



Guidelines for the
installation of wind
generating facilities
on public land

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Foreword

The development of public land and its resources makes an essential contribution to the development of Québec as a whole, and must be carried out in a harmonious way and in the best interests of the community. To achieve this, the Ministère des Ressources naturelles et de la Faune (MRNF) defines and implements guidelines, tools and management mechanisms to promote the multi-purpose, sustainable use of public land to support the regions.

There are many different possibilities for public land development. The harmonization of different land uses and respect for previously-granted rights are stakes that the MRNF must take into account when granting new rights in public land.

Recent studies have shown that Québec has some of the best potential for wind energy generation in North America, and it is expected that public land will be in demand for use in this high-growth sector. For this reason, MRNF has developed these Guidelines for the installation of wind generating facilities. This document sets out the specific guidelines for wind energy development on public land. It is specifically designed to ensure that future wind power projects fit with their environments, protections already in place, rights granted, and the current and potential uses of public land. The compatibility chart included in the guidelines indicates how compatible public lands may be with the installation of wind farms using the following three ratings: compatible, compatible but requires harmonization measures, and incompatible.

This document is mainly intended for use by the MRNF regional offices responsible for managing public land, to assist them in harmonizing public land uses in connection with wind energy development. It is also intended to facilitate the management of public land, the granting of rights in land, the provision of support to developers, and the preparation of MRNF briefs.

In regions with a high level of wind energy development on public land, MRNF issues a Regional Plan for Public Land Development (RPPLD), Wind Energy. In regions with a lower level of wind energy development, the RPPLD, Wind Energy is replaced by a Territorial Analysis of Wind Energy. In Nord-du-Québec and regions whose wind energy potential is undetermined, applications to use public land for wind farms are studied on a case-by-case basis using the analytical framework.

In addition, MRNF has developed the *Guide on Environmental Integration and Harmonization Studies for the Installation of Wind Farms on Public Land*. This guide serves as a reference, particularly to help determine the main landscape-related stakes to look at address when installing a wind farm.

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Introduction

Technological developments in the wind equipment industry have enabled the wind energy sector to carve out a niche on world markets. In the last 25 years, the output of large land-based wind turbines has increased from 25 kW to a rated capacity of between 600 kW to 2.5 MW. World demand for this type of energy has increased by more than 30% per year since the mid-1990s¹. In 2002, the worldwide installed rated capacity was over 24,000 MW², 74% of which was located in the Europe. After Europe, North America is now developing a growing awareness of green energy, and the North American wind industry is expected to grow considerably over the next ten years as a result³.

In view of the industry's growth and development potential, the Québec government has adopted a series of measures designed to ensure that Québec becomes a service hub for the development of the wind energy sector in North America. A combination of training, research, as well as production and installation of wind energy facilities has resulted in an economic structure that allows for the consolidation of existing firms as essential elements in a dynamic economy.

On May 4, 2006, following an extensive consultation initiated in November 2004, the Government of Québec unveiled its energy strategy, which set out its objectives and the actions to take in the field of energy over the next 10 years. The document, entitled *Using Energy to Build the Québec of Tomorrow-Québec's 2006-2015 Energy Strategy*, lists the six major thrusts and priorities of energy management and development, including one called "Developing the wind energy sector, a way of the future."

More than 92% of Québec's land mass is publicly owned. Public land development helps enrich the gross domestic product by approximately \$26 billion in added value⁴. The development of public land for wind energy purposes will be promoted. However, the use of public land for wind energy generation must be incorporated into the host environment without compromising other, established activities. It is for this reason that the MRNF, as manager of Québec's public land, has established this analysis framework for the use of public land to allow for the installation of wind farms in harmony with existing uses.

Chapter 1 of this document addresses the development of the wind industry in Québec and describes the public land management context. Chapter 2 discusses the land use stakes arising from the construction of wind generating facilities, along with the development guidelines adopted by the MRNF. Last, Chapter 3 examines the degrees of compatibility between various land uses, as well as the objectives for harmonizing wind farms with the other elements already present on public land.

