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Reviewing Renewable Energy Approvals Under Ontario's Green Energy and Green Economy Act

Jessica Spina and Theresa McClenaghan
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Canadian Environmental Law Association

T 416 960-2284 • F 416 960-9392 • 130 Spadina Avenue, Suite 301 Toronto, Ontario, M5V 2L4 • cela.ca

Introduction

When the Green Energy and Green Economy Act, often referred to simply as the Green Energy Act (GEA), came into force in the Spring of 2009, it seemed that Ontario was well on its way to establishing itself as a world leader in environmentally responsible and conscientious governing initiatives. In particular, many environmental groups such as CELA strongly support the Provincial Government's stance on the importance of promoting the development and use of renewable energy. The new Renewable Energy Approvals (REA) process is a critical first step towards launching a strong new direction for the province in advancing the sustainable use of environmentally sound energy sources, while allowing Ontario to reduce and even phase out its traditional use of higher carbon emitting resources such as coal. Approximately two years later, it is now the ideal time to review how the REA process has played out in practice.

This report seeks to examine the Renewable Energy Approvals process under Ontario's Green Energy and Green Economy Act (2009). It will evaluate REA based on the following criteria: transparency of procedure, community involvement (level, ability to take part, etc), accessibility of information and meetings, and the presence and extent of appeal rights. The report will also examine the role of local municipalities in the REA process, and assess whether or not municipal involvement in the Renewable Energy Approvals process is satisfactory at present. This is a critical aspect of environmental politics because incorporating local knowledge into decision-making processes that will affect local ecosystems can help create solutions that are customized to best address the issues that particular areas face.

In order to review the REA process, this report will begin by discussing the importance of renewable energy to the future of Ontario, and indeed, the whole world. This will lead to an examination of both the theoretical and practical importance of community participation in public policy setting, and particularly in the arena of environmental decision-making. Next, the report will outline the general steps of the REA process. The report will then briefly address arguments made against wind projects based on health concerns, and argue that much greater health risks may be at stake if Ontario fails to continue pursuing alternative energy such as wind power.

Discussion of the controversy surrounding wind power will lead to an examination of the inherent complexity involved in making decisions about the appropriateness and feasibility of developing renewable energy projects in certain locations by examining one such example from the Prince Edward County region of the province. At that point, the report will examine the effect of the REA process on municipal involvement in environmental decision-making and how that may extend to other local development projects. Next, the report will investigate the implications of the REA process's status as a fundamentally proponent-led process. The report will then turn to a brief discussion of hydro projects and the Class Environmental Assessment

(EA) process for waterpower projects in Ontario. At this point, the report will investigate how the REA and Class EA processes function in practice by assessing information gleaned from several interviews conducted with both renewable energy developers and members of community organizations. These interviews were held with the intention of learning about both the opportunities and benefits of the new REA and Class EA processes, as well as the difficulties or challenges that they pose.

Finally, it will introduce several recommendations to the Provincial Government on ways to further improve the REA procedure. Ultimately, this report will argue that although the REA process represents an impressive step in shifting Ontario towards a sustainable energy future, certain improvements ought to be made in order to consistently and meaningfully involve the public in the development of renewable energy projects.

Renewable Energy: The Key to an Uncertain Future

Climate change has taken on an increasingly important role in political arenas at all levels of government in recent years, and has become more prominent on the global stage as well. Critical to the ensuing discussions and debates about how best to address and mitigate the impacts of climate change has been the concept of developing and promoting the use of renewable energy sources such as wind, solar, and waterpower in order to phase out and end the use of heavily polluting energy sources such as coal, and those with serious toxic outputs like nuclear power.

Renewable energy projects are essential to the future of Ontario, both in terms of conserving the natural environment and protecting public health.¹ The government of Ontario's initiative in pursuing a change for Ontario's energy future, moving away from coal and towards renewable, environmentally friendly options (wind, solar, biomass and waterpower) that are also more conducive to ensuring healthy communities for all Ontarians is commendable. In 2008 the Canadian Medical Association (CMA) released a report stating that air pollution (much of which is caused by burning fossil fuels for electricity, transportation, etc) costs Ontario well over \$220 million dollars annually in health care costs, and that nearly 1200 Ontarians die prematurely each year in connection with this pollution.² In recent years, the Ontario Medical Association has

¹ Marlo Reynolds, *Setting the Stage for a Sustainable Energy Strategy: Canada's Necessary Opportunity*, Ottawa, ON and Vancouver, BC: Trottier Energy Futures Project, Canadian Academy of Engineers, The David Suzuki Foundation, 2010, 6. Found at <http://www.davidsuzuki.org/publications/Setting%20the%20Stage%20for%20a%20Sustainable%20Energy%20Strategy.pdf>, last accessed 22 July 2011. Also:

David R. Boyd, *The Air We Breathe*, Vancouver, BC: The David Suzuki Foundation, 2006, 3-4. Found at: <http://www.davidsuzuki.org/publications/downloads/2006/DSF-HEHC-Air-Web2r.pdf>, last accessed 22 July 2011.

² Canadian Medical Association, *No Breathing Room: National Illness Costs of Air Pollution, Summary Report*, Canada: Canadian Medical Association, August 2008, 27-28. Found at: http://www.cma.ca/multimedia/CMA/Content/Images/Inside_cma/Office_Public_Health/ICAP/CMA_ICAP_sum_e.pdf, last accessed 1 June 2011.

estimated that by 2026, 10 000 premature deaths will occur annually in this province unless serious steps are taken now to reduce smog.³ These statistics clearly indicate the critical importance of switching to energy sources that produce little or no air emissions for promoting healthier communities throughout the province.

Indeed, Ontario has come to a crucial stage in which it must determine the course for its future development. Decisions made now will likely affect both the path of Ontario's environmental initiatives and the health of its population for many years to come. The Provincial Government's vision for a future in Ontario where renewable, sustainable energy sources will become the norm is an admirable one. As a part of this strategy, it is also imperative that the government pursue programs and initiatives designed to encourage energy conservation in Ontario, and thus to reduce the overall demand for energy generation now and well into the future. Conservation must remain a central component of all new energy policies for the province of Ontario. This is because, as with all environment-related legislation, it is essential that the Ontario government avoid falling into the trap of assuming technology can easily solve every environmental problem that society creates.

Thomas Homer-Dixon refers to this worrisome mindset as the 'techno hubris' of modern societies and warns that because there is often a long delay between a new scientific discovery and its incorporation into technological advancements for the public, if indeed those advancements materialize at all, we must not rely solely on the ability of technology to address the multitude of environmental problems that we now face.⁴ This is a problem that Homer-Dixon labels the 'ingenuity gap,' which recognizes that a very real possibility exists that there can be limits to the sort of problems that society is able to solve with technology and science.⁵ Therefore, although CELA supports renewable energy development, the organization is also aware that conservation and demand reduction are essential steps that must be taken in Ontario in order to prevent energy consumption from rising to levels that the province would have difficulty meeting, even with the use of renewable sources. Before proceeding to an evaluation of the REA process in particular, the report will review and examine some of the theoretical discourse that informs discussions supporting the value of public participation in environmental decision-making.

