

The Green Energy and Green Economy Act: Green Energy Unbounded

George Vegh¹, February 24, 2009

Introduction

The Ontario electricity sector has undergone a few paradigm shifts over the last decade. However, none have been as anxiously anticipated as the reforms that are proposed as part of the *Green Energy and Green Economy Act*, which received First Reading on February 23, 2009.² In part, this is because previous electricity sector reforms were telegraphed in advance - prefaced by a Royal Commission, a White Paper, and slew of committees, task forces, and study groups. These various forums were staffed by electricity industry sector insiders - all of whom shared a common set of understandings and expectations. The previous rounds of reforms all centred on the same basic premise: the goal of electricity regulation is to provide a reliable source of supply with the lowest possible cost and impact on the physical environment. The waves of reforms reflected changing views on whether these ends are most likely to be brought about through competition or through regulation. However, these changing views reflected means, not ends.

The *Green Energy Act* departs from this consensus. The most important thing about the *Green Energy Act* is that it is not about energy as a supply resource; it is about energy as a contributor to environmental and social outcomes. Specifically, the *Green Energy Act* is about empowering the green economy. And the implications for using electricity to empower the green economy are fairly staggering. It requires a fundamental rethinking of the way in which energy supply resources and network expansions are measured and valued. It also imposes a dramatic change in how the economic regulator – the Ontario Energy Board (the “OEB”) – is to carry out its mandate. The *Green Energy Act* is unconstrained by traditional notions of public utility regulation – it is green energy unbounded.³

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² Bill 150, *An Act to enact the Green Energy Act, 2009 and to build a green economy, to repeal the Energy Conservation Leadership Act, 2006 and the Energy Efficiency Act and to amend other statutes* (the “*Green Energy Act*”). If passed, the *Green Energy Act* will amend 15 pieces of legislation, most notably, the *Electricity Act*, the *Ontario Energy Board Act*, and the *Planning Act*.

³ In some ways, this is a return to the approach to electricity regulation that operated in Ontario prior to the 1998 restructuring of the sector. At that time, the government, through ownership of Ontario Hydro, had no hesitation in using electricity as an instrument of public policy. (for an analysis of the way in which Ontario Hydro has been used by governments, see: Neil Freeman, *The Politics of Power: Ontario Hydro and Its Government, 1906-1995* (University of Toronto, 1996)). One key difference between the social policy approach of the *Green Energy Act* and

In this comment, I would like to sketch out some of the key changes brought about by the *Green Energy Act*.

First, I will elaborate on the meaning of the green economy. Specifically, I will focus on how green economics is a departure from the more conventional approach of environmental and resource economics (which has focused on internalizing economic externalities into conventional low cost resource planning). I will then address some of the key components of the *Green Energy Act* and how they depart from conventional public utility regulation. Finally, I will elaborate on some of the challenges that this departure will present to energy institutions, particularly the OEB. In the conclusion of this comment, I identify some major challenges that will confront the OEB in meeting this mandate.

My basic argument is that the approach under the *Green Energy Act* will test the boundaries of some of the key regulatory approaches and tools used by the OEB. The Board's conventional approach has been to avoid, when possible, addressing environmental and societal values. When the Board has been unable to avoid dealing with these issues, it has largely tried to treat them as peripheral issues that could be addressed on a discretionary basis. The *Green Energy Act* will require the Board to confront social and environmental issues on a more regular basis than in the past. In order to maintain effective regulation, and economic credibility, the OEB will have to articulate principled approaches to dealing with these values. I think that this will prove to be a challenge.

The Green Economy

There are two ways to take account of environmental factors in energy economics.

