

Speech by Michel Letellier

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The spoken version prevails

Context

Over the past several years, we have heard a lot about climate change.

Some have even wondered if it really exists – the answer is obvious.

It's no longer time to ask ourselves these questions. It's time for solutions.

Of course, there will still be plenty of debate regarding what solutions are the best or the least costly...

Are we doing enough? Should we be doing more?

The entire world will meet soon in Paris to try to agree on greenhouse gas emission reduction targets, and you will hear a lot of different points of view.

Nevertheless, the fact remains that people are no longer asking "if" or "why", but "how".

The only choice is to act. Something must be done. However, we still have the freedom to choose the solutions and how they will be applied.

In their day, coal and oil allowed extraordinary advances in human development and welfare.

Obviously, oil will continue to play a key role in our society, even though we must become less and less dependent on it. Coal, however, is another story.

We can no longer justify using it as an energy source to generate electricity, because clean, renewable sources exist that are ready to replace it. Immediately.

Ontario had the courage to eliminate all its coal-fired power production facilities in 2014. Bravo!

Among the factors that led to this decision were Ontario health care costs related to air pollution, which were estimated at over \$1 billion per year in the late 90s.

In 2005, a report produced by the Ontario Government had estimated that the impact of coal on health and the environment would be quadrupling the cost of coal. That's 4 times more!

Alberta Premier Rachel Notley recently stated that Alberta had to accelerate the gradual elimination of coal as a source of electricity, which currently represents 40% of that province's production.

China has also committed to reduce its greenhouse gas emissions starting in 2030, by investing massively in renewable energy.

President Obama recently presented his Clean Power Plan, specifically aimed at eliminating coal to the benefit of less polluting sources, such as natural gas and, of course, renewable energy.



In support of this plan, the United States launched a program favouring renewable energy through a tax credit equivalent to about 2cents per kilowatt-hour.

Several American states, including Texas, now offer long-term electricity purchase contracts for wind farm projects at a price of about 2.5cents per kilowatt-hour.

If we add the 2cents per kilowatt-hour value of the tax credit, we arrive at a price of 4.5cents US per kilowatt-hour for wind energy, which is very competitive with natural gas. This is nearly 6cents in Canadian dollars.

And this is even more true when we account for the costs and the impact of greenhouse gas emissions.

So there are several ways for politicians to begin this transition and to commit to renewable energy, because it is now competitive with other energy sources, including natural gas. This is good news.

A solution

It is in this global context that we must consider the future of renewable energy, and by the same token that of a company like Innergex.

Renewable energy is attractive, not only because it is part of the solution to climate change, but especially because it creates jobs and represents a technologically and socially advanced sector.

And that's important for Quebec and for Canada.

We mustn't miss the boat. This is a major economic trend. We must seize this opportunity to participate through our businesses, our universities, and our research agencies to position ourselves in this promising new global market.

We have all the necessary knowledge and expertise to participate in creating added value as well, including transportation electrification, energy storage, and energy efficiency initiatives. This is where jobs of the future will be created.

To illustrate the dynamism of the renewable energy industry, production modes are undergoing constant technological progress.

For example, wind turbines are increasingly powerful, efficient, and capable of taking advantage of less favourable wind regimes.

It is now possible to build wind farms in places where before it was less profitable to do so, and at a lower cost.

Previously, we looked for the windiest sites, whereas now, big turbine technology allows us to broaden our search for potential sites.

To give you an example, the turbines of our Baie-des-Sables wind farm, commissioned in 2006, each produce 1.5 MW and measure 80 m high, with blades 37.5 m long.

In 2016, each turbine of our MU project will produce 3.2 MW (more than double) and measure 100 m high (25% more), with blades 55.8 m long (48% longer) – 155 m high in total.

They will be equipped with a heating system to de-ice them, minimizing production stoppages in winter frost periods.



In terms of price, during the last call for tenders in Quebec, wind energy became the most affordable form of production of new megawatts of electricity, at 6.3 cents per kWh.

The reality is therefore a long way from the 12.4 cents per kWh that some associations are constantly repeating.

Quebec has everything to gain from exploiting the wind energy sector, which is becoming increasingly competitive and coveted worldwide.

Why not take advantage of this capacity, this knowhow?

We can even go farther with Hydro-Québec's great legacy, by optimizing the capacity of our major reservoirs.

Think of "mega batteries" that store energy while the wind turbines are turning. It's a perfect mix!

