1-1-2010

Bill 150: The Green Energy Act: An Analysis of Green Energy Politics in Ontario

Peter Markvoort
Western University

Bill 150: The Green Energy Act:
An Analysis of Green Energy Politics in Ontario

Masters of Public Administration Research Report

Submitted to:
The Local Government Program
Department of Political Science
The University of Western Ontario

Peter Markvoort (250 271 669)
January 2010

Executive Summary

The Ontario Legislative Assembly has passed Bill 150: The Green Energy Act that will position itself as a green energy leader in North America. This report addresses that this new legislation, although a bold step forward is not actually innovative, as it is mostly a compilation of policy suggestions made to the Ontario Government since the 1970's.

The current Liberal government has taken advantage of a policy window, created by an economic recession, and a pro-environment paradigm shift, to be able to pass this legislation successfully. The Green Energy Act presents policy suggestions from years prior in a way that would appeal to the public's desire to be both economically productive, and environmentally friendly.

The official Opposition presented reports in the House during readings of Bill 150 that suggested the Green Energy Act could have negative economic impact, in terms of a dramatic increase in electricity costs that would counteract the proposed increase in employment opportunities.

The Green Energy Act was also criticized for not addressing nuclear energy, and was further patronized for not listing nuclear energy with coal and oil as dirty energy sources. The Opposition also touched on the serious health concerns surrounding wind turbine technology.

This report shows that there is still significant uncertainty in many areas of green energy and that only time will tell if the Green Energy Act will be economically viable and environmentally friendly.

Acknowledgements

I would like to acknowledge a few people whom supported me throughout this process, and made this paper a reality: My research advisor Andrew Sancton, my mentor Diane Cunningham, my English consultant Kim Markvoort, and my patient and loving Mother. I would also like to thank the University of Western Ontario for providing me with this opportunity.

Table of Contents

List of Appendices

Introduction

The Province of Ontario (Ontario), Canada is entering an energy and economic renaissance. Bill 150, the Green Energy Act (GEA), became law May 14, 2009 and will position Ontario as a green energy leader in North America.

The GEA addresses the importance of a commitment to creating better quality air and a cleaner environment. It substantiates the role renewable energy, including green electricity generation, plays in reaching that commitment.

Through examination of electrical power research, planning, and recommendations in Ontario over the past forty years, this report will discuss the green paradigm shift and the economic circumstances that created a policy window for the GEA to receive Royal Assent.

This report provides an assessment of the GEA which establishes that although there has finally been a compilation of four decades of expensive government-funded research in the creation of the GEA, there are still substantial areas of uncertainty surrounding the economic viability and the environmental safety of the identified renewable energy technologies.

The History of Green Energy in Ontario

This section of the report will focus on the forty years of research that led to the creation of the Green Energy Act (GEA). It will specifically outline replicated policy suggestions from various research ventures that were repeatedly over-looked, and subsequently delayed for future generations to consider. This section will also address the fluctuation of public interest in the environment and energy resources, and the consequences this wax and wane had on policy creation. The economic condition of Ontario will also be discussed within the emergence of the open policy window that stimulated the passing of the GEA.

The Oil Crisis of the 1970's

If the world was not already aware of oil security issues and the need to start planning for alternative processes of creating electricity; 1973 would be a year developed nations would be awakened to the scarcity of oil on Earth. George E. Gathercole, former Chairman of Ontario Hydro, discusses 1973 as a year in which the bleak prospect of an energy crisis confronted the major industrial countries. With curtailed oil exports from the Middle East, many parts of the world experienced severe shortages of energy.[1] In 1973 people were asked to turn their lights off, unplug their second refrigerators, and do everything they could to conserve energy.[2] General public opinion was that there was a serious energy shortage, and that the government had to do something to protect its citizens. About one-half of Ontario's head-of -households expected that there would be

[1] Ontario Hydro. *Annual Report.* 1973
[2] Interview with Dianne Cunningham. London, Ontario. December 2009

moderate to severe shortages of home heating oil and gasoline in the next five years. About four in ten head-of-households expected moderate to severe shortages of natural gas and electricity, while about one-quarter of head-of-households expected severe shortages of coal.[3] The change in public perception put pressure on the Ontario Legislative Assembly to step up to the challenge of planning Ontario's energy future.

The Cabinet ordered a study to be conducted on power planning in Ontario. The Royal Commission on Electric Power Planning (EPP), created in 1974, had the task of researching, planning, and giving suggestions on Ontario's energy strategy. Ontario's energy demand would double by 1983, and double again by 1993. There had to be an expansion of power generation to meet this demand. In designing a system it would be necessary to not only use financial models of decision-making, but include the social and environmental impacts of power generation.[4] The group selected to conduct the research set out to take a holistic approach to the issues, including the possibilities of using alternative and renewable resources. "Central among the basic requirements in developing any energy strategy is a consideration of the primary fuel needs. In particular, the question arises – what primary fuels should be used to generate electric power in Ontario taking into account economic, financial, environmental, lifestyle, health, and fuel availability factors?" [5]

---

[3] Royal Commission on Electric Power Planning. A Study of Awareness, Attitudes and Future Expectations of Ontario Residents Regarding the Supply and Use of Electric Energy, Volume 1, 1976. P 23

[4] Ontario Hydro. *Long-range Planning of the Electrical Power System.* February 1974 p.32

[5] Royal Commission on Electric Power Planning. *Preliminary Issue Papers*, 1976. p.1

The public became more aware, and more concerned with the environment, and the damage that producing power using fossil fuels was doing to the environment. The pollution from fossil fuels was killing and disabling people: the permanent legacy of environmental destruction from coal mining was becoming apparent.[6] Local utilities were pushing for alternative generation, and asking the government to seriously consider the ever-increasing viability of alternative sources of energy such as solar, wind, and methane.[7]

With what seemed like the public's support, the Royal Commission on EPP launched a three-year study in which they interviewed industry professionals, the general public, academics and politicians. The Royal Commission on EPP report came out with some very interesting findings. It pointed out that historically Ontario's power generation was primarily from renewable resources. Wood fire, windmills and hydroelectric generation have all supplied substantial amounts of electricity in Ontario.[8] For fifty years Ontario was powered entirely by hydroelectric generation.[9] Findings however showed that the hydroelectric generation was at capacity, with little room for growth, which is why the province subsequently invested so much in coal and nuclear. The trends clearly show that nuclear and coal generation was rapidly increasing while the environmentally friendly generation of power was staying the same.[10] "Renewable energy resources had to be

---

[6] Royal Commission on Electric Power Planning. *Preliminary Issue Papers*, 1976. Appendix A
[7] Royal Commission on Electric Power Planning. *Additional Bulk Power Facilities in Southwestern Ontario.* June 1979 (Turnberry-Howick Hydro Corridor Committee)
[8] Royal Commission on Electric Power Planning. *Preliminary Issue Papers*, 1976. p.23
[9] Royal Commission on Electric Power Planning. *Preliminary Issue Papers*, 1976. p.8
[10] Royal Commission on Electric Power Planning. *Preliminary Issue Papers*, 1976. p.13

supplemented on an ever-increasing scale, by fossil fuels and more recently by nuclear energy. However, the marked increases in the cost of electric power generation using conventional and nuclear fuels, together with the prospect of future shortages as well as environmental concerns have given rise to the resurgence of alternative renewable energy technologies."[11]

The increasing pace of development over the years was giving rise to the fear that irreversible damage was occurring. The long-range plan had to preserve the flexibility to construct facilities which would do an adequate job with minimum effect on the environment under existing technology, but the door would also have to be kept open to allow technological breakthroughs that could occur in the future.[12] When the Royal Commission on EPP looked into the viability of expanding renewable generation, it confronted many roadblocks. Solar technology, often considered the way of the future, was found to be too new and uncertain, and it could not yield the amount of energy necessary.[13] The scope for wind energy was not particularly appropriate because the average wind velocities in most locations of Ontario are below those needed to create significant amounts of energy (with the technology available at the time.)[14]

The Royal Commission on EPP took so long to complete its report that by the publication date in 1976, the public had started to lose interest. The Royal Commission on EPP findings clearly stated the need for investment in renewable resources, and for the

[11] Royal Commission on Electric Power Planning. *Preliminary Issue Papers*, 1976. p.23
[12] Ontario Hydro. Long-range Planning of the Electrical Power System. February 1974 p.3
[13] Ontario Hydro. *Long-range Planning of the Electrical Power System.* February 1974 p. 13
[14] Royal Commission on Electric Power Planning. *Preliminary Issue Papers*, 1976. p.29

government to allocate new funds dedicated for research and development in the green energy field. The political pressure shifted away from the energy crisis of 1973 however, and the public interest in energy resources waned. By 1976, 62% of Ontario heads-of-household felt that prime farmland should only be used for agricultural purposes. They felt that food was more important than power generation and distribution.[15] "Less than 5% of family heads identified electric generating stations as being primarily responsible for air, water and land pollution."[16]

There was a massive paradigm shift, and the urgency of the energy crisis was all but a distant memory. It became accepted that the province would continue to meet the energy demand by burning coal and uranium, and that this practice would likely occur to year 2000.[17] An official from the Royal Commission on EPP stated:

> *"While we would support the expenditure of reasonable sums on research and development of new generation technologies employing such sources as solar, geo-thermal, wind etc., we do not see these as being a practical alternative to the present sources until after the turn of the century."*[18]

---

[15] Royal Commission on Electric Power Planning. *Preliminary Issue Papers*, 1976. p.22
[16] Royal Commission on Electric Power Planning. A Study of Awareness, Attitudes and Future Expectations of Ontario Residents Regarding the Supply and Use of Electric Energy, Volume 1, 1976 . p.26
[17] Royal Commission on Electric Power Planning. *Preliminary Issue Papers*, 1976. p.13
[18] Royal Commission on Electric Power Planning. *Preliminary Issue Papers*, 1976. Appendix A

Rather than making investments in solar, which was identified as a huge opportunity[19], Ontario went forward with a large investment to the Nanticoke coal burning generation station.[20] As George E. Gathercole foreshadowed in his report, after the energy crisis any investments made would be to stabilize the price of energy not inflate it.[21] If green energy was going to make energy more expensive, then it wasn't an option that was to be considered.