1 Brown, Lester, translated by Jacques Bougie (2005). *L'Europe : nouveau leader de l'énergie éolienne*. Franc Vert, Volume 2, No. 1, winter 2005. [Online] [<http://ecoroute.uqcn.qc.ca/FrancVert/tribune.html>] (Last updated - April 2005 - Consulted May 2, 2005).

2 Centre Hélios. 2002. *L'Europe bat encore des records en production d'énergie éolienne*. Enjeux-Énergie, April 2, Vol. 1, No. 1, [Online] [<http://www.centrehelios.org>].

3 HéliMAX 2004. *Étude sur l'évaluation du potentiel éolien, de son prix de revient et des retombées économiques pouvant en découler au Québec*. File R-3526-2004. Montreal, 46 p. [Online] [http://www.helimax.com/Dossier_R35262004.pdf].

4 Data drawn from the Plan d'affectation du territoire public (known as PATP) PowerPoint presentation "Pour un développement harmonieux et durable du territoire public", February 2006.



Chapter 1

Context

The government is a key player in developing the knowledge and economic dynamism required to create a wind energy industry. Since 1996, the Ministère des Ressources naturelles et de la Faune (MRNF) has invested more than \$2 million to measure Québec's wind energy potential. It has also spent more than \$1.9 million on financial assistance, through its Energy Technology Development Assistance Program (commonly known by its French acronym PADTE), for wind energy infrastructures, electronic control development and projects to assess the behaviour of wind turbines in a cold climate.

At the same time, the MRNF has expressed its intention to use the wind energy sector as a lever for regional development. The development of wind generating facilities began on the Gaspé peninsula, with the construction of Hydro-Québec's wind energy test bench at Saint-Ulric de Matane in 1998. The following year, two wind farms known as Le Nordais, with a total output of 100 MW, were built in the Cap-Chat and Matane sectors.

1.1 An initial call for bids for 1,000 MW of wind energy

On March 5, 2003, the Québec government adopted an order-in-council concerning the economic, social and environmental concerns raised by the Régie de l'énergie in relation to wind energy and energy produced from biomass. At the same time, it adopted the *Regulation respecting wind energy and biomass energy*. Among other things, the regulation stipulated that Hydro-Québec Distribution would launch a bidding process for wind-generated electricity. Accordingly, a call for bids was issued on June 12, 2003, for the acquisition of an initial block of 1,000 MW, with production reserved for the Gaspé region and the territory of the Matane RCM.

The eight successful bids will provide a total of 990 MW of installed capacity. The investments associated with the projects are expected to exceed \$1.9 billion, including \$430 million for the electricity transmission network. The construction and operation of these projects is expected to create 2,000 person-years of employment.

As far as industrial facilities are concerned, a windmill blade manufacturing plant has been built in Gaspé, and two manufacturing plants—one to build wind turbine towers, and the other nacelles—have set up shop in Matane. The production from these two plants will be sold not only in Québec, but also on the growing export markets in Canada and the United States.

1.2 A second call for wind energy bids

On July 5, 2004, after examining the opinion submitted by the Régie de l'énergie on electricity supply security in Québec and the contribution of the Suroît project, the government announced that it would introduce new measures to diversify and improve energy security for the Québec population. The Minister of Natural Resources and Wildlife said at the time that the Québec government would ask Hydro-Québec to acquire additional megawatts of wind-generated electricity as part of its plans to develop the wind energy sector in Québec. In November 2005, Hydro-Québec Distribution issued a call for bids to supply wind energy from sites in any region in Québec.⁵ The government hopes to develop an additional 2,000 MW by 2015.

⁵ http://www.hydroquebec.com/distribution/fr/marchequbecois/ao_200503/index.html

The government's goals for the second block of wind energy are:

- Optimal development of Québec's wind energy potential, bearing in mind the capacity of the Hydro-Québec transmission grid and connections to the grid;
- Consolidation of the industry base resulting from the first call for bids:
 - by fostering the sustainability of the manufacturing sector;
 - by encouraging an established or new manufacturer of high technology equipment to set up in Québec;
- Maximization of economic impacts throughout Québec and in the regions;
- Minimization of electricity supply and transmission costs;
- A contribution to energy security in Québec.