Not Just a Peanut Gallery: The Role of Public Participation in Environmental Decision-Making

Long gone are the days in which legislators could make unilateral decisions for the citizens living in their jurisdiction without needing to consult or otherwise involve them in any way. Indeed, any attempts to do so would now likely be met with public outrage. Furthermore, "the

³ Boyd, *The Air We Breathe*, 3. Found at: <http://www.davidsuzuki.org/publications/downloads/2006/DSF-HEHC-Air-Web2r.pdf>, last accessed 22 July 2011.

⁴ Thomas Homer-Dixon, *The Ingenuity Gap*, Random House: Canada, 2000, 250, 256.

⁵ Homer-Dixon, *The Ingenuity Gap*, 247.

evolution of official mechanisms of participation is at least in part a response to participation outside the system,” such as protests, petitions, etc.⁶ In order to minimize those acts and maximize voter support for new policies and agendas, governments have increasingly sought to include the public in many areas of policy-setting. Thus, it is not surprising that the Ontario Provincial Government has internalized the idea of promoting public participation in various aspects of policy-setting and decision-making, but what does this mean in practice? In other words, has demand for public involvement in decision-making resulted in meaningful participation at the community level, or is there still a gap between the professed intentions to include the public and the actual process for making decisions? Does the new REA process fulfill the statement made in Part I, Section II of the GEA promising that “[t]his Act shall be administered in a manner that promotes community consultation” and thus, not only includes public participation but also acknowledges and promotes its importance to environmental decision-making?⁷

This question is particularly important in the environmental sector. As Dietz and Stern note, “[p]ublic participation should be fully incorporated into [the] environmental assessment and decision-making process, and it should be recognized by government agencies and other organizers of the processes as a requisite of effective action, not merely a formal procedural requirement.”⁸ Keeping this in mind, some uncertainty arises about the new REA process, and whether or not it fulfills the Ministry of the Environment’s (MOE) goal of including Ontarians in renewable energy development in a meaningful way. Additionally, does the REA process respect, hinder, or altogether ignore the rights of Ontarians to participate in decision-making and policy setting on matters related to the environment, granted under the Environmental Bill of Rights, 1994 (EBR)?

Though, as described by the previous section outlining the basic steps of the current REA Process, the MOE does require at least two community consultation meetings to be conducted, these consultations could be improved in order to better fulfill the Ministry’s obligation to include the public in environmental decision-making. here do not by adding requirements within the REA process stipulating the user-friendliness of meetings in terms of building accessibility, available public transportation or childcare, days/times of meetings, etc. This may inequitably impact the demographic of who is able to attend meetings, and who is not.

Better community involvement could lead to more local support for developing renewable energy projects, and to constructing projects that are sited in the best possible locations with the lowest possible environmental and social impacts. The Waterpower Class EA is a plain language document. In addition there are a series of Qs and As that are available from all agencies and the

⁶ Thomas Dietz and Paul C. Stern, in *Public Participation in Environmental Assessment and Decision Making*, Thomas Dietz and Paul C. Stern, eds., Washington, D.C.: National Research Council of the National Academies, and The National Academies Press, 2008, 12.

⁷ Province of Ontario, “Green Energy Act 2009 S.O. 2009, c. 12 schedule A: Part I, Section II,” *Service Ontario* website, http://www.e-laws.gov.on.ca/html/statutes/english/elaws_statutes_09g12_e.htm, last accessed 1 June 2011.

⁸ Dietz and Stern, in *Public Participation*, 2.

OWA website that address recurring concerns or comments. The OWA has also developed a “Citizen’s Guide” to the Class EA as well as a “Community Guide” to waterpower, both of which are downloadable.

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Perhaps in no other field of policy-making than environmental assessments and decision-making is local information more important. Indeed, particularly in the context of environmental decision-making, “good scientific analysis often requires information about local context that is most likely to come from people with close experience with local conditions.”⁹ The unique challenges and circumstances of localized ecosystems and communities can mean that resident individuals and groups may have information unavailable to decision-makers relying solely on outside ‘experts’ for data. Thus, the importance of public participation is established in the REA process, including the potentially crucial role that Aboriginal Traditional Knowledge (TK) may play in some cases.

This brings up a crucial point for this report’s discussion of the critically important role that public participation can play in environmental decision-making in general, and the REA process in particular. Involvement of Aboriginal communities is a mandatory part of the REA process, but is the current level of consultation enough and what are some of the ways that enhanced consultation with Aboriginal communities can improve resulting renewable energy projects?

Currently, prerequisites for consultation with Aboriginal communities as a part of the REA process seems highly formalized and to some extent, disingenuous. Applicants are required to send a written request to potentially affected or interested Aboriginal communities asking for a written assessment of the potential negative impacts that the particular project in question would have on their community or surrounding environment. This is inadequate for a number of reasons:

1. The provincial government should not completely offload responsibility to consult Aboriginal communities to project applicants. Applicants should indeed consult as well, but this should be in addition to (rather than as a substitution for) mandated government consultations.
2. Formal written requests cannot fully replace the role of personal conversations between applicants, government officials and Aboriginals. Adding the requirement of multiple in-person meetings would allow for more substantial and lasting trust, participation and knowledge sharing from all parties, leading to better decisions on REA applications, but also to better, more environmentally responsible applications being submitted in the first place (which will ultimately advance renewable energy development in Ontario at a faster pace).

⁹ Dietz and Stern, in *Public Participation*, 139.

- a. Aspects of Aboriginal TK, gained from time spent living in close connection to the natural environment, are increasingly being taken into account on a wide variety of environmental decisions being made by governments at all levels.¹⁰ Renewable energy projects could be improved and made even more beneficial for the environment if this wisdom was more routinely acknowledged and better incorporated (where possible) into REA applications.

Acknowledging the importance of information that can be gleaned through storytelling is an aspect of this, and can apply to consultations with both Aboriginal and non-Aboriginal communities. This is particularly true in cases where some of the community members have witnessed changes over many years and thus, understand how a proposed project may impact the local area far better than others.¹¹ Though sometimes considered 'anecdotal,' this type of information should not be disregarded. Keeping these critiques in mind, the report now turns to outlining the basic steps of the Renewable Energy Approvals process in order to outline how the REA process is meant to work in theory.

Renewable Energy Approvals: Following Procedure

The Renewable Energy Approvals process is a streamlined procedure by which those who wish to develop renewable energy projects within the Province of Ontario apply for the Government's permission to do so. The REA process deals with renewable energy projects that involve wind, solar, and bioenergy sources of electricity. Waterpower projects continue to be addressed under the Environmental Assessment Act (2008), a point that will be returned to shortly. First though, this report will outline the basic timeline and set of procedures that the REA process follows.

REA Process, Step by Step:

1. Applicant drafts a proposal for a new renewable energy project
2. Applicant obtains a list of potentially affected and/or interested Aboriginal communities from the REA Director
3. Applicant places notice of proposed project in local newspapers

¹⁰ Environment Canada, "Aboriginal Traditional Knowledge and Environmental Management," *Science and the Environment Bulletin*, issue 32, September/October 2002, 1.

¹¹ Sylvia Bowerbank, "Telling Stories About Places: Local Knowledge and Narratives Can Improve Decisions About the Environment," *Alternatives Journal*, vol. 23, no.1, Winter 1997, 30.

