; we have gas. I think we have a balanced generation mix—we look for reliability—and wind and solar are part of that mix.

Mr. John Yakabuski: You're probably not going to answer that question. Would you admit, at least, that when we heard all along, this massive buildup of wind, particularly, with the Green Energy Act—we must have heard it a thousand times, that this was our road to getting out of coal, getting off coal. Would you at least admit that 4% of our generation wasn't going to get us off coal at any time? You build gas plants that also emit CO₂, and that is what has gotten us off coal. Is that not correct?

Mr. Serge Imbrogno: We had big investments in refurbishment of nuclear, so that Bruce Power refurbishment units—

Mr. John Yakabuski: Oh, so you didn't need the 19 gas plants?

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Mr. Serge Imbrogno: I'm saying it's a mix. It's not just one source or another; it was a mix. Part of that was nuclear, part of that was renewables and part of that is additional gas.

Mr. John Yakabuski: Well, there is additional nuclear capacity, but in 2020 there will be a significant reduction in our nuclear capacity, when at Pickering any of the units that have not been refurbished will be taken out of service. Is that correct? We're going to lose about 2,000 megawatts of nuclear capacity. Is that correct?

Mr. Serge Imbrogno: In 2020 we expect Pickering to come offline. That's about 3,000 megawatts, but that's part of our long-term energy plan. We're planning for that, adding—

Mr. John Yakabuski: So what's replacing that?

Mr. Serge Imbrogno: Again, there's a mix. We have the renewables coming on, we have Conservation First that we're taking off, and then we have this planned flexibility where we're saying that, if we do better on conservation, we don't need to build additional capacity.

Mr. John Yakabuski: In 2020, how many megawatts of wind will we have in our system under your plan?

Mr. Serge Imbrogno: We have a number for 2025—

Mr. John Yakabuski: Assuming they all don't have blades falling off.

Mr. Serge Imbrogno: Percentage-wise it's about 15% by 2025.

Mr. John Yakabuski: Megawatts. Give me that in megawatts.

Mr. Serge Imbrogno: In megawatts it's approximately 6,480 by 2025.

Mr. John Yakabuski: Was that 6,480 by 2025?

Mr. Serge Imbrogno: Yes, and that would be part of our long-term energy plan.

Mr. John Yakabuski: And that will be the capacity? What do you expect that capacity, that 6,480 megawatts of wind capacity, to generate as a percentage of our generation? Nuclear punches way above its weight; it generates a lot more of our electricity than the amount of our capacity that it makes up. Wind is at the opposite end of the spectrum: lots of capacity and little generation. What percentage of our generation do you expect that wind will make up in 2025?

Mr. Serge Imbrogno: I think that on average the IESO would use about a 30% capacity factor for wind. That may increase over time, but at this point it's at about 30% capacity—

Mr. John Yakabuski: It's likely to decrease over time—more likely to decrease than increase, because every time you build one of these you're going farther away from the best sources.

Mr. Serge Imbrogno: But you have new technology that also has to be taken into account, as well.

Mr. John Yakabuski: Well, you'll still have the old ones turning. They're still going to be there—unless some of them might have fallen over. Some of them are losing blades, I hear.

So at that point, then, if you use that capacity factor, what portion of the bill versus generation will wind make up in our average hydro bill?

Mr. Serge Imbrogno: I don't have that calculation on me.

Mr. John Yakabuski: But you'll be able to get that for me, correct?

Mr. Serge Imbrogno: If it's in the public domain, I can point that out to you.

Mr. John Yakabuski: Okay. Can you confirm that, right now, there are over 700 megawatts of wind under construction, in the approval process or subject to various appeal procedures?

Mr. Serge Imbrogno: I'd have to look at the source. If you give me time to look through my notes, I could probably find it for you.

Mr. John Yakabuski: No, I don't want to give you that time. Not right now.

I'm going to move on a little bit, to LDCs. You said on March 18, 2013, "Let me say very clearly that our government will not legislate forced consolidation." Is that still your commitment, or are you backing away from that commitment, given the Clark report and all of this?

Hon. Bob Chiarelli: Yes.

Mr. John Yakabuski: Yes, what?

Hon. Bob Chiarelli: We're not going to force consolidation.

Mr. John Yakabuski: There will be no forced consolidations of LDCs?

Hon. Bob Chiarelli: No.

Mr. John Yakabuski: It will be willing buyers and willing sellers only?

Hon. Bob Chiarelli: Yes.

Mr. John Yakubuski: Thank you very much. That's good. If there are no willing buyers or willing sellers, how do you get \$2 billion by 2017?