1.3 Potential and prospects for wind energy development in Québec

Québec offers considerable potential for wind energy production, due among other things to the strength and consistency of its low-altitude, year-round winds, the proximity of major electricity transmission lines and the complementary nature of the wind energy and hydro-electric energy sectors. Wind energy is natural complement to hydro-electricity. Under certain conditions, hydro-electric stations can compensate for the sporadic nature of wind energy. In exchange, wind farms make it possible to not draw so heavily on the water reserve capacity of dams. By combining the two forms of energy, it would be possible, first, to increase the total amount of electricity produced by Québec, and second, to ensure energy security for its population⁶. These characteristics are what make Québec particularly suitable for wind energy production⁷. Its wind energy potential is one of the best in North America⁸, and lies mainly in the Appalachian corridor, on the shores of the St. Lawrence Estuary and Gulf, north of the 60th parallel, on high mountain peaks, and in the Magdalene Islands, Saguenay–Lac-Saint-Jean and Montérégie regions⁹. According to a study released in June 2005, the theoretical potential of Hydro-Québec's power grid would be in the range of 4,000 MW in 2015¹⁰.

1.4 Public land management context

In addition to its efforts to develop the wind energy industry, the government also has a role to play in its capacity as landowner, since wind farms are likely to be built on public land.

Québec is a vast and diversified territory covering 1.4 million square kilometres – is publicly owned. This vast area comprises sectors covered by conservation orders, rights to use land for various purposes, and rights to extract resources. Each parcel of land is covered by a right or use or has specific status, whether in connection with forest management, nature conservation, energy production, wildlife harvesting, mining, recreation and tourism or traditional Aboriginal activities. For example, the same parcel of land may be subject to one or more timber supply and forest management agreements, ZEC operating permits and vacation development permits. The activities associated with these various rights form the basis for a portion of Québec's economy and have impacts on the quality of life of its citizens, in environmental, social and economic terms. The presence of resources such as these must therefore be considered when developing wind parks on public land.

6 Régie de l'énergie du Québec (2004). *Avis de la Régie de l'énergie sur la sécurité énergétique des Québécois à l'égard des approvisionnements électriques et la configuration du projet du Suroît (A-2004-01)*. Montreal, 144 p.

7 Sauvé, Mathieu-Robert (2004). *Le Québec dans le vent*. Forces, October 25, 2004, p. 68-69.

8 Sauvé, Mathieu-Robert (2004). *Le Québec dans le vent*. Forces, October 25, 2004, p. 68-69.

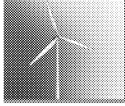
9 Hélimax 2004. *Étude sur l'évaluation du potentiel éolien, de son prix de revient et des retombées économiques pouvant en découler au Québec*. File R-3526-2004. Montreal, 46 p. [Online] [http://www.helimax.com/Dossier_R35262004.pdf]

10 MINISTÈRE DES RESSOURCES NATURELLES ET DE LA FAUNE. *Hydro-Québec Integrated Network Integration capability with Respect to Addition of Wind Energy Generation*. Report prepared by RSW inc., June 2005, 52 pp. and appendices.

For the MRNF, in its capacity as public land manager, the task of integrating all these elements presents a sizeable challenge, namely ensuring that the various uses are able to co-exist in harmony. As a result, any new, emerging use must be compatible with existing activities, so that Québec's public land can be optimally developed.

The MRNF is therefore involved in the development of the wind energy sector on public land. As the government's agent responsible for the management of public land, the Land Sector prepares guidelines and sets goals conducive to the use of public land in wind energy development, while ensuring the development of other resources and the protection of sensitive elements. MRNF is responsible for granting the rights needed to build wind generating facilities on public land, based on consistent, coherent development choices.

Under the *Regulation respecting environmental impact assessment and review*, any generating project above a stated capacity must go through an in-depth examination of the potential impact of new wind generating facilities. The environmental impact assessment and review procedure will apply, allowing the environmental, social and economic aspects to be studied by the Ministère du Développement durable, de l'Environnement et des Parcs and, where applicable, by the Bureau d'audiences publiques sur l'environnement (BAPE).