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4. Applicant must notify local communities of the first of at least two community consultation meetings no less than 30 days before the meeting is scheduled to take place
 5. Applicant requests (in writing) a written response from the Aboriginal communities indicated on the Director's list that outline the communities' concerns or ideas (note that the MOE *encourages* applicants to engage with and continuously consult Aboriginal communities throughout the process, but that this is not presently required)
 6. The first community consultation takes place: these meetings are the local communities' opportunity to personally and directly engage with the project's developers, and to share ideas, concerns, or other comments
 7. Municipal consultation (with all the municipalities in which the proposed project would be located) must occur at least 90 days before the application is submitted to the MOE. The MOE will provide the applicant with a form outlining the topics on which the MOE requests municipal feedback (note that the applicant does not have to consult municipalities on any topics not on this form)
 8. Notice of the second community consultation must be distributed to the public at least 60 days prior to the project application being submitted to the MOE
 9. Second community consultation takes place (note that the MOE *encourages* applicants to hold more than the minimum two meetings with the community, but that there is no obligation to do so)
 10. Application is submitted to the MOE to be assessed for completeness
 - a. If found to be complete, the application will be assessed for technical review
 - b. If found to be incomplete, the application will be returned to the applicant for completion without proceeding to the technical review stage
 11. In the event that the application is found to be complete: the applicant must notify the public of the application's submission via website and newspaper ad
 12. The application will then be posted on the Environmental Registry website for public review
 13. Within 10 days of submitting the application, the applicant must make all documents related to the application available on the applicant's website or another website devoted to the proposed project

14. The public will have 30 (calendar) days to submit comments on the proposal directly to the MOE (via the Environmental Registry website or regular mail) *from the date that the application is posted to the Environmental Registry website*
15. Those reviewing the application at the MOE will have up to 6 months to make their decision and have it posted to the Environmental Registry website
16. The public will have 15 (calendar) days to appeal the decision made regarding a particular application *from the date that the decision is posted to the Environmental Registry website*
17. If the appeal is accepted by the Environmental Review Tribunal (ERT), the ERT will have 6 months to make a final decision regarding the original application
 - a. If the ERT fails to make a decision within the stipulated 6-month period, the original decision of the MOE will be upheld

Having outlined the basic steps of the REA process, the report now turns to look in more detail at one of the most controversial forms of renewable energy developments: wind power.

Ill Wind or Fresh Breeze? Wind Power Development and Health Concerns

There has been a high degree of opposition to developing wind power in Ontario, even though wind power is one of the cleanest sources of energy currently available. Often, the primary reasons given for concern about the use and expansion of wind power are health concerns. More specifically, it has been suggested that the potential dangers for human health from wind turbines are: dizziness, headaches, sleep disturbances, and hearing impairments, as well as side effects from exposure to electromagnetic frequency (EMF) and shadow flicker. However, there are also many studies indicating that wind power poses no threats to human health. For example, a report released in 2010 by Ontario's Chief Medical Officer of Health (CMOH) refutes claims made about the negative health impacts of wind turbines, and finds wind power to be a safe source of alternative energy for the province.¹²

Additionally, as recently as 18 July 2011 the Environmental Review Tribunal upheld a decision from the MOE to approve the development of a wind facility in the Township of Camden, Municipality of Chatham-Kent. The original MOE decision was appealed on the grounds of health concerns, but ultimately the ERT stated that it "cannot conclude that engaging in the...[p]roject as approved will cause serious harm to human health according to the evidence

¹² Ontario's Chief Medical Officer of Health (CMOH), *The Potential Health Impact of Wind Turbines*, Ontario, CMOH, May 2010. Full report can be found online at: http://www.health.gov.on.ca/en/public/publications/ministry_reports/wind_turbine/wind_turbine.pdf, last accessed 1 June 2011.

tendered in this Hearing.”¹³ This decision is extremely important because it demonstrates that when appropriate safety regulations are followed, wind power can be a very safe source of renewable energy for the province. Indeed, the environmentally and socially responsible development of wind facilities represents an important part of Ontario's renewable energy future.

For this reason, it is disappointing that the Provincial Government's recent decision to impose a moratorium on the development of offshore wind energy due to concerns about its potential impact on drinking water, even though wind turbines could play a critical role in providing clean and sustainable energy for Ontario. “CELA is not aware of any serious or credible evidence of risks to drinking water from off-shore wind turbines. In contrast, for credible scientific information about risks to drinking water in the Great Lakes, the Minister [of the Environment] can heed the warnings and recommendations of many credible investigations into existing hazards” to Ontarians' drinking water.¹⁴ This is a subject that extends well beyond the scope of the present paper so, for more detailed information on sources of drinking water contamination, please refer to CELA's website.¹⁵ Other concerns sometimes voiced against wind power are related to the aesthetic impact of wind turbines on the landscape. However, given the critical importance of shifting away from energy sources with potentially environmentally disastrous impacts such as coal and nuclear power, it is difficult to sympathize with this line of argument.

While wind power can represent an important source of energy, wind projects and all types of renewable energy must also be sited responsibly. Therefore in some cases, certain areas may not be appropriate places for energy development due to the need to protect habitat of vulnerable or endangered species and the potential impact of such a project on local communities. In these situations it can quickly become very difficult to determine whether it would be more environmentally responsible to find another location for a particular project or to proceed with building the renewable energy facility in question at the originally proposed site. This report will now examine some of the complexities that can arise in these circumstances.

Cases of Complexity: When Environmental Initiatives Collide

Though increasing renewable energy use is an important measure for ensuring Ontario's long-term environmental sustainability, developing new sources of it can sometimes be in conflict with other environmental initiatives such as protecting an endangered species or a particular tract of wilderness. In these situations, it is imperative that there is ample opportunity for frank dialogue between all the relevant stakeholders in order to make certain that information is being freely shared between parties and that the best, most environmentally responsible decision

¹³ Ontario Environmental Review Tribunal (ERT), “Erickson v. Director, Ministry of the Environment,” Case Nos.: 10-121/10-122, before: Jerry V. DeMarco (Panel Chair) and Paul Muldoon (Vice-Chair), 18 July 2011, p. 207.

¹⁴ CELA, “CELA Decries Off-Shore Wind Moratorium,” *CELA* website, 14 February 2011, <http://www.cela.ca/newsevents/media-release/cela-decries-shore-wind-moratorium>, last accessed 1 June 2011.

¹⁵ CELA's website can be accessed at: <http://www.cela.ca>.

possible can be made. Above all, it must be remembered that the primary reason for promoting renewable energy is to reduce the harm that non-renewable energy use has on the environment, and on our health. Therefore, using the most environmentally and socially appropriate sites and methods for projects must be the primary concern for all those engaged in renewable energy development.

The report will now briefly mention two examples of ways that renewable energy projects can come into conflict with competing environmental initiatives, making coming to a decision on a renewable energy application particularly difficult.

