

**The Great Lakes Bio-Region: Market Opportunities and  
Carbon Pricing**

**“Opening Address”**

**A presentation by**

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Thank you to Warren and Bryne for inviting me again. And to Kerry for the kind introduction.

I really enjoy coming to Kingston. The people of Kingston are always friendly and welcoming. I know this because in one of those strange coincidences in life, I got the same taxi driver from the station that I did last year.

Once again he was very friendly. And very talkative. In fact, I think he's probably still talking now. And I arrived last night.

During the ride he managed to cover wind farms and the past lives of Shirely MacLaine. I can't promise to be as entertaining but I will address one of those two topics today.

I especially enjoy coming to this forum. It's a chance to exchange ideas and knowledge. An exchange that is critical in an industry like this—one at the forefront of innovation and still in its infancy.

And it seems fitting that this conference is being hosted at one of our leading universities. In many ways, I feel like a student—back for biomass 201. It's the second time for me and the third for many of you. There's still a lot to learn.

I'm sure I'll take away as much from this conference as I did last year. Whether it's about carbon-pricing, emerging technologies or market conditions. A great roster.

Today, I'd like to talk about the Ontario Power Authority's vision for biomass generation in the province.

But, before I look to the future, I'd like to spend a few moments reflecting on the recent past.

I'd like to give you an update on what's happened since we gathered here last June.

At that time, I said that Ontario had a very good story to tell. Today, I'm even more optimistic. Today, I believe we have a great story to tell.

I was recently asked to tell Ontario's story at CERA, which is North America's largest oil, gas and electricity conference. After I was finished, my fellow panelist, the chair of the California IESO said: "Well now, we should all move to Ontario." Not bad when you can get someone from California interested in moving to Ontario in the month of March.

It's easy to see why I say we've got a great story to tell when you consider all that we're doing here in Ontario. Consider these facts: We've got ambitious conservation targets. A big push on renewable projects. We're getting out of coal. We're rejuvenating our transmission system and making it greener and smarter. And best of all, we can confidently say that reliability has improved dramatically—that the lights and air conditioners will stay on throughout the summer. And just a few years ago, that wasn't always the case.

We've also got a great story about regional development. Creating jobs. And cleaning our air by eliminating coal fired-generation by 2014. We're the first in North America to do it and it will reduce our carbon footprint by 75 per cent.

When I stood here at this podium last year, the Green Energy Act had just been passed into law. Since then, we've launched our Feed-in Tariff program—the first and most comprehensive of its kind in North America.

And it's been an incredible success.

I'm pleased to tell you that the first two FIT projects are already online and supplying electricity to our homes, our hospitals and our schools.

Both projects are located here, in eastern Ontario. And while most of the attention on our FIT program has focused on wind and solar, our first FIT projects supplying electricity to the grid are actually from other sources of generation.

One is a state-of-the art landfill gas facility operated by Waste Management of Canada in Ottawa. It will collect landfill gas and convert it into 6 MW of electricity.

The other is a biogas facility located on a dairy farm about 35 kilometers outside of Kingston. The Ledgecroft Farm is transforming manure from its 500 Holstein cows into 500 kilowatts of renewable energy.

In fact, you don't have to look far beyond the Queen's campus to witness how dramatically the electricity landscape is changing in Ontario.

From the wind farms on Wolfe Island, to the Ledgecroft Farm at Seeley's Bay, we're not just building a greener electricity future. We're building a manufacturing base that will position Ontario to become a North American leader—a powerhouse—in the clean energy economy.

These first FIT projects are just two of the 694 mid and large-sized, renewable energy contracts that Minister Gerritsen referred to last night—including three biomass projects that I would like to tell you more about in a few moments.

All together, these clean energy projects are capable of generating more than 2,500 megawatts of electricity—enough to power 600,000 homes. A city more than five times the size of Kingston.

We expect that about 200 of these projects will be up-and-running within a year. And all of them will be generating electricity within three years.

Before I go much further, I should probably tell you a little about our mandate for those of you who may not be familiar with the OPA's role in the electricity sector.

It's our job at the Power Authority to ensure that we have a reliable and sustainable electricity supply—both now and for the future. We plan and contract new resources. We also coordinate new conservation initiatives across the province. And that's tied to our good story: our targets—a reduction in peak demand of 6,300 megawatts by 2020—are the most ambitious targets in North America. It's the equivalent of taking one in five users off the grid.

It's also our role to support the continued evolution of the electricity sector.

An evolution we believe will be built by ramping up our supply of clean energy—wind and solar power. Landfill gas, biogas AND biomass energy.

Leading up to the launch of the FIT program, we had nearly 162 megawatts of biomass under contract. Through FIT, we've contracted an additional 18.8 MWs of biomass energy. To give you some context for those figures, that's on a system that's nearly 36,000 MW.

We had a total of eight biomass applications under FIT—four of them in the north where there are challenges in terms of distribution and connection. The three successful applicants were in regions that had both transmission and distribution capacity available. And low fuel costs that made them viable.