The first way is to view the goal of energy economics as breaking down barriers to the contribution of conservation and renewable supply to a low cost resource portfolio – this is the

the social policy approach of provincial ownership is that the *Green Energy Act* uses a much broader mix of public utility regulation instruments and agencies to achieve its goals: government regulations and directives, OEB orders and rules, and Ontario Power Authority (OPA) procurements.

environmental and resource economics approach to the green economy (I will sometimes refer to it in short form as the “economic efficiency” approach). Under this approach, the argument is that developing a low cost resource portfolio requires incorporating a resource’s environmental externalities. The theory is that when the externalities are taken into account, it will be demonstrated that conservation and renewable power offer a relatively lower cost solution to meeting electricity reliability requirements than do conventional generation technologies - coal, gas and nuclear generation. Put another way, the argument is that generation fired by fossil fuels and nuclear power are subsidized because they do not have to account for the full environmental costs of their product. Once this subsidy is removed, and externalities are properly internalized, traditional low cost planning will lead to a greener energy resource mix. In this way, the argument is that green economics is equated with economic efficiency (provided that externalities are properly accounted for).

The other way to conceive of the role of environmental factors is to view the energy sector as uniquely positioned to contribute to achieving inherently valuable environmental and social goals. The goal here is not just cost effectiveness (though the claims for cost effectiveness including externalities are still maintained), but a broadening of values beyond those that can be captured in conceptions of low cost resource planning. Under this approach (the green economics approach) when considering how much carbon should be released in the atmosphere, for example, the goal is not to release an economically efficiency amount of carbon, but to release as little carbon as possible even if it leads to a net decrease in economic efficiency. The difference between these two approaches is nicely summarized in “Conservation and Environmentalism: An Encyclopaedia”. According to that encyclopaedia, the environmental and resource economic efficiency approach:⁴

“gives no special emphasis to the conservation of natural resources or the environment. Indeed it is sometimes rational to deplete a resource fully, while the attainment of economic efficiency through the internalization of externalities does not imply the achievement of environmental sustainability – the ability of the natural environment to continue to support the human activities that impact on it. It has been perceived that a deeper, more integrated approach to environmental problems – one that transcends any single discipline – is required if these

⁴ R. Paehlke *Conservation and Environmentalism: An Encyclopaedia* (1995), p. 315.

problems are to be solved. The development of green economics is a response to this problem.”

Although Ontario has taken some steps towards a green economics approach in the past,⁵ it is fair to say that, until now, Ontario policy has been heavily weighted towards the economic efficiency approach. In my view, the *Green Energy Act* represents a decisive shift in the other direction and green economics has now become the dominant approach to regulating electricity in Ontario. This shift is demonstrated in the Preamble to the *Green Energy Act*, which states that the government “is committed to fostering the growth of renewable energy projects, which use cleaner sources of energy, and to removing barriers to and promoting opportunities for renewable energy projects and to promoting a green economy.”⁶ This vision has a much more pointed embrace of green economics than the first enumerated Purpose of the 2004 amendments to the *Electricity Act*, which is to “ensure adequacy, safety, sustainability, and reliability of electricity supply in Ontario through responsible planning and management of electricity resources, supply and demand.”⁷

This change in emphasis will bring about major changes to the way in which energy facilities are valued and implemented.

The Green Energy Act and Renewable Resources

The *Green Energy Act* contains three major shifts towards green economics.

First, the *Green Energy Act* gives renewable generation a right to connect to the system and recover revenues for its power, presumably at cost.⁸ It does not have to compete with

⁵ Specifically, the commitment to shut down the coal fired generation can best be understood as an application of green economics. It is based on the determination that coal fired generation is inherently wrong – that it has an infinite negative value that goes beyond any cost effectiveness test.

⁶ *Green Energy Act*, Preamble

⁷ *Electricity Act, 1998*, s. 1(a).

⁸ The procurement of renewable resources under the Feed in Tariff (“FIT”) program, like much of the initiatives under the *Green Energy Act*, still has considerable detail to be filled in. The Act contains an amendment to the *Electricity Act* authorizing the Minister to direct the Ontario Power Authority (the “OPA”) to develop a FIT program that provides standard “rules, standard contracts and standard pricing regarding classes of generation facilities differentiated by energy source or fuel type, generator capacity and the matter by which the generator is used, deployed, installed or located.” (See proposed addition of s. 25.35 of *Electricity Act*.)

conventional generation and demonstrate (through externalities, etc.), that it provides a lower cost resource. Renewable generation is treated as inherently valuable.