1. The presence of migratory species.
 - a. This is sometimes an issue for wind projects that are proposed for a region that falls in the path of a migratory bird species, and some hydro projects that are proposed for waterways with fish species that need to migrate upstream to spawn.
 - b. It can sometimes be dealt with by:
 - i. Relocating the proposed project if possible
 - ii. Making technological changes (in some cases) to mitigate the negative impact of the project, such as installing fish ladders for some hydro projects. Note: mitigation measures may not always be adequate, so it may sometimes be more environmentally responsible not to proceed with a particular project at all.
 - iii. Changing the operation schedules of a facility may sometimes help to reduce or even eliminate the negative impact of a project, such as reducing wind turbine rotation speeds during prime migration seasons, or temporarily stopping the blades altogether. As in the case of (ii), sometimes mitigation measures may be inadequate, making proceeding with a given project environmentally irresponsible.
2. The presence of endangered species.
 - a. This can be an issue for any type of renewable energy facility since virtually every development project that is undertaken, for any purpose, will have some sort of environmental impact.
 - b. In Ontario, any species listed on the Species at Risk in Ontario (SARO) list is supposed to be protected. However, the government may sometimes choose to grant developers permits to proceed with their project, even if it includes harming a particular creature or its habitat.
 - i. This is possible under clause 17 of the Endangered Species Act, 2007 (ESA), which, if granted, allows a developer to engage in activities that might negatively impact that species if the government is convinced of

certain things such as efforts to mitigate harm, or plans to create new habitat.¹⁶

- ii. As was the case in this section's first example, it may not always be possible to adequately mitigate harm or to create appropriate alternative habitat areas for a species. Thus, it is crucial that decision makers carefully consider the ramifications of any new development they may allow, and to be open to the notion that there may occasionally be locations that are simply inappropriate for the site of any sort of development.

The above two examples of potential environmentally related conflicts in renewable energy development are by no means meant to form an exhaustive list. Instead, they are simply meant to begin to illuminate the complications that can very quickly arise in both the REA and Class EA processes. The crucial point that this section has sought to make is that the ultimate task of a renewable energy approval process must be to ensure that any new projects are sited in an environmentally responsible way. In other words, CELA supports the development of more renewable energy, but also seeks to make sure that any new project is properly designed, assessed and located. Thus, having shed light on some of the complexities that can occur in the REA process the report now turns to other matters. As will now be addressed, the GEA's Renewable Energy Approvals process has also significantly changed the relationship between municipalities and the Provincial Government.

Municipalities: Factored In or Factored Out?

Under the new requirements for receiving a renewable energy approval, the role of Ontario's municipal governments has been changed in a critically important way. The REA process sharply curtails municipal involvement in the development of renewable energy facilities. Although renewable energy project developers are still required to consult with municipal governments, this now seems akin to the simple fulfillment of a duty rather than a sincere desire to include municipal governments in this process, a result that is in no small part fuelled by municipal consultation being reduced to the distribution of a form.

Establishing a political climate in which renewable energy projects are both supported and advanced is critical to the long-term well being of Ontario, but so is the continued inclusion of municipal governments in environmental decision-making. A balance must be sought between the goal of augmenting Ontario's rate of renewable energy development, and the necessity of enabling municipalities to be an important part of achieving that outcome. While limiting the power of municipal governments to influence renewable energy approvals might be seen as a

¹⁶ Province of Ontario, "Endangered Species Act, 2007, S.O. 2007, Chapter 6, clause 17," *Service Ontario* website, http://www.e-laws.gov.on.ca/html/statutes/english/elaws_statutes_07e06_e.htm#BK21, last accessed 22 July 2011. For further details, please refer to the Act.

way of facilitating enhanced renewable energy development in the province, it also has the potential to be problematic.

Though many environmental problems currently facing Ontario, and indeed Canada and the entire world, are inherently transboundary in nature, requiring governments and citizens to take action on a large scale, many other environmental issues and policy problems are fairly unique to specific small-scale ecosystems. Local governments are uniquely poised to address these issues, and to interact closely with the citizens of their communities who are highly familiar with particular places and ecosystems that may be affected by new renewable energy project plans. Additionally, while 'decentralization' of political control can be considered one of the most crucial aspects of creating space and opportunities for meaningful community participation in environmental decision making, reducing the influence of municipal governments in the REA process backtracks away from the Government of Ontario's stated commitment (via the Environmental Bill of Rights) to local community involvement in environmental issues.

Renewable Energy Approvals: A Proponent-Led Process

Aside from the aforementioned changes to the relationship between Municipalities and the Ontario Government, the Renewable Energy Approvals process as constructed under the Ontario Green Energy and Green Economy Act (2009) has another very important implication for the balance of power in environmental decision-making in Ontario. The REA process is fundamentally proponent-led. In other words, those who, for one reason or another, support renewable energy are at the helm of this process. Proponent-led processes are not inherently bad, but they must be treated with a certain degree of caution.

They ought to be designed with extra care to ensure that they contain plenty of opportunities for opponents to engage in the process, critique its flaws, and share ideas for its improvement. Otherwise, in the case of the REA and Class EA processes, there is a risk that developers will be able to essentially take control of, and dictate to the public, the terms under which they will accept community involvement in their project. Excluding any member of the public who wishes to take part in the process, even to criticize it, would only undermine the legitimacy of both the REA/Class EA processes specifically, and environmental decision-making procedures in Ontario more generally. Currently, REA and the Class EA include some opportunities for public consultation, but more consistent dialogue with the communities involved could significantly enhance this aspect of both processes. One example of what this may include is to amend the processes to ensure that community consultations are held consistently throughout the planning stages of applications for renewable energy development projects.

In the case of renewable energy approvals, mitigating the potential for developers to have too much control over the decision-making process is very important. However, given the critical role that increasing the use of renewable energy sources can play in developing a healthier,

cleaner, and more sustainable future for Ontario, it is essential that the REA and Class EA processes achieve and maintain a balance between encouraging and facilitating the development of renewable energy projects, and ensuring that the environmental requirements are stringent and involve sincere efforts to include the public.

The REA procedure is an important advancement to the process of encouraging and enhancing renewable energy development in Ontario, but does not include waterpower, one of the foremost sources of renewable energy for the Province. The report now turns to addressing why this is the case, and assessing the implications of this separation between hydro projects and other forms of renewable energy.

The Waterpower Class EA

While the vast majority of other renewable energy projects are now subject to the REA process, waterpower projects in Ontario remain under the purview of the Environmental Assessment Act (2008). Most are considered under the Class EA standards. It should be noted that the Class EA water power standards took much longer to develop than the current REA process. However, some waterpower projects will be required to undertake Individual EAs.

The stated reason for not including waterpower projects in the new REA Process is that their inherently complex technical nature requires a great deal more expertise to review and come to a decision on each project than other renewable energy projects.¹⁷ Scientists, engineers and other such experts are required to review applications on matters such as building dams and rerouting or changing the flows of rivers. Also, it can be noted that the main difference between projects requiring Class EAs and those needing Individual ones is their relative capacity for generating electricity. New waterpower facilities under 200 megawatts, as well as most facility expansions fall under the Class EA, while new facilities with a 200-megawatt or greater capacity must undergo an Individual EA.¹⁸

Waterpower projects have an important role to play in the expansion of renewable energy use in Ontario. For example, the electricity generated by the Pickering B Nuclear Station could easily be replaced with a portfolio of renewable energy sources, of which nearly five Terawatt (TWh)

¹⁷ Ontario Ministry of Natural Resources, "Waterpower Project Approvals," <http://www.mnr.gov.on.ca/en/Business/Renewables/2ColumnSubPage/276843.html>, last accessed 25 May 2011.

¹⁸ Ontario Ministry of the Environment, "Class EA for Waterpower Projects – Class Environmental Assessment," *MOE website*, http://www.ene.gov.on.ca/environment/en/industry/assessment_and_approvals/environmental_assessments/projects/STDPROD_082733.html?page=3 (Last accessed 20 May 2011).

hours could be generated each year by hydropower alone.¹⁹ “There are almost 200 operating waterpower facilities in Ontario that, collectively, account for approximately one-quarter of the province’s current installed capacity (8,000 Megawatts [MW]) and electricity generation (35-38 Terawatt hours annually)...The most recent inventories undertaken suggest that there is the economic and practical potential to increase waterpower’s contribution in Ontario by fifty percent (50%) or more.”²⁰ Clearly, developing this potential for hydroelectricity into reality would substantially aid in Ontario’s quest to phase out the use of coal power, while at the same time reducing the future role of nuclear power in the province.