Chapter 2

Land use stakes and guidelines for the installation of wind farms on public land

2.1 Public land use stakes

The stakes connected to the development of the wind energy sector are determined by the expected benefits of wind energy development. The emphasis is placed on expected gains and the preservation of existing benefits, in a sustainable development perspective.

The stakes are classified under economic, social and cultural, environmental and institutional headings. The classification will help in the establishment of development guidelines for the wind energy industry, which will be used by the MRNF to grant sites for wind generating facilities and access roads, and to provide support for promoters.

- **Economic stakes**

The economic stakes concern Québec's energy security and job and business creation and consolidation.

- **Social and cultural stakes**

- The social and cultural stakes include the harmonization of land uses, social acceptability and the protection of natural and heritage landscapes, along with access to public land for recreational activities and resource extraction, often connected to the quality of life of the local population.

- **Environmental stakes**

- The main environmental stakes include ecosystem protection during access road construction and the installation of wind generating facilities. Environmental protection includes, among other things, the preservation of threatened or vulnerable species and their habitats, as well as sites of specific natural interest.

- **Institutional stakes**

- The institutional stakes include the definition of a shared vision for the development of the wind energy industry, and the harmonization of the various planning systems. Collaboration between partners to carry out land use analysis will be an essential factor in the coherent development of the wind energy industry in Québec.

2.2 General development guideline

The general guideline selected by the Ministère des Ressources naturelles et de la Faune is as follows:

Contribute to the development of the wind energy industry by developing public land in Québec while ensuring harmonization with other existing and potential land uses

2.3 Specific development guidelines

To allocate sites for the installation of wind generating facilities and access roads, the MRNF has adopted the following specific guidelines:

- Harmonize the development of wind farms with existing land uses and previously granted rights in land;
- Ensure that the landscape is protected;
- Ensure that the natural environment and biodiversity are protected;
- Maintain access to public land;
- Make parcels of public land available for wind energy development;
- Support promoters in the development of wind farm projects.

2.4 Public land planning and development documents

In addition to the analytical framework, MRNF has developed two public land planning and development tools for wind farm installation. In regions with a high level of wind energy development on public land, MRNF issues a Regional Plan for Public Land Development, Wind Energy. The purpose of this plan is to determine where, when, and how it is possible to grant land rights fostering the harmonious use of public land. Its other main objective is to encourage regional and government partners to make decisions on public land use together by setting up regional issue tables. For further input, MRNF also consults other organizations in the field that use public land.

In regions with a lower level of wind energy development, MRNF conducts territorial analyses using the analytical framework in conjunction with actors in MRNF's various sectors and other ministries and organizations concerned by the topic.

The approach used in these two documents—the wind energy RPPLDs and the Territorial Analysis—is to divide up and characterize land and designate harmonization measures that take into account the compatibility of installing wind generating facilities based on the land's characteristics, rights granted, status, existing uses, and potential other uses.



Chapter 3

Degrees of land use compatibility

The analysis framework is based on the ideas of harmonization and protection. If a wind farm is built on public land, various elements must be taken into account in connection with the current use of the land, the status of the land, the rights granted in the land and its potential for development. These are the considerations used to define the three levels of compatibility.

Compatible land: Land where there are no major land use constraints creating a situation of incompatibility. However, integration measures may be required to ensure harmonization with existing uses and compliance with rights granted.

Compatible land requiring harmonization: Land where specific protection, integration or harmonization measures must be applied. Mainly this involves sectors with scenic routes, hiking trails, salmon rivers, wildlife sanctuaries, controlled harvesting zones (ZECs), outfitting operations with exclusive rights, vacation sectors, or areas with active mining rights.

Incompatible land: Land on which the installation of wind generators is prohibited by a legal provision or made impossible by incompatible land uses. This applies to sites for which exclusive rights have already been granted, the hydrous environment (including islands and the river), and conservation areas (i.e., ecological reserves, national parks, exceptional forest ecosystems, threatened or vulnerable plant and wildlife species and their habitat, wildlife preserves, exceptional geological sites, etc).

For all wind farm projects, in addition to an analysis of the project's compatibility with existing elements, a notice of conformity or an authorization from the government departments and bodies concerned must be submitted.