Second, the *Green Energy Act* requires distributors and transmitters to expand their systems to accommodate renewable power. This means that, if a renewable generation proponent is prepared to connect to the system, then a transmitter or distributor (or more specifically, electricity customers)⁹ must pay for the costs of reinforcing its networks to accommodate that generator.

Third, the *Green Energy Act* directs the Ontario Energy Board (the economic regulator) to require transmitters and distributors to file plans that will lead to the expansion of their systems to facilitate renewable and distributed generation.¹⁰ This puts the OEB in the position of encouraging system expansions. This is a reversal of its conventional role of providing a financial check on system expansions.

To appreciate the fundamental shift brought about by these changes, it is helpful to contrast the *Green Energy Act's* approach to these issues with the way that these issues are currently addressed.

Feed in Tariffs

The *Green Energy Act* allows generators to connect and recover revenues for renewable power as of right. This is a departure from the current approach under which generators must compete to be the low cost provider of power.

⁹ The *Green Energy Act* contains an interesting approach to socializing the cost of system expansions across all electricity customers, not just the customers of the utility carrying out the expansion; see proposed s. 79.1 of the *Ontario Energy Board Act*.

¹⁰ See proposed ss. 70 (2.1) of the *Ontario Energy Board Act*. Although the Act does not refer specifically to distributed generation apart from renewable generation, it is likely that distributed generation falls within the rubric of “smart grid” investments, i.e., equipment that “enables the increased use of renewable energy sources and technology, including generation facilities connected to the distribution system.” (See proposed s. 2 (1.3) of the *Electricity Act*.)

The conventional approach to reviewing the costs for each generation type is to compare these resources using a variety of comparative models - most commonly, a model that produces a levelized unit energy cost (or LUEC). Essentially, the LUEC model uses a number of assumptions respecting operating and capital costs to allow a comparison of the net present value of facilities that have relatively low capital costs but high operating costs (for example, natural gas fired generation), on the one hand, and facilities that have relatively high capital costs but low operating costs (for example, nuclear, hydro and wind facilities), on the other. The result of the analysis is to produce a range of LUECs, depending on the assumptions and simulations tested. Because the LUEC is presented on a per unit of production basis (per kWh), it is possible to produce a comparable production cost for different type of facilities.

The Ontario Energy Board, as the economic regulator, has the role of considering resource options by reference to their economic prudence and cost effectiveness. It uses this information to determine which options are lower cost, and therefore can be approved. According to the OEB: “In the narrowest sense, the cost effective alternative achieves its goals at the lowest overall plan cost as measured on a \$/kW or \$kWh basis”¹¹ In other words, all things being equal, the lowest LUEC wins.¹²

As a result, in considering which type of supply source is optimal, the OEB entertains arguments on assumed capital and operating costs for different types of facilities and how to account for environmental externalities. In other words, the approach applied by the economic regulator to justifying resource options is a classic application of the resource economics model.

The *Green Energy Act* takes a different approach. It states that the Minister may direct the OPA to develop a feed-in-tariff program that is designed to procure energy from renewable resources. The Minister and the OPA will set the price to be paid for the power. Once that price is set, a generator is entitled to receive it.

¹¹ *Report of the Ontario Energy Board on the Review of and Filing Guidelines Applicable to, the Ontario Power Authority's Integrated Power System Plan and Procurement Process*, December 27, 2006, p. 8.

¹² The Board has recognized that sometimes the lowest cost resource is not the optimal one, but it has not been able to provide much direction on when that would be. For example, in considering how the Ontario Power Authority, the provincial resource planning body may justify planned resources, the Board said, “to the extent that the OPA proposes something other than the ‘least cost’ solution, the onus will be on the OPA to satisfy the Board that this is justified based on relevant considerations other than those of price and cost.” *Ibid.* at p. 9.

So for example, using recent estimates, assume that it costs \$0.04/kWh to produce hydro power, \$0.10/kWh to produce gas fired generation, \$0.13/kWh to produce wind power and \$0.53/kWh to produce solar power.