One contract went to a 17.8 MW project. The second contract went to a 775 kilowatt project and the third was announced as part of our capacity allocation exempt projects for a 250 kilowatt contract.

The winning proponents were also deemed to have shovel-ready projects—a criterion that was put in place to ensure equal and fair access to everyone as well as allocating scarce grid access to projects most ready to go.

We like the characteristics of biomass because they are well suited to play an increasingly important role in Ontario's electricity supply. Biomass is easily dispatchable and makes a great “dance partner” alongside other electricity sources.

And there are other projects in the works. As many of you already know—and you'll hear more today about this—Ontario Power Generation is still exploring the conversion of its Atikokan plant and other coal-fired generating facilities to produce power from biomass.

I'm pretty confident in saying that the Atikokan plant will be converted to biomass.

I can't be quite as definitive about the other plants. There is a feeling that the Lambton plant should be converted to gas but it needs a pipeline. Some of the other plants may be dual fuel. They're not all necessarily going to be biomass. Every project is unique. There is no cookie-cutter approach.

And we've certainly learned from our Combined Heat and Power (CHP) III procurement for industrial energy from renewable biomass.

We received three proposals for the RFP and awarded one contract to Becker Cogeneration to build and operate a 15 MW renewable-fuelled CHP facility near Hornepayne.

Part of the procurement clearly fed into social and economic goals—something that is increasingly part of what we are being asked to consider. Becker provides thermal energy steam to a timber company located in a remote part of northern Ontario and is a major local employer.

There have been some challenges. Ontario Power Authority engages in best-in-class procurement. However if there is a way to strengthen our process we will.

We're still learning.

So far, Ontario has had very little experience with small scale biomass projects. The majority of our biomass projects have been large, industrial applications that involve wood processing.

Before we launched our FIT program, we undertook extensive consultations with industry stakeholders. You gave us feedback on a number of issues, including pricing. You told us that prices should vary based on project sizes and varying fuel costs associated with different types of biomass.

We listened. And we responded. We introduced two different price structures under the FIT program.

While we recognize that the proportion of biomass in our supply is still relatively small, we believe there is room for it to grow.

We believe there will be greater opportunities to build supply as we see new transmission capacity come online following a \$3-billion injection.

We also expect it to grow with the development of a Smart Grid which will allow us to better integrate distributed generation projects.

I'm happy to say we're making good progress toward a Smart Grid. We've already got more than three million smart meters in place and the entire province will be on time-of-use rates by the end of next summer. It's another

part of our great story. We're also leaders in North America on this initiative.

While a Smart Grid will help unlock the potential for distributed generation—we also recognize the importance of research in helping to build a viable biomass industry.

That's why we're funding three biomass projects through the OPA's Technology Development Fund. The goal of the fund is to support the commercialization of innovative technologies that can improve electricity supply, conservation or demand management.

One project is being spearheaded right here at Queen's University. It's looking at how local biomass projects can be used in distributed generation. Another is looking at growing algae that can be turned into biomass.

But, as everyone in this room already knows, there are challenges ahead.

We all recognize that resources need to be used responsibly. Questions have been raised as to whether biomass is truly carbon neutral particularly when viewed on a full lifecycle basis. And there are real issues about the environmental or economic sustainability of utilizing forest biomass in its various forms for large-scale electricity generation that as a public agency we need to fully understand.

Our energy policies must be designed to harness the benefits of biomass without encouraging the irresponsible use of valuable food crops or forest resources.

I'd like to say a few words about carbon pricing since it's the topic of session three today.

As you probably already know, the OPA does retain environmental attributes or credits as a standard part of our contracts for renewable energy as well as conservation. The theory here is that the ratepayers are paying a premium for renewable energy and therefore should benefit from the attributes.

Thus far, we've generally taken the full attribute and held the inventory.

We're increasing being approached with suggestions on both fronts—to differentiate between the electricity related portion of the attribute and its other carbon features (such as capture in the soil).

We're also being asked about selling our inventory to buyers looking for quality, made-in-Ontario attributes. Both of these suggestions raise a host of questions. And the answers vary depending upon what carbon regime eventually comes into existence here—be it federal, provincial, bilateral with the US or regional with WCI. And not just what regime but when. In the meantime, should we sell our attributes—to who, at what price, and what should we do with the proceeds?

For now, we're in listening mode. We're open to suggestions.

Suggestions on our carbon and biomass approach which is what I'm hoping to hear throughout the day today. Suggestions on our long-term electricity options and plans. And suggestions about our FIT program, including our biomass program for 2011. We'll be looking at prices, among other factors. We want to make certain we've got it right.

And as I've said, we believe the future has never been brighter for clean energy in Ontario.

In fact, evidence of the future is already in front of us.

It's across the lake at Wolfe Island. It's on the farm at Seeley's Bay. And it's in our forests, our switchgrass and algae. And it's here in this room—in the mind's of the biomass industry's top thinkers.

I look forward to hearing today's presentations and from you.

Thank you for your time this morning.