



**Canadian Environmental Law Association**  
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**SUBMISSION BY THE CANADIAN ENVIRONMENTAL  
LAW ASSOCIATION ON BILL 118  
AN ACT TO AMEND THE POWER CORPORATION ACT**

Prepared for the Committee on Resources Development

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## **1.0 INTRODUCTION**

The Canadian Environmental Law Association (CELA), founded in 1970, is a public interest law group committed to the enforcement and improvement of environmental law. Funded by the Ontario Legal Aid Plan, CELA also serves as a free legal advisory clinic for the public, and will act at administrative hearings or in the courts on behalf of individuals and citizens' groups who are otherwise unable to afford legal representation.

Almost since its inception, CELA has been active with regard to energy and resource issues and their effect on the environmental and social well-being of the planet. CELA also has a long history of involvement with law reform and client work in other areas, including environmental assessment, land use/planning reform, waste management, environmental bill of rights initiatives, standard-setting, and international trade.

Bill 118, the proposed Act to Amend the Power Corporation Act (hereinafter "Bill 118" or the "Bill"), serves two main purposes which we believe are, at least potentially, in the long-term interest of the environment. First, it further formalizes and clarifies the accountability of the Ontario government and Ontario Hydro (alternatively referred to as "Hydro") to the public with regard to Ontario Hydro policy. Secondly, the Bill will enable Hydro to at least formally encourage the use of less harmful alternative fuels for residence heating, and give municipal energy utilities the option to treat energy conservation programs as capital

expenditures. CELA recognizes that, while the extent to which energy reform in the province will occur in the long run is outside the terms of the Power Corporation Act, the passage of this Bill will at least provide the structural changes necessary to allow for such reform to be realized.

## **2.0 ONTARIO HYDRO AND PUBLIC ACCOUNTABILITY**

The legislative instruments and institutions that govern the affairs of Ontario Hydro were fashioned during an era when electrical system planning was undertaken almost exclusively by utility experts. Technical requirements determined the nature of supply facilities, and social and environmental impacts were virtually ignored. We have slowly, during the last two decades recognized the major public policy dimensions of matters relating to the size, scale and character of the electric power system. What had traditionally been regarded as a "technical delivery decision", such as the generation mix of the power system, is now recognized as having major implications for the Province's economic and social life.

Unfortunately, the institutions that determine the course of Ontario Hydro's affairs have not in either design or mandate been accommodated to this new perception of the planning process. As our review of the existing regulatory matrix will show, very little has transpired to remove from the exclusive prerogative of Ontario Hydro, a host of matters of vital public concern. As all who have reviewed Hydro affairs have noted, the problem is one of a lack

of accountability.

In our view, the notion of accountability is the single most important test of both, existing decision-making processes, as well as of proposals for reform. An accountable electric power system is one that is responsive and responsible to the people of Ontario. It is fundamental to the notion of accountability that ultimate control or authority rest with those to whom the account is being rendered. Ontario Hydro is not accountable to an institution or agency whose advice or direction it may choose to disregard. For example, while Ontario Hydro may be required to submit a proposal to increase its rates to the Ontario Energy Board, it is not accountable to the Board (or to anyone else in this instance) for the rates that it decides to set.

When applied to the planning, design and operation of a system as large, diverse and complex as Ontario Hydro's, the notion of accountability is multi-faceted. The particular mechanism of accountability to be adopted must vary with the nature of the institution or constituency to which Ontario Hydro is to be responsible. Thus, Hydro must, with respect to different matters, be made to account to either the Legislature, various regulatory institutions, its customers or the public at large.

Given the above, and the sheer number of important energy policy issues which currently face the citizens of Ontario at this time it is no surprise that our present government has

decided to review and improve upon its relationship with Ontario Hydro. Given the overriding concern of neo-conservative economists with debt reduction and the recent estimate that Ontario Hydro is carrying a debt of some \$30 billion, it is no small wonder that Hydro's fiscal responsibility has been called into question.

It is not only the economic decisions that we must call into question but also the environmental ones. There is much to suggest that supply side management has run amok. Hydro's commitment to a mega-project mentality has kept supply side energy conservation and efficiency measures off the table, fostering massive past, present, and future environmental degradation which is irreparable. The environmental impacts of nuclear, coal and hydraulic generation are well documented. Over-emphasis on expanded production capacity can only increase negative impacts.

The response of our citizenry has become stronger in direct proportion to the amount of information that the politics of electrical power generation has made available. The message to you--the politicians--is clear. The intransigence of Ontario Hydro and its allies will be accepted no more.