Under the conventional economic efficiency approach, the goal would be to achieve a renewable power target by an economic ordering that first uses hydro, then uses wind and then uses solar power. Also, to the extent that using renewable power is discretionary, then renewable power would be compared to gas fired generation to determine whether its contribution should be capped at a certain level.

Under the green economics approach of the *Green Energy Act*, the goal is to achieve all of the renewable power that is feasible. All types of renewable power will be pursued. They do not compete with each other and they do not compete with sources of non-renewable power. Instead, they have inherent value. Other types of power may be required as necessary to assist in operability (to produce power when the sun doesn't shine and the wind doesn't blow), but it complements and facilitates renewable power – it does not compete with it.

System Expansion

One of the challenges faced by renewable and distributed generation is that it requires the expansion of transmission and distribution networks. Sources of renewable power tend to be far from areas of load (i.e., where the power is consumed, largely in growing urban and suburban areas). It is therefore necessary to build long transmission connections to bring the power from the source to the user.

Similarly, on the distribution side, the traditional model is that distribution is served by upstream sources of centralized generation. The model of distributed generation has a number of small generators embedded within a distribution system. Accommodating new sources of local distribution puts a cost on distributors.

There is thus considerable cost in expanding transmission and distribution systems. The challenge for energy regulation has been to determine when networks should be expanded and who should pay the expansion costs.

With respect to approving the expansion transmission networks, the conventional approach is based on low cost planning. Under this approach, the value of a transmission expansion is based on the difference in the cost of generation at two points in the system. Where the difference between the prices is higher than the cost of the transmission investment, the transmission investment is justified. Where the transmission investment is higher than this differential, it is not cost effective and should not be made.¹³

Similarly, the cost of distribution expansions are justifiable where the increase contribution of generation offsets costs that would otherwise be incurred by a distributor in a generator did not connect to its system. Apply this approach, the distribution network should be expanded if the incremental costs of doing so (mainly, the capital investment) was outweighed by the incremental benefits to the system (mainly, the deferred or avoided network upgrades).

A key element of these considerations is that all types of generation are treated the same. Each generator has equal, non-discriminatory access to transmission and distribution systems and each type of generation makes a contribution to system reliability, operability, etc. The generator would be paid by reference to that contribution, not by reference to its underlying fuel source.

Thus, the regulator's goal was to ensure proper cost allocation among users of the system. Following environmental and resource economics, it attempts to ensure that, for example, renewable and distributed generation are not discriminated against, but it also seeks to ensure

¹³ See: Sally Hunt, *Making Competition Work in Electricity* (New York, John Wiley & Sons, (2002), pp. 417-418. At the time of writing, the OEB is considering an exemption to this model for certain transmission expansions, but the departure is tentative and clearly to be an exception that applied in limited circumstances. The exception is where more than one generator proposes to connect to the system. In that case, there is a coordination problem because the current system requires the first generator to pay for the entire connection cost and hope to receive some recovery from subsequent generators. This coordination problem is addressed through a method of socializing connection costs among all generators (See: Notice of Proposal to Amend the Transmission System Code, Board File No. EB-2008-0003).

that there is no discrimination in favour of these types of generation either: the goal is to keep the economic playing field level.

Again, the *Green Energy Act* takes a different approach to approving system expansions. Transmitters and distributors are required to expand their systems to accommodate renewable and distributed generation. A generator that requests a connection and complies with “the applicable technical, economic and other requirements” is entitled to a connection and the transmitter or distributor must make the necessary expansions to its system to accommodate the facilities.¹⁴

Further, the *Green Energy Act* explicitly departs from the requirements of non-discriminatory access to transmission and distribution systems. It provides that renewable energy facilities are to be provided “priority connection access” to transmission and distribution systems.¹⁵ Just as renewable generation does not have to compete with conventional generation in contributing to a system portfolio, it does not have to compete with other types of generation for access to transmission and distribution networks.

The Regulator: From Watchdog to Facilitator

Underlying the Board’s analysis of cost effectiveness in the areas of system portfolios and network expansions (as well as virtually every other area of OEB regulation) is a fundamental premise of the role of the OEB as an economic regulator.