3.1 Harmonization objectives

The use and status of existing elements must be taken into account when a wind farm project is being designed. The elements are also linked to environmental, economic and social issues. Harmonization objectives have been defined for each element or group of elements on the basis of the stakes and guidelines discussed above, and are set out in the following table. The table also shows the analysis criteria used to judge the projects submitted.

In each region of Québec, the elements, objectives and criteria may be modified to take into account the regional particularities and the value placed by regional players on each element. Similarly, other elements, objectives and criteria may be added following a Regional Plan for Public Land Development, Wind Energy or a Territorial Analysis, Wind Energy, but must at all times be consistent with the ministerial guidelines set out in the preceding chapter.¹¹

11 Modulation measures refer to the elements of natural resource development and elements of social interest.

3.2 Conservation elements¹²

Element considered	Harmonization objective	Analysis criterion
<ul style="list-style-type: none"> • Exceptional forest ecosystem • Existing or projected biodiversity reserve • Existing or projected aquatic reserve • Archaeological site or sector • National park • Natural district • Existing or projected ecological reserve • Existing or projected man-made landscape • Wildlife habitat protected by law, other than a white-tailed deer yard on Anticosti Island • Wildlife preserve • Threatened or vulnerable wildlife species and their habitats • Threatened or vulnerable plant species and their habitats • Site of special wildlife interest¹³ • Biological preserve • Exceptional geological site 	<p>Preserve the integrity of the natural and cultural heritage</p>	<ul style="list-style-type: none"> • Projects must not include the installation of wind generating facilities in these areas

¹² Most conservation elements are protected by an Act or regulation.

¹³ A circumscribed area, made up of one or more biological and physical elements likely to maintain or develop a wildlife population or community, whose biological or social value makes it remarkable at the local or regional level.

3.2 Conservation elements (continued)

Element considered	Harmonization objective	Analysis criterion
<ul style="list-style-type: none"> • Legally-protected white-tailed deer yard on Anticosti Island • Species covered by a regional protection agreement 	Maintain the characteristic biological elements of the region	<ul style="list-style-type: none"> • Projects including one of these elements must be submitted to Faune Québec for approval
<ul style="list-style-type: none"> • Conservation of species of fauna and their habitat 	Conserve species of fauna and their habitat	<ul style="list-style-type: none"> • Projects must be submitted to Faune Québec for consultation and must take the recommendations into account
<ul style="list-style-type: none"> • Avian fauna and its migration corridors and habitats • Bats 	Maintain characteristic biological elements of the region	<ul style="list-style-type: none"> • Projects must be submitted to Faune Québec for consultation • Projects must be accompanied by a characterization study of avian fauna or bats and their behaviors

3.3 Elements connected to the development of natural resources

Element considered	Harmonization objective	Analysis criterion
<ul style="list-style-type: none"> • Wildlife preserve^A • Outfitting operation with exclusive rights^A • Controlled harvesting zone^A 	Ensure that the vocation of land structured to manage wildlife is maintained, while developing wind generating potential	<ul style="list-style-type: none"> • Projects must be submitted to Faune Québec and take its recommendations into account
	Harmonize planning for the development of the land and its resources while maintaining previously-granted rights and current uses	<ul style="list-style-type: none"> • Projects must be harmonized with planning for the development of the use of other resources • Projects must be submitted for stakeholders consultation • Projects must make it possible to promote common access infrastructure planning or use

^A Note:

The development of wind farms on land allocated to an outfitting operation with exclusive rights (called PADEs), ZECs or wildlife preserves are subject to limitations that vary depending on the size (number of turbines and area) of the wind farm, the area of the outfitting operation, ZEC or wildlife preserve involved, and the projected location of the wind farm within the area. Since outfitting operations with exclusive rights, ZECs and wildlife preserves are set up to conserve and develop wildlife, the construction of a wind farm may create difficulties depending on its size and location, especially in areas of less than 350 km².

The developer will have to take into consideration the impact of the project on the activities and services offered by the organization managing the ZEC, the outfitting operation with exclusive rights, or *Société des établissements de plein air du Québec*, or the organization authorized to offer activities and services in a wildlife preserve.

Before installing a wind farm, the developer must take into account the visual setting of any commercial accommodation facility or serviced campground (two services) in a ZEC or outfitting operation with exclusive rights, recreational use area, or strategic recreational zone in a wildlife preserve.