However, the government must take care to ensure that only environmentally appropriate sites, developed with a socially responsible process are being used for the development of renewable energy, including waterpower. A relatively cursory examination of the process of harnessing and using waterpower to generate electricity demonstrates that in some instances in the past, “traditional” hydroelectric projects have resulted in environmental and social problems. Thus, it is essential to maintain stringent environmental assessments and widely inclusive community consultations for all new waterpower projects in order to avoid making similar mistakes in the future.

Under the Class EA for waterpower projects in Ontario, there are provisions to request a “bump-up” whereby the Ministry of the Environment is requested to require an individual EA of the project. However since “bump-ups” are rarely granted, and there is no direct appeal process, this is a significant downfall of the Class EA. Full public engagement in environmental decision-making must include the ability to appeal decisions in a timely manner, because without this, citizens may be unable to exercise their right to initiate investigations into situations or activities that members of the public believe are environmentally harmful. If no public appeal rights exist, the public will not be able to initiate any formal investigations on waterpower projects. Thus, it can be argued that the Class EA for waterpower fails to adequately uphold Ontario’s Environmental Bill of Rights.²¹ Therefore although the development of renewable energy for Ontario, including waterpower, is important, appeal rights for the public should be included.

However, this argument about appeal rights does not entirely cancel out the positive aspects of the Class EA for waterpower. For developers, a very positive aspect of the Class EA for waterpower is that it provides them with clarity about government requirements, such as permits

¹⁹ Tim Weis, Shawn-Patrick Stensil, and Dr. Keith Stewart, *Ontario’s Green Energy Plan 2.0, Choosing 21st Century Energy Options*, published by: Renewable is Doable (Pembina Institute, Greenpeace, CELA, the World Wildlife Fund, the David Suzuki Foundation, Sierra Club Ontario), August 2010, 6. Found at <http://www.cela.ca/sites/cela.ca/files/ontario-green-energy-report-august-web.pdf>, last accessed 22 July 2011.

²⁰ Ontario Waterpower Association (OWA), *Class Environmental Assessment for Waterpower Projects*, 2nd Edition, March 2011, OWA, <http://www.owa.ca/assets/files/classsea/Class%20EA%202011%20Second%20Edition.pdf>, last accessed 12 July 2011, page 9.

²¹ Ontario Provincial Government, “Environmental Bill of Rights, 1993, part V, s. 74,” http://www.e-laws.gov.on.ca/html/statutes/english/elaws_statutes_93e28_e.htm#BK93, last accessed 16 June 2011.

and approvals and therefore has the aim of streamlining the assessment process. Additionally, since developers are trying to finish their EA as quickly as possible, they have an incentive to do the work as well as possible, and provide the public with the best project that they can in order to avoid requests for a Part II Order which could force that developer to undertake an Individual Class EA, thus delaying the project's construction and operation timelines. Before making recommendations on how to improve renewable energy approvals in Ontario, the report will briefly outline the general process of a Class EA for waterpower projects that must be followed by developers. In addition in the past, projects have often also been subject to federal EA processes, but the extent to which this will be true in the future has now been altered by recent changes to the federal *Canadian Environmental Assessment Act, Fisheries Act, and Navigable Waters Protection Act* in 2012.

There are five main phases of the Class EA process for waterpower projects²²:

1. Phase One: Project Concept
 - a. Project description and environmental context
 - b. Project coordination, may include meetings to coordinate with requirements from various government agencies and Aboriginal communities
 - c. Developing public consultation and Aboriginal engagement plans
 - i. How to effectively engage interested and affected parties in the public participation process and to address issues/concerns/ideas
2. Phase Two: Project Definition
 - a. Notice of commencement
 - i. This should be printed in a local newspaper as well as to directly affected parties or groups
 - ii. It must provide basic details on the project such as its title, location, anticipated zone of influence, and must invite the public to participate in the Class EA public consultations, as well as provide contact information for an individual to whom comments or concerns can be addressed
 - b. Identification of potential effects
 - c. Public consultation and Aboriginal engagement
 - i. Meetings with interested/affected parties
 - ii. Consultation methods should be flexible to adapt to higher or lower public interest or concern as necessary for individual projects

²² The information in this section was taken from the *Class Environmental Assessment for Waterpower Projects* document prepared by the Ontario Waterpower Association (pages 31-43). Please note that greater detail on this process can be found in the original copy of this document. As of 12 July 2011 it was accessible online at the following address: <http://www.owa.ca/assets/files/classea/Class%20EA%202011%20Second%20Edition.pdf>.

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- d. Gap analysis, data and information collection/acquisition
 - i. Address any gaps in information or data collection
3. Phase Three: Project Assessment
- a. Assessment of effects
 - i. With the completed data, confirm the potential effects of the project, determine the appropriate avoidance or mitigation measures, and the net effects of the project
 - 1. The significance of these effects may be measured based on issues such as whether or not the effects are reversible, and the ecological and social context, among others
 - b. Impact and issue management strategies
 - i. Decide what measures will be used to mitigate negative effects, and whether or not the costs of mitigation, level of unresolved issues or importance of net effects make the project unfeasible
4. Phase Four: Project Documentation
- a. Environmental report must be prepared after consultations with the public, Aboriginal groups and various agencies have been completed
 - b. Notice of inspection for projects on unmanaged waterways
 - i. Provides an additional opportunity for the public to comment on proposals for projects on unmanaged waterways
 - ii. 30 days in length, participants in the Notice of inspection will be placed on a mailing list for direct notification of the Notice of Completion
 - c. Notice of completion
 - i. Informs the public that the Class EA has been completed
 - ii. It must include the information from the Notice of Commencement, the Environmental Review's (ER) conclusions, information on how the ER can be accessed, the deadline for comments (30 days), who to contact with comments, and information regarding submitting a Part II Order Request
5. Phase Five: Project Implementation
- a. Statement of completion
 - i. May be filed once it is certain that all comments/issues have been documented and addressed and that no Part II Order Requests have been submitted
 - b. Subsequent permits and approvals must be obtained as necessary to implement the project in the manner outlined in the ER
 - c. Effects monitoring

- i. Should consider the following: what is being monitored, why it is necessary, the methods and timing/duration of monitoring, how results will be recorded and reported, and strategies for adaptive management to deal with any additional or residual issues that arise
- d. Documentation retention
 - i. Records must be kept of all documents for at least 10 years and must be made available according to the Freedom of Information and Protection of Privacy Provisions

Some Additional Information on Waterpower Projects and the Class EA Process:

If other stakeholders (i.e.: interested individuals or groups from the local community) are not satisfied with the level of detail in the information produced by the Class EA, they may request a Part II Order to 'bump up' the project to one that requires an Individual EA. If this request is approved, an Individual EA will need to be completed before the application can be submitted to the MOE for review. Once the application has been submitted, the MOE will make its decision regarding whether or not to approve the development of a new waterpower project; all Ministry decisions on Class EAs for waterpower are considered final.