Essentially, the theory of economic regulation under which the OEB (and most other utility regulators) operate is that its key role is to ensure that investment in electricity networks is restricted to what is prudent. The fundamental premise is that regulated public utilities have an incentive to over invest in utility assets. The theoretical basis for that premise is described as the Averch-Johnson Effect. The Board confirmed its adherence to that theory as recently as last year

¹⁴ See proposed s. 25.36 of *Electricity Act*.

¹⁵ See proposed s. 26 (1.1) to the *Electricity Act*.

where a Board staff paper indicated that proposals for transmission expansions for renewable power should take into account “the tendency identified in economic theory for regulated utilities to over-accumulate capital as a means of raising the volume of profit.”¹⁶

In other words, the Board’s perception of its mandate is to review spending on system expansions to guard against the tendency of over expansion – the OEB is the economic watchdog whose main job is to ensure that utilities only carry out cost effective expansions.

The change to this view and its replacement of the Board’s mandate from economic efficiency to green economics is the most fundamental and challenging change brought about by the *Green Energy Act*.

Under the *Green Energy Act* the OEB is to *require* transmitters and distributors to expand their systems to connect renewable generators. The *Act* requires distributors and transmitters to file plans with the OEB for expansion and reinforcement of their systems and, in accordance with OEB approved plans, or at such other times directed by the Board or by regulation, “to expand or reinforce its transmission system or distribution system to accommodate the connection of renewable energy generation facilities.”¹⁷

The OEB, which prior to the *Green Energy Act*, was the *check* on expansions, now becomes the *catalyst* for expansions.

This change in role provides some fundamental challenges for the OEB. I would like to elaborate on two of them.

¹⁶OEB Staff Discussion Paper, Generator Connections, July 8, 2008, p. 22, citing, Averch, Harvey, Leland L. Johnson, Behaviour of the Firm Under Regulatory Constraint, American Journal Review, December, 1962, vol. 52, issue 5, page 1952.

¹⁷ See proposed s. 70 (2.1) of the *Ontario Energy Board Act*. One interesting question raised by the *Green Energy Act* is how the various distribution and transmission expansion plans are to align with the Integrated Power System Plan prepared by the OPA and filed by the OEB, both in terms of the subject matters of the plans and the OEB’s evaluative criteria. With respect to the latter, the OEB must review an IPSP by reference to whether it ensures compliance with directions issued by the Minister of Energy and is economically prudent and cost effective. There are no statutory criteria for the OEB’s review of transmission and distribution expansion plans (other than the Board’s general statutory objects).

First, and most concretely, the OEB's traditional regulatory tools – which were used to limit expansions to economically efficient expansions - will not work with this mandate. I have listed a couple of these tools earlier. But there are others, things as fundamental to the regulatory world as the premise that only used and useful assets are brought into rate base, that prudence reviews are retrospective, not prospective, and that there should be non-discriminatory access to transmission and distribution systems.¹⁸

Given this new mandate, it is necessary to reconsider many of the regulatory tools that the OEB now uses to see if they still fit. In my view, many of them will not.

Second, and related, the Board will now have to expand its considerations to go well beyond economic efficiency and consider broader issues as well. It is helpful to go back to the difference in energy economics between environmental and resource economics on the one hand, and green economics, on the other. It will be recalled from the discussion in the “Conservation and Environmentalism” encyclopaedia that economic efficiency is primarily aimed at internalizing environmental externalities, while the green economics approach “transcends any single discipline.” It elaborates on this latter point as follows:¹⁹

Green economics does not reject the insights and methods of environmental and resource economics; rather it seeks to incorporate them within a wider framework of analysis and ideas. According to Martinez-Alier: ‘Economics, as the study of the allocation of scarce resources to alternative ends, should be human ecology and should *also* be the study of the cultural, social and ethical influences on production and consumption.’ There is yet no consensus on the details of this wider framework, and several different, though similar, formulations of green economics exist.

