



GREEN REPORT CARD

ON ELECTRICITY RESTRUCTURING IN ONTARIO

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Introduction

Just over two years ago, on October 30th, 1998, Bill 35, the legislation ushering in electricity sector restructuring in Ontario, received Royal Assent. Corporate restructuring of Ontario Hydro has largely been accomplished and Ontario is now in the final stages of preparing for competition in electricity supply and services. The opening of the competitive market in electricity, originally set for November of 2000, has been postponed for several months to allow the Ontario Energy Board and the Independent Market Operator (the overseer of the new electricity commodity marketplace) time to address outstanding concerns.

Restructuring of electricity markets toward competitive models is a widespread trend and has already begun to be implemented elsewhere, notably in California and Alberta. Such initiatives have been premised on the hope that competition among generators will control prices. Most jurisdictions have also sought to improve the environmental performance of the electricity sector as a simultaneous goal. Recent events in California, where utilities face bankruptcy and customers face blackouts, have underlined the need for a well designed transition in Ontario.

When restructuring was launched in Ontario the Government promised improved cost control, improved job creation and improved environmental performance. The latter promise is of great import as the electricity sector in Ontario, dominated by coal and nuclear power, has been a principal source of greenhouse gas emissions and of sulphur and nitrogen oxides as well as numerous toxics and carcinogens including mercury and radioactive tritium.

Price spikes and high average electricity rates in other deregulated jurisdictions (specifically in California and Alberta) have lead to concern about the likelihood of the promise of improved price performance being fulfilled. This report examines the government's progress to date on its accompanying promise of improved environmental performance in six policy areas:

- **Control of Emissions**
- **Encouraging Greener Generation**
- **Giving Consumers Choice - Green Power Options**
- **Encouraging Energy Efficiency**
- **Green Rules for International Electricity Trade**
- **A Level Field for Alternatives to Nuclear Power**

In 1995 the Minister of Energy and Environment convened the Advisory Committee on Competition in Ontario's Electricity System chaired by the Honourable Donald S. Macdonald. That committee's June 1996 report (known as the Macdonald Committee Report) was the jumping off point for the restructuring of Ontario's electricity sector. It stated:

"The Advisory Committee believes that the process of restructuring Ontario's electricity system must be accompanied by consideration of the most appropriate regulations or other instruments to secure the protection of the environment, and, specifically, to support energy efficiency and the introduction of renewable technologies" (A Framework for Competition, p.91)

The Government's restructuring plan, the November 1997 White paper released by Minister Jim Wilson, endorsed the importance of environmental protection. The objectives of the restructuring plan included: "enhanced safety, reliability and environmental protection." (Direction for Change, p.10). Both the restructuring legislation (the Electricity Act, 1998) and the accompanying Ontario Energy Board Act, 1998 include the objective:

"to facilitate energy efficiency and the use of cleaner, more environmentally benign energy sources in a manner consistent with the policies of the Government of Ontario"

With these objectives in mind, the Green Energy Coalition, comprised of Sierra Club of Canada, Greenpeace Canada, and the Energy Action Council of Toronto (ENERACT), in cooperation with the Toronto Environmental Alliance (TEA) have compiled the following "report card" on electricity restructuring's progress toward environmental improvement.





GREEN REPORT CARD

on Electricity Restructuring In Ontario

GREEN REGULATORY OBJECTIVE	PERFORMANCE TO DATE	GRADE
Control of Emissions	Current proposals for emissions control regulations will actually increase emissions in a wide range of carcinogenic and greenhouse gas pollutants.	F
Encouraging Greener Generation	While billions are being spent on coal and nuclear plant refurbishment, there has been no program developed to encourage greener generation as has been done in other jurisdictions. Ontario Energy Board regulation has been inconsistent in its approach to enabling local renewable generation and cogeneration. Environmental approvals processes for clean plants remain ill-defined, slowing investment in these options while both levels of government have effectively exempted coal and nuclear plant refurbishments from meaningful environmental review.	D-
Giving Consumers Choice -- Green Power Options	Little progress is being made on “green power labeling” which is necessary to enable customers the ability to make informed decisions about the cleanliness of the power they will be buying.	D+
Encouraging Energy Efficiency	The government has offered no support for energy efficiency and the Ontario Energy Board has delayed discussion of conservation programs for the electricity sector despite excellent progress in the competing OEB regulated gas sector and despite growing need due to the prospect of increasing electricity prices.	D-
Green Rules for International Electricity Trade	The OEB has approved deep discounts for use of the transmission system by power exporters, thereby subsidizing increased coal-fired generation. The Ontario government has passed regulations eliminating consideration of environmental factors by the OEB in its approval process for transmission upgrades including those needed to support the exports.	F
A Level Field for Alternatives to Nuclear Power	Multi-billion dollar bailouts of the nuclear sector will be borne by consumers along with under-funding of nuclear plant decommissioning and radioactive waste disposal. Ontario Power Generation continues to hold on to funds set aside for waste management with no guarantee that the funds will be available when needed and private sector nuclear plant operators, like British Nuclear which will operate the Bruce nuclear stations, are being excused from virtually all liability for accidents.	F
OVERALL		F