The public began to shift responsibility onto future generations, focusing on environmental education, and building a culture of conservation.[22] The other solutions were government policy areas such as bulk metering, marginal cost or time-of-day pricing, or changes concerning the encouragement of conservation.[23]

Without public pressure, the political atmosphere for change in the energy field was stale. No politician was willing to take it on. The suggestions of the Royal Commission on EPP became another not-acted-upon study and there was no significant change in policy. It was not until the late 1980's that energy once again appeared on the public's radar.

---

19 Royal Commission on Electric Power Planning. *Preliminary Issue Papers*, 1976. p.26
20 Ontario Hydro. *Annual Report.* 1973
21 Ontario Hydro. *Annual Report.* 1973
22 W.E Thomson, Commissioner of planning and development, Waterloo
23 Glenn J Wood, Kitchener, Ontario

The 1980's: A Renewable Resurgence.

In 1984, exactly a decade since the Royal Commission was ordered; there was a resurgence of public interest in Ontario energy policy. Ontario Hydro commissioned a study that would evaluate the demand/supply strategy and involve public hearings and meetings with industry professionals. The Demand/Supply Planning Strategy (DSPS) would be presented to the Ontario Legislature's select Committee on Energy in 1989. The objective of Ontario Hydro DSPS was to address issues relating to rising fuel costs and strategies to lower costs.

The Ontario Hydro DSPS recognized that there was wide public support for implementing options such as wind and solar, but the public was unaware that these could cost over twice as much as conventional power generation. Large-scale implementation would not be in line with the public's desire to have low cost energy. There were also reliability problems with solar and wind: as the sun sometimes does not shine, and the wind does not always blow.[24] There was need for more supply. Although there was pressure to generate this supply using wind and solar; due to their limited potential they were not capable of meeting the substantial increase necessary. The major contributions were to come from a combination of fossil fuel, nuclear, and limited hydraulics.[25]

---

[24] Ontario Hydro, System Planning Division. *Demand/ Supply Planning Strategy*. March 1989.p.62

[25] Ontario Hydro, System Planning Division. *Demand/ Supply Planning Strategy*. March 1989. P.57

The major progress the Ontario Hydro DSPS report did make was in identifying the need for a non-utility generation incentive. This means privately owned and funded energy generators could sell their energy back to the grid. The report stated that special rates when purchasing electricity from non-utility generators and incentives for non-utility generation projects should exist, but should vary, depending on many factors. Special attention and focus needs to be given to environmentally friendly initiatives.[26] "Part of the non-utility generation will be from small hydro-electric generators. This provides the advantage that additional electricity will be from a renewable resource that has minimal environmental impact, and will support local industry and economic development."[27] These types of generation facilities would be specifically useful in remote communities, and could be used to replace diesel-generated activity. [28]

The Ontario Hydro DSPS report addressed the public's concern over the expansion of renewable power generation, but what was more on the public agenda was the rising cost of electricity. The report rejected the idea that renewable energy would be cheaper but did make a commitment for Ontario to continue to investigate the technical and economic feasibility of alternative generation sources, particularly those that use renewable Ontario resources.[29] The main progress was the accepting of non-utility generating stations, and

[26] Ontario Hydro, System Planning Division. *Demand/ Supply Planning Strategy*. March 1989. P. 20
[27] Ontario Hydro, System Planning Division. *Demand/ Supply Planning Strategy*. March 1989. P. 57
[28] Ontario Hydro, System Planning Division. *Demand/ Supply Planning Strategy*. March 1989. P.67
[29] Ontario Hydro, System Planning Division. *Demand/ Supply Planning Strategy*. March 1989. P. 24

the acceptance that they would likely need some sort of incentive in order to start creating green energy.

Similarly to the 1970's however; public momentum on renewable green energy was halted. The developed world was busy over oil security, and the Persian Gulf War. Operation Desert Storm took over the stage. Governments were investing in their oil reserves, rather than alternative forms of generation. Again, any progress made by this report, and policy suggestions, were put off to future generations to implement.

The Late 90's to the new Millennium: A Green Shift, a Broken Economy, and an Opened Policy Window.

In 1998 Ontario started to advertise itself as a province that would be supportive of green energy. In marketing exert the province claimed: "Ontario's renewable energy sector is strong in wind energy, energy from biomass, methane gas recovery from landfills, micro/small hydro, geothermal, solar thermal, and photovoltaic."[30] The Government was starting to feel the pressure of the Ontario public and the need for an environmental shift in energy creation. In 2003 the Liberals won a majority government in Ontario, top among their green initiatives was the commitment to shut-down coal burning fire generation plants. Premier McGuinty bragged, "There is only one place in the world that is phasing out coal-fired generation. We're doing that right here in Ontario" [31]

With green energy seen very favorably in the new green conscious society, the government set up the Renewable Energy Standard Offer Program (RESOP) in 2007. This accomplished many of the goals set out in the 1989 Supply/Demand Planning Strategy report. The intent of the RESOP was to help Ontario meet its renewable energy supply targets by providing a standard pricing regime and simplified eligibility, contracting and other rules for small renewable energy electricity generating projects.[32] Finally, almost two decades after the Ontario Hydro DSPS had been published, the government appeared to be making progress by implementing policy initiatives envisioned in prior decades.

---

[30]The Government of Ontario. *The Futures Right Here.* 1998. P. 8
[31] Premier Dalton McGuinty, Toronto 2007
[32] Ontario Power Authority. Standard Offer Program, Renewable Energy, An Introductory Guide. 2007. P.2

From 2000 to 2010 there has been dramatic change to the way the public perceives the environment. People are more aware of the permanent damage anthropogenic influences have on the environment, and how those damages could negatively impact their personal well-being. The general public in Ontario are currently making changes to their lifestyles that are more environmentally conscious due to government regulations and guidelines; for example: municipalities are limiting the amount of garbage a household can leave for curbside pick-up; laws are being created that limit the amount of idle time in a running car; comprehensive recycling programs are being introduced; and there are numerous government endorsed and funded consumer incentives to purchase environmentally friendly cars and appliances.

There has been a definite shift in Ontario public environmental values. The dramatic change in consumer conscience has not only influenced the inception of government regulations and guidelines, but also the corporate world.[33]

Corporations are now focusing on "being green". Lynn Paine, author of *Value Shift,* insinuates that although the general public would like to believe that corporations are becoming more environmentally friendly due to a desire to leave less of a carbon footprint, it is more likely part of their stakeholder management system. Corporations realize that, in order to stay profitable they need to appeal to their consumer, and consumers now care about the environment.[34]

---

[33] Paine, Lynn. (2003). *Value Shift.* New York: McGraw-Hill Publishing.
[34] Paine, Lynn. (2003). *Value Shift.* New York: McGraw-Hill Publishing. p.3

This theory of stakeholder management also applies to the government, in that the constituents are equal to the stakeholders. If politicians want to stay in power and be successful, as corporations need to remain profitable, then politicians, like Corporations, need to be able to properly appeal to, and manage, and their constituents. In this new environmentally conscious world, that means creating public policy with the environment in mind.

United States President Barack Obama claimed in his inaugural speech that America, "will harness the sun and the winds and the soil to fuel our cars and run our factories."[35]

In 2009 the American popular vote supports the environment. It is therefore, no surprise that the current Liberal Government of Ontario introduced legislation that will put Ontario on the international map when it comes to green and renewable energy. This not only will make them popular with their constituents, but will also earn them international credit. The Governor of California, Arnold Schwarzenegger, applauded Ontario's efforts and said that, "Like California, Ontario is leading the way in recognizing that we must take action now to fight global warming and to reduce our dependence on fossil fuel. We are working together to find solutions that both protect our environment and grow our economy. Working with our partners, California can achieve more reductions in global warming pollution than if we go at the problem alone."[36]

---

[35] Barack Obama, Presidential Inaugural Speech, January 2009
[36] www.greenenergyact.com

Paired with the green paradigm shift is the current credit crisis and, what is being labeled, the worst economic recession in a century. Billion dollar corporations, industry giants, and world-class banking institutions across the globe have gone out of business. In North America the problem is multiplied by a failed auto industry and slowing manufacturing sector. Industry great General Motors, unable to restructure, has entered into Chapter 11 Bankruptcy Protection, and is now owned primarily by the Government of the United States of America. The failing automotive and manufacturing sectors have caused raw good industries, such as forestry, mining, and steel, to close shop. All of this turmoil has led to massive layoffs, and soaring unemployment rates.

