Carlo Crozzoli

Senior Vice President
Corporate Business Development and Chief Risk Officer
Ontario Power Generation

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to the
Electricity Distributors Association
Georgian Bay District Annual Meeting
Upper Canada District Fall Meeting

September 20, 2012
Minett, Ontario

Subject to change upon delivery

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NOTES FOR REMARKS

Good afternoon. Thank you for inviting me.

Before starting I'd like to acknowledge the work of the EDA (Electricity Distributors Association) and congratulate its members on your 100th anniversary as an organization.

The EDA helped make Ontario's electricity system what it is to today – one of the safest, most reliable and efficient systems in the world.

Over the years, OPG and our predecessor company, Ontario Hydro, have worked with EDA members in many areas…and we look forward to continue working with you for many years to come.

As participants in Ontario's electricity sector, all of us can take pride in our past achievements.

At the same time, all of us have a common interest in the future.

I've been asked today to talk about the future -- Ontario's electricity future and the role OPG is playing in it.

Building Tomorrow's Energy Infrastructure Today

One of the challenges facing our sector going forward is the need to upgrade and modernize important parts of our generation infrastructure. There are good reasons to do this.

They include: aging facilities; future demand requirements; and changing social values around issues like the environment.

In response to these factors, OPG is undertaking one of the largest, boldest infrastructure campaigns in Ontario history.

Across the Province, we're building or rebuilding literally thousands of MWs and billions of dollars worth of electricity generation stations.

This amounts to a huge chunk of Ontario's future energy infrastructure. It's pretty exciting.

Nuclear Projects

In Durham, for example, we have two huge nuclear initiatives underway – the Darlington Refurbishment Project and the Darlington New Nuclear Project.

The refurbishment project will replace **all** major components at our Darlington nuclear station.

With 3,500MW, four-reactors, and about 2,600 employees, Darlington is one of the largest facilities of its kind in the world.

We'll be replacing pressure tubes, calandria tubes, and feeder pipes. Each reactor has 480 pressure- and calandria tubes and 960 feeders. The scale and complexity of this is enormous.

Plus, to support this initiative, we're constructing a 300,000 square foot training facility --the exterior of which is already finished. It will contain an exact replica of a nuclear reactor that workers will train on for refurbishment.

Given its size and scope, the entire refurbishment project will take about 15 years to plan and execute – with construction beginning in 2016.

Once completed, it will enable us to continue to operate Darlington for another three decades.

Complementing this project is our plan is to construct two new nuclear units at the Darlington site.

Like refurbishment, it will be a massive undertaking.

We're talking millions of hours of planning….Thousands of workers… and supply chain logistics that dwarf just about anything done in Canada to date.

The site preparation work alone – for which we just received approval from our regulator -- is enough to boggle the mind.

We estimate that 9-12 million cubic feet of soil needs to be excavated just to clear the area.

While the final decision to go-forward with new nuclear rests with the Ontario government, we're not standing still.

We're moving ahead with aspects of the planning so that we can hit the ground running when the final decision is made.

Hydroelectric Development

We also have massive hydroelectric development projects – like the Niagara Tunnel and the Lower Mattagami project in northeast Ontario.

Lower Mattagami is the largest hydroelectric project undertaken in Ontario in the past 40 years.

It involves redeveloping four of our existing hydro stations on the Mattagami River….

…and employs about 900 workers, including 260 First Nations and Metis peoples.

Not only that….when it's complete in 2015, it will add 438 MW of renewable hydropower to Ontario's supply. Enough to power 300,000 to 400,000 Ontario homes.

The Niagara Tunnel tells a similar story.

It's a huge project. In fact, nothing quite like it has been undertaken in Ontario -- ever.

Its diameter is about 1.5 times larger than that of the Euro Tunnel under the English Channel.

It's over 10 kilometers long and goes as deep as 140 meters underground.

To dig it, we employed the largest hard rock boring machine in the world.

- 150 metres (500 feet) long;
- 14.4 metres (47.3 feet) high; and
- weighing more than 4,000 metric tons.

We expect the Tunnel to be complete by the end of next year, adding 1.6 billion kilowatt-hours of electricity annually to meet Ontario's needs – enough to power about 160,000 homes.