Guide to grades: A: excellent, B: above average, C average, D: below expectations, F: fail.

1. EMISSION CONTROLS

What was promised:

“In implementing an electricity market, the Government will ensure that the province’s environmental record is maintained and improved.” (White paper, p. 12)

“Existing limits on emissions of sulphur dioxide, nitrogen oxides, and carbon dioxide from electricity generation will remain in place. Further environmental protection measures that are flexible and cost effective will be considered in the design of the electricity market.” (White paper, p. 20)

“The Government will be considering market-based mechanisms that would favour more environmentally preferred forms of generation and penalize those forms of generation with a more negative environmental impact.” (White paper, p. 20)

Why this is important:

The electricity sector in Ontario, dominated by coal and nuclear power, has been a principal source of greenhouse gas emissions and of acid rain and smog producing sulphur and nitrogen oxides as well as numerous toxics and carcinogens including mercury and radioactive tritium.

Ontario Medical Association studies find that air pollution is killing 1900 Ontarians per year and costing \$9.9 billion per year. (The Illness Costs of Air Pollution in Ontario, www.oma.org)

In the past the vast majority of generation was done by Ontario Hydro, to which control orders applied that regulated Nitrogen Oxide and Sulphur Dioxide emissions. In addition, a "voluntary cap" on carbon dioxide (a key greenhouse gas) was agreed to. With restructuring, there will be more entities involved in generation and it is necessary for the previous regulations to be redrawn to cap the sector as a whole and thereby ensure both that emissions do not rise and that progress is made toward reducing emissions.

The Market Design Committee (MDC), the multi-stakeholder task force charged with designing the basic market rules, in its Recommendation 5-1, called for the Ministry of the Environment to “set caps for the relevant electricity-related air pollutants at levels that are consistent with the mandate of the White Paper, with due regard for seasonal environmental impacts and local impingement issues. **These caps should take effect at the same time that the competitive electricity market is established in the year 2000. All sources subject to the emission limits should be allowed to trade credits among themselves, and to vary their individual emissions as long as the aggregate emissions level remains within the emissions cap.**” (MDC second interim report page 5-5, emphasis added)

It should be noted that the MDC, chaired by Professor Ron Daniels, was comprised largely of representatives from major industries and electricity sector participants.

What we got

To date the only regulatory change has been to extend the previous cap governing Ontario Hydro and that is now applicable to its progeny, Ontario Power Generation (OPG) and the proposal of weak emission performance standards on imports. These new regulations, announced on January 24th, 2000, while nominally tightening the limit actually relax it by allowing OPG to claim credit for imaginary reductions through a regime known as Pollution Credit Trading. Under this scheme credit can be taken for notional reductions claimed by unregulated companies in Ontario and in neighbouring jurisdictions even where total emissions from that company and in the region are rising. While emission trading can work in a proper *Cap* and tradeable emission credits approach, where total emissions would be capped and reduced over time, no such system is in place. The three caveats in the MDC’s recommendation, that caps cover all relevant emissions, that caps cover the entire sector at market startup, and that trading only be between sources subject to the cap, have all been ignored.



No caps have been placed on neurotoxins and carcinogens such as mercury, arsenic or lead.

There is no sectoral regulation of emissions that would capture new generators.

Sectoral caps, including tradeable allowance mechanisms, can work, but only if adequate monitoring and verification is in place to ensure that emission reductions are real and increase over time. However, the enablement of trading with non-capped industries cannot work and will, according to a recent report of the Ontario Clean Air Alliance (*Pollution Loopholes*, www.cleanairalliance.web.net) allow OPG to increase its emissions by at least 42% and allow total domestic and imported emissions of carbon dioxide and related mercury and cancer-causing gasses from coal-fired plants reaching Ontario to rise by 156% relative to OPG's 1998 levels.