Given the political landscape, it is no surprise that Bill 118 has sought to address the central concern of Hydro's accountability to the citizens of Ontario through their government. In that respect it is not inconsistent with the current Demand Supply Plan Hearings being

conducted before Ontario's Environmental Assessment Board. There is much to commend this process--one in which citizen groups have been funded to the tune of \$23 million in order to participate in the planning process and its outcomes. These hearings represent the largest and most comprehensive co-ordinated policy review which Ontario Hydro has ever had. It also represents a form of direct regulation which in principle may also be said to express the intent of Bill 118 itself. One very important aspect of the Bill comes by way of its attempt to address the accountability of Hydro to the government and Ontario citizens.

As the analysis below will demonstrate, Bill 118 serves the useful purpose of further explaining and enhancing Hydro's responsibility to government. This has been attempted on other occasions, notably through the establishment of the Ministry of Energy in 1971. Unfortunately, the Ministry has been unable thus far to live up to the mandate of providing a policy framework for Hydro. Bill 118 should in part facilitate this essential goal.

Bill 118 for the first time clearly allows the Ontario Government the right to give policy directives to Ontario Hydro. This amendment offers two advantages. First, Ontario Hydro will be more accountable to government. Secondly, government itself will become more accountable to the electorate in its business with Ontario Hydro. Through this new transparency neither the government nor Ontario Hydro will be allowed any longer to pass responsibility for the negative consequences of their actions on to the other party. This would be even more completely assured if the government makes a commitment, in law, to

make public its policy directives to Hydro.

## **2.1 Policy Directives**

The single most important set of amendments available in the Bill for accomplishing this comes by way of s.9a as amended. The present Power Corporation Act requires that Ontario Hydro's Board merely use its "best efforts" to exercise its duties in a manner which "broadly conforms" with any (government) policy statement issued for Hydro. The amended version of s.9a provides that, rather than "policy statements", the government shall issue "policy directives" after a consultation with the Board which shall review the "content and effect" of the directive on Hydro. There is the further language that requires such directives to be effected by the Board "promptly and efficiently." The amendments to s.9a increase Hydro's accountability to government through the stronger language of directives and their prompt and efficient implementation in a manner which virtually guarantees that Hydro Board decision making will be consistent with the Ministry of Energy's policy development and implementation strategies. These amendments promote co-operation between Hydro and the government through an consultative process which is to take place prior to issuance of the policy directive, this, affording the opportunity for the Board to bring Hydro's knowledge and expertise to bear in collaborative decision-making.

## **2.2 Energy Conservation Programs as Capital Expenditures**

For much the same reasons we support the clarification of policy directive applications to



loans for energy conservation under s.6 of Bill 118, which refers to s.56b of the existing legislation. Section 95(a) of the PCA requires a municipal utility to declare an energy conservation program strictly as a current operating expense. Bill 118 will allow utilities to amortize conservation program cost over a much greater period of time by treating them as capital expenditures. Thus new sources of capital may then be more easily earmarked towards encouraging conservation measures.

### **2.3 Expansion of the Board of Directors**

The Bill also requires expansion of the existing Board in order to accommodate five new members, one of which is the Deputy Minister of Energy--a non-voting member. The relevant sections of Bill 118 include s.1 and s.3. These amendments are consistent with past Board expansions and will facilitate a wider participation of public interests as can be witnessed from the types of appointees recently selected to fill vacant seats on the Board during this government's term. The insertion of the Deputy Minister as a liaison or adviser on government matters serves the useful function of providing a watchdog for the protection of government policy in Ontario Hydro's decision making structure.

### **2.4 Amendments Regarding the Chair of Hydro**

With respect to amendments affecting the Chairperson of Hydro, it is significant that s.3(5a) has been amended to state that the Chairperson is the Chief Executive Officer of Hydro. Since the Chairperson is a government appointment, it is expected that this will enhance

Hydro's accountability to government. This is consistent with our endorsement of government as a necessary partner in directing Hydro decision making.

In view of this tendency, it is surprising that amendment 3(6a) would give the Board the power to determine the Chairperson's salary. Given the recent débâcle over determination of Chairperson Marc Elieson's salary and its outcome in which the government decided what that salary should be, it would seem prudent to leave such future decisions to the government. Therefore we submit that s.3(6) of the existing legislation should remain unchanged.

## **2.5 Extension of Regulatory Power over Hydro**

Despite the amendment evident in Bill 118 and the Demand Supply Hearing, there is still cause for extending regulatory power over Hydro. The Minister of Energy has not indicated that legislative reform of this nature is being contemplated yet that is precisely what is needed. At present, Hydro is simply not subject to any effective legislative control, i.e. no direct power over Hydro.