In Canada from 2004 to 2008, more than one in seven manufacturing jobs disappeared.[37] As Ontario is a part of Canada's industrial core (Ontario and Quebec), the majority of manufacturing job loss was in Ontario.[38] The Government of Canada has launched a massive economic stimulus program to help put life back into the country's economy. The unemployment rate in Canada is currently 8.5%. Stabilization in employment has occurred over the last nine months (May 2009 to December 2009); however employment remains 1.9% below the October 2008 peak. [39]

[37] Bernard, André. *Trends in Manufacturing Employment.* Statistics Canada – February 2009 Prespectives. Catalogue No. 75-001-X. p.7
[38] Bernard, André. *Trends in Manufacturing Employment.* Statistics Canada – February 2009 Prespectives. Catalogue No. 75-001-X. p.7
[39] Statistics Canada. Labour Force Survey, December 2009.

With this economic turmoil, the Government needed, and was expected, to make an investment to boost the economy. The combination of corporations and investors looking for a profitable place to invest that had relatively mitigated volatility, and the public desperately seeking jobs, with the general value shift to environmental consciousness: created an open policy window for the Government. The time finally became ideal for legislation that would drive an economically stable and environmentally friendly future.[40] Thus, the Green Energy Act was able to get the policy initiatives of the past forty years pushed through Queen Park, and given Royal Assent.

[40] Lesourd, Jean-Baptiste. (2001). *The Environment in Corporate Management.* Northampton: Edward Elgar Publishing Inc. p.19

Bill 150: The Green Energy Act

This section of the report begins with a summary of the foundations of the GEA. The central focuses of this section are on the areas of contention within the GEA, confirming that although the GEA has been in the works for forty years, there are still elements of green energy that are very volatile and uncertain.

Green Energy Act: 40 Years in the Making

An energy and economic revitalization is occurring in Ontario. Ontario is on a particular and deliberate path to position itself as a renewable energy leader in North America. In 2008, the Provincial Government established a new Ministry: The Ministry of Energy and Infrastructure, currently being led by the Hon. Brad Duguid. The Ministry set-out to create legislation that would solve the inefficiencies and road blocks currently being faced in Ontario's energy industry. The GEA presents an opportunity for Ontarians to make a bold move towards a cleaner, greener, Ontario. The GEA discusses increasing and/or establishing a conservation culture in Ontario. It pushes for more renewable power, on a shorter timeline. Generating renewable power that is cleaner, greener and online quicker is one of the key elements of the GEA.

The GEA takes elements of the 1989 Ontario Hydro DSPS report, by making it easier for renewable projects to come to life through the establishment of a feed-in tariff, which will pay the energy producer a set amount based on type of production. This will help

level the playing field, and allow the energy producers to stay competitive against other forms of production such as nuclear and coal.

As similarly suggested in the Royal Commission on EPP (1974), the GEA also aims to establish a culture of conservation. Local distribution companies will be given a mandatory conservation targets based on the Ontario Power Authority's assessment of conservation targets for the province and each local distribution company will have the opportunity to identify what their local needs are by establishing their own conservation requirements and programs. There will also be the establishment of time of use pricing, which charges consumers more or less for energy consumption based on the time of day of usage.[41]

Also stemming from the Royal Commission on EPP is the encouragement of distributed power generation. The GEA provides rights for all energy producers to connect to the grid. It also streamlines the approval process, and creates a service guarantee that all complete submissions will have a six-month maximum timeline to obtain a permit.

Aside from the regulatory changes being made by the GEA, the legislation also aims to mandate investment in transmission and distribution infrastructure. This means a significant amount of funding given to the Independent Electricity System Operator (IESO). They will have the opportunity to make massive infrastructure investments in the

[41] Hon. George Smitherman, June 2009

wire systems of Ontario, and they will be obligated to create a transmission system that can handle the addition of dispersed renewable power generation. The term "Smart Grid" has been coined for use when discussing the type of wire infrastructure that the province seeks to have in place in the future.[42]

> *"Ontario has set high aims for itself and high goals and does want to be a North American leader in the area of renewable technology. If the legislation goes forward as well, we anticipate in the first three years approximately 50,000 jobs will be created. Transmission, distribution, renewable energy, Smart Grid technology, all those areas will provide opportunities for investors, and with domestic content requirements will create manufacturing jobs, and value added jobs here."*[43]

The GEA is a compilation of government-funded research done over the past forty years. Vitally important to Royal Assent of Bill 150: The Green Energy Act was the environmental paradigm shift and the need for the government to take serious action against the current economic crisis. These two factors helped to create the perfect storm for the essential policy window to be open. Energy resource issues and suggestions that had been previously over-looked were able to be brought again to the forefront.

Although the GEA is not full of all new original ideas, and it primarily reflects information known by environmentalists and energy experts for almost a half of a

---

[42] www.greenenergyact.ca
[43] Hon. George Smitherman, June 2009

century, it still can be, and should be, considered forward thinking, ground-breaking legislation.

The Green Energy Act Alliance is a not-for-profit organization that supports the GEA. They have created a summary of the various elements of the act, and what will be expected as the act rolls out over the next few years. [44] This summary can be viewed in Appendix A.

The Green Energy Act- The Debate

The GEA was first proposed to the house, and got carried into second reading on February 23, 2009. The GEA was debated in second reading over eight council meetings. At this point the GEA got referred to committee. (For more information on the Ontario Legislative Procedures refer to Appendix B).

During the month of April 2008, the Standing Committee on General Governance (Committee) listened to 130 presentations made to them regarding the Green Energy Act. The committee was made up of Liberals and representatives from opposition parties, the Progressive Conservatives, and the New Democrats.

Presenters were made up of individuals, municipalities, professional societies, think tanks, not-for-profits, local distribution companies, and companies representing the

[44] www.greenenergyact.ca

various forms of renewable energy. A complete list of presenters is available on the Government of Ontario website and has been replicated for review in Appendix C.

The individuals who presented were either in favour of the legislation, and thought it was fantastic, or were disgusted that the Government would be trying to pass such a terrible piece of legislation. The municipalities fought for their own interests, not wanting to lose land-use planning power. Many municipalities, including London Ontario, had green energy planning already underway. Municipalities felt that the GEA would undermine their current efforts and waste years of research and development. The various industry sectors also all fought for their own interests. The farmers wanted to make sure that their land was protected. The solar and wind farmers wanted to be able to use all land for energy. The wind and biomass industry representatives all wanted a larger feed-in-tariff. Professional societies, such as the society of engineers, wanted to make sure that all decisions made would be scientifically sound.[45]

With the 130 presentations being primarily self-interested, it is up to the committee to listen to the various presenters and decide what is actually important, what amendments actually have to be made, and which recommendations were overstated and self-interested.

[45] Standing Committee on General Governance, April 2009

During the third reading of the house, debate ensued over the GEA and many of the presentations, specifically the ones surrounding wind turbines and land planning, were used by both the Liberals and the Opposition. The Opposition gathered the negative feedback from the presentations and used it as ammunition against the Liberals during debate. In the same sense, the Liberals gathered the positive feedback from the presentations and used it to defend their legislation during debate.

Third-reading debate on the GEA lasted for a full week. Through careful study and analysis of Hansard from the week of debate that occurred after the third reading of the GEA to the House, numerous points of contention were identified and discussed with the GEA. There were two areas where serious uncertainty existed: first, in the area of economic viability; and second, in regards to the impact nuclear power and wind turbines have on the environment.

The area with the greatest amount of disagreement between the Liberals and the Opposition was the economic viability of the GEA: the governing majority citing the positive benefits, while the official Opposition warned of serious economic repercussions of the GEA.

The other major area of debate was the environmental effects of renewable energy technologies: especially nuclear and wind. Although nuclear energy was not openly incorporated within the GEA, many government representatives saw this as a

fundamental flaw of the GEA and thought that nuclear energy should have been addressed directly, especially considering the disposal uncertainty of its radioactive production waste. Wind Turbines were not being questioned on their environmental safety in regards to their carbon output, but rather their environmental safety in regards to the affects they have on the inhabitants, both people and wildlife, of their surroundings.

The Green Energy Act - Economic Viability

In the current economic climate, decisions being made in the House have to be economically viable. With public pressure on the government to launch Ontario out of the current recession, all decisions need to be financially sound. Decisions that are viewed as financially unsound provide a fault for the Opposition to "attack." An "attack" on the Government and could lead to mass public unpopularity, and could even cause a loss of a future election. In the scenario of the Green Energy Act, one of the areas with greatest contention was the impact the GEA would have on the economy.