The government has also allowed OPG to break its 1991 promise to cap Nitrogen Oxide emissions from its plants at 38,000 tonnes by 2000. OPG is expected to exceed that level by approximately 32% because it scaled back its earlier commitments to undertake energy-efficiency measures totaling 5,200 megawatts, and to purchase 3,100 MW of cleaner electricity from independent power producers. Had these commitments been enforced, OPG would have met its emissions reduction goal despite the shutdown of several of its nuclear plants.

Similarly, OPG expects to exceed its 1995 commitment of 26 million tonnes of greenhouse gas emissions in 2000 by some 42%. The government has neither required OPG to maintain its plans to foster energy-efficiency and obtain cleaner power from others nor required it to cut back on coal-fired exports to the U.S..

Recently we saw the Federal Government agree to the October 13th Draft Ozone annex to the Canada-U.S. Air Quality Agreement which, if implemented, will reduce nitrogen oxide emissions in Ontario by approximately 50% by 2007. The agreement came despite the Ontario Government's objections. Federal Environment Minister David Anderson has indicated that the Canadian Environmental Protection Act could be used to force the reduction if Ontario refuses to act.

On October 16th and 17th at the Federal/Provincial Joint Minister's Meeting, Ontario was the lone hold out on an agreement to implement a national plan to meet Canada's Kyoto commitments on greenhouse gas emission reduction. Ontario has sought national standards based on its own weak provincial performance.

GRADE: F

Suggestions for improvement:

Ontario's introduction of Pollution Credit Trading in the absence of tightening emission caps covering all participating sectors and all relevant pollutants must be reversed.

Sector-wide caps must be put in place immediately covering greenhouse gasses, nitrogen oxides and sulphur dioxide as well as toxics such as mercury, lead and arsenic. The caps should automatically tighten each year in accord with Canada's international commitments on global warming and the need to reduce the high pollution death toll in Ontario.

Tradeable permits (internationally or interprovincially) should only be implemented as part of *Cap and Tradeable Emission Credits* systems and only where emission reduction verification systems are implemented that ensure reductions are true reductions, not mere claims or reductions from hypothetical projections. Further, for many pollutants where local effects are an issue, local caps are still required. Given concern about capping exposures to toxics and carcinogens like mercury and radioactive tritium, there is likely no scope for trading in permits for these emissions. Even for greenhouse gasses, minimum local reductions should be required to compliment the reductions obtained through tradeable permits. This would have several benefits, including ensuring that the burden of reductions is not unduly restrictive of economic activity in developing nations. Until these requirements can be met, emissions offsets obtained offshore and in other sectors are not credible.



2. ENCOURAGING GREENER GENERATION.

What was promised:

“...over time, encourage newer, more advanced generation technologies using cleaner fuels.” (White Paper, p. 12)

Ontario’s restructuring legislation empowers the Ontario Energy Board to:

“...facilitate energy efficiency and the use of cleaner, more environmentally benign energy sources in a manner consistent with the policies of the Government of Ontario.”

The White Paper promised:

“streamlined approvals for standardized, relatively benign electricity generation technologies”.

Recognizing that a deregulated market would favour cheap and dirty fuels, other jurisdictions that are restructuring have introduced a variety of mechanisms to compensate for the failure of the market to count all costs. Mechanisms to encourage renewable generation include:

- Renewable Portfolio Standards (RPS): which require minimum (typically increasing) levels of generation to be from renewable sources. (For example in Connecticut solar, wind new sustainable biomass and fuel cells must grow to 6% of power by 2009; Massachusetts requires 1% of sales to customers to be from new renewables in 2003 or 1 year after any renewable is within 10% of average spot market price, growing to 4% in 2009 and 1% more each year thereafter.) (see: National Association of Regulatory Utility Commissioners restructuring database which lists regulatory and legislative initiatives fostering renewables or addressing global warming in the U.S. and a variety of other countries, www.naruc.org/resouces)
- System Benefits Charge (SBC): programs are in use in U.S. jurisdictions to provide financial support to renewables from electricity rates to foster health, environmental and competition benefits.