Hon. Bob Chiarelli: I don't understand the question.

Mr. John Yakubuski: From the sale and purchase of those assets.

Hon. Bob Chiarelli: The premise of your question, when you were talking generically about LDCs: There are 77 LDCs, and the issue of consolidation has to do with that collectivity of 77 LDCs. Some of the consolidation has already taken place. For example, PowerStream represents a consolidation of three or four existing LDCs. That consolidation has already taken place.

Mr. John Yakubuski: In December 2012, the distribution sector review panel recommended similar things to Ed Clark. They claimed consolidation could save as much as—I said \$2 billion; sorry, \$1.2 billion. But if there is no consolidation, there are no savings.

Hon. Bob Chiarelli: The Ed Clark process is not predominantly one of consolidation. The report that came out in 2012 looked at all of the LDCs across the province. Consolidation did not necessarily include any provincial agency such as Hydro One. Consolidation would include how PowerStream came to be. PowerStream is a consolidation of four local LDCs, four utilities. So that's a consolidation.

You have the city of Ottawa, for example, that wants to acquire the customers of Hydro One within the city limits of the city of Ottawa. That would be considered consolidation. If, for example, Toronto Hydro purchased one of the LDCs in the GTA, that would be consolidation. It doesn't necessarily engage Hydro One, for example, or Brampton, for example, which is part of Hydro One now.

The issue is: What may or may not come out of what Ed Clark is proposing may cause consolidation to happen because it may make sense for them independently to arrange their business in a certain way. For example, if I may, the Electricity Distributors Association is leading an initiative to have a group of LDCs acquire Hydro One. They may very well be a bidder. If some sort of a disposition actually takes place, there will be a process or a procurement to make it happen. So you may have 11 or 12 LDCs get together on their own as a consolidation and acquiring. That's, in fact, the proposal that the electricity distributors have put on the table.

The Chair (Ms. Cindy Forster): Mr. Yakubuski, you have two minutes left in your time slot.

Mr. John Yakubuski: Let's talk about some of the things you were talking about earlier today: the industrial electricity initiative, the northern Ontario tax credit, the clean energy benefit, LEAP—all of your conservation programs. The cost of every conservation program is also borne by that same energy ratepayer. Correct?

Hon. Bob Chiarelli: That's correct.

Mr. John Yakubuski: Any conservation initiatives go right back to the hydro bill. So it's "Pay me now; pay me later," whatever; you can call it the FRAM filter analogy if you want.

For the person who actually has done all of their homework and is running their home or their business as efficiently as possible, they're actually paying for you to pass a subsidy or a trinket, for political reasons to make it look good, to someone else. Someone is doing their job, and you send somebody else something in the mail that says, "We'll pay you X number of dollars to update your lighting or your heating or your air conditioning or whatever." That person who has already been a conservationist: They're actually paying for that. Is that correct?

Mr. Randy Hillier: Penalized.

Mr. John Yakubuski: They're penalized.

Hon. Bob Chiarelli: They're getting the benefit of it and they're paying for it.

Mr. John Yakubuski: How are they getting a benefit? They've already bought it.

Hon. Bob Chiarelli: Reduced consumption. Conservation means reduced consumption.

Mr. John Yakubuski: But you're paying someone else a subsidy to get their consumption reduced. That other entity, person, business, whatever—they've already paid to reduce their consumption.

Hon. Bob Chiarelli: Just to get back to what the deputy—

The Chair (Ms. Cindy Forster): You've got one minute.

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Mr. John Yakubuski: Is that not correct? Without your views on whether it's right or wrong, they're paying to get somebody else to where they already are.

Hon. Bob Chiarelli: Conservation will save them money—in the system, not only on their own bill.

Mr. John Yakubuski: They're paying to help you get someone else to where they already are. Is that correct?

Hon. Bob Chiarelli: Conservation reduces—

Mr. John Yakubuski: I understand your view, but just answer the question

Hon. Bob Chiarelli: Okay, but can I just say two sentences?

Mr. John Yakubuski: I know your sentences.

Hon. Bob Chiarelli: Conservation reduces the need for generation as we go down the long-term energy plan. That pushes rates down. The investment in conservation puts the rates down.

Mr. John Yakubuski: So why continue with building 6,480 megawatts of wind? If you expect your conservation to be successful, why build something that is not dispatchable—

Hon. Bob Chiarelli: We're reducing the amount of generation we need.

The Chair (Ms. Cindy Forster): Thank you, Mr. Yakubuski. We move on to Ms. Armstrong for 20 minutes.