If we could be permitted the small indiscretion of transcending the boundaries of the Power Corporation Act itself in this discussion, then only a few points need to be made. The legislative direction that we would give is the same as that which we prescribed in Chapter 8 of the Ontario Global Warming Coalition document entitled "Degrees of Change: Steps

towards an Ontario Global Warming Strategy." For the purposes of brevity the recommendations shall be pared down to three in number. They include:

1. Reform Ontario Hydro's mandate by amending the Ontario Energy Board Act to enable the Ontario Energy Board to have binding regulatory control over the Corporation's:
  - Rates and its rate setting function,
  - Ontario Hydro's system expansion proposals
  - Ontario Hydro's borrowing program.
  
2. Amend the Power Corporation Act in order to implement a new conservation strategy for Ontario.
  
3. Establish a new utility in Ontario whose mandate would expressly be to provide energy efficiency measures and renewable energy programs.

For a further elaboration of what these proposals would entail, kindly review Chapter 8 of the above-mentioned document

In concluding this section let it be stated that CELA supports Bill 118 as a necessary step towards the goal of greater government accountability for Hydro decisions. It should create a new transparency in this decision-making process and foster a greater sense of public

accountability for the actions of government in relation to Hydro. (The above discussion has been informed by the work of Dave Martin of the Nuclear Awareness Project).

### **3.0 FUEL SWITCHING UNDER THE PRESENT ACT, AND AFTER PASSAGE OF THE BILL**

Under Section 56b (3) of the present Act, the conversion of buildings from electric to natural gas heating is expressly prohibited. This prohibition likely stems from the commitment of previous provincial governments to increasing electrical generation capacity across the province with little, if any regard to the environmental consequences of such a policy.

In Bill 118, Section 56b (3) is repealed, and Section 56a (3) is rewritten to allow for

The conversion of a space heating system to a system based on the form of energy that would result in the greatest energy conservation in the circumstances [Section 4(3), PCAA].

### **3.1 Inefficiency of Central Electricity Generation**

20 per cent of electrical generation in Ontario comes from fossil-fuelled sources (Ontario Hydro, 1990: Annual Report). Of that 20 per cent, the vast majority (approximately 80 per cent) comes from highly inefficient, highly polluting, coal-fired (thermal) generating plants. In addition, approximately 10 per cent of Ontario's electricity is purchased from the United States per year, usually from similar thermal generating plants (Ontario Hydro, 1990: Annual

Report).

These numbers take on greater significance, however, when one notes the type of electrical generation used for base-load vs. peak period demands. Base-load consists of customers' electricity demands that are relatively constant over the course of a year. Much of this power is, by design, nuclear-generated. Unlike nuclear, thermal generated plants are easily taken on and off-line in response to peak period demands. Hydroelectric power is used for both types of load, while electricity purchases are made when peak loads cannot be met by domestic capacity (Passmore and Associates, 1992: The Economic and Environmental Implications of Fuel Switching).

Individual Ontario residents use approximately 30 per cent more electricity than their American counterparts - and electric heating accounts for most of the difference. Although only one-fifth of the homes in Ontario are heated electrically, electric heating makes up one-third of all electricity use in the entire residential sector (O.G.W.C., Degrees of Change).

Estimates of the percentage contribution thermal plants make in meeting home space heating demands vary from 60 to 90 per cent (D. Martin, Power Politics). Given the low efficiency of thermal generating plants in Ontario at present, and losses due to transmission from source to point of use, the amount of fossil fuel used for household heating has been estimated to be up to three times higher than it would be if used directly in the home

(Passmore and Associates).

### **3.2 Carbon Dioxide Emissions and Global Warming**

Global warming has been cited as being one the worst environmental catastrophes the planet could face, second only to nuclear war. A major product of fossil fuel burning is carbon dioxide, the main "greenhouse" gas. CO<sub>2</sub> has increased in concentration by approximately 8 per cent since the beginning of the industrial age, and continues to increase at a rate of approximately 0.5 per cent per year (1990 figures). In 1990, the International Panel on Climate Change (IPCC), a joint United Nations-World Meteorological Organization effort that brings together several hundred leading scientific experts on climate change from around the world, issued the most authoritative and comprehensive scientific assessment on global warming yet published. Among their recommendations was a call for an immediate reduction of emissions of most greenhouse gases (including carbon dioxide) [p. xi] by over 60 per cent in order to stabilize their concentrations at 1990 levels. As an interim step towards the massive reductions necessary to stave off global warming, the Ontario Global Warming Coalition, in their report Degrees of Change has called for the provincial government to meet the so-called "Toronto Target" \* of a 20 per cent reduction in carbon dioxide emissions from 1988 levels by the year 2005.