This definition is quite a mouthful. Applying it through economic regulation will pose some fundamental challenges. An economic regulator, such as the OEB, and other agencies within the

¹⁸ I use the term “regulatory tools” to describe a range of practices and conventions that are drawn upon in deciding cases. A good list of regulatory tools, and a description of how they are applied in the American context is provided in Douglas N. Jones, “Regulatory Concepts, Propositions, and Doctrines: Casualties, Survivors, Additions” 22 *Energy Law Journal* (2001), 41, Tables 1 and 2. For a discussion on the role of these tools in Canadian energy regulation, see: George Vegh, “Is there a Doctrine of Canadian Public Utility Law?” 86 *Canadian Bar Review* (2007), 320.

¹⁹ R. Paehlke, *Conservation and Environmentalism: An Encyclopaedia* (1995), p. 315

electricity sector, will be given an extremely broad and open ended mandate under the *Green Energy Act*. It is not clear what principles they will apply to achieve it. I expect that they will find it difficult to come up with a practical and principled method to evaluate projects; where the OEB could once entertain the difficult, but constrained debates of environmental and resource economics – measuring externalities, etc. – it now must consider cultural, social and ethical influences on the production and consumption of electricity. In other words, the range of values that must be considered in approving projects will now go well beyond economics – they will extend to a broad range of environmental and social impacts.

This challenge goes beyond the task of coming up with new models. The reason why public utility regulators use the approach of cost effectiveness is based largely in terms of expertise, but also in terms of legitimacy. Economic efficiency determinations used in resource and environmental economics are based on facts that can be determined through an adjudicative process – for example, determining which energy resource has the lowest LUEC. The OEB, like other public utility regulators and agencies essentially try to avoid making decisions based on a broad range of values. Their approach is a normative one in which regulators confine themselves to measures of economic efficiency and leave broader decisions to democratically accountable governments. When regulators did get involved in value judgments beyond economic efficiency, they were clearly both out of their comfort zone and lacked a clear compass for making decisions.

Examples of the challenges faced by the OEB when it has been pushed beyond the consideration of economic efficiency have arisen recently in the areas of conservation and income distribution. These examples, which will be discussed briefly below, demonstrate a difficulty in coming up with a principled articulation of how issues other than economic efficiency should be taken into account by an economic regulator.

In the conservation area, one of the OEB's responsibilities is to review investments by utilities in conservation activities, i.e., activities that reduce demand from what it would otherwise be. One case before the Board asked the question of how much should be invested in conservation. There are many possible approaches to this problem. One approach is to say that the Board

should require utilities to spend a certain amount, say 2% of revenues, another is to allow utilities to spend as much as possible, provided that it can be shown that, according to an approved formula, the alternative societal cost of investing in electricity supply is higher; a third approach, grounded in public utility economics, was put forward by Board Staff. Board Staff submitted that the appropriate approach is to look at a utility's capital budget and ask if a budget item could be avoided through a lower cost investment in conservation. If it could, then the conservation investment is more prudent and should be made. However, if the utility will not avoid a cost through investment in conservation, then the investment is not lower cost and should not be made.

The Board found it difficult to accept the implications of the latter proposition. It said that the approach proposed was "too narrow and restrictive. There will be very few cases where the test is met."²⁰ The Board concluded that it will allow utilities to apply for conservation spending, but would not order them to invest any additional amounts and, therefore, according to the Board, "it is not appropriate at this time to fully define the test of prudence with respect to CDM spending."²¹

Thus, in the case of conservation, the Board was reluctant to apply a test based on public utility economics because it would not justify an investment in conservation. The Board clearly wanted to see such an investment made, but could not determine a principled rationale to justify it.

The same difficulty faced the Board when addressing how to approach the issue of lower rates for low income customers. When faced with a motion requesting that rates take into account the ability to pay, a majority of the Board was able to dismiss the request because it was inconsistent with the Board's mandate as an economic regulator:²²

"Economic regulation is rooted in the achievement of economic efficiencies, the establishment of fair returns for natural monopolies and the development of

²⁰ OEB Decision with Reasons in Generic Hearing on Conservation Spending (RP-2005-0020, EB-2005-0523), March 3, 2006, p. 9.

²¹ *Ibid.* p. 11.

