STANDING COMMITTEE ON ALBERTA'S ECONOMIC FUTURE

Cross-Jurisdictional Information with respect to the Review of the *Property Rights Advocate Office 2017 Annual Report*

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1.0 Introduction

On July 23, 2019, the Standing Committee on Alberta's Economic Future (the Committee) asked Research Services to prepare a cross-jurisdictional survey to assist in its review of the *Property Rights Advocate Office 2017 Annual Report*. The motion requesting this research stated that

> the Standing Committee on Alberta's Economic Future direct research services to conduct a crossjurisdictional review of frameworks and policies in Canadian jurisdictions of compensable losses and quasi-judicial boards that may exist regarding property rights issues and the reclamation of renewable energy installations, including liabilities, with respect to Canadian and select U.S. jurisdictions (as approved by the chair and deputy chair).

Accordingly, this document comprises three main parts. Each section begins with a discussion of the *Property Rights Advocate Office 2017 Annual Report* to provide context for the information that follows.

Section 2.0 discusses compensable takings and notes that Alberta is the only jurisdiction in Canada which employs the term "compensable takings" in legislation on property rights. There are no frameworks and policies with respect to compensable takings and property rights in other jurisdictions in Canada. This section of the briefing reviews Alberta's *Property Rights Advocate Act*, S.A. 2012, c. P-26.5 and the *Alberta Land Stewardship Act*, S.A. 2009, c. A-26.8 in order to discuss the ways in which the term "compensable takings" appears in the relevant statutes in Alberta. The document then turns to a discussion of the expropriation acts in Alberta, Saskatchewan, British Columbia, and Ontario because there may be a correlation between the terms "compensable taking" and "expropriation."

Section 3.0 surveys the powers and mandates of the Surface Rights Board (or equivalent) in each province and territory across Canada and notes whether each board has jurisdiction with respect to disputes between property owners and renewable energy developers.

Section 4.0 examines policies and frameworks in the jurisdictions of Alberta, British Columbia, Ontario, Quebec, California, Colorado, Montana, North Dakota, Texas, and Wyoming that refer to the decommissioning of renewable energy installations on and reclamation of private land, if any exist, as well as the mandate and powers of the United States Bureau of Land Management and the United States Bureau of Reclamation.

2.0 Compensable Takings

The third recommendation of the *Property Rights Advocate Office 2017 Annual Report* refers to compensable takings. In making her recommendation, the Property Rights Advocate states that "[m]any people do not have a clear understanding of what a compensable taking is or how the concept is applied in Alberta." The Property Rights Advocate Office "continues to hear from Albertans who believe they have experienced a compensable taking and who want to know where to go for compensation. Albertans express frustration when they suffer a loss and feel entitled to compensation, yet no compensation is forthcoming."[1]

The Property Rights Advocate Office recommends

> Alberta Justice and Solicitor General develop policy and legislative options to promote a greater sense of understanding by Albertans on what compensable takings are and how appropriate compensation is determined. Options to be considered include whether to create a real property bill of rights or public education initiative.[2]

The Committee directed Research Services to obtain cross-jurisdictional information frameworks and policies regarding compensable takings. However, Alberta is the only jurisdiction in Canada which employs the term "compensable takings" in legislation on property rights and there are no frameworks and policies with respect to compensable takings and property rights in other jurisdictions in Canada.

Please also note that Alberta is the only jurisdiction in Canada with a Property Rights Advocate and there are no comparable statutes to the *Property Rights Advocate Act*, S.A. 2009, c. A-26.8 in Canada.

The term "compensable taking" appears only in the *Property Rights Advocate Act* and the *Alberta Land Stewardship Act*, S.A. 2009, c. A-26.8, each discussed below. In the *Property Rights Advocate Act,* the term appears to be differentiated from but affiliated to the concept of "expropriation." One of the main functions of the Property Rights Advocate is to listen to and report on concerns related to both compensable takings and expropriations. It may therefore be useful to the Committee to understand the ways in which the term "compensable takings" appears in the *Property Rights Advocate Act.*

In her discussion of the definition of "compensable takings," the Property Rights Advocate also refers to the *Alberta Land Stewardship Act.* This briefing therefore also examines the ways in which the term appears in that statute.[3]