Repowering OPG's Coal Units

And I haven't even mentioned the repowering of our coal units.

We're in the process of converting units at our Atikokan and Thunder Bay stations respectively to use cleaner–burning biomass and natural gas instead of coal.

The biomass conversion of Atikokan will create one of the largest biomass plants in North America.

Project Benefits

But it's not just the size of these projects that's important. It's the advantages they bring and the good that they will do.

Environmental benefits: Environmentally, these projects will all result in generation that's highly sustainable.

- Nuclear generation produces no emissions that contribute to smog or climate change.
- Hydroelectric is clean as well as renewable.
- Biomass is renewable and carbon neutral.
- And natural gas has about half the CO2 of coal.

Right now about 96 per cent of our generation is virtually emission free.

As these projects come on line, that number will go even higher.

This is exactly the kind of power Ontario needs going forward.

Economic Benefits: On the economic side, our big nuclear and hydro projects are all multi-billion dollar initiatives. Our thermal conversion projects are in the hundreds of millions of dollars.

These projects will deliver significant benefits to both local communities and Ontario – in terms of jobs; investment; business opportunities and spin offs.

Darlington refurbishment alone promises to bring a number of positive outcomes to the Durham Region, including:

- more than 2,000 additional direct jobs…
- thousands of additional indirect jobs over the course of the project;
- new business development and spin-off activity;
- improved economic viability for the region and increased tourist accommodation investment;
- increased municipal tax contributions and other revenue contributions; and
- growth in household income and new housing development.

If new nuclear goes forward, comparable benefits could materialize.

On the hydroelectric side, our projects represent close to $4 billion in investment.

The Tunnel is $1.6 billion project.

Lower Mattagami is a $2.6 billion enterprise.

What's more, many of our hydro projects involve equity partnerships with Ontario First Nations peoples. These communities will share in the profits these facilities generate once they are up and running.

Turning to thermal, the Atikokan biomass project is expected to create 200 construction jobs while helping to protect existing jobs at the plant. It will also stimulate new opportunities in Ontario's forestry sector for the supply of biomass.

Our Projects Must Be Well Managed

Another thing about these projects is that they must be well managed if they are to have any value to Ontarians.

They have to be completed safely, on-time and on-budget. As the ultimate owners – and payers -- of these projects, the people of Ontario deserve this.

To help us meet these goals, we do a huge amount of up-front planning before we even go near the site with a shovel.

We work with the community. We work with the regulators. We work with suppliers and contractors. We define the scope of the project down to the minutest detail – so we know in advance exactly how much work we have to do. We work out the financing. We plan for contingencies. We establish third party oversight to keep us accountable. We also take the time to study and learn from the mistakes -- and successes -- of others who have managed similar projects. Above all we try to stay humble and remind ourselves that these are vast and complex undertakings -- and that nothing about them can be taken for granted.

OPG's Challenges

Of course, none of these projects will be possible unless OPG continues to operate as an efficient, cost effective business. We face challenges in this area.

The cost of these projects, plus operating and other costs, have put pressure on our bottom line.

Other challenges include lower revenues and declining market share – due to decreased demand and increased competition.

Business Transformation

In response, we're implementing a major Business Transformation program. It involves:

- $200 million in cost savings by 2014
- 1,000 headcount reduction through attrition
- looking for new business opportunities

Conclusion

This is an exciting time to be at OPG and especially in my area, corporate business development. Ontario has not seen energy infrastructure projects of this magnitude and scale since the 1950s, '60s and '70s. That was when our predecessor company Ontario Hydro embarked on its great hydroelectric and nuclear expansion to fuel Ontario's post-war growth.

Back then, Ontario Hydro worked with the EDA's predecessor, the Ontario Municipal Electric Association – and others, to create one of the best electricity systems in the world. Today, we have a new challenge. To create an energy infrastructure that is modern, innovative, efficient, environmentally sustainable and delivers value. This is a task that OPG cannot perform alone. It's a task that will require all of us to work together. I know the EDA – like your predecessors before you -- is committed to a high level of collaboration to make this happen. And so is OPG.

Thank you.