Though it is difficult to determine the exact reason for this apparent government dedication to waterpower in particular, there are some very realistic possibilities:

If properly maintained, hydropower facilities have a very long lifespan. Investments made in harnessing renewable waterpower energy today can last for many years into the future. For example, the average age Ontario's existing hydro facilities is 60 years old, many of which are over 75 years old.²³

Ontario has huge potential for developing a large amount of energy from hydropower facilities.

As mentioned earlier, there have been suggestions that Ontario could generate up to fifty percent more electricity from waterpower than is currently the case.²⁴ Depending on future demand within the province, this could be seen by the government as a potential revenue stream for Ontario in the future, though it ought to be noted that developing waterpower projects in every possible location in Ontario could have very serious negative consequences for the environment.

²³ Ontario Ministry of Natural Resources, "Waterpower in Ontario," *MNR* web site, http://www.mnr.gov.on.ca/stdprodconsume/groups/lr/@mnr/@renewable/documents/document/stdprod_087526.pdf last accessed 19 July 2011, 2.

²⁴ Ontario Waterpower Association (OWA), *Class Environmental Assessment for Waterpower Projects*, 2nd Edition, March 2011, OWA, <http://www.owa.ca/assets/files/classea/Class%20EA%202011%20Second%20Edition.pdf>, last accessed 12 July 2011, page 9.

Having reviewed the current status of the REA and Class EA processes, the report now turns to investigating the opinions of some stakeholders interviewed regarding the challenges and opportunities that the REA process and Class EA process pose to both developers and community members. Finally, the report will offer several recommendations for ways to improve the critically important procedure for development of renewable energy sources in Ontario.

Stakeholder Interviews

As part of the research for this report, brief interviews were conducted with some of the stakeholders from various renewable energy projects. Both project developers and private community members (or members of a community organization) were included in the interview process. The majority of the respondents to a request sent out to renewable energy stakeholders for interview participants were individuals involved with waterpower projects, and thus the Class EA specifically. However, there was also some participation from those with experiences in the development of wind power facilities. Therefore, nearly all of the information in this section will pertain most closely to the waterpower Class EA, but it still provides good examples of the experiences, challenges and benefits of developing renewable energy in Ontario.

It should also be noted that information learned in these interviews is being used in a qualitative way only, and has not been subjected to any statistical modeling, coding or other controls. This was done for a couple of reasons. First, due to the timeframe available for completion of this project, and the actual number of respondents, the final number of people interviewed was fairly small. Second, the interviews were intended to shed light on the opinions of people involved in REA or the Class EA, and as such, are meant to be qualitative and to focus on socio-political matters, rather than quantitative figures or data.

Therefore, the author fully acknowledges the limitations of these interviews in terms of how many broad generalizations can actually be made with this data. Nonetheless, the author firmly believes in the utility of qualitative, experientially based information and that the opinions and experiences of even small groups of affected individuals can provide interesting and useful data for this project. The report will first summarize the general tone of opinions and comments from project developers before doing the same for the community members who were involved in interviews.

Developers

In general, the renewable energy developers who participated in the interview process for this project were very supportive of the Class EA and REA processes in Ontario. A common remark

about the Class EA process was that it has been an excellent step forward in providing a structure for developers to follow. In other words, it makes the government's (especially the MOE's) expectations for hydroelectric projects very clear. It was also reported that this clarity allows developers to get a more definite sense of the timelines for getting a project up and running, which helps companies to feel more willing to take the risk of building a project. Some waterpower developers however have noted that the "simple payback" for waterpower is much longer. At the EA stage, the project is 2-3 years away from commissioning and an additional 10-12 years away from achieving payback.

This was seen by several developers as being very beneficial to the goal of expanding renewable energy use in Ontario, because without a clear process and set of timelines to follow, some companies may be less willing to take the financial risk of proceeding with an environmental assessment that has no defined beginning or end. Additionally, several of the developers interviewed commented that like all relatively new processes, these ones may still need a little time to get all the 'bugs' worked out, but that they hope the Province will maintain its commitment to renewable energy and allow the time necessary to make the Class EA and REA processes run as well and as smoothly as possible.

Though the vast majority of developers interviewed for this project indicated that they were very supportive of including community participation opportunities, others felt differently. Indeed, during some interviews, it was suggested that renewable energy development is currently being slowed down too much by having to hold community meetings and public open houses in order to engage local populations and respond to their concerns or comments. It was suggested that having to hold these meetings and respond to all the comments was a significant problem posed by the current Class EA, and that since the Provincial Government has indicated it wants to see more renewable energy projects go ahead, any policies related to that goal should do everything possible to facilitate its achievement.

CELA notes that public participation must remain a central component of the Class EA and REA processes, and enhancing community involvement is critical. Without strong regulations for community participation, there is a risk that lack of sufficient public participation would decrease public support for projects, and could lead to an increased number of renewable energy facilities being sited at locations that are not environmentally or socially responsible.

Some of the developers acknowledged that the process for the Class EA might not always be clear for community members because it is usually something they were unfamiliar with before a project was proposed for their region. Therefore, the local community may find it challenging to learn how to become involved in the Class EA process for their project. Thus, it can be argued that this recognition from the developers indicates that there is a real need for the Ontario government to seriously consider how to improve public access to guidance on how the Class EA and REA processes work.

In response to questions about the types of concerns or comments about projects that community members most frequently report, developers often said that it was normally very project-specific, and often the comments were very specific to the person making the remark, and their lifestyle. However, developers reported that generally, the most frequent concerns are related to fish and wildlife habitat, fish passage, flooding, public access to the site, and in some cases, dam safety. In cases where the public has been supportive of proposed projects, developers also found the reasons to vary. According to developers, the most common reasons for local project support are in cases where there will be substantial economic benefit to the communities in question, and also because some residents are strongly in favor of shifting the province to renewable energy because they are concerned about the environmental future of Ontario.

In the same way that comments and concerns are very project-specific, developers reported that the number of people who attended public meetings varied from project to project as well. Generally, they attributed this to the level of public interest and/or controversy surrounding a project, rather than any issues with the scheduling or location of meetings. Having summarized the tone of opinions and thoughts about the Class EA and REA process from developers, the report now turns to those of community members.

Community Members

The individual community members interviewed for this project were largely very skeptical of the effects of the renewable energy approvals processes involved in REA and the Class EA. Their main concerns were related to transparency and access to information (about projects and the process being used). One of the complaints repeatedly encountered in interviews in regards to these processes was the system of notification being used. Specifically, some participants felt that notice of the meetings was usually too short, and that it did not give residents enough time to review available documents beforehand in order to have questions and comments for the developing companies prepared. Indeed, several of the interviewees reported that these meetings tended to be poorly attended by the community, but attributed the cause of low attendance to the notifications, scheduling and locations of meetings, rather than a lack of interest.

For example, one interviewee noted that more community interest in his area could help improve the number of people attending meetings, but maintained that the timing of the meetings was the main cause for a poor turnout. In his region, many individuals work as outfitters, and are only present in the community during the months when tourists come to fish, hunt, hike and otherwise visit the area. Therefore, he believed that because the bulk of the meetings on the hydro project proposed in his region occurred in the winter, and often not even in his town, many people were not present who otherwise would have been. This problem suggests that developers should be more aware of the common lifestyles of the communities they are working in, and make better efforts to schedule meetings that would allow the highest number of attendees possible. If this

occurred, it would show that developers really do support public participation in the development of renewable energy generation facilities.