Examples of U.S. State support programs for renewables and energy efficiency as of May 1999

Jurisdiction	Type of Policy				
	SBC-EE	SBC-LIEE	SBC-R	RPS	SPS
Arizona	☒	☒	☒	—	☒
California	☒	☒	☒	—	—
Connecticut	☒	☒	☒	☒	—
Delaware	☒	☒	—	—	—
Illinois	☒	—	☒	—	—
Maine	☒	☒	—	☒	—
Massachusetts	☒	☒	☒	☒	—
Montana	☒	☒	☒	—	—
Nevada	—	—	—	☒	—
New Hampshire	—	☒	—	—	—
New Jersey	☒	☒	☒	☒	—
New Mexico	—	☒	☒	—	—
New York	☒	☒	☒ (R&D)	—	—
Pennsylvania	—	☒	—	—	—
Rhode Island	☒	—	☒	—	—
Virginia	—	—	—	—	—

KEY:

- ☒ Policy established
- Policy not established
- <blank> Under Consideration
- SBC-EE** Funding structure for energy efficiency
- SBC-LIEE** Funding structure for low-income energy efficiency
- SBC-R** Funding structure for renewable energy resources
- RPS** Renewable energy resource portfolio standards
- SPS** RPS restricted to "solar" energy sources (e.g., photovoltaic cells)

Source: *A Report to The Colorado Office of Consumer Counsel and The Governor's Office of Energy Conservation, May 1999*, David Nichols, Hannah Sarnow, Karlynn Cory, Richard Rosen, Tellus Institute, Boston



- Preferential Feed-in Rates: common in the European Union ensure renewable energy producers of adequate rates for the sale of their electricity to the grid. These rates are either set at specific levels that are high enough to encourage renewables or are set at a percentage of the retail electricity price as it evolves from time to time.
- Preferential tax treatment: which reduces property tax on environmentally preferable generation. (For example, in Massachusetts high efficiency cogeneration facilities are exempt from property tax.)

What we got:

Simultaneously with the development of the restructuring regime, the Ontario government approved a multi-billion dollar refurbishment of OPG's aging nuclear generators. The cost of this "NAOP" program went straight into the "stranded debt" burden that all customers will now bear through "debt reduction charges", taxes upon the previously non-profit electricity distribution networks, and through OPG's equity charges built into higher electricity prices. The effect of the program is to subsidize nuclear plants and significantly harm the competitive position of cleaner resources.

There has been no legislative or regulatory initiative such as a renewable portfolio standard, system benefit charge or feed-in rate.

In the absence of measures to support renewables it is expected that OPG's coal-fired power production will rise approximately 25% in the next decade. (See: Ontario Clean Air Alliance, *Countdown Coal*)

OPG was considering converting the Lakeview coal-powered generating facility (which accounted for 9.6% of OPG's coal-fired power in 1999) to gas, but its conversion would not ensure reduced pollution in Ontario in light of the government's proposed emission credit trading scheme discussed above. OPG's latest plan is to continue running Lakeview on coal with low-NOx burners that will do nothing to reduce releases of greenhouse gasses, sulphur dioxide or carcinogens.

Ontario's remaining coal plants will also continue to be major polluters: On September 14th Ontario Power Generation announced its proposal to meet existing emissions objectives by spending a quarter of a billion dollars on Selective Catalytic Reduction end of pipe pollution controls at its aging Nanticoke and Lambton coal plants. This would reduce only one (nitrogen oxide) of 30 pollutants emitted by its coal-fired power plants. Cancer causing substances, carbon dioxide, mercury and sulphur dioxide emissions will continue to rise by up to 26% by 2012. (See: Countdown Coal, www.cleanairalliance.org) A phase out of these plants would dramatically improve air quality. Even the alternative of conversion to natural gas would significantly reduce all major emissions, particularly acid rain causing and greenhouse gas emissions. So far the Government has resisted calls for conversion let alone phase out or shutdown.

In its regulation of rates for electricity transmission and distribution the Ontario Energy Board has also taken a one step forward two steps back approach. In its May 2000 (RP-1999-0044) decision it decided in favour of "partial net billing for transmission charges for customers with embedded generation". This would allow consumers with their own generation located within local distribution systems (ie. customers who don't use the high voltage transmission system designed to bring power from the coal and nuclear plants) to avoid some of the high voltage transmission charges. Such "embedded generation" includes many renewable energy opportunities or high-efficiency gas-fired generation or co-generation and is generally far more energy and environmentally efficient than coal and nuclear plants. In subsequent discussions the OEB, without holding a hearing, has narrowly construed this decision, applying it only to customers with on-site generation, not to those who send their power to others within the same distribution area despite their reduced reliance on high voltage transmission. Such cleaner local generators (including community-based coops) are being forced to subsidize the transmission system used by the dirty centralized coal and nuclear plants.