### **3.3 Carbon Dioxide and Electric Space Heating**

Given that Ontario Hydro's thermal generating plants have conversion efficiencies in the range of only 30 per cent, and taking into account the newer, somewhat more efficient fossil-fuel generating plants in use at present, the amount of carbon dioxide released during thermal generation for home space heating is approximately 7 000 000 metric tons per year at the 90 per cent (thermally-generated) level (Energy, Mines and Resources: Canada, 1990. Emission Factors for Greenhouse and Other Gases by Fuel Type, and David Martin, personal communication). This accounts for approximately 4.2 per cent of the total carbon dioxide emitted in Ontario in 1988 (Ministry of Energy data, Degrees of Change, p. 109). Since new natural gas furnaces routinely reach efficiencies of up to 93 per cent (Power Politics), and oil furnaces efficiencies of 80 per cent (ibid), there would still be an approximately 3 per cent reduction in carbon dioxide emissions in the province if fuel switching was fully comprehensive **in the residential sector alone**. If fuel switching was undertaken in all sectors, combined with other initiatives such as cogeneration and thermal envelope improvements, Ontario would be well on its way towards meeting the Toronto Target.

### **3.4 Capital Expenditures for Electricity in Ontario**

It has long been Ontario government policy to provide consumers with a growing, inexpensive supply of electricity. The facts, however, point to the failure of that policy. The

Darlington Nuclear Generating Station megaproject, costing \$13.5 billion at last estimate, is but the latest example of a policy of generation capacity expansion that has led to Ontario Hydro's massive deficit. What was supposed to be a policy of cheap energy on demand has turned into a farcical postponing of some of the cost to future generations, and substantial increases (11.83 per cent in 1992 alone) (Toronto Star, Nov. 22, 1991, "Residential hydro bills to rise 13.4% in Toronto") in electricity rates as the cost of the Darlington plant coming on line, and of refurbishing inefficient, existing plants filters down to the consumer (Globe and Mail, Dec. 7, 1991, "44% Jump in OH Rates Possible in the Next 3 Years, Chief Says").

Electricity from inefficient sources, especially when there are alternatives available is both uneconomical and, especially in the cases of nuclear, thermal, and hydroelectric megaprojects, detrimental to the health of the environment. The capital cost of the generating capacity needed to heat the average new home with electricity has been estimated by Ontario Hydro to be \$50 000 [RC Franklin speech to the Canadian Electrical Association, "Serving the real needs of our customers", October 22, 1990], or \$3300 per kilowatt. Continuing to encourage the use of electrical services is an option that Ontario Hydro, staggering under such a huge debt, and the people of Ontario can simply no longer afford.

### **3.5 Capital Expenditures for Fuel Switching: the Worst-Case Scenario**

The cost of switching a residence from electric to natural gas heating depends on a number



of factors. If electric heat is supplied by baseboards (which is often the case since they are cheaper for a builder to install than a central, fan-driven electric furnace with ductwork for air circulation), then ductwork must be installed throughout the house. A multi-story home presents the greatest expense in this area - our "worst-case scenario" (estimated to be \$6000 for the average multi-story home in Ontario). The actual cost for a new furnace is estimated to be in the \$3500 range, for a total capital expenditure of \$9500 for switching to take place in a multi-story home. Ontario Hydro has stated that switching multi-story, baseboard-heated residences from electric to gas or oil is not economic. The environmental benefits realized in taking polluting generation capacity off-line, may not be a classic economic benefit, but they far outweigh the capital cost of switching.

#### **4.0 FURTHER MEASURES TO REDUCE ENERGY DEMAND**

Although it is beyond the scope of this brief and Bill 118 to comprehensively address measures that Ontario Hydro should take to further reduce energy demand, to look at the inadequacies the Bill addresses in isolation from the comprehensive energy conservation and land use measures the province must make in the near future would be folly. Further necessary inter-related initiatives include thermal envelope improvements through legislation requiring retrofit of homes at point of sale and/or conservation incentives; exploration of the potential for the province to be a home for renewable energy research and development; the under-realized potential of non-utility generation to meet future demand and displace more

polluting, less efficient forms of generation; cogeneration technology; and urban intensification. Ontario, as a microcosm of the rest of the industrialized world, must set the example for the responsible use of energy in the face of the unparalleled environmental, economic, and social upheaval predicted by global warming experts.

## **5.0 CONCLUSION**

Bill 118, though limited in its practical application, represents a good start on the road to a less energy-consumptive society. The accountability that it requires, and the enhanced opportunities it provides for energy conservation are encouraging and must be vigorously pursued. While CELA supports the use of fuel switching to natural gas and oil as a necessary, interim step, it in no way reduces our support for the universal, practical use of renewable energy in the long term. Given predictions for continued world population growth, and an eventual return to a high rate of economic growth envisioned after the present recession, continued increases in greenhouse gas emissions are inevitable unless vigorous steps are taken by those who have the knowledge and power to do so.