Ms. Teresa J. Armstrong: Minister, we had established that you agreed with the IESO figures. You agreed that Ontarians paid \$1.564 billion to generate power that hydro users in neighbouring provinces and states paid only \$485 million for. This is off the IESO website. Minister, could you please confirm that this is correct?

Hon. Bob Chiarelli: Did we not already go through that?

Ms. Teresa J. Armstrong: Yes, but I'd just like to get it on record, because the original questioning was a little bit confusing because you didn't know where the information was coming from. Now that we know it's on the—

Hon. Bob Chiarelli: Could you ask the question again?

Ms. Teresa J. Armstrong: Okay. You agreed that Ontarians paid—we had talked about this—\$1.564 billion to generate power that hydro users in neighbouring provinces and states paid us only \$485 million for. This is off the IESO website. You agreed to that. Can you please confirm if that is correct?

Hon. Bob Chiarelli: I will confirm that the IESO managed the system in a way that maintains surplus and reserve capacity. That capacity that we have can generate electricity that we can sell. The IESO has confirmed that revenue from electricity exports reduced the costs for Ontarians by \$300 million in 2013. That's what they have confirmed. They've confirmed that to you and they've confirmed it publicly.

What that means is, just to be clear, if you look at all the generators we have in the province, if you look at all of our gas plants, if you look at all of our dams, they are never operating at 100% capacity. They are operating anywhere from 20% or 30% capacity to 60% or 70% capacity at any one time. It's still necessary to have them all there with that unused capacity for backup. In case we have to go to peak, in case we have an ice storm, the system is there.

The IESO, in fact, will—regardless of the price, because they're not getting any revenue from that unused capacity—create the power to sell, which otherwise would be sitting there in reserve. So they're selling reserve power.

From that point of view, they're selling power that is reducing the costs of the system, because when they generate the revenue, they put that money in the bank. If they sell it for four cents, five cents or even less, that's revenue that they otherwise would not get, and they're using the excess capacity that is necessary to have.

We have to keep in mind that there are two things that are important in the electricity system. There is the energy that we generate as we put it into the wires and use it, and there's the capacity that we have to have in infrastructure to produce more. So we have that reserve—

Ms. Teresa J. Armstrong: Okay. If I could ask you to wrap up, then.

Hon. Bob Chiarelli: We sell that.

Ms. Teresa J. Armstrong: Okay. Is your answer comprehensive enough there? I'll move on to the next one if I could, please.

I understand what you're saying. I'd like to ask you this: If the figures that I just gave you were accurate, because they were on the IESO website—and you agreed to those previously—that means that Ontarians paid

\$1.079 billion more in 2013 to generate power that it sold to neighbouring jurisdictions.

Hon. Bob Chiarelli: No.

Ms. Teresa J. Armstrong: You don't agree?

Hon. Bob Chiarelli: That does not mean that.

Ms. Teresa J. Armstrong: Okay. Can you explain why you think that doesn't mean that?

Hon. Bob Chiarelli: It doesn't mean that, because what Ontarians are paying for is for the generating facilities to be there and to be available when we need them. So in order to have capacity across the province, we have nuclear facilities that are operating at—what, 40% or 50%?

Mr. Serge Imbrogno: Nukes are at 85%.

Hon. Bob Chiarelli: So it's 15% of nuclear that is not generating power because that's the reserve. There are gas plants that might be at 30% capacity; they're not generating power.

So if there's a market and if the system permits it because we're at low demand or low peak, we can change what the amount of reserve is that we need to have. The IESO sends out signals every five minutes to generators: ramp up or ramp down. That's the way the system works. There's no storage for electricity. There has to be the same amount of power that is demanded in the wires; that's the amount that has to be generated. As the demand goes down, they have to reduce the generation; as the demand goes up, they have to increase the generation—in five-minute intervals. That's how tight the system is.

If there are circumstances which are certain that for a day or two or even half a day, that we don't need that reserve, they quickly sell it and put money in the bank. So it's that type of operation that we have.

Ms. Teresa J. Armstrong: Thank you for that answer.

Earlier, you also agreed that Hydro-Québec recently signed a long-term contract with Vermont that—

Hon. Bob Chiarelli: No, I don't know that. I don't know that for a fact.

Ms. Teresa J. Armstrong: Well, that is correct. We did our research on that.

Hon. Bob Chiarelli: I would want to see the contract, because I don't know that, and I don't know whether it was a spot market or whether that was a firm contract. Do you?

Ms. Teresa J. Armstrong: It was a firm contract, and it's a long-term contract.