Here in Quebec, about 10% of our installed power production capacity comes from wind energy. But we can do better – in Europe, 20% of capacity comes from wind energy.

Technological improvement is even more pronounced in solar energy, where panels are very quickly gaining efficiency and declining in cost. When we built our Stardale solar project in 2012, three years ago, solar panels sold for \$1.80 per watt. Today, they sell for 65 cents per watt.

And it isn't over! It is even possible that photovoltaic panels will be integrated into residential and commercial construction materials.

And let's not forget hydroelectricity.

Even though this is a mature and well mastered technology, which perhaps is evolving a little less quickly than others, it nonetheless continues to improve, particularly in social and environmental terms.

Our water intakes are better adapted and much more respectful of aquatic habitats. We are also able to create fish habitat enhancement areas that give excellent results.

The spawning area developed at our Ashlu Creek power plant, in British Columbia, generates a hundred thousand salmon each year.

Doing better

Now let's talk about the social aspect. Even with more mature technologies, like hydro, it is not only possible, but necessary, to do projects differently.

The difference is in how we work with the community – and I say "we" because Innergex is a leader in this development model.

The community that receives renewable energy projects is no longer a spectator, but a player, and even a partner.

Innergex and its partner, the Rivière-du-Loup RCM, together built the first community wind farm in 50-50 partnership in Quebec, the Viger-Denonville wind farm. A true partnership.

This new development model enabled the community, through the regional county municipality (the MRC), to participate directly in the wind farm's development, construction, and operation.



This means they chose the "why" and the "how", with us.

We have also reproduced this model with our 150 MW MU wind farm project, in a true 50-50 partnership, with Quebec's three Mi'gmaq communities. The wind farm will be commissioned next year.

In fact, Innergex has been doing community partnerships for a long time. We believe in them. In hydro, we have several power plants in partnership with First Nations.

Our Umbata Falls power plant was the first renewable energy project carried out in partnership with a First Nation in Ontario. Another true 50-50 partnership.

Our Kwoiek Creek power plant in British Columbia is also a true 50-50 partnership with a First Nation.

Is there anyone today who would consider implementing a project that has an impact on people, without the community's cooperation?

They call it social acceptability. Or simply... common sense.

Before, the approach of most developers was to decide on a project in an office somewhere, regardless of what the local community thought about it.

Today, projects can no longer be done that way.

This is the case for any project in the natural resources field, whether a mine, a pipeline, natural gas exploration, or some other project.

All projects have some impact. What is important is to find a fair balance and develop it respectfully.

It is also important for governments to guide the evaluation of social acceptability of projects, for example, by using an evaluation grid allocating points to projects to meet certain criteria.

In doing so, all the relevant aspects of a project will be assessed, and not just the price.

The price is an important factor, of course, but the community benefits are just as important.

At Innergex, when we assess the potential of a resource (water, wind, sun), we attach the same importance to ensuring that our projects will be well accepted by the neighbouring populations – so much so, that our projects end up becoming their projects.

This was the case for Viger-Denonville, for Umbata Falls, for Kwoiek Creek, and for MU in the Gaspésie region, where the leadership of the Mi'gmaq communities made the difference and made this project possible.

This was also the case in the 1990s, when the Chaudière project began near Quebec City.

The Chutes-de-la-Chaudière RCM and the towns of Saint-Nicolas and Charny played a key role in ensuring the project's success. It was their project.

But sometimes, this also means that when you do not succeed in building a project's social acceptability, you have to be able to give it up.



You must have the judgment, integrity, and courage to do this fairly early in the development process, or else there will be confrontation.

When we first began 25 years ago, we dropped a project, the Port-Cartier project in Quebec, because it risked having a significant negative impact on the river's salmon population.

Later, we also renounced the M'kwalts project in British Columbia, out of respect for the First Nations, for whom the site where the project would have been located was sacred ground.

Today, we our building our biggest hydroelectric project on the territory of these same First Nations, at a different location, of course.

Why? Simply because we respected them.

So Innergex was among the first to apply this sustainable business model in Quebec and in the rest of Canada. It has always provided us with very good results.

Today, Innergex is a Canadian leader in renewable energy, with 33 sites in operation and 5 projects under construction, which will be commissioned by the end of 2016.

By the end of the year, we will have about \$3 billion in assets and EBITDA of nearly \$200 million.

By 2017, we forecast assets of about \$3.5 billion, EBITDA of \$295 million, and Free Cash Flows of about \$105 million... with the existing projects.