Because there may be an affiliation between the concepts of compensable taking and expropriation, this briefing then surveys Alberta's *Expropriation Act*, R.S.A. 2000 c. E-13, noting how "expropriation" and "landowner" are defined in the Act, and the ways in which the Act sets out principles of compensation for expropriation, including partial expropriation. The briefing then compares the expropriation acts of Alberta, British Columbia, Saskatchewan, and Ontario.[*] In this discussion, it may be useful to note that there are differences between the ways in which some of the jurisdictions define landowner, and broad similarities in the ways in which most of the jurisdictions provide compensation for expropriation, including partial expropriations. It may also be worth noting that Saskatchewan and Ontario each have an equivalent to Alberta's Land Compensation Board as part of a framework for providing compensation to landowners for expropriations in these jurisdictions.

2.1 Alberta

Property Rights Advocate Act

The *Property Rights Advocate Act*, S.A. 2012, c. P-26.5 establishes the functions of the Property Rights Advocate Office and defines one of these functions as hearing concerns of individuals related to

[*] By way of general background, it may be worth noting that expropriation acts are intended to mediate conflicts between private property rights and a public need for the same land. Expropriation acts seek to balance private property rights and public interests.

compensable takings. It also differentiates "compensable takings" and "expropriation," which are defined separately in the Act.

This section of the cross-jurisdictional review outlines the ways in which compensable taking is defined and referenced in the *Property Rights Advocate Act* and in the *Alberta Land Stewardship Act*, S.A. 2009, c. A-26.8, the only other statute in Alberta in which the term appears in relation to land. This discussion is intended to provide contextual information for the Committee.

The Act defines "compensable taking" as "in respect of land, the diminution or abrogation pursuant to an enactment of a property right, title or interest giving rise to compensation in law or equity."[4] The final phrase, "giving rise to compensation in law or equity" suggests that a compensable taking is either explicitly or implicitly set out in legislation or common law.

"Compensable taking" is differentiated from "expropriation" although the two terms often appear together. Section 2 of the *Property Rights Advocate Act* refers to the application of the *Expropriation Act* as follows:

(1) The *Expropriation Act* applies to an expropriation authorized by the law of Alberta and prevails over any contrary provisions that may be found in the law, except the statutes or parts of the statutes enumerated in the Schedule to the *Expropriation Act*.
(2) Where a person has a right to compensation as a result of an expropriation or compensable taking, that person must have recourse to an independent tribunal or the courts, or both, for the purpose of determining full and fair compensation.[5]

Similarly, the definition of "land" differentiates expropriation and compensable taking. The Act defines "land" as meaning

(i) In the case of an expropriation, land as defined in the authorizing enactment, and if not so defined, any estate or interest in land, and
(ii) In the case of a compensatory taking, land as defined in the enactment under which the compensatory taking has occurred, and if not so defined, any estate or interest in land, including Crown land.[6]

Land owner is defined as

(i) An individual registered in the land titles office as the owner of an estate in fee simple in land,
(ii) An individual who is shown by the records of the land titles office as having a particular estate or an interest in or on land,
(iii) In the case of Crown land, an individual shown on the records of the department of the Minister who has the administration of the land as having an estate or interest in the land, or
(iv) An individual who is in possession or occupation of the land.[7]

Please note: this definition is different from that provided in Alberta's *Expropriation Act*, R.S.A. 2000 c. E-13, discussed below, where an owner is defined as a "person." It appears that in the *Property Rights Advocate Act*, a landowner may be defined as a natural person, i.e., as an individual who may seek assistance from the Advocate, whereas in the *Expropriation Act*, the definition of a "person" appears to include a corporation.

Section 3(4) of the *Property Rights Advocate Act* sets out the functions of the Property Rights Advocate Office and appears to maintain the distinction between "expropriation" and "compensable taking." The function of the Property Rights Advocate Office is to disseminate independent and impartial information about property rights to the public, including

- information to land owners about the right to compensation where land is expropriated or where land owners claim to have suffered a compensable taking, and about the procedure for any claim to compensation;

- information about proposed legislation and its likely effect on property rights.[8]

The function of the Property Rights Advocate Office is also

- to assist persons in determining the appropriate resolution mechanism, including the courts, through which they can have their property rights concerns addressed, including by directing them to appropriate resources that may be able to assist them; and
- to assist expropriating authorities or persons or entities that may be involved in a compensable taking in matters relating to expropriation, compensable taking and other matters related to property rights.[9]