The network of roads needed for the construction and maintenance of the wind energy facilities must be planned and developed in a way that takes into account, among other things, the concerns of the ZEC, outfitting operation with exclusive rights, SÉPAQ in the case of a wildlife preserve, and any other stakeholders (Forêt Québec, forest operator, or recreational leaseholder).

3.3 Elements connected to the development of natural resources (continued)

Element considered	Harmonization objective	Analysis criterion
<ul style="list-style-type: none"> • Land adjacent to a national or provincial park • Element of interest for recreation or tourism, recognized in a regional plan (PRDTP, Recreation and Tourism, land use planning and development plan, regional tourism development plan, etc.) • Regional, national or international recreational trail • Grouped recreational use zone 	<p>Preserve the quality of the recreational or tourism experience associated with extensive natural spaces</p>	<ul style="list-style-type: none"> • Projects must include a study showing the integration and harmonization of the wind generating facilities based on strategic views of these elements^B
<ul style="list-style-type: none"> • Route representing a recognized tourism product • Well-known scenic route • Landscape of cultural interest, characteristic of the region 	<p>Preserve the quality of landscapes of regional interest on the basis of their inherent characteristics and their sensitivity factor</p>	<ul style="list-style-type: none"> • Projects must include a study showing the integration and harmonization of the wind-generating facilities based on the landscape visible alongside the elements in question^B
<ul style="list-style-type: none"> • Projected regional park and other publicly-known development project • Development pole or axis identified in the PRDTP, Recreation and Tourism • Other key element identified in regional plans such as the PRDTP for recreation and tourism • Development potential of regional importance 	<p>Safeguard elements of regional interest that could lead to the development of regional potential for recreation and tourism</p>	<ul style="list-style-type: none"> • Projects must preserve regional potential for recreational and tourism and be integrated with adjacent landscapes. If necessary, an integration study will be carried out for adjacent landscapes^B
<ul style="list-style-type: none"> • Water bomber landing lake used by the SOPFEU • Recreational activities involving use of airspace (landing strip, airport, etc.) 	<p>Ensure the level of security needed for the safe use of airspace</p>	<ul style="list-style-type: none"> • Projects must show that the wind generating facilities are located in a way that does not reduce the safe use of airspace

3.3 Elements connected to the development of natural resources (continued)

Element considered	Harmonization objective	Analysis criterion
<ul style="list-style-type: none"> Radio station, as per the <i>Radiocommunication Act</i> (R.S. 1985, ch. R-2) 	<p>Maintain the quality of communications and broadcasts</p>	<ul style="list-style-type: none"> Projects must take into account the location of radio stations and electromagnetic fields associated with these stations
<ul style="list-style-type: none"> Land where timber management or harvesting rights have been granted (TSFMA, FMA, FMC, etc.) 	<p>Harmonize planning for the development of the land and its resources while maintaining previously-granted rights and current uses</p>	<ul style="list-style-type: none"> Projects must allow forest right holders to harvest timber, except if an agreement is signed with the wind generator developers, and that commercial timber will be reserved for and shipped to mills holding forest rights Projects must promote joint use or planning of access infrastructures Based on the policies and directives in force when the projects are conducted, wind farm promoters may be required to provide financial compensation or apply mitigation measures by conducting forest management work
<ul style="list-style-type: none"> Land subject to mining rights (e.g., claim) Exploration licences for petroleum and natural gas Leases to produce petroleum and natural gas 	<p>Harmonize land and resource planning and development in accordance with rights granted and uses being practiced</p>	<ul style="list-style-type: none"> Projects must include land subject to mineral exploration

3.3 Elements connected to the development of natural resources (continued)

Element considered	Harmonization objective	Analysis criterion
<ul style="list-style-type: none"> Land subject to rights for a specific use or special status (e.g., maple sugar bush, bluberry field, seed orchard, experiment forest, research and teaching forest, arboretum, nursery, forest site, etc.) 	Comply with rights granted	<ul style="list-style-type: none"> Projects must exclude land subject to rights for a specific use or special status
<ul style="list-style-type: none"> Recreational or tourism site subject to previously granted rights (downhill ski area, golf course, vacation accommodation, outdoor centre, etc.) 	Comply with rights granted	<ul style="list-style-type: none"> Projects must exclude the installation of wind-generating facilities in areas where rights have previously been granted, and take into account adjacent areas
<ul style="list-style-type: none"> Land subject to a mining lease 	Comply with rights granted	<ul style="list-style-type: none"> Projects must exclude land subject to a mining rights

^B Note:

The landscape studies must comply with the principles set out in the *Guide on Environmental Integration and Harmonization Studies for the Installation of Wind Farms on Public Land*. For landscapes of local interest, special attention must be paid to protecting landscapes located in areas with heavy wind generator presence. For landscapes of regional interest, special attention must be paid to protecting areas with medium to heavy wind generator presence.

Moreover, landscape analyses must take into account all additional wind farm infrastructures. In accordance with the principles set out in Appendix 1 of the guide, mitigation measures must be implemented for the additional infrastructures. In addition, where environmental conditions allow, projects must include provisions stipulating that electrical wires must be buried, access roads cannot be configured perpendicular to viewpoints of special note, opaque hedges must be installed in front of connection stations, etc.

3.4 Elements of social importance

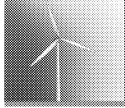
Element considered	Harmonization objective	Analysis criterion
<ul style="list-style-type: none"> • Hunting and fishing in land free of wildlife rights • Recreational trails • Lakes and watercourses 	Maintain access to public land	<ul style="list-style-type: none"> • Projects must show that they do not reduce access to public land
<ul style="list-style-type: none"> • Holders of rights under a lease or agreement (vacation leaseholders, trail operators, etc.) 	Take into account the rights already granted on public land	<ul style="list-style-type: none"> • Promoter must show that the necessary steps were taken to inform users and ascertain their concerns throughout the planning process
<ul style="list-style-type: none"> • Inhabited areas 	Promote local community participation in wind farm development projects	<ul style="list-style-type: none"> • The developer must take the necessary steps to consult with the local communities concerned by the project, and take their concerns into account
	Preserve quality of landscapes in inhabited areas based on the specific characteristics of each area and the level of sensitivity associated with each	<ul style="list-style-type: none"> • Projects will be accompanied by an integration and harmonization study for the installation of wind farms based on strategic viewpoints from the inhabited area^B

3.5 Consultations for wind energy development projects

To meet the harmonization objectives and analysis criteria for the elements listed above, regional concerns and interests must be ascertained through consultation with other stakeholders.

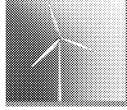
For projects to install wind generators on public land, the MRNF will consult governmental and regional partners to obtain their opinion concerning the conformity of the projects or, where necessary, authorizations from the government departments and bodies concerned.

Recent developments in aboriginal caselaw have led to new legal requirements. For example, the Supreme Court of Canada has required the government to consult and, as the case may be, accommodate aboriginal communities before making any decisions on land development projects likely to have an adverse effect on their potential ancestral rights. Consequently, MRNF will consult with aboriginal communities on wind farm project indicated in developer’s letter of intent.



Acronyms

BAPE	Bureau d'audiences publiques sur l'environnement
TSFMA	Timber supply and forest management agreement (also known by its French acronym CAAF)
FMA	Forest management agreement (also known by its French acronym CtAF)
FMC	Forest management contract (also known by its French acronym CvAF)
EFE	Exceptional forest ecosystem
GG	Greenhouse gas
HQD	Hydro-Québec Distribution
Km	Kilometre
Km/h	Kilometres per hour
kW	Kilowatt
RCM	Regional county municipality (also known by its French acronym MRC)
MRNF	Ministère des Ressources naturelles et de la Faune
MW	Megawatt
PADE	Outfitting operation with exclusive harvesting rights
PADTE	Assistance program for energy technology development
PATP	Public land use plan
PRDTP	Regional Plan for Public Land Development
Sépaq	Société des établissements de plein air du Québec
SOPFEU	Société de protection des forêts contre le feu
TW	Terawatt
UQAR	Université du Québec à Rimouski
ZEC	Controlled harvesting zone



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