The OEB has also effectively restricted local distribution utilities, that are expected to continue to provide electricity to most residential customers, to the dirty spot power market. Local utilities will not be allowed to charge for slightly more expensive, but much cleaner power from new sources to supply their standard service supply customers. Similar restrictions on utility power procurement added to the problems experienced in California.



Despite promises in the White Paper, we still await streamlined environmental approvals procedures for relatively benign generation. Inadequate environmental assessment procedures continue to give the large dirty plants a green light. Recently, the Toronto Renewable Energy Cooperative's (TREC) proposal to erect a windmill on the Toronto Waterfront underwent extensive study under the federal environmental assessment requirements. The project also required a provincial EA approval or exemption due to the participation of municipally owned Toronto Hydro. The process took over 18 months. In contrast the government gave a quick green light to a gas-fired project located in Sarnia that is roughly 1000 times larger and Ontario has not imposed any provincial EA requirements on OPG's recent investments in generation. In particular, the provincial government has relied on a federal environmental assessment screening on the restart of the Pickering reactors – a process that has set a new standard for meaningless environmental review. The federal review was scoped down to exclude review of accidents due to failure of the basic safety systems, to exclude the issues of the cost or need for the restart, and to exclude discussion of the adequacy of radiation protection standards for workers or the public. Consequently its conclusions focus on the need for enhanced P.R. efforts by OPG. Indeed, despite massive public investment in refurbishment and life-extensions, there has never been a full provincial environmental assessment and hearing on any of OPGs generation facilities. In short, Ontario has yet to address its double standard for environmental review.

In the face of uncertainty about the rules governing environmental approvals, promoters of greener technologies are reluctant to invest with the rules still tilted or undefined. Further, draft rules place more stringent requirements on wind turbines than on industrial gas-fired generation or generation from on-site municipal waste incinerators.

There has been some progress in improving the water rental and property tax regime applicable to new hydraulic generation. The previous property tax regime penalized the capital intensive nature of hydro-powered generation. The current proposal would base taxes on market value of the power produced and would give a partial tax holiday to new hydraulic generation for up to ten years. Unfortunately the proposal does not address other forms of renewable generation. Ontario continues to assess property tax against windmill towers while exempting the transmission towers that deliver coal and nuclear-fired power.

The Ontario government is not setting a good example in its own purchasing decisions either. While the Federal Action Plan 2000 calls for 20% of the federal government's electricity needs to be met from environmentally preferred sources (as do the City of Toronto's plans), the Ontario government's October 2000 paper entitled "Air Quality and Climate Change Insights, Opportunities and Solutions" contains no meaningful plans to support renewables.

GRADE: D-

Suggestions for Improvement:

Require OPG to phase out its coal plants and if needed in the interim to run them on cleaner natural gas. Nuclear plants should be similarly phased out, starting with the older problem-plagued plants. Natural gas should be treated as an interim measure only given its less than optimal environmental, financial and system security attributes. Investment in cleaner, safer, more secure renewables and efficiency must begin immediately.

Implement a Renewable Portfolio requirement (RPS) for all electricity generators or importers that requires an increasing proportion of the power used in Ontario to be generated from green renewable sources.

Direct the OEB to credit all local (embedded) generators (whether power is used on-site or within the local distribution area) with the full value of avoided transmission costs and to allow the purchase of green power by local utilities.

If phase out is not ordered, require full provincial environmental assessments of nuclear or coal plant refurbishments and life-extensions including the proposed restarts of Pickering and Bruce reactors and the pollution control investments at the Nanticoke, Lambton and Lakeview coal plants. Put in place suitable environmental approval procedures for smaller, cleaner facilities to provide certainty and ensure environmental protection.



Level the property tax situation by implementing a property tax exemption for renewable projects such as windmills or by taxing high voltage transmission towers.