This is \$105 million a year to pay a dividend to our shareholders and reinvest in new projects to ensure our long-term growth.

All this, while honouring a commitment to produce renewable energy exclusively, a commitment we recently reaffirmed on our 25th anniversary.

Our business model depends on balancing the "three Ps": People, Planet, and Profits.

People: our employees, the host communities, the partners...

Planet: the environment, climate change, aquatic habitats...

Profits: fulfill our obligations to our shareholders, but never to the detriment of people or the planet. It's a question of balance.

Now, we are turning to the future and intend to profit from a global context that is increasingly favourable to renewable energy, by exporting our expertise and our sustainable business model to new international markets in Europe and Latin America – particularly in France and Mexico.

In France, we still see a lot of potential in the development of wind farms in this market, which is seeking to reduce the proportion of nuclear power in its electricity production.

In Mexico, we see plenty of potential for all forms of renewable energy, as the demand for electricity is growing strongly, at more than 5% per year.

But we think we are in the best position to benefit from the development potential of small hydro projects. Why? Because we have expertise that has become fairly rare around the world.



We are capable of doing the development, engineering, financing, and operation of hydro projects from A to Z.

We also know how to work in partnership and close cooperation with indigenous peoples – relations with the indigenous peoples can be a key issue in Mexico.

In fact, we have just signed a memorandum of understanding with Mexico's Federal Electricity Commission (the equivalent of Hydro-Québec), to collaborate on the development of hydro projects under 200 MW.

We know this energy development model represents the future of renewable energy in Quebec, in Canada and all over the world: human-scaled projects, respectful of the environment and well integrated into the local setting, with the support of communities and First Nations.

This is the 3 Ps principle.

The future

A company like Innergex must plan and have a long-term view, over 20 or 25 years or even longer. If we wait for the demand to be there and then respond, it is already too late.

The same is true for governments.

This is why there have always been periods of power surpluses and deficits.

It is precisely these deficits that must be anticipated and avoided, because if demand precedes supply in the energy field, not only does it hinder development, but it may take a very long time before this demand can be met.

Why? Because the development cycle – from idea to commissioning – of an energy project is 5 to 10 years.

Supply and demand are like oil and vinegar. It's difficult to find the perfect balance!

These cycles of surpluses followed by deficits are nothing new, and Quebec is very adept at managing them.

We need only think of the electrification of residential heating in response to the surpluses that followed the commissioning of James Bay in the 80s.

We hope that all governments have this same long-term vision.

They must create this long term by committing to favour the transition from an economy based on fossil fuels to a green economy, and by expanding the place of clean and renewable energy in this economy.

This will mean, among other things, making a commitment to transportation electrification.

It will also mean putting a fair price on carbon.

At Innergex, we support carbon pricing or any other mechanism to internalize environmental and social costs in the price of energy.

It will also mean stopping the release of waste into the atmosphere, thinking that it has no impact and costs nothing.



We no longer leave our garbage lying in the streets, it's no longer acceptable to discharge sewage directly into the river – so why, today, should the atmosphere be considered a free garbage dump? This is crazy!

And it will also mean major investments in power transmission infrastructure – whether transmission lines, charging terminals, smart meters, or other equipment.

I would like to mention the recent City of Montreal initiative, in collaboration with the provincial government and Hydro-Québec, for the deployment of a hundred charging terminals for electric cars on downtown streets. This is only the beginning.

Governments must help utilities successfully transition to new power production, distribution, and consumption models.

Provinces like Quebec and British Columbia have abundant sources of clean and renewable electricity and enormous development potential.

They are near markets that are have a great demand for this type of electricity – Ontario, Alberta, and the United States.

New ways must be found to serve these markets.

We must make it possible to balance intermittent electricity sources, such as wind energy, with constant sources, such as large hydro. This is what has been done very well in Quebec. Remember the "mega batteries".

Interconnection between grids must also be developed to maximize supply and make procurement more flexible.

By doing this and finding synergy and complementarity with private electricity producers, Canadian utilities (Hydro-Québec, BC Hydro...) could become indispensable in the delivery of renewable energy in North America.

While the entire world is beginning the transition from fossil fuels to renewable energy in electricity production, Quebec already produces 98% clean and renewable electricity.

This advantage is the result of the long-term vision and courage of previous generations. But we can't stop there.

To maintain this advantage, Quebec must pave the way for the transition to a green economy. This will require vision and courage.

And Innergex will be there.

Thank you.