I'll just state that again just for the record. Earlier, I had said that Hydro-Québec recently signed a long-term contract with Vermont at 5.7 cents per kilowatt hour. So you're saying you can't confirm whether or not that's correct? You don't have knowledge of that?

Hon. Bob Chiarelli: I'm going to ask the deputy to answer that, because I've tried to answer it. Maybe the deputy can do a better job.

Ms. Teresa J. Armstrong: Okay.

Mr. Serge Imbrogno: I think the terms of the contract are very important to have. For example, it could be a callable contract, where if Quebec has a shortage of

capacity during the winter peak, they may be able to call that power back. If they have that ability, it would be something less than if it were a firm contract, where no matter what the circumstance in Quebec was, they'd still have to sell the power to Vermont. So the actual terms of that agreement are very important to have.

Our sense when we talk to Quebec right now is that they experience shortage during their winter peak. So it would be very difficult for Quebec to sign a long-term contract, 24/7, for 365 days a year, given that they have a shortage in winter right now. It's just that the details of that contract have to be known for us to give you any kind of a sense of whether that's an acceptable comparison.

Ms. Teresa J. Armstrong: Okay.

Minister, what obstacles currently exist to signing the kind of long-term energy contracts that Quebec recently signed? I know you don't know the terms, but maybe you could speak to those obstacles that we may face, because Quebec seems to have signed a long-term contract with Vermont, New York and Michigan. In other words, Minister, why can't we negotiate long-term contracts with New York and Michigan if we're talking about the contract we researched, at 5.7 cents per kilowatt hour? What's stopping us?

Hon. Bob Chiarelli: There are a number of reasons. First of all, there would be two parties to the contract, Quebec and Ontario. Okay? So we're making assumptions for Ontario.

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As I mentioned, the Premier has met with Premier Couillard. I've had three meetings with Pierre Arcand, the Quebec Minister of Energy. We've had the working groups chaired by deputy ministers looking at it. And we've come to the table on the basis of trying to determine if there are long-term firm contracts at an acceptable price to Ontario, and there's no answer to that with us being at the table.

Our long-term energy plan says to pursue this as a possibility. The reality is, the infrastructure that's in place today can accommodate 500 megawatts. That's enough to do the daily exchanges that take place to balance the systems between New York state, Manitoba, Ontario, Quebec etc. It's not enough for firm contracts. Quebec will agree with that.

We can invest \$350 million in Ontario and we can get that up to about 1,100 megawatts. That's still not enough for long-term, permanent contracts. Okay? You can't make a business case for it. To get to a point where we want to get a long-term firm contract with Quebec, for example, to replace the nuclear units that are going to be going out, requires a minimum of \$2 billion in investment on the Ontario side. That's number one. Number two, it will require significant investment on the Quebec side that will add to the price of power. The fully firm prices at which Quebec is selling to US states is higher than what we can generate it for in Ontario. There is no good reason why we would not want to get long-term firm contracts with Quebec if it was economical for us. That's what we're pursuing. Okay?

At this point in time, the president of Hydro-Québec told us—we asked specifically to try to get an answer on the price we could get for long-term contracts, and they could not provide it to us. At the time, he said it has to be an economic price. In other words, it's market, to the highest bidder. They're not going to give it to us cheap because we're good neighbours. They're going to sell it for the highest price they can get, and they made that very, very clear.

So we're coming to the table in good faith to try to make this happen. We're going to make as much happen co-operatively with Quebec as we can, as I've indicated. But at this point in time, the concept of long-term firm power from Quebec is in the future.

Ms. Teresa J. Armstrong: Okay.

Hon. Bob Chiarelli: We're going to continue to stay at the table to deal with that issue, but it's not readily apparent in the foreseeable future that it can happen.

Ms. Teresa J. Armstrong: So is your government considering any changes to the market design to facilitate long-term contracts and higher prices for exported power?

Hon. Bob Chiarelli: Well, yes.

Ms. Teresa J. Armstrong: And could I ask you what those are?

Hon. Bob Chiarelli: If you look at the long-term energy plan, you will see that we're talking about moving to what is called a capacity market. Capacity market exists in other jurisdictions and it's working very well, but it's a significant restructuring of how we would do it in Ontario.

The IESO now is working towards doing a pilot project—correct me if I'm speaking out of turn, Deputy—for capacity markets. It's going to require consultation with the generators and other stakeholders in the sector.