Employment Opportunities

The governing majority, the Liberals, and the third opposition: the New Democratic Party (NDP), believe in the ability the GEA has to create new jobs in Ontario. The official Opposition, the Progressive Conservatives, however; fear that the policy-makers have failed to properly predict the impact that the GEA will have on the price of electricity in the province. They feel the GEA will increase the cost of electricity, thereby driving up the cost of doing business in Ontario, and reducing the province's competitiveness in the international marketplace. The reduction of international competiveness will presumably

drive business out of Ontario, neutralizing any of the job creation gains originally accomplished by the GEA

In George Smitherman's opening address during the debates preceding the third reading, he spoke to the ARISE Technologies solar company situated in Waterloo, Ontario. ARISE Technologies is a world leader in solar technology, which originally had to leave Ontario due to the lack of support being given by the government. They were given a ten million dollar incentive to move their production to Germany. With the proposed GEA ARISE Technologies are, "convinced the feed-in tariff proposed by this act is exactly the step that is required to boost investor confidence and access to financing. It expects that if the act is passed, a number of projects that are currently on its drawing board will get under way and new ones will step up to the plate."[46]

This is one example of how the feed-in tariff will drive economic growth in the province, by creating jobs in industry that would otherwise be unable to afford to operate in Ontario.

Phil McNeely, another member of the Liberal caucus, also drew form external media comments. He drew on the expertise of Sir Nicholas Stern, the former World Bank chief

[46] May 4th, 2009, Ontario Legislative Assembly Hansard, Hon. Goerge Smitherman

economist, whom predicted that the GEA would be "extremely persuasive" to other jurisdictions and called the opportunities ahead an "economic no-brainer."[47]

McNeely defended the ability the GEA has to create jobs:

> *"The Green Energy Act would help to create jobs in a wide range of areas, including construction, domestic manufacturing and assembly, architecture, trucking, servicing and installation, and other sectors such as finance, IT and software. Many of the new construction jobs would be created by local distribution companies and Hydro One as they endeavor to upgrade their network infrastructure in order to allow additional renewable generation to be fully integrated with the grid; 50,000 jobs in the first three years, as well as at least $5 billion of investment in infrastructure and expenditures on renewable generation and conservation."*[48]

The NDP also believe in the ability the GEA has to create jobs in Ontario. Where the NDP disagreed with the Liberals is in the stipulation in the GEA regarding "made in Ontario."

The NDP focused their debate on changing the legislation which requires any of the power generation facilities receiving a feed-in tariff, to be manufactured and maintained by at least 60% local personnel. The NDP emphasized the need for the manufacturing

[47] May 5th, 2009, Ontario Legislative Assembly Hansard, Phil Mcneely
[48] May 5th 2009, Ontario Legislative Assembly Hansard, Phil Mcneely

facilities to be in Ontario, and the staff trained to maintain these facilities be Ontarians. Gilles Bisson urged the Liberals to be open to later amendments that would include a made-in-Ontario clause:

> *"Let's look at what technologies we can build here in Ontario when it comes to solar, wind and others, how we can put a buy-Ontario clause within the legislation to make sure that we give incentives to manufacturers here in Ontario to produce these particular goods. Imagine the jobs that could be created just installing and maintaining some of this equipment around the province."*[49]

The Progressive Conservatives disagreed with the notion of significant job creation from the GEA. Paul Miller, a member of the official Opposition stated that he had grave concerns about the estimate of 50,000 jobs, "Let's say that was the scenario and they did create 50,000 jobs; well, I tell you right now, we've lost almost 20,000 jobs in Hamilton alone. So if we took 20,000 off the 50,000 and you split up the rest, the 30,000, that they say is going to happen and you divide that across the province of Ontario, that's not much of an impact."[50] The official Opposition not only questioned how many new jobs the GEA would be able to create, but also presented the idea that the GEA will drain jobs from the province.

John Yakabuski, a very vocal member of the Opposition, attacks the Liberals on their

---

[49] May 11th 2009, Ontario Legislative Assembly Hansard, Gilles Bisson
[50] May 11th, 2009, Ontario Legislative Assembly Hansard, Paul Miller

notion of the creation of 50,000 jobs, "The total number of people employed in the energy industry in Ontario today is 35,000, but they're going to create 50,000 new ones. Sounds like a fairy tale."[51] He also drew on evidence from other jurisdictions. A research study by Juan Carlos University in Madrid stated that for every job created in renewable energy, particularly wind, that they were losing 2.2 jobs due to the rising costs of doing business. [52]

The Progressive Conservatives also cited other international examples including Spain and Germany who are generally seen as energy leaders after whom Ontarians should be modeling their green economy. In the most recent economic downturn however; the country that came out in the worst position was Germany: The high cost of electricity was blamed for the hard fall of the German economy, because people could no longer afford to do business in, or with, Germany.[53]

The NDP defended the Liberals' job creation number by explaining the cost of electricity in Germany, and how industry there actually has subsidized electrical costs, which means that they are not anywhere near the highest in Europe[54], and therefore, high electricity costs had nothing to do with the German large hit during the economic recession.

The Progressive Conservatives also pointed out the recent amendments made to Bill 162, a Bill about non-partisan advertisement of government activities. The amendment

---

[51] May 4th, 2009, Ontario Legislative Assembly Hansard, John Yakabuski
[52] May 4th, 2009, Ontario Legislative Assembly Hansard, John Yakabuski
[53] May 5th, 2009, Ontario Legislative Assembly Hansard, Norman Sterling
[54] May 5th, 2009, Ontario Legislative Assembly Hansard, Peter Taburns

removed the statement that, “any numerical data in it must be supportable.” The Progressive Conservatives alluded that this was intended to draw the wool over the eyes of Ontarians, by being able to state the GEA will create 50,000 jobs but not actually having evidence to support that claim.[55]

Electricity Costs

The main argument made by the official Opposition to the economic viability of the GEA was that the rise in the cost of energy was going to drive business from the province. They attested this belief by citing other countries where the cost of electricity did raise substantially with the adoption of green energy sources, and gave examples of how this negatively affected that country’s economy. These arguments however, were easily refuted by the Liberals whom gave substantial evidence that the cost of electricity would only raise one percentage point per annum.

The Liberals emphasized their position by claiming, “A diversified energy supply mix, along with a combination of regulated and market prices will help maintain stability in electricity pricing.”[56] The Liberals offered the feed-in tariffs as one of the mechanisms for electricity pricing stability that has been used successfully around the world, and stated that Ontario seeks to use feed-in-tariffs with a combination of other initiatives to ensure feasible electricity pricing.[57] The 1% figure was derived from Ontario’s future supply mix, including new nuclear and renewable technologies, coupled with the

[55] May 5th, 2009, Ontario Legislative Assembly Hansard, Norman Sterling
[56] May 4th, 2009, Ontario Legislative Assembly Hansard, Laurel C. Broten
[57] May 11th, 2009, Ontario Legislative Assembly Hansard, Lorenzo Berardinetti.

powerful provincial history of hydroelectricity.[58]

The Opposition was not satisfied with the Liberals' explanation of electricity pricing stabilization, and commissioned a study of their own, completed by the London Economics consulting firm. A complete and final report was submitted as part of the debate in the House for the passing of Bill 150.

The Opposition's report suggested that the GEA could cost each household between $247 and $631, on average, per year between the years 2010 and 2025 as the GEA comes into fruition:

> *"This means the costs could increase in by as much as $1,200 per household. This is the equivalent of adding approximately two to six additional monthly electricity bills, or an increase of 15%. If energy audit and energy conservation plan costs are added, the cumulative effect of the Green Energy Act is estimated at between $19.4 billion and $53 billion from 2010 to 2025."*[59]

The Progressive Conservative report numbers were staggering, and well above the 1% increase stated by the Liberals.

This 15% increase would seemingly have dramatic effect on industry. The report also included public opinion on feasibly of such an increase in electricity costs. As autoworkers in Ontario were one of the hardest hit by the current economic recession,

---

[58] May 4th ,2009, Ontario Legislative Assembly Hansard, Laurel C. Broten
[59] May 11th ,2009, Ontario Legislative Assembly Hansard, Jim Wilson

they were specifically targeted and asked if they would survive with that type of jump in electricity costs: the answer was a resounding impossibility. The average cost of electricity in Ontario is already 30% higher than competitors in other states and provinces. It is therefore already difficult enough for businesses to compete. The Progressive Conservatives asserted that the 15% increase in energy costs will put many currently struggling institutions out of business and into bankruptcy, including the Government owned stake in Chrysler.[60]

Ted Arnott, another Progressive Conservative, took it one step further, stating that there will be an increase of at least 30% to the provinces electricity costs.

> *"I think it's important to point out a few facts that our caucus continues to bring forward. Fact number one is that costs for consumers will certainly increase. The government has made a statement with respect to cost increases that I think is grossly understated and intended to misinform the public about the true cost of this bill. The initial transmission investment of $5 billion, paid by 4.2 million metered electricity consumers, is about $1,200 per consumer, or 100% of their electricity bill. Spread over the years, that's a 30% increase, considerably higher than what the minister has said the hydro bills will go up."*[61]

Political Ideologies

As to be expected within a debate in the House, political party ideological values became

[60] May 4th ,2009, Ontario Legislative Assembly Hansard, John Yakabuski
[61] May 12th ,2009, Ontario Legislative Assembly Hansard, Ted Arnott

a driving factor in the discussion of economic feasibility of the GEA. During the third debate of the GEA, the Opposition used their ideological platform to emphasize their uncertainty with the GEA.