3. CONSUMER CHOICE -- GREEN POWER OPTIONS

What was promised:

“More choice for electricity consumers” (White paper, p. 10)

The Market Design Committee (MDC) recognized that meaningful choice requires meaningful disclosure, certification and labeling requirements to enable customers to be assured that they are in fact obtaining greener power products if they choose to purchase them. Labeling that simply scores the relative greenness of a product will allow virtually all producers and retailers to claim their product is some shade of green. A minimum level of environmental performance to qualify as green needs to be defined clearly and at a suitably strict level to preserve the credibility of any green labeling regime. In addition, customers still need information about the relative performance of all products. Information on the related emissions of all significant pollutants including radioactive substances should be a mandatory requirement for all retailers and part of the wholesale electricity market process to inform industrial and municipal purchasers. The MDC in its Recommendation 5-6 endorsed the notion of a single clear definition of “green” and endorsed the Federally sponsored EcoLogo program as the means to create a single definition of certified green power. The MDC also called for the development of verification techniques that could subsequently enable marketing of alternative green products.

What we got:

While the government’s support for the recent Green Power trade show is laudable and suggests an interest in fostering green options for consumers, such efforts will be for naught without adequate rules on labeling, certification and disclosure.

Though the Ministry of Energy, Science and Technology will require disclosure of the sources of electricity where a retailer claims specific environmental attributes (but not a listing of all emissions or environmental impacts), it has not enunciated a green power standard. In that regard, the Ministry did not adopt the federally sponsored EcoLogo standard at the outset, preferring to take a back seat on this and let industry and interest groups meet and attempt to find consensus. As expected, organizations representing less environmentally desirable forms of generation are resisting a clear minimum standard with a simple label and prefer a multi-category label that will obscure choice. The range of possible impacts from hydro generation (which can be quite benign or quite destructive) demonstrates the need for an objective and publicly acceptable standard.

Without clear standards delineating what is green and what’s not, proponents of nuclear power will continue to engage in false claims about their power. Recently the provincially owned OPG ran ads claiming that nuclear power was “emissions-free”, conveniently ignoring the fact that Ontario’s reactors routinely release cancer-causing radioactive emissions such as tritium that has been found in amounts well above background levels in downwind and downstream communities. OPG also ignored both the risk of catastrophic accident and the routine emissions from the mining and refining of uranium fuel. Indeed, it is Ontario’s reliance on unreliable nuclear plants rather than highly reliable renewable and high-efficiency gas cogeneration options that has exacerbated Ontario’s high level of coal-fired emissions.

GRADE: D+

Suggestions for Improvement:

Draft EcoLogo standards which would define a minimum standard are expected to be released for public comment shortly by TeraChoice, the federally appointed entity that is developing them. The provincial



government should enact regulations recognizing EcoLogo in consumer disclosure labels as the proper way of defining “green”. Regulations requiring disclosure of source(s) should distinguish between the various alternative fuels and technologies based on their differing impacts. Regulations should not simply require disclosure of the source(s) of power but also of the related emissions (including greenhouse gasses, NO_x, SO_x, mercury, lead and arsenic as well as other major toxics and radionuclides like tritium) and other environmental impacts in all electricity transactions.

4. ENCOURAGING ENERGY CONSERVATION

What was promised:

One of the stated purposes of the electricity restructuring legislation was to:

“**facilitate energy efficiency...**” [Electricity Act section 1(g)]

Why this is important:

With the advent of restructuring, the choice of electricity supplier becomes a market driven decision. Companies competing in this market will not aggressively promote conservation that will raise their cost per unit of electricity sold even though this could lower a customer’s over-all bill. Utilities that previously saw their role as non-profit public servants providing least cost energy services, whether from supply or conservation, will no longer pursue even highly cost-effective conservation unless it is in their own financial best interest to do so. Given the likelihood of rising electricity prices due to the dynamics of the competitive market and flowing from the recent increases in natural gas costs it is imperative that consumers have access to energy efficiency alternatives.

In Ontario’s gas sector (which began commodity deregulation over 10 years ago) the utilities are mandated by the Ontario Energy Board to conduct energy conservation programs know as Demand Side Management.

Many U.S. jurisdictions require utility conservation programs and some states levy a Public or System Benefits Charge on electricity to fund such efforts. (Eg. Wisconsin requires its utilities to spend 0.5% of their total revenue on programs designed to promote and accomplish energy conservation.)