Another frequent comment from community members who were interviewed for this project was that because many of these projects occur in very rural and sparsely populated areas, the current notification system is somewhat inadequate. Some residents who do not live in a town, but further out in the country do not have easy access to the newspapers that most notifications of assessment or draft project descriptions are normally printed in. It was suggested that in those cases, direct mail outs should be used to communicate with local residents. And even in cases where the newspaper advertisement was seen, some participants complained that the ads were too small, and had too little information included in them.

Additionally, when one community organization requested access to specific documents for a Class EA project from the MNR under Freedom of Information, they were informed that the documents would cost them \$1123 for a hard copy, or that they could purchase an electronic version for \$760. This unfairly restricts which citizens will be likely to gain access to project information based on their financial circumstances and is therefore unjust. The community group in question was a small local river stewardship organization (a registered stakeholder on the project), and could not come up with the necessary funding for these documents. Therefore, in a sense, the group was denied access to that information because of their financial status. Without access to the documents in question, the interviewee reported that the group felt they would be unable to fully and effectively participate in the Class EA process. CELA has commented in past publications and FOI cases that public participation in environmental decision making must not be curtailed by requiring participants to go through FOI processes to obtain relevant information in relation to the siting decision.

Another problem that community members have identified on this topic is the actual style of the public meetings. Most are held in an 'Open House' format, with poster boards and various stations with representatives of the companies present to answer questions. The issue that some respondents have with this is that it does not allow the entire group to hear all the questions and answers at once. The majority of individuals interviewed said they would prefer to have 'Town Hall' style meetings in which the whole audience would listen to each other's questions and the answers from the company involved. Some interviewees said they had asked developers for this style of meeting, but that their request had been flatly refused.

Additional concerns from community members included such matters as the lack of municipal power to influence these development projects (a point addressed earlier in the report), and the feeling that many individuals had that, by the time they received notice of a potential project in their area, the development was virtually a 'done deal.' Thus, while some community members believed they could still impact the project, others felt their involvement was more pro forma,

than anything else. Also, many concerns about the limited timeframes for making comments, filing appeals (in the case of REA), and filing for a Part II Order Request were voiced.

In the case of the Class EA, interviewees were displeased with the point that they could not file an appeal on a project decision made by the MOE. Though individuals or groups who are unsatisfied with a waterpower Class EA can request a 'bump up' to an Individual EA via a Part II Order Request, those interviewed were not optimistic about their chances of success with this endeavor. Although fifty Part II Order Requests have been filed in the past tens years, both under the old and new Class EA processes, none of them have been approved by the MOE; on the other hand there are often additional terms and conditions required by the MoE for the project as a direct result of the Part II Order Requests, arguably improving the projects.

The experience of interviewing both project developers and community members illustrated that there is something of a disconnection between those who build renewable energy projects and those that the projects are built near. While developers tend to feel that they provide ample opportunities for public participation, the community members who were interviewed responded in ways that indicated their dissatisfaction with their ability to be involved in the process. This is not to suggest that they do not support renewable energy, however. Each local resident interviewed supported the idea of increasing renewable energy projects, but wanted to be able to participate more fully in the process of planning a project to ensure that it would be as environmentally and socially beneficial as possible. Perhaps in the future there should be more open and frank discussion between communities and project developers about what each side expects and hopes to achieve. This point brings the report to its next section: recommendations for ways to improve the REA and Class EA processes.

What Next? Recommendations For Moving Forward with Renewable Energy Projects

Though the Ontario Government's efforts to increase the production and use of renewable energy in the province are indeed commendable, certain improvements should be made to the current REA Process in order to increase opportunities for public participation, and raise the existing level of decision-maker accountability. Such alterations should include the following:

1. Begin by reviewing the current procedure in a series of roundtable discussions or town hall style meetings between members of the environmental community, legal community, interested individuals and Provincial Government representatives. Ensure the discussions/meetings are accessible in terms of meeting places, times, etc. to allow as wide a variety of participants as possible to take part.
 - a. Be prepared to receive honest feedback on what works and what does not work.
 - b. Listen to ideas offered by those present of how to improve the REA process.

2. Lengthen the permitted timeframe for filing appeals on REA decisions to at least 30 days. The current 15-day time period is insufficient for those wishing to make appeals to gather the required evidence to prove their case for the necessity of an appeal.
3. Require actual in-person meetings between Aboriginal communities and REA applicants; written requests for information are insufficient and do not allow for adequate involvement of and consultation with Aboriginal communities.
4. Likewise, the Ontario government should still hold consultations with affected/interested Aboriginal communities, rather than completely downloading the task of such meetings to project applicants. It is still the responsibility of the government to have formal meetings with Aboriginal communities on all matters that may affect them (i.e. treaty rights).
5. The form outlining what subjects municipalities should be consulted on unfairly restricts municipal governments from participating in local development initiatives, and ignores the potentially vast quantity of information and advice that local governments could provide to REA applicants. Environmental decision-making in particular requires localized knowledge that municipalities may be in a unique position to provide to developers and the Provincial government.
6. The stipulation that if the ERT has made no decision on an appeal within 6 months, the original decision on a project will stand, ignores the possibility that certain studies or reviews may need to be undertaken at particular times of the year (i.e. decisions affecting migratory species or water levels in a particular lake or river), thus, rushing to meet a 6-month deadline increases the possibility of allowing poor decisions to stand. There should be at least 1 year for the ERT to review all appeals.
7. Consider developing a Community Liaison Renewable Energy Information Office to help guide citizens and interested community groups who need access to information on how to effectively take part in the Class EA and REA processes. This office could help improve understanding of how these processes work, and therefore raise public participation levels, leading to better, more widely supported and environmentally and socially responsible projects being developed. The current Renewable Facilitators Liason Office is proponent oriented and this needs to be balanced with similar assistance for interested communities and members of the public.
8. Currently, the MOE requires two community consultations to be held with local residents so that the applicant can hear concerns and include local input into the final application. However, the MOE also encourages applicants to hold more meetings throughout the process in order to ensure better community involvement and more support for the project. If (as this suggests) the Ministry is of the opinion that more than two

consultations are required for the best level of public participation to occur, then more than two such meetings should be formally required in the REA process.

9. It should be clearly stipulated within the REA regulations that meetings must be held at a variety of times and on different days in order to enable a variety of individuals with diverse schedules to attend, and buildings used for these meetings should be required to be both wheelchair accessible and within easy distance of public transportation. Additionally, in order to promote the involvement of young families (including single parents) on-site childcare should be made available at community consultation meetings if it is needed.
10. Conservation must remain a central part of all future energy policies for the province of Ontario. This will help the province to continue to meet its energy needs, and to be able to do so in a sustainable, environmentally responsible way. Additionally, conservation measures may help the province to avoid making the mistake of assuming that technological advancements will be able to solve any problem, no matter how huge, including high levels of energy consumption.

Conclusion

As this report has argued, developing and increasing the use of renewable energy is fundamental to the future of Ontario. In particular, the role of renewable energy in displacing dirty, dangerous coal and nuclear power will be particularly critical to ensuring that this province remains a clean, healthy, safe place for generations to come. The REA and Class EA processes represent two important steps in the direction of creating such a future for Ontario, but, as outlined throughout the report and in the 'Recommendations' section, there are a number of ways that they can be strengthened and improved.