The Progressive Conservative John Yakabuski's opening arguments drove home the ideological values of his party. He generated a scenario based on the poor, cash strapped, middle class hard working Ontarian. He claimed that these particular Ontarians were already having difficulty paying for their electricity, "I can tell you that I have coming into my constituency office on a regular basis these days, more and more people who can't pay their hydro bills at the current price for electricity."[62] The Liberals again chose to emphasize that the Opposition was failing to point out that if the slight increase in electricity cost was able to stimulate the economy (as proposed with the GEA), then there will be more and greater paying jobs for people to pay their electrical bills with.[63]

The third debate of the GEA affirmed that when it came to the primary issue of the economic viability of the GEA, the three official parties of Ontario were sticking to their ideological roots: the Progressive Conservatives were fighting for lower costs to the consumer; the NDP did not think the GEA did enough for Ontarians and felt more regulations needed to be in place to protect and ensure gains for all Ontarians; and, the Liberals, who typically ideologically fall somewhere in-between these two parties, believe that the GEA will make Ontario a global leader in the development of renewable

[62] May 4th ,2009, Ontario Legislative Assembly Hansard, John Yakabuski
[63] May 5th ,2009, Ontario Legislative Assembly Hansard Norm Miller

energy, and create economic prosperity, energy security and climate protection.[64]

Coal Power

The last major attack against the GEA in regards to the economy was surrounding the elimination of coal-burning facilities in Ontario. The long-term goal of the Ministry of Energy and Infrastructure is to shut down all coal burning power generating plants in Ontario, as it is a very "dirty" way of creating electricity. The residents of Sarnia-Lambton are worried about what this means to their local economy, as shutting down the plant in their jurisdiction would mean a loss of 400 jobs and an economic hit of about $300 million dollar per annum.[65]

Conclusion of the Economic Viability Debate

The Progressive Conservatives failed to adequately refute the economic viability of the GEA. As with anything that deals with the economy, it is possible only to predict probable outcomes. The use of a report commissioned by the Progressive Conservatives themselves as the major piece of evidence against the economic viability of the GEA presented a feeble case. The weakness of the approach was even more evident since the Liberals had equally compelling reports that presented opposing information. The NDP were the first political party who seemed to accept, that within a Liberal majority, Bill 150 was going to pass. Instead of gathering evidence to refute the claims the Liberal's made for the GEA, the NDP focused on amending Bill 150 to contain what they felt was

---

[64] *Green Act Executive Summary*, Retreived from the World Wide Web: www.greenenergyact.ca, Dec. 9, 2009.
[65] May 4th ,2009, Ontario Legislative Assembly Hansard, John Yakabuski

a fundamental “made-in-Ontario” clause.

The most compelling statement made during the third debate of the GEA came from Liberal Lorenzo Berardinetti.

> *“The GEA is a movement; it has checks, balances and has been carefully thought out. New technologies, will find new jobs, these can no longer be found in old places. You're going to have to take that cap off, throw it over the fence, go over there and see what's on the other side. You're not going to go back to the old ways. The old ways are gone.”*[66]

With so much evidence supporting both the economic pros and cons of the GEA, there exists contradictory hypothesis’s of the potential economic impact the GEA will have on Ontario. It is impossible to predict the effect the legislation will have on the future economy. The strenuous debate on the topic of the economy proves that there are still huge areas of uncertainty surrounding the economic viability of green energy, and the GEA. Despite this uncertainty, the GEA has been made into law. The Government is providing Ontarians with the opportunity to be involved in change: a policy change that will strive to create jobs and a more stable economy now and in the future.

[66] May 11th ,2009 Ontario Legislative Assembly Hansard, Lorenzo Berardinetti.

The Environmental Safety of Green Energy

Green energy has areas of uncertainty surrounding its environmental safety: mainly what is considered “Green”, and what is not. The GEA did not include nuclear energy in its legislation, but the Liberal Government has made a commitment to build two new nuclear plants, and has done so under the pretence that nuclear is a “clean” energy alternative. The main debate surrounds whether or not nuclear is in fact a clean alternative. Many politicians, environmental professionals, and academics feel that it should not be classified as green energy due to the radioactive waste that is created during power generation. The GEA does not directly address the “clean” controversy surrounding nuclear energy, as it did for coal and oil burning facilities. The Opposition felt that this was a serious flaw in Bill 150.

The other green energy technology that went under significant contention during debate of Bill 150 was wind turbine energy. Similar to nuclear energy, the environmental safety of the byproduct of production of wind energy was up for debate. It has been hypothesized that the electromagnetic forces that are a byproduct of the turbines, are negatively affecting the inhabitants of nearby cities, as well as the wildlife of nearby farms and natural habitats.

Nuclear Energy: Is it Safe and can it be Considered Clean?

Nuclear energy has been something that has been debated since its inception. The debate is whether or not nuclear is considered a "green" energy by being renewable and/or clean. The NDP's issue with the GEA regarding nuclear power generation was the lack of information provided in the GEA about the uncertainty of the radioactive waste product created during production of nuclear power.

The House debate was very heated surrounding the cleanliness of nuclear energy. The Liberals quoted Keith Stewart, climate change campaign manager for WWF Canada, **"**With this initiative, Ontario is on track to become a leader in the global shift to clean energy and in preventing dangerous climate change. This Act puts in place the framework for green energy to thrive and could set us on a path toward a future based on the efficient use of renewable energy."[67]

The NDP brought letters from major Canadian environmental groups including: Pembina, the David Suzuki Foundation, Greenpeace, and the Ontario Clean Air Alliance. Their letters stated their anti-nuclear stance.[68] These groups also met with the Standing Committee on General Governance, but felt their opinions fell on deaf ears. The environmental groups accused the Liberal Government of using the GEA to divert attention and provide cover for a massive nuclear investment rollout, where Ontarians will face, "a substantial risk for the people of this province, both in terms of their

[67] May 4th, Ontario Legislative Assembly Hansard
[68] May 4th, Ontario Legislative Assembly Hansard, Cheri Dinovo

industrial future and of their electricity needs."[69]

The main issue presented was that the waste created by nuclear energy is radioactive for 10,000 years, and the Liberals (as well as any other environment advocate) should not be referring to nuclear power technology as "clean". The proposed nuclear energy strategy will cost Ontario forty billion dollars. NDP MPP Rosario Marchese stated:

> *"We have been paying for Darlington (nuclear plant) for the last 20 years and more. The next nuclear reactors we're going to be building: Your children are going to be paying for them for a whole lifetime. What do you think of that? What do I think of the bill? The bill limits the amount of renewable energy de facto, merely by the fact that you've concluded, you've said and you've decided that you're going to have two nuclear stations."*[70]

[69] May 11th, Ontario Legislative Assembly Hansard, Paul Miller
[70] May 4th, Ontario Legislative Assembly Hansard, Rosario Marchese

Limiting the Green Energy Act: Nuclear Power Generation

Fortunately for the Liberals, the controversy over the cleanliness of nuclear energy does not fundamentally underline one of the main thrusts of the GEA: creating an Ontarian culture of conservation so that people can go about their daily lives using less energy.[71] Unfortunately for the Liberals, the promise to build two new nuclear plants limits the full potential the GEA creates for renewable energy generation. This is because Ontario will only need a limited amount of other renewable power beyond nuclear to meet demand. "The way it has been written allows the minister and any future minister to constrain investment in efficiency, conservation and renewables so that the market for nuclear power will be undisturbed."[72] The criticism for the construction of the two nuclear plants is reiterated by NDP MPP Peter Taburns:

> *"If you allowed Ontario to fully build out the capacity it has for renewable power, if you allowed Ontario to fully develop all the efficiency and conservation that is at hand, then those nuclear power plants that are going to be built at the cost of tens of billions of dollars would be simply redundant. There would be no market for their power. They would be irrelevant. Does anyone seriously think that we will pay for two electricity systems, which we will pay for full-scale development of nuclear power, with the power line development that all that entails, and at the same time pay for all this renewable energy and efficiency and conservation? It is not going to happen. If you want a green, renewable future that has efficiency and*

[71] *Ontario's Green Energy Act – What is it about?* Retrieved from the World Wide Web: www.ontariogreenenergyact.ca on Jan.12, 2010.
[72] May 5th, Ontario Legislative Assembly Hansard, Peter Taburns

> *conservation at the centre, you take one course of action, you go down one road. If you want a nuclear-centered electricity system, one that is expensive, one that is unpredictable, one that has put a huge financial burden on the ratepayers and taxpayers of this province, then you go down the nuclear road. You have to choose one."*[73]

The NDP was able to generate an extremely strong case against the construction of nuclear power plants that the Liberals struggled to refute. The promise of nuclear power plant construction by the Liberals has hindered Bill 150, their own legislation, by eliminating the opportunity for the GEA to independently exist as the sole piece of legislation driving the creation of renewable technology infrastructure. Ensuring an energy supply mix is important to mitigate energy supply volatility. The construction of these two additional nuclear plants overshadows and underestimates Ontario's renewable energy technology and infrastructure potential.