What we got:

The government did not include a specific mechanism to support energy efficiency in the restructuring legislation but, as noted above, both the restructuring legislation (the Electricity, 1998) and the accompanying new Ontario Energy Board Act include the objective “to facilitate energy efficiency and the use of cleaner, more environmentally benign energy sources in a manner consistent with the policies of the Government of Ontario.”

Despite this mandate, the OEB has introduced Price Cap regulation, a form of regulation that penalizes utilities investing in customer energy conservation. (Utilities that encourage conservation will lose profits that would otherwise flow from electricity sales.) The Ontario Energy Board has thus far taken no steps to overcome the disincentive to conservation created by price cap regulation or to positively encourage conservation efforts. In contrast, the gas distribution utilities (Enbridge Consumers Gas and Union Gas) are required by the OEB to conduct DSM (customer energy conservation programs called Demand Side Management) and these efforts currently save Enbridge Consumers Gas and Union Gas customers approximately \$100 million in energy costs for each year the programs run. The OEB has postponed discussion of a similar regime for electricity distribution utilities until after market opening. Rising gas prices will likely be reflected in rising electricity prices. Accordingly, conservation is urgently needed both for its environmental benefits and its consumer savings and security of supply benefits.



The OEB did reject the continuation of special rate discounts to certain large users, cross-subsidies that would tend to discourage energy-efficiency. However, the Ontario government then stepped in and passed a regulation preserving this special treatment for certain large industrial customers.

GRADE: D-

Suggestions for Improvement:

Legislate a Public Benefits Charge on electricity to fund energy conservation measures that improve public health and the environment.

The OEB should require all electricity distributors to initiate Demand Side Management programs to encourage energy efficiency. Regulatory rules should eliminate utility economic penalties for conservation and allow utilities to profit from investment in cost-effective energy efficiency as is currently the case in the gas sector.

Special discounts for large industrial electricity users should be cancelled.

5. GREEN RULES FOR INTERNATIONAL ELECTRICITY TRADE

What was promised:

The legislation included the objectives of “competition”, “non-discriminatory access” “to protect the interests of consumers” and to facilitate “more environmentally benign energy sources...”

Why this is important:

Proponents of competition have sought to increase international trade in electricity as a means of reducing the price. However, for restructuring to improve environmental quality, protect small consumers and be non-discriminatory it must not lead to cross-subsidies of exports or an environmental ‘race to the bottom’ and the creation of pollution havens as new trading rules are developed.

What we got:

As part of its review of transmission rate design, the Ontario Energy Board approved a pricing system for the use of transmission lines by generators exporting power. The OEB decided to charge exporters \$1/megawatt-hour -- virtually a free ride when compared to the \$4.85/megawatt-hour experienced by Ontario customers. (Neighbouring jurisdictions charge from \$1.40 to \$16.00/megawatt-hour) The effect is to subsidize and encourage more dirty generation in Ontario for the benefit of U.S. customers.

To meet the increased demand for transmission of imported and exported power, Hydro One has sought approval for added interconnection capacity. The OEB is required by its governing act to consider whether the approval is in the ‘public interest’. In June of 2000 cabinet passed regulation 365/00 purporting to narrow the definition of ‘public interest’ in the relevant section of the OEB act to exclude environmental and health considerations. (A legal challenge to the regulation was scheduled to be heard by Ontario’s Divisional Court on February 12th.)

The lack of regional pollution caps and the prospect of inconsistent green power certification and labeling schemes in competing jurisdictions along with subsidized transmission rates will increase emissions and other environmental impacts in Ontario as generators here increase exports from dirty sources. This in turn retards the development of green power markets in Canada and the U.S..



Suggestions for Improvement:

Charge full domestic rates for transmission of exported power.

Repeal regulation 365/00 which narrows the OEB's consideration of the public interest in transmission facilities approvals hearings.

Limit exports until a comprehensive emissions cap is in place for the sector domestically and in the receiving jurisdiction and until compatible green certification standards are in place.

As a first step, regulations should require Ontario facilities to meet or exceed New York State facility based requirements for fossil fuel plants.

6. A LEVEL FIELD FOR ALTERNATIVES TO NUCLEAR POWER

What was promised:

Electricity sector restructuring has been sold to the public on the basis that competition in electricity generation will bring with it financial responsibility, lower costs and lower rates. The spiraling debt of Ontario Hydro for its uncontrolled nuclear spending was noted as the key culprit for the need for reform. Observers applauded the initiative on the belief that it would entail a new era where the costs of nuclear power would become more transparent, and it would be placed on a level field with cleaner alternatives.