²² Decision with Reasons in Enbridge Consumers Gas - Low Income Rates (EB-2006-0034), pp. 4 and 6.

appropriate cost allocation methodologies... Income redistribution policies are at the core of the work done by democratically elected governments.”

The minority opinion was prepared to take on that role. According to that opinion, the Board could take into account the ability to pay “in the appropriate circumstances”²³ However, it did not elaborate what those circumstances might be.²⁴

In both cases, the Board was asked to consider how to take into account broader values – environmental and social – that are not easily measured by traditional public utility economics. In both cases, the Board could not come up with a principled rationale to bind its jurisdiction. In the conservation case, the Board rejected Board Staff’s submissions based on public utility economics as too narrow but declined to develop any other rationale. In the low income case, the dissenting decision also rejected the public utility economics rationale as too limited, but did not even attempt to articulate an alternative rationale for a more distributive role.

The difficulty that the OEB has faced in articulating a principled rationale for its approach is understandable; while it may generally be agreed that there is more to the consideration of energy problems than economics, it is not clear what that “more” is.

It is too early to speculate on how the implementation *Green Energy Act* will unfold before the OEB. However, there are some clear indications of the changes and challenges that will have to be addressed.

First, as indicated, the Board will have to reconsider the application of some of its major approaches to public utility regulation. The questions will be how far this reconsideration will go, both in terms of how willing the Board is to apply new approaches and the range of projects to which new approaches will apply. For example, will the Board have two sets of economic

²³ *Ibid.* p. 20.

²⁴ On appeal, the Divisional Court upheld the Minority decision of the OEB. However, it did not provide much guidance on how the OEB should exercise its authority to set low income rates. According to the Divisional Court, that was a matter of OEB “discretion”: See: *Advocacy Centre for Tenants-Ontario v. Ontario Energy Board* (2008), 293 D.L.R. (4th) 684, 166 A.C.W.S. (3d) 384; for a critique of the Court’s approach, see: George Vegh, “Case Comment...Public Utility Rate Making: Economic Regulation or Taxation?” (2008), 87 *Canadian Bar Review*, 551.

analysis: one that applies to conventional facilities and one for renewable facilities; if so, how can this distinction be coherently maintained in an integrated electricity system where electrons are fungible after they are produced?

Second, the Board will not be able to rely upon its traditional adjudicative methodology for making these determinations. The traditional regulatory paradigm that characterizes its thinking also characterizes the thinking of the parties who tend to appear before it. The Board will require new ideas, and it is not clear where these ideas will come from.

Third, the Board will find it difficult to maintain its entitlement to make decisions that are independent from political interference when it exercises its broader mandate. The claim for independence is stronger when a regulator is making technocratic decisions. Once the regulator is making political decisions – i.e., those involving a wider range of values than economic efficiency – it is unrealistic not to expect the government to weigh in with its own views on these issues.²⁵

Conclusion

The *Green Energy Act* takes an approach to the environmental and social contribution of green economics that is unconstrained by traditional notions of public utility regulation – it is green energy unbounded.

This will test some of the key regulatory approaches and tools used by the OEB. Many of the instruments and premises that the OEB has used in the past – the conventional practices of public utility regulation will have to be reconsidered. Specifically, the *Green Energy Act* will require the Board to confront social and environmental issues on a more regular basis than in the past.

²⁵ The overlap between the regulatory sphere and the political sphere is demonstrated by the areas in which a requirement may come into force *either* as an OEB order, *or* as a regulation. See, for example, the provisions respecting the development and approval of transmission and distribution expansion plans: proposed s. 70 (2.1) of the *Ontario Energy Board Act*. It provides that expansion plans are to be provided “in accordance with such rules as may be prescribed by regulation and in the manner mandated by ...the Board.” They are to be prepared “in the manner and at the times mandated by the Board or as prescribed by regulation”, and are to be implemented in accordance with the plan that “has been approved by the Board or in such other manner and at such other times as mandated by the Board or prescribed by regulation...”. This suggests that there is no inherent difference to these types of regulatory instruments and that there is a built in political override to an OEB decision.

In order to maintain effective regulation, and economic credibility, the OEB will have to articulate principled approaches to dealing with these values.