[73] May 5th, Ontario Legislative Assembly Hansard, Peter Taburns

Wind Turbine Energy: Does Ontario know enough to move forward?

Wind turbine energy is the most contentious energy source issue the GEA directly addresses. The initial and primary understanding of wind turbine energy is that it is clean and renewable. It has been hypothesized and recently proven however, that significant health risks can be correlated with the electromagnetic fields, noise, debris, stray voltage, and other byproducts of wind turbines.

An email sent to Sylvia Jones from her constituent discusses the suffering they experience from a newly installed wind farm, "We are suffering from ear problems, earache, running eyes, ringing in the ears, balance problems, sleep problems, as well as not being able to sit outside our house due to the constant roar from the turbines."[74] Other noted problems have included: depression, chronic stress, migraines, nausea, fatigue, memory loss; vertigo symptoms resulting from the strobe and flicker effect such as dizziness and nausea. Non-health related issues such as stray voltage near homes, adverse effects on farm animals, blade failure which can throw a piece of a blade or debris over 500 metres; and ice throws, where chunks of ice can be thrown 100 metres have also been recorded.[75]

[74] May 11th, Ontario Legislative Assembly Hansard
[75] May 11th, Ontario Legislative Assembly Hansard, Toby Barrett

There have been numerous problems presented with wind turbines that could potentially affect people living within a ten kilometre radius of the generating station. "Dr. Amanda Harry reported on thirty-nine cases. For these people, whose health and quality of life were compromised, she concluded that people 'living near wind turbines are genuinely suffering. They feel they are losing their homes and their lives."[76]

Dr. McMurtry, former Dean of Medicine at the University of Western Ontario, has done studies that prove that there are real health concerns about wind turbines being located near people homes or even near farms and livestock.[77] These concerns bring to light the necessity for guidelines about the location of wind turbines in relation to residential land uses.

The issue that both the NDP and the Progressive Conservatives have with the presentation of wind turbine energy within the GEA is that the GEA fails to take a stance on the outline of the necessary wind turbine location guidelines. The GEA instead places the responsibility of creating such guidelines to the Ministry of the Environment and implies the Ministry of Energy and Infrastructure will implement the generated guidelines during construction.

[76] May 11th, Ontario Legislative Assembly Hansard
[77] May 4th, Ontario Legislative Assembly Hansard, Robert Bailey

Land use planning, in most circumstances, is a function of the municipal authority; however, allowing the Ministry of Energy and Infrastructure to mitigate turbine construction takes the rights away from the municipalities.[78] The power being taken away from the municipalities has upset the municipal bodies across the province. Municipalities will no longer be able to determine and mandate their own set-back guidelines for turbines. Municipalities have spent thousands of dollars conducting studies, and creating plans for the construction of turbines, and now the Ministry of Energy and Infrastructure has complete control.[79] The opposition stipulates that:

> *"This bill gives the Minister of Energy-it makes him king; it makes him czar; it makes him whatever the hell you want to call him. But it gives him the power to actually erect wind turbines in provincial parks like Algonquin-our most storied park, where Tom Thomson used to go to paint."*[80]

The GEA overrides the Municipal Planning Act, The Greenbelt Act and the Oak Ridge's Moraine Act. Wind turbines could be erected like they are in California, an actual landscape eyesore all down the Simi Valley. John O'Toole of the Progressive Conservative party stressed the need to clarify where the Ministry of Energy and Infrastructure would override the Greenbelt Act, as in the past, it was challenging to get approval to even build a birdhouse. O'Toole stated:

---

[78] May 12th, Ontario Legislative Assembly Hansard, Ernie Hardeman
[79] May 12th, Ontario Legislative Assembly Hansard, Sylvia Jones
[80] May 4th, Ontario Legislative Assembly Hansard, John Yakabuski

> *"Now, all of a sudden, they're going to override that (Greenbelt Act) and be able to put-these wind turbines which aren't going to stand alone. There has to be a service road; there has to be a building with the tools in it to service it in the event that it fails; there's got to be a transformer involved; there's got to be a road built for maintenance vehicles getting to the site-all of this on pristine countryside like the Oak Ridge's moraine."*[81]

The Liberals have clarified that the GEA is not meant to make the Minister of Energy and Infrastructure "king", but to expedite the approval process. In the riding of Huron-Bruce, for example, the largest barrier to wind development is municipal by-laws. These by-laws are in place with a specific focus on set-backs, one being how far a windmill needs to be placed from residential property. If wind development is going to move forward in Ontario, then the province needs to develop provincial construction standards for all regions to be held accountable too. [82]

The Ministry of the Environment is currently doing scientific studies to come up with a safe guideline to wind turbine constructions. This will establish a minimum setback, and will examine low frequency noise and vibration. "A science-based standard, monitored by the Ministry of Environment, is an appropriate way to protect the health of the environment, the citizens and the planet."[83]

---

[81] May 12th, Ontario Legislative Assembly Hansard, John O'toole
[82] May 5th, Ontario Legislative Assembly Hansard, Carol Mitchell
[83] May 5th, Ontario Legislative Assembly Hansard, Laurel Broten

Wind is a very important part of Ontario's renewable future. The GEA gives a significant amount of approval authority to the Ministry of Energy and Infrastructure. The Government has made it quite clear that the public consultation process will be very important when establishing guidelines for set-back regulations. The reality is that advancements in wind turbine energy have already positively impacted the reduction of Ontario's carbon footprint, by generating enough electrify to shut-down old non-green oil burning plants.[84]

[84] May 12th, Ontario Legislative Assembly Hansard, Laurel Broten

Conclusion

Ontario has entered into a new era of green economics. On May 14, 2009, the Ontario Legislative Assembly passed the Green Energy Act as law, which will position Ontario as a green energy leader within North America. Bill 150 received Royal Assent with support from both the Liberal governing party and the New Democratic Party. The official Opposition voted against the legislation.

A variety of recent changes led to the approval of the Green Energy Act: the environmentally conscious value shift, the economic recession, and the coincidence of these factors to finally allow forty years of government funded energy resource research to culminate in a publically and politically supported piece of legislation.

The environmentally conscious value shift brought wide public support, and the current economic recession allowed stimulus dollars to flow into the infrastructure development needed to allow the Green Energy Act to be useful.

Four decades of research has gone into legislation that assisted in the generation of the Green Energy Act, including but not limited to, the following:

- The Royal Commission on Electric Power Planning, resulting from the energy crisis of the 1970s. It was determined that there had to be an expansion of power generation to meet increased demand. Fundamental in the expansion was not only

a viable financial model, but also the social and environmental impacts of power generation.[85]

- Ontario Hydro's Demand and Supply Planning Strategy from 1989 assessed rising electricity costs and how to reduce those costs. The key element of the cost reduction strategy was identifying the need for a non-utility generation incentive with special attention and focus being given to environmentally friendly initiatives.[86]

- The Renewable Energy Standard Offer Program (RESOP) created in 2007 accomplished many of the goals set out in the 1989 Supply/Demand Planning Strategy report. The intent of the RESOP was to help Ontario meet its renewable energy supply targets by providing a standard pricing regime and simplified eligibility, contracting and other rules for small renewable energy electricity generating projects.[87]

Despite the four decades of research that resulted in the Green Energy Act there are still areas of serious uncertainty associated with this piece of legislation. These areas of greatest controversy include the economic viability and the environmental safety associated with the implementation of the Green Energy Act.

---

[85] Ontario Hydro. *Long-range Planning of the Electrical Power System.* February 1974 p.32

[86] Ontario Hydro, System Planning Division. *Demand/ Supply Planning Strategy*. March 1989. P. 20

[87] Ontario Power Authority. Standard Offer Program, Renewable Energy, An Introductory Guide. 2007. P.2

The economic controversy of the Green Energy Act stems from conflicting evidence of employment generation and the electricity costs in implementing green energy technologies.

The governing majority, the Liberals, provided evidence that the Green Energy Act would create over 50,000 jobs in a wide range of areas within the first three years of implementation, as well as the Green Energy Act would provide an opportunity for at least five billion dollars of investments in infrastructure and expenditures on renewable generation of electricity.

The official Opposition, the Progressive Conservatives, thought the 50,000 jobs was an over-estimation and that the apparent significant rise in electricity costs would counteract employment opportunities created by the Green Energy Act.

The Progressive Conservatives launched their own independent research project regarding the projected rise of electricity costs associated with the implementation of the Green Energy Act and came back with a staggering 15% increase in electricity costs, compared to the Liberals 1%.

The official Opposition also presented concerns regarding the environmental safety of proposed renewable and green energy technologies: with the main emphasis on nuclear and wind turbine energy.