What we got:

Immediately after releasing its White Paper on electricity sector restructuring, the Ontario government approved Ontario Hydro's Nuclear Asset Optimization Plan (NAOP), a multi-billion dollar program to invest in the newer Darlington, Bruce B and Pickering B plants. The plan also called for the temporary shutdown of the older Pickering A and Bruce A plants with a deferral of a decision on their refurbishment.

The decision to allow the NAOP investment (now known as the Integrated Improvement Plan or IIP) amounted to a massive anti-competitive subsidy to nuclear power at the very time that the government determined it advisable to move to competition in electricity production. Most of Ontario Hydro's \$38.1 billion in debt at the time of restructuring was due to its unwise nuclear investments. Ultimately, the government relieved Hydro's successor companies of some \$20.9 billion of that debt which will be borne by Ontario consumers.

The delayed decision on the Pickering 'A' and Bruce 'A' plants has meant significant increases in pollution from coal burning as potential investors in cleaner generation wait and see if they will have any opportunity to compete.

The decision on whether to restart Pickering A (at an approximate cost of \$1 billion) is expected in the coming weeks. Prior to the government's decision to allow the NAOP to proceed, a local plebiscite was held on the need for full environmental assessment of the Pickering refurbishment option. A startling 87% of voters agreed that such an assessment was needed. Despite this unprecedented indication of public concern, a screening under the Federal environmental assessment procedures led by the Canadian Nuclear Safety Commission (formerly the AECCB) has been a farce. The Board excluded review of accidents involving basic safety systems failure, excluded the issues of the cost or need for the restart, and excluded discussion of the adequacy of radiation protection standards for workers or the public.



A recently announced deal with Bruce Power (an entity controlled by British Nuclear) will hand over the operation of the Bruce plants to a private company while leaving the past debt (including much of the bill for NAOP) with Ontario electricity consumers and taxpayers.

Of particular concern with the Bruce Nuclear deal is the fact that the company will not face full responsibility for the adequacy of the funding for radioactive waste management or reactor decommissioning, and will be shielded from most liability for any nuclear accidents.

Under the Bruce Power deal and as the operator of Pickering and Darlington, OPG remains responsible for funds collected for eventual reactor decommissioning and nuclear waste management.

The Market Design Committee, in its Second Interim Report, noted how the Ontario Hydro (now OPG) has not banked its annual collection of funds from customers to cover future nuclear waste management and plant decommissioning costs, rather, it has simply used the money to reduce its borrowings. The Committee echoed earlier findings of Ontario Hydro's own Task force on Sustainable Energy Development that had expressed concern about the availability of funds for this multi-billion dollar liability when they are needed. (see Task Force on Sustainable Energy Development, A Strategy for Sustainable Energy Development and Use for Ontario Hydro, October, 1993, p.47)

The MDC's Recommendation 5-12, called for the OEB to require a separate fund be established for nuclear waste management and reactor decommissioning costs.

While OPG has started to maintain a segregated waste management and decommissioning fund on its books, that fund remains within OPG's control. No separate fund exists outside the corporation that Ontario taxpayers can rely upon to be in existence when the time comes to decommission reactors or permanently store reactor waste. In 1999 OPG estimated that the ultimate liability for nuclear waste management and decommissioning amounts to \$18.7 billion dollars (in 1998 dollars). Even that figure is likely an underestimate if past estimates are any indication.

To add insult to injury, OPG has disclosed that it has also been negotiating a nuclear risk agreement with the Ontario government that would cap OPG's financial risks for waste management and decommissioning leaving uncertainty with taxpayers rather than nuclear plant owners and operators as the plants are privatized.

GRADE: F

Suggestions for Improvement:

Require full provincial environmental assessment hearings as a requirement for any proposed restart of Pickering A or Bruce A.

Require a transfer of all funds set aside to date and of all future payments by reactor operators and owners for decommissioning and disposal to be held in trust by a separate public entity and not invested in the nuclear industry. Require the Ontario Energy Board to hold hearings every five years on the adequacy of funding for these liabilities and empower the OEB to set the required levy accordingly. Require operators of nuclear plants to remain liable for any under-contributions toward the eventual costs of reactor decommissioning and waste management.

Repeal the federal Nuclear Liability Act which limits nuclear operator liability to 75 million dollars and require full insurance for all nuclear risks.