In order to ensure that the best possible renewable energy projects are approved and developed in Ontario, meaningful space and time for public participation must be maintained in the REA and Class EA processes. Indeed, as the 'Recommendations' section enumerated, there are several ways that public participation in this process ought to be increased, and opportunities for community involvement should be made as widely accessible as possible. Perhaps the most important point about public participation is that developers and the provincial government must recognize and appreciate the wealth of wisdom that local communities may be able to impart to them about the specific location of particular project proposals.

Additionally, although renewable energy is very important, it must be developed with a certain degree of caution in order to avoid such problems as endangering various 'at risk' species or their habitats, for example. For this reason, it is likely that no single type of renewable energy (wind, solar, hydropower, or biomass) will be able to be pursued alone as Ontario's main source

of energy for the future. In order to enable developers to use only the best possible and least environmentally or socially disruptive locations and methods for their projects, all of these sources should be pursued in unison by the province.

Appendix A: Facility Classifications Index

Unless otherwise specified: classifications and tables in 'Appendix A' were taken from Ontario's Environmental Protection Act (Renewable Energy Approvals under Part V.0.1 of the Act)

(http://www.e-laws.gov.on.ca/html/regs/english/elaws_regs_090359_e.htm#BK7, last accessed online 3 June 2011)

Wind Facilities:

Item	Column 1	Column 2	Column 3	Column 4
	Class of wind facility	Location of wind turbines	Name plate capacity of the facility (expressed in kW)	Greatest sound power level (expressed in dBA)
1.	Class 1	At a location where no part of a wind turbine is located in direct contact with surface water other than in a wetland.	≤ 3	Any.
2.	Class 2	At a location where no part of a wind turbine is located in direct contact with surface water other than in a wetland.	> 3 and < 50	Any.
3.	Class 3	At a location where no part of a wind turbine is located in direct contact with surface water other than in a wetland.	≥ 50	< 102
4.	Class 4	At a location where no part of a wind turbine is located in direct contact with surface water other than in a wetland.	≥ 50	≥ 102
5.	Class 5	At a location where one or more parts of a wind turbine is located in direct contact with surface water other than in a wetland.	Any.	Any.

O. Reg. 359/09, s. 6, Table.

Solar Facilities:

Item	Column 1	Column 2	Column 3
	Class of solar facility	Location of solar photovoltaic collector panels or devices	Name plate capacity of solar facility (expressed in kW)
1.	Class 1	At any location.	≤ 12
2.	Class 2	Mounted on the roof or wall of a building.	> 12
3.	Class 3	At any location other than mounted on the roof or wall of a building.	> 12

O. Reg. 521/10, s. 2, Table.

Bioenergy (Thermal treatment) Facilities:

Item	Column 1	Column 2	Column 3
	Class of thermal treatment facility	Location of generating unit	Description of biomass
1.	Class 1	At any location.	Biomass consisting solely of woodwaste.
2.	Class 2	At a farm operation.	Any type of biomass, other than biomass consisting solely of woodwaste.
3.	Class 3	At any location other than at a farm operation.	Any type of biomass, other than biomass consisting solely of woodwaste.

O. Reg. 359/09, s. 5, Table.

Anaerobic Digestion Facilities:

Item	Column 1	Column 2	Column 3
	Class of anaerobic digestion facility	Location of anaerobic digester	Organic matter
1.	Class 1	At a farm operation.	One or more of the following:
			1. Biomass that is grown or harvested for the purpose of being used to generate electricity.
			2. Biomass that is agricultural waste within the meaning of Regulation 347 of the Revised Regulations of Ontario, 1990 (General — Waste Management) made under the Act.
			3. Farm material.
2.	Class 2	At a farm operation.	One or more of the following:
			1. Organic matter consisting of any biomass or a combination of biomass and farm material, other than organic matter that consists solely of organic matter described in Column 3 of Item 1.
			2. Source separated organics.
3.	Class 3	At any location other than at a farm operation.	One or more of the following:
			1. Biomass.
			2. Source separated organics.
			3. Farm material.

O. Reg. 359/09, s. 3, Table.

Waterpower Facilities: (Subject to Environmental Assessment Act, not REA Process)

Item	Column 1	Column 2	Column 3
	Waterpower Project Classification	Capacity	Environmental Assessment Required
1.	Small to Medium	< 200 MW	Class EA (Approved 8 Oct. 2008)
2.	Large	≥ 200 MW	Individual EA

Information in above table taken from:

http://www.ene.gov.on.ca/environment/en/industry/assessment_and_approvals/environment_assessments/projects/STDPROD_082733.html?page=3, last accessed 3 June 2011.

Appendix B: Facilities Needing to Apply for REA

Wind Facilities

- Class 1: Nameplate capacity less than or equal to 3 kW does not need REA
- Class 1: Nameplate capacity greater than 3 kW needs REA
- Class 2: Nameplate capacity over 3 kW but less than 50 kW needs REA, but has fewer pre-submission requirements & does not need to meet noise, property and road/rail setbacks (but does require municipal building permits under Building Code Act [BCA] 1992).
- Class 3: Nameplate capacity equal to or greater than 50 kW with a sound power level less than 102 dBA has to meet property and road/rail setbacks (Plus any additional requirements for proximity to water, noise, or natural/cultural heritage sites. Additional requirements are location dependent).
 - Also: structures supporting Class 3 wind turbines require municipal building permits under BCA 1992.
- Class 4 or 5: (Land-based wind facilities) equal to or greater than 50 kW with a sound power level greater than or equal to 102 dBA need REA and are also subject to minimum noise setbacks

Solar Facilities

- Class 3: Ground mounted solar facilities with a nameplate greater than 10kW need REA
- Class 1: Ground mounted solar less than or equal to 10 kW does not need REA, but ground mounted may require municipal building permits
- Class 1 or 2: Rooftop and wall mounted solar of any size does not need REA, but attaching solar panels to buildings may require municipal building permits

Bioenergy Facilities

- Facilities defined in REA regulation as an anaerobic digestion, biofuel, biogas or thermal treatment facility will need REA
- Regulated mixed anaerobic digestion facilities or anaerobic digestion facilities processing non-regulated waste on farms are subject to a Nutrient Management Study, but do not need REA.

Waterpower Facilities

- Facilities do not require REA, but are subject to the Environmental Assessment Act
- Class Environmental Assessment (EA) for new facilities under 200 MW or expansions to existing facilities
 - Individual EA for large projects (200 MW or greater)
 - Plus (in either case) any additional required MOE and MNR permits and approvals.

Appendix C: Wind Power -- Setback Distances from for Multiple Turbines and Various Turbine Sound Power Levels

Sound Power Level	Number of Turbines Within 3 km			
	1-5	6-10	11-25	26+
102 dBA	550 m	650 m	750 m	Noise Study Required
103-104 dBA	600 m	700 m	850 m	Noise Study Required
105 dBA	850 m	1000 m	1250 m	Noise Study Required
106-107 dBA	950 m	1200 m	1500 m	Noise Study Required
> 107 dBA	Noise Study Required In All Cases Over 107 dBA			

Table1: Information taken from: "Technical Bulletin Six: Required Setbacks for Wind Turbines," *Ontario Ministry of Environment* website, http://www.downloads.ene.gov.on.ca/envision/env_reg/er/documents/2010/Bulletin6.pdf, last accessed 9 May 2011, 3.

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