The main issue with the Green Energy Act regarding nuclear power generation was the lack of information provided in the Green Energy Act about the uncertainty of the radioactive waste byproduct created during production of nuclear power, as well as dubbing nuclear energy “clean”.

The promise of the construction of two new nuclear power plants by the Liberals hindered Bill 150, their own legislation, by eliminating the opportunity for the Green Energy Act to independently exist as the sole piece of legislation driving the creation of renewable technology infrastructure. Ensuring an energy supply mix is important to mitigate energy supply volatility. The construction of these two additional nuclear plants overshadows and underestimates Ontario’s renewable energy technology and infrastructure potential.

The other green energy technology that went under significant contention during debate of Bill 150 was wind turbine energy. Similar to nuclear energy, the environmental safety of the byproduct of production of wind energy was up for debate. It has been hypothesized that the electromagnetic forces that are a byproduct of the turbines, are negatively affecting the inhabitants of nearby cities, as well as the wildlife of nearby farms and natural habitats.

Regardless of uncertainty, and the long period of development, the Green Energy Act has gained the province of Ontario positive international recognition, and has put Ontario on

the map as a Green Energy Supporter, and hopeful a Green Energy leader. The Green Energy Act is still a bold step forward, and it lets the world know that the 2010 Government of Ontario takes environmentalism seriously.

Bibliography

Government Publications

Bernard, André. *Trends in Manufacturing Employment.* Statistics Canada – February 2009 Prespectives. Catalogue No. 75-001-X.

The Government of Ontario. *The Futures Right Here.* 1998

Ontario Hydro, System Planning Division. *Demand/ Supply Planning Strategy*. March 1989.

Ontario Hydro. *Long-range Planning of the Electrical Power System.* February 1974

Ontario Hydro. *Annual Report.* 1973

Ontario Power Authority. *Standard Offer Program, Renewable Energy, An Introductory Guide.* 2007

Royal Commission on Electric Power Planning. *Additional Bulk Power Facilities in Southwestern Ontario.* June 1979

Royal Commission on Electric Power Planning. *Additional Bulk Power Facilities in Eastern Ontario.* July 1979

Royal Commission on Electric Power Planning. *The Future Begins Here: Preliminary Statements.* June 1975

Royal Commission on Electric Power Planning. *A Race Against Time, Interim Report.* June 1978

Royal Commission on Electric Power Planning. *The Meetings in Northern Ontario.* 1976

Royal Commission on Electric Power Planning. *Shaping the Future* 1st Report, 1976

Royal Commission on Electric Power Planning. *Preliminary Issue Papers*, 1976

Royal Commission on Electric Power Planning. *A Study of Awareness, Attitudes and Future Expectations of Ontario Residents Regarding the Supply and Use of Electric Energy, Volume 1*, 1976

Statistics Canada. Labour Force Survey, December 2009.

Government Hansard

May 4th, 2009, Ontario Legislative Assembly Hansard
May 5th, 2009 ,Ontario Legislative Assembly Hansard
May 11th, 2009, Ontario Legislative Assembly Hansard
May 12th, 2009, Ontario Legislative Assembly Hansard

Standing Committee on General Governance Minutes, April 2009

Textbooks

Referenced

Abbey, Deb. (2004). *Global Profit and Global Justice.* Gabriola Island: New Society Publishers.

Dyck, Rand. (1991). *Provincial Politics in Canada.* Scarborough: Prentice Hall

Lesourd, Jean-Baptiste. (2001). *The Environment in Corporate Management.* Northampton: Edward Elgar Publishing Inc.

Paine, Lynn. (2003). *Value Shift.* New York: McGraw-Hill Publishing.

Rowat, Donald. (1981). *Provincial Policy Making: Comparative Essays.* Ottawa: Carlton University Press.

Schindeler, F. F(1969). *Responsible Government in Ontario.* Toronto: Toronto University Press.

White, Graham. (1997). *The government and politics of Ontario, 5th Edition.* Toronto: University of Toronto Press.

Non-Referenced

Macdonald, Donald. (1980). *The government and politics of Ontario, 5th Edition.* Toronto.

MacLeod, Marion Jean. (1962). *Agriculture and politics in Ontario since 1867 : [Microfilm]*. London: University of London

Montigny, Edgar-André & Chambers, Lori. (1965). *Ontario since Confederation : a reader.*

Nelles, H. V. (2005). *The politics of development : forests, mines & hydro-electric power in Ontario, 1849-1941.* Ottawa: University Press.

Ontario Citizens' Assembly Secretariat. (2007). *The Ontario Citizens' Assembly on Electoral Reform : a record of Ontario's first citizens assembly process.* Toronto: Micromedia Press.

Pond, David. (2003). *Ontario politics and government : a brief overview*

White, Graham. (1993). *Inside the pink palace : Ontario legislature internship essays.* Toronto: University of Toronto Press.

White, Graham. (1989). *The Ontario legislature: A Political Analysis.* Toronto: University of Toronto Press.

Bolotta, Angelo. (2006). *Active citizen : you can make a difference.*

Brownsey, Keith & Howlett, Michael. (2001). *The provincial state in Canada : politics in the provinces and territories.* Peterborough: Broadview Press Ltd.

Cross, William. (1993). *Political parties, representation, and electoral democracy in Canada.*

Dunn, Christopher. (2006). *Provinces : Canadian provincial politics.*

Kornberg, Allan. (1982). *Representative Democracy In The Canadian Provinces.* Scarborough: Prentice Hall

Meligrana, John. (2006). *Redrawing local government boundaries : an international study of politics, procedures and decisions.*

Young, Robert & Leuprecht, Christian. (2004). *Municipal-federal-provincial relations in Canada.* Kingston: Queens University Press.

Kozolanka, Kirsten. (2003). *The power of persuasion : the politics of the new right in Ontario.*

Monahan, Patrick. (1995). *Storming the Pink Palace: The NDP in Power, a cautionary Tale.*

Montgomery, Byron. (2002). *The common (non)sense revolution : the decline of progress and democracy in Ontario.*

Ontario Liberal Party. (2003). *The Ontario Liberal plan.*

Young, Lisa & Archer, Keith. *Regionalism and party politics in Canada.*

Interviews and Speeches

Hon. George Smitherman. Toronto, Ontario. June 2009

Dianne Cunningham. London, Ontario. December 2009

Barack Obama. Presidential Inaugural Speech, January 2009

World Wide Web

www.greenenergyact.ca

www.ontariogreenenergyact.ca

www.ontla.on.ca

Appendix A

An Overview of the Green Energy Act

- An obligation for the responsible power purchase authority to grant priority and obligatory purchase of green energy projects.
- A system of Advanced Renewable Energy Tariffs as the primary procurement mechanism for renewable and clean distributed energy to ensure the equal participation of community energy in the sustainable energy sector. The tariffs per kilowatt-hour of generation are based on key components of the German and French models:
- Tariffs are differentiated on the basis of: technology, resource intensity, project scale and location to ensure projects are economically viable in communities across the province
- Prices are set on the basis of cost and a reasonable return on investment
- A minimum profitability index of 0.1 for lowest yield and 0.3 for highest yield green energy projects
- No cap on project size or program size
- No cap on voltage: The tariff includes all behind the meter, all distribution and all transmission connected projects
- 100% inflation protection at 2 levels: within the power purchase contracts, within the tariff program
- An obligation for all utilities to grant priority grid access to green energy projects and an obligation for all utilities to connect green energy projects to the grid (within a reasonable limit to be determined by relative costs and goals related to the successful implementation of the Act).
- Utilities are entitled and empowered to recover all related costs. Related costs are to be spread equally across the entire rate base.
- The explicit and direct participation of First Nations and Métis as developers and owners in energy projects (generation, transmission, conservation) so they benefit directly from the resulting economic development in recognition of the additional and unique barriers they face.
- The establishment of a Green Energy Debt Finance Program and a Community Power Corporation.
- The Green Energy Debt Finance Program would be mandated to raise the financial capital required to meet the financial market short falls in the development of eligible and viable projects (individual, community and commercial) to meet the GEA targets. The intent is that over time the market and community will meet all financial requirements for these projects. Vehicles such

as Green Bonds could be implemented under this program to raise a portion of the required capital.

- A Community Power Corporation is necessary to ensure the equal opportunity for participation of the community power sector in recognition of the additional social and economic benefits of these projects to Ontario communities and the people of Ontario as a whole. The mandate of the Corporation would be to build the capacity of local communities to develop eligible and viable projects, provide early stage project funding, and to facilitate the develop of financing mechanisms. This corporation will require an initial investment of $25 million.
- The adoption of smart grid technologies, including energy storage, in order to transform Ontario's energy system from highly centralized to more evenly distributed.
- A mandated commitment to a continuous improvement approach to conservation with a minimum 2.5% annual (compounding) reduction in energy resource needs from 2011 until 2027.
- Electricity pricing that reflects its true cost and provides signals to consumers to manage their energy demand.
- Priority for vulnerable consumers (including relevant industrial users) to reduce their energy burden through conservation, bill assistance, innovative utility policies and stronger consumer protection.
- Streamlined regulatory and approvals processes that enable the rapid but prudent development of green energy projects across the province, reducing uncertainty and transaction costs to all involved.
- This would include a comprehensive one-window approach to consultation with First Nations and Métis that will lead to their meaningful engagement in the energy sector and create certainty for the province.