What a capacity market does is this. We need, let's say, 1,000 megawatts or 1,500 megawatts. That's what our projected demand says we need in terms of new megawatts. Capacity market says that we're going out to the marketplace and you can come in—anybody can come in, including Quebec. Quebec would be able to bid on it if they wanted to. But we define what we need: "We need clean," "We need firm," "We need spot," or whatever. We would define what we need in terms of the requirements around that megawatt requirement that we're bidding. So anybody can come in with a generation offer, or they can come in with a combination. Somebody can come in and say, "You know what? We've got generation, so we've got conservation that we could put into the system," or "We've got storage that we can put into the system," or "We've got renewables that we can put into the system," or "We've got gas that we can put into the system." We then accept the lowest cost or the ones who satisfy the requirements that we've put in. It opens it up to anybody to bid with anything, to supply that requirement that is set out in the bid.

That is a transformation that the IESO says will likely create very significant benefits, including lower costs and better reliability.

Ms. Teresa J. Armstrong: So those are some of the changes. Then, Minister, what prevents Ontario from implementing a public central trading authority that would negotiate long-term contracts? Have you thought of that? What prevents us from doing that?

Hon. Bob Chiarelli: I can't say what specifically the IESO, as a system operator, has contemplated. But the Independent Electricity System Operator is recognized as one of the best, if not the best, operating systems in North America. That's why they are innovative; they are absolutely conservative in terms of reliability—

Mr. John Yakabuski: You've got my attention now.

Hon. Bob Chiarelli: —so they may or may not have run that process through. But certainly, something that is not terribly unlike that is the capacity market that we were talking about.

I'm very, very happy to arrange a briefing session for you and/or your critic and/or your staff to sit down with the IESO, similarly to the Conservatives, to explore the capacity market. As a matter of fact, if you're going to be at my speech tonight at APPrO, you're going to hear me talking about the capacity market. You've already heard part of it.

Mr. John Yakabuski: I can hardly wait.

Hon. Bob Chiarelli: That's great. Don't hold your breath.

The Chair (Ms. Cindy Forster): About three minutes left, Ms. Armstrong.

Ms. Teresa J. Armstrong: Okay.

Hon. Bob Chiarelli: You're right to be looking at new ways to manage our procurements and create our supply, and we are looking at new, different, and perhaps better ways.

Ms. Teresa J. Armstrong: Thank you. Minister, if the capacity was so much better at that point, why didn't we take that information and do it from the beginning? What's preventing us from doing that?

Hon. Bob Chiarelli: The whole electricity system is evolutionary, and it's not even, in every jurisdiction. People will look at Ontario and they'll see some things that we're doing in Ontario and they will say, "You know what? That's the standard," and they're doing what we're doing. We're looking at some other jurisdictions that are doing best practice, and we're trying to adopt—

Ms. Teresa J. Armstrong: Can you give me an example of that jurisdiction and what some of those are?

Hon. Bob Chiarelli: Of what?

Ms. Teresa J. Armstrong: Of the best practices. You're saying you're looking at other jurisdictions for examples of that practice.

Hon. Bob Chiarelli: Part of what we're doing in terms of best practices, part of—our demand response is among the best in North America. Demand response basically is a process where large business users—there are basically brokers that aggregate them; they bring them together. They work with the IESO and they say, collectively—and you need very, very technical, complicated algorithms, software programs, to make it work—"We will agree to lower our consumption at certain peak periods of the year."

Lower consumption at peak means that when the IESO takes a mix of electricity and puts it in the wires, there is also a mix of costs that go in the wires. Renewables are more expensive—that goes in the wires, for example—and that's used the least because it costs the most. You want to use the least more often, so that the electricity that's in the system, on average, costs lower—

Mr. John Yakabuski: Boy, have we got it backwards.

Hon. Bob Chiarelli: Sorry?

Mr. John Yakabuski: We've got it backwards.

Hon. Bob Chiarelli: So what happens is, with demand response, you have a collection of businesses who have agreed to lower their consumption at peak periods. That saves costs in the system, because we're now generating the lowest or lower costs without having the higher costs in the system.

The Chair (Ms. Cindy Forster): One minute.

Hon. Bob Chiarelli: That saves money for that collection of companies—demand response, that group—and it saves money in the system. Saving money in the system reduces the cost pressures in the system for all consumers. The more we reduce our peak consumption, the less it costs the consumer, the homeowner or the small business.

Ms. Teresa J. Armstrong: Thank you.

Mr. John Yakabuski: We're about to hear a bell—

The Chair (Ms. Cindy Forster): I believe that we have agreement to actually adjourn because we're going to hear the bells, so we'll adjourn. We'll be in 151 again tomorrow after routine proceedings.

Mr. John Yakabuski: Room 151?

The Chair (Ms. Cindy Forster): Room 151.

The committee adjourned at 1750.

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