The legislation sets out the complaints a person may make to the Property Rights Advocate Office, and these refer to expropriation and compensable taking separately. These complaints may relate to

(a) an expropriation of that person's land, or
(b) a compensable taking of that person's land.[10]

Further, "after reviewing a complaint, the Property Rights Advocate shall prepare a report setting out findings and any recommendations, and shall provide a copy of the report to the complainant, the Board and any other person as the Advocate considers appropriate."[11]

If in a report the Property Rights Advocate determines

(a) that an expropriating authority has acted in a manner that is inconsistent with the enactment that authorized the expropriation, or
(b) that a person or entity responsible for a compensable taking has acted in a manner that is inconsistent with the enactment under which the compensable taking occurred,

the Board* or Court, as the case may be, shall take the report into account in determining any costs payable by the expropriating authority person or entity.[12]

In sum, it seems that the *Property Rights Advocate Act* defines a compensable taking and an expropriation separately and authorizes the Property Rights Advocate to report on a compensable taking made by an expropriating authority.

The only other statute where a compensable taking is defined in Alberta is the *Alberta Land Stewardship Act*, S.A. 2009, c. A-26.8.

Alberta Land Stewardship Act

The *Alberta Land Stewardship Act*, S.A. 2009, c. A-26.8

> enables government to provide direction and leadership in identifying current and future land-use objectives of the Province, including economic, environmental and social objectives, while respecting private property rights. The Act provides for the coordination of decisions concerning land, species, human settlement, natural resources and the environment while taking into account cumulative effects of human endeavours and other events.[13]

The Act appears to enable the Government of Alberta to create "planning regions" and "regional plans" for the purposes of resource and other economic development.

* "Board" refers to the Land Compensation Board or the Surface Rights Board. See *Alberta Property Rights Advocate Act,* S.A. 2012, c. P-26.5, ss. 1(b)(i-iii) and *Alberta Expropriation Act*, R.S.A. 2000 c. E-13, ss. 25 and 27(2).

A person has a right to compensation under the *Alberta Land Stewardship Act* for a "compensable taking" defined as "the diminution or abrogation of a property right, title or interest giving rise to compensation in law or equity."[14]

According to the *Alberta Land Stewardship Act*, if, "as a direct result of a regional plan or an amendment to a regional plan, a registered owner has suffered a compensable taking in respect of the registered owner's private land or freehold minerals, the registered owner may, within 12 months from the date that the regional plan or amendment comes into force, apply to the Crown for compensation in accordance with the regulations."[15]

"Registered owner" means "a person registered in a land titles office as the owner of an estate in fee simple in private land or freehold minerals."[16]

"Private land" means "land that is owned by a person other than (i) the Crown in right of Alberta or of Canada or their agents, or (ii) a municipality."[17]

If after 60 days from the date of an application one or both of the following matters remain in dispute, the registered owner or the Crown may apply to the Land Compensation Board, discussed below. The Land Compensation Board can determine whether the registered owner has suffered a compensable taking, and, if so, the amount of compensation to be awarded.[18] According to the Act, the Crown is liable to pay any compensation payable to a registered owner.[19]

Expropriation Act

The phrase "compensable taking" does not appear in Alberta's *Expropriation Act*, R.S.A. 2000 c. E-13. Nevertheless, as indicated by the uses of the terms "compensable taking" and "expropriation" in the *Property Rights Advocate Act*, discussed above, there may be a correlation between the two.

The *Expropriation Act* sets out processes by which expropriation occurs, including partial expropriations. "Expropriation" according to the *Expropriation Act*, "means the taking of land without the consent of the owner by an expropriating authority in the exercise of its statutory powers,"[20] while "expropriating authority" means the Crown or any person empowered to acquire land by expropriation."[21]

"Owner" means

(i) a person registered in the land titles office as the owner of an estate in fee simple in land,
(ii) a person who is shown by the records of the land titles office as having a particular estate or an interest in or on land,
(iii) any other person who is in possession or occupation of the land,
(iv) any other person who is known by the expropriating authority to have an interest in the land, or
(iv) in the case of Crown land, a person shown on the records of the department administering the land as having an estate or interest in the land.[22]

As discussed above, this definition differs from that provided in the *Property Rights Advocate Act* where the definition of landowner is an individual. Moreover, according to an article published by Thomson Reuters, "the *Expropriation Act* defines 'owner' in general terms so as to include a tenant, and provides for compensation for expropriation of a leasehold interest in the land."[23]

The "extent of the expropriation" is prescribed by the Act as "any estate required by the expropriating authority in the land" and "any lesser interest by way of profit, easement, right, privilege or benefit in, over or derived from the land."[24] An expropriating authority in Alberta "is not entitled to any mines or minerals in any land vested in the expropriating authority" unless the authorizing Act expressly authorizes the expropriation of mines and minerals.[25]

The *Expropriation Act* states that the compensation payable to the owner must be based on the following principles:

(a) the market value of the land,
(b) the damages attributable to disturbance,
(c) the value to the owner of any element of special economic advantage to the owner arising out of or incidental to the owner's occupation of the land to the extent that no other provision is made for its inclusion,
(d) damages for injurious affection.[26]

The market value of land is defined as "the amount the land might be expected to realize if sold in the open market by a willing seller to a willing buyer."[27]

"Injurious affection and incidental damage" are referred to in the Act "[w]hen only part of owner's land is taken." In this circumstance, compensation shall be given for

(a) injurious affection, including
(i) severance damage, and
(ii) any reduction in market value to the remaining land, and
(b) incidental damages,
if the injurious affection and incidental damages result from or are likely to result from the taking or from the construction or use of the works for which the land is acquired.[28]

Subsequent sections of the Act further clarify the principles of compensation,[29] stating what may not be included in determining the value of the land[30] and setting out disturbance compensation to the owner,[31] disturbance compensation to a tenant,[32] disturbance compensation to a security holder,[33] compensation for business losses,[34] and compensation for partial expropriation.*[35] The Act additionally sets the terms for compensation for an easement or right of way.[36]

If parties cannot agree on compensation then compensation is determined by the Land Compensation Board.[37] Where expropriation is by the Crown, the owner can elect to have the court determine compensation.[38]

Land Compensation Board

Alberta's Land Compensation Board (LCB) has two distinct roles: "in some cases, it decides whether expropriation should proceed when objected to and determines compensation if parties cannot agree."

The mandate of the Land Compensation Board is to conduct

> alternative dispute resolution proceedings and hearings regarding compensation payable to landowners and tenants where land has been expropriated by an authority and the parties cannot agree. It may also determine whether an expropriation should proceed where there is an objection.
>
> In carrying out its adjudicative role the LCB must apply the principles of administrative law, the *Expropriation Act*, and the associated Regulations and other related legislation in a fair, judicious, and independent manner.[39]

In Alberta, costs are governed by s. 35 and 39 of the *Expropriation Act*. The expropriating authority must pay the owner's reasonable legal, appraisal and other costs. The Land Compensation Board may also reduce or deny costs where it determines "special circumstances" exist.[40] Section 35(1) provides that the "owner may obtain an independent appraisal of the owner's interest that has been expropriated and the expropriating authority shall pay the reasonable cost of the appraisal." Section 35(2) provides that the

* Regarding "partial expropriation," when "only part of an owner's land is expropriated and as a result of the expropriation the value of the remaining land is increased, the owner is nevertheless entitled to the market value of the land expropriated." Alberta, *Expropriation Act,* s. 55.

owner may obtain advice from any solicitor as to whether to accept the proposed payment, and the expropriating authority shall pay the owner's reasonable legal costs for that advice.[41]

2.2 Saskatchewan

In Saskatchewan, the *Expropriation Procedure Act*, R.S.S. 1978, c. E-16 governs most expropriations and determines compensation for expropriated lands.

Expropriation is defined in a similar way to that of Alberta's *Expropriation Act.* Expropriation in Saskatchewan's *Expropriation Procedure Act* is defined as "the taking of land without the consent of the owner by an expropriating authority in the exercise of its statutory powers."[42] "Expropriating authority" means "the Crown or an association or person empowered to acquire land by expropriation."[43]

The Act does not apply to either the *Crown Minerals Act*, S.S. 1985, c. C-50.2 or the *Surface Rights Acquisition and Compensation Act*, S.S. 1982, c. S-65, which have separate expropriation provisions with respect to both procedure and compensation, or to any expropriation where an urban or rural municipality or school board is the expropriation authority.[44]

Unlike Alberta's *Expropriation Act*, there are no principles of compensation in Saskatchewan's *Expropriation Procedure Act*.

Saskatchewan's *Expropriation Procedure Act* establishes a Public and Private Rights Board and its responsibilities.[45]

Public and Private Rights Board

The *Expropriation Procedure Act* grants Saskatchewan's Public and Private Rights Board authority to review matters relating to the expropriation of land, or the intention to acquire land by expropriating authorities. According to the Board's Annual Report for 2017, the Board investigates claims and manages negotiations between landowners and expropriating authorities in an effort to help the parties reach mutually acceptable solutions. Landowners may ask the Board to review either or both the route, situation, or design of a public improvement; and the amount of compensation offered for the expropriated land. The primary role of the Board is dispute resolution and it uses the services of the Dispute Resolution Office at Saskatchewan's Ministry of Justice to deliver its mandate.[46]

2.3 British Columbia

In British Columbia the basic process for expropriation is similar to that of Alberta with some notable exceptions. British Columbia's *Expropriation Act*, R.S.B.C. 1996, c. 125 sets out the practices and procedures governing expropriation in British Columbia.

"Expropriation," according to British Columbia's *Expropriation Act*, "means the taking of land by an expropriating authority under an enactment without the consent of the owner, but does not include the exercise by the government of any interest, right, privilege or title referred to in section 50 of the *Land Act*."*[47]

As in Alberta, "expropriating authority" means "a person, including the government, empowered under an enactment to expropriate land."[48]

The definition of "owner" in British Columbia's *Expropriation Act* is different from that in Alberta. Owner in British Columbia appears to be a person who has a clearly defined legal interest in the land and means "a person who has an estate, interest, right or title in or to the land including a person who holds a subsisting judgement or builder's lien," as well as "a person who is in legal possession or occupation of land, other

* Section 50 of the *Land Act*, R.S.B.C. 1996, c. 245, means that the Crown has excepted certain property rights from the expropriation process, including, for example, geothermal resources, fossils, and minerals.

than a person who leases residential premises under an agreement that has a term of less than one year."[49] In Alberta's *Expropriation Act*, as cited above, the definition is broader and includes "any other person who is in possession or occupation of the land."[50]

The basic formula for compensation in British Columbia, as in Alberta, is based on the market value of an estate or interest in land[51] and the provisions setting out compensation in British Columbia appear similar to those set out in Alberta's *Expropriation Act*.[52]

As in Alberta, the expropriating authority in British Columbia must pay the owner's costs "necessarily incurred by the person for the purpose of asserting his or her claim for compensation or damages" and these include "actual reasonable legal, appraisal and other costs."[53]

In British Columbia there is no longer an equivalent to Alberta's Land Compensation Board. The Expropriation Compensation Board of British Columbia was disestablished in 2005 and jurisdiction over expropriation matters formerly held by the Board was transferred to the courts.[54]

2.4 Ontario

Ontario's *Expropriations Act*, R.S.O. 1990, c. E. 26 appears to be similar to that of Alberta.

In Ontario "expropriation" means "the taking of land without the consent of the owner by an expropriating authority in the exercise of its statutory powers."[55] The expropriating authority, "the Crown or any person empowered by statute to expropriate land"[56] must pay compensation to the owner for the land that has been taken.

The term "land" in Ontario is very broadly defined and is similar to that of Alberta with respect to its inclusion of a tenant. "Land" includes "any estate, term, easement, right or interest in, to, over or affecting land."[57] "Owner" includes" a "mortgagee, tenant, execution creditor, a person entitled to a limited estate or interest in land, a guardian of property, and a guardian, executor, administrator or trustee in whom land is vested."[58] "Tenant" is defined as "a lessee or occupant occupying premises under any tenancy whether written, oral or implied."[59]

Compensation in Ontario appears to be determined in a broadly similar manner to Alberta and is based upon the market value of the land, damages attributable to disturbance, damages for injurious affection,[*] and any special difficulties in relocation.[60]

Local Planning Appeal Tribunal

In Ontario, the Local Planning Appeal Tribunal (LPAT) may determine any compensation "in respect of which a notice of arbitration has been served upon it."[61] The Local Planning Appeal Tribunal is "an adjudicative tribunal that hears cases in relation to a range of land use matters, heritage conservation and municipal governance. Appeals that come before LPAT are identified through policies found in the *Planning Act, Heritage Act, Municipal Act, Development Charges Act*, and *Expropriations Act*."[62] An appeal of a decision of the Tribunal may be made to the court.[63]

With respect to costs, they are paid by the statutory authority, but only as awarded by the Tribunal in certain circumstances: where "the amount to which an owner is entitled upon expropriation or claim for injurious affection is determined by the Tribunal and the amount awarded by the Tribunal is 85 per cent, or more, of the amount offered by the statutory authority, the Tribunal shall make an order directing the

[*] The jurisdictions of Alberta, British Columbia, and Ontario each compensate for injurious affection. The Ontario Expropriation Association defines "injurious affection" as "the reduction in market value caused to the owner's remaining land as a result of the taking. The market value of the owner's remaining property may be affected. For instance, the remaining land may be of an awkward size and shape or it may be affected by the construction or use or both of a public work by an expropriating authority. In some circumstances in Ontario as elsewhere, owners are also entitled to claim for personal and business damages resulting from the construction or use, or both, of a public work." See Ontario Expropriation Association, "Expropriated Owners Flow Chart," available at https://www.oea.on.ca/qanda.aspx (accessed on September 10, 2019).

statutory authority to pay the reasonable legal, appraisal and other costs actually incurred by the owner for determining the compensation payable, and may fix the costs in a lump sum or may order that the determination of the amount of such costs be referred to an assessment officer who shall assess and allow the costs."[64] The Tribunal may also award costs when compensation is less than 85 per cent of the amount offered by the statutory authority, "as it considers appropriate."[65]

3.0 Quasi-judicial Boards with Jurisdiction to Hear Disputes between Landowners and Renewable Energy Developers

In the *Property Rights Advocate Office 2017 Annual Report*, the Advocate makes two recommendations with respect to her discussion on renewable energy development.

In her second recommendation, the Property Rights Advocate calls for a process similar to that which is carried out by Alberta's Surface Rights Board which might determine fair compensation to landowners in disputes between landowners and renewable energy developers.[66] Her second recommendation states that

> Alberta Energy and Alberta Environment and Parks develop policy and legislative options to increase access to justice through processes external to the courts that are designed to promote resolution of disputes between property owners and developers (2017.02).[67]

In its request to Research Services, the Committee asked for information on "quasi-judicial boards that may exist regarding property rights issues."

This section provides an overview of the powers and mandates of the Surface Rights Board (or equivalent) in each province and territory across Canada and notes whether each board has jurisdiction with respect to disputes between property owners and renewable energy developers. This information is provided in the following tables.

3.1 Alberta

Jurisdiction	Alberta
Name of Board	Surface Rights Board (SRB)
Powers and Mandate	The Surface Rights Board is a quasi-judicial tribunal that grants right of entry and assists landowners/occupants and operators resolve disputes about compensation when operators require access to private land or occupied Crown land to develop subsurface resources such as oil, gas, and coal or to build and operate pipelines and power transmission lines.[68] The SRB's Mandate: The SRB conducts alternative dispute resolution proceedings and hearings when operators and landowners or occupants fail to agree on compensation and access related to resource activity and power transmission lines on privately owned lands or occupied Crown lands. The primary matters before the SRB relate to applications for: • Right of entry for resource activity and power transmission lines and the setting of associated compensation; • Review of annual compensation under a surface lease or compensation order; • Damages related to disputes between operators and landowners or occupants who are parties to a surface lease or right of entry order; and • Recovery of compensation where money payable under a compensation order or surface lease has not been paid and the due date for its payment has passed.[69]
Quasi-judicial?	Yes
Dispute Resolution Process	In carrying out its adjudicative role, the SRB must apply the principles of administrative law, the *Surface Rights Act*, S.A., c. S-24 and the associated Regulations and other related legislation in a fair, judicious, and independent manner.[70]
Jurisdiction with Respect to Renewable Energy Resource Development	No experience thus far.[71]

3.2 British Columbia

Jurisdiction	British Columbia
Name of Board	Surface Rights Board of British Columbia
Powers and Mandate	The Board has jurisdiction to resolve disputes under the *Petroleum and Natural Gas Act,* R.S.B.C. 1996, c. 361; *Mining Right of Way Act,* R.S.B.C. 1996, c. 294; *Mineral Tenure Act,* R.S.B.C. 1996, c. 292; *Geothermal Resources Act, ,* R.S.B.C. 1996, c. 171; and the *Coal Act*, S. B.C. 2004, c. 15.[72]
Quasi-judicial?	Yes[73]
Dispute Resolution Process	The Board's role is to assist in resolving disputes when the parties cannot agree on compensation or other terms of entry to land. When a landowner and a resource company or free miner are unable to reach an agreement on right of entry to the land and the compensation that should be paid to the landowner for that right of entry, either party may apply to the Board for mediation and arbitration of the dispute. The Board may make an order allowing a person or company to enter private land if the Board is satisfied they need the land to explore for, develop, or produce a sub-surface resource. The Board does not have jurisdiction to determine whether a proposed subsurface installation is appropriate or complies with the legislation and regulations. If damage to land is caused by an entry for the purpose of exploring for, developing or producing a subsurface resource, the landowner may apply to the Board for mediation and arbitration of damages payable by the subsurface holder. If the parties to a surface lease cannot agree to terms for rent renegotiation after a certain period of time, either party may apply to the Board for mediation and arbitration of their dispute. The Board also has jurisdiction to resolve disputes about whether the terms of a surface lease have been complied with.[74]
Jurisdiction with Respect to Renewable Energy Resource Development	The Surface Rights Board in British Columbia has no jurisdiction over renewable energy projects such as solar or wind. It has jurisdiction over "oil and gas activities" and has jurisdiction with respect to mining on private land."[75]

3.3 Saskatchewan

Jurisdiction	Saskatchewan
Name of Board	Surface Rights Board of Arbitration (Ministry of Energy and Resources)
Powers and Mandate	The Surface Rights Board is an arbitration board used as a last resort when a landowner or occupant and an oil/gas or potash operator are unable to reach an agreement for surface access to private land and related compensation. The Board's objectives are: • to provide a comprehensive procedure for acquiring surface rights; • to provide for the payment of just and equitable compensation for the acquisition of surface rights; and • to provide for the maintenance and reclamation of the surface of land acquired in connection with surface rights.[76]
Quasi-judicial?	Yes
Dispute Resolution Process	According to section 33(2) of Saskatchewan's *Surface Rights Acquisition and Compensation Act*, on the date fixed for a hearing, the parties involved are entitled to appear before the board and to be represented by counsel; and the board may, after consideration of all the evidence adduced before it at the hearing and such other matter as it considers relevant, issue an order: (a) granting part or all of the rights applied for; (b) refusing part or all of the rights applied for; (c) fixing the compensation to be paid by an operator for the rights granted to him; (d) where rights are granted, specifying those rights in detail together with a full description or a plan of the land involved in the order; or (e) prescribing the terms and conditions that go with the order. (3) Notwithstanding subsection (2), the board may defer to a later date the determination of the compensation to be paid by the operator and any other matter that the board considers advisable.[77]
Jurisdiction with Respect to Renewable Energy Development	None

3.4 **Manitoba**

Jurisdiction	Manitoba
Name of Board	Surface Rights Board, Ministry of Growth, Enterprise and Trade
Powers and Mandate	The Surface Rights Board is a quasi-judicial board established to arbitrate disputes relating to right of entry or compensation for surface rights used by holders of oil and gas rights. The Board also provides mediation services between surface owners, occupants and oil and gas rights holders on a voluntary basis.[78] A separate board, the Mining Board, arbitrates disputes between surface rights holders and mineral rights holders with respect to accessing of minerals other than oil and gas.[79]
Quasi-judicial?	Yes
Dispute Resolution Process	An operator, owner or occupant may apply to the Board for a determination of any dispute that may arise in regards to: (a) the surface rights that are required; (b) compensation for surface rights; (c) interpretation of a lease or agreement; (d) the exercise of any right or the performance of any obligation under a lease or agreement; or (e) any other matters where the Act authorizes an application (e.g. tortious acts, weed control, etc.)[80] A Board Order may be appealed within one month of the date of the Order to the Court of Appeal on the following grounds: (a) that the Board failed to observe a principle of natural justice; (b) that the Board acted beyond or refused to exercise its jurisdiction, or; (c) that