References

Retrieved from the World Wide Web on December 9, 2009, from www.greenenergyact.ca.

Appendix B

Legislative Procedures in Ontario- A Brief Overview

Ontario's legislative assembly is made up of three official parties, the Progressive Conservatives, the New Democrats, and the Liberals. "In three-party houses the normal division between government and opposition may not correspond to ideological divisions. Moreover, the presence of three parties complicates the political calculus in the House. Mainly through the competition between the two opposition parties to prove which is the *real opposition*."[1] This can mean that debate, and law making can be a long drawn out process, because with three parties it is harder to win a majority vote, this is especially the case in a minority government situation. Most people believe that the legislature's job is to create laws; this is not really an accurate statement. "The legislature legitimizes government policy in the formal sense of providing legal authorization for laws and for government spending."[2]

Arguably the most important part of making laws occurs at the pre-parliamentary stage. "This means that the most important decisions on a government bill are made by the cabinet and the bureaucracy before the bills first reading to the House." [3] At this stage the bill becomes a public document, and is presented to the legislative assembly, this step is primarily viewed as more of a formality.

The members of the legislative assembly, and most noticeable the opposition, are then given an opportunity to assess the bill, and form an opinion on it. The bill is then "called" by the government for a second reading. During this reading the general principle of the bill is debated. Usually this is rather minimal debate and only takes a few hours.[4] At this point the bill can either be sent to committee or sent to Committee of the Whole. So in the interest of efficiency, and democracy, bills that are controversial, and heavily detailed, get sent to a committee so that the document being presented in the third reading has many of its "kinks worked out."[5]

Committees are efficient and effective this is largely because of their size and the amount of resources they have available to them. Most committees are roughly 12 MPP's in size, and the proportions of the represented parties are normally similar to the composition of the legislative assembly. For example the Liberals had a majority government then the

---

[1] White, Graham. (1997). *The government and politics of Ontario, 5th Edition.* Toronto: University of Toronto Press. p.74
[2] White, Graham. (1997). *The government and politics of Ontario, 5th Edition.* Toronto: University of Toronto Press. p.72
[3] White, Graham. (1997). *The government and politics of Ontario, 5th Edition.* Toronto: University of Toronto Press. p. 84
[4] White, Graham. (1997). *The government and politics of Ontario, 5th Edition.* Toronto: University of Toronto Press. p.85
[5] White, Graham. (1997). *The government and politics of Ontario, 5th Edition.* Toronto: University of Toronto Press. p. 87

majority of MPP's on the committee would be Liberal. In a minority government situation normally the opposition parties will have a majority membership on the committee. Placement of MPP's on specific committees is rigidly controlled by the party's leadership so that maverick MPP's can be removed if doing something against the leader of the party's wishes. [6]

> *"Members of the legislature devote substantial time and energy to their committee work, for they recognize that committees offer much greater scope than does the House for delving into, and indeed influencing policy. In turn, work carried out by committees often carries considerable political and policy significance."*
>
> *White p.87*

The committee also has the right to hold public hearings, and call on expert witnesses. "These processes can have important political consequences: public attention can be focused on the bill and significant political forces mobilized in support or in opposition to it. A particularly contentious or important bill may be before a standing committee for weeks or months." [7]

Eventually the committee will complete its examination of the bill. Then it is presented to the legislative assembly for a third reading where it is normally passed with little debate, and is given royal accent. Bills normally become law when they receive royal accent, or on a specific date that is listed in the bill.[8]

References

White, Graham. (1997). *The government and politics of Ontario, 5th Edition.* Toronto: University of Toronto Press.

[6] White, Graham. (1997). *The government and politics of Ontario, 5th Edition.* Toronto: University of Toronto Press. p.87
[7] White, Graham. (1997). *The government and politics of Ontario, 5th Edition.* Toronto: University of Toronto Press. p.88
[8] White, Graham. (1997). *The government and politics of Ontario, 5th Edition.* Toronto: University of Toronto Press. p. 86

Appendix C

Witnesses Appearing Towards the Standing Committee on General Governance

April 6, 2009

1. Better Place
2. Community Power Fund
3. Conservation Council of Ontario
4. Grey Association for Better Planning
5. José Etcheverry
6. Ontario Clean Air Alliance
7. Ontario Federation of Anglers and Hunters
8. Ontario Waterpower Association
9. Ruth Grier
10. Sierra Club Ontario
11. St. Marys Cement
12. Tom Adams
13. Township Of South Algonquin
14. VCI Green Funds

April 8, 2009

15. Automotive Parts Manufacturers' Association
16. Clean, Affordable Energy Alliance
17. Greenpeace Canada
18. Justearth
19. Mark Winfield
20. Michael Trebilcock
21. Ministry Of Energy and Infrastructure
22. Municipality of Grey Highlands
23. Ontario Green Energy Act Alliance
24. Skydive Toronto Inc. Cookstown Aerodrome
25. Stormfisher Biogas
26. Student Representatives of Humber College's Sustainable Energy and Building Technology Program
27. Toronto Renewable Energy Co-Operative
28. Windshare
29. World Wildlife Fund of Canada

April 14, 2009

30. First Nations Energy Alliance
31. Five Nations Energy Inc.
32. Luke MacMichael
33. Northern Lights Energy Systems
34. Ontario Society of Professional Engineers
35. Paul Day
36. Professional Engineers Ontario-Algoma Chapter
37. PUC Distribution Inc.
38. Sault Ste. Marie Real Estate Board
39. Superior Renewable Energy Cooperative
40. Sustainable Energy Resource Group Co-Operative Inc.
41. United Steelworkers, Local 2251
42. Upper Lakes Environmental Research Network

April 15, 2009

43. AIM Powergen Corp.
44. Bluewater Agriwind Co-Op
45. Bruce Peninsula Land Owners
46. Centre for Applied Renewable Energy
47. Citizens for Renewable Energy
48. City Of London
49. Countryside Energy Co-Operative Inc.
50. Essex County Wind Action Group
51. Farmers for Economic Opportunity
52. First Nations Energy Alliance
53. Fraser Consulting and Associates
54. Local Initiative for Future Energy Co-Operative Inc.
55. London and St. Thomas Association of Realtors
56. London Home Builders' Association
57. Mindscape Innovations Group Inc.
58. Municipality of Chatham-Kent
59. Ontario Federation of Agriculture
60. Oxford Wind Action Group
61. Renewable Energy Systems Canada
62. Ripley Group
63. Ron Stephens
64. Sky Generation
65. Stanton Farms
66. Township Of Dawn-Euphemia
67. TRI-LEA-EM
68. Walpole Island First Nation
69. Wind Farm Action Group

70. World Alliance for Decentralized Energy

April 16, 2009

71. Arnprior Region Federation of Agriculture
72. Association of Municipalities of Ontario
73. Canadian Owners and Pilots Association
74. Canadian Renewable Energy Alliance
75. Canadian Solar Industries Association
76. Canadian Wind Energy Association
77. Carmen Krogh
78. Cement Association of Canada
79. Council of Canadians
80. Eco Alternative Energy
81. Envirocentre
82. Friends of the Earth Canada
83. Glengarry Federation of Agriculture
84. Greater Ottawa Home Builders' Association
85. Lanark Federation of Agriculture
86. Naima Canada
87. Net-Zero Energy Home Coalition
88. Ontario Sustainable Energy Association
89. Ottawa Real Estate Board
90. Pembina Institute
91. Plasco Energy Group
92. Renfrew County Federation of Agriculture
93. Renfrew Power Generation
94. Save Our Skyline
95. Switch
96. Township of Bonnechere Valley
97. Upper Ottawa Valley Forest Industry Alliance
98. Utilities Kingston

April 20, 2009

99. Alliance to Protect Prince Edward County
100. Blue Green Alliance Canada
101. Chippewas of Georgina Island First Nation Windfall Ecology Centre
102. Chris Chopik
103. Derek Paul
104. Electricity Distributors Association
105. First Nations Energy Alliance
106. Grant Church
107. Greg Allen
108. Harten Consulting
109. Low-Income Energy Network
110. Ontario Bar Association
111. Ontario Home Builders' Association
112. Toronto Hydro Corp. Toronto Hydro-Electric System
113. Wind Concerns Ontario

April 22, 2009

114. Toronto Environmental Alliance
115. Canadian Federation of Independent Business
116. Ontario Real Estate Association
117. Consumers Council of Canada
118. Enbridge Gas Distribution
119. Law Society of Upper Canada
120. Robert McMurtry
121. Association of Major Power Consumers in Ontario
122. Agri-Energy Producers Association of Ontario
123. City of Mississauga
124. Summerhill Group
125. Federation of Rental-housing Providers of Ontario
126. Social Investment Organization
127. Sustainable Buildings Canada
128. Pembina Institute-Toronto Branch
129. Association of Power Producers of Ontario

References

Retrieved from the World Wide Web on December 9, 2009, from www.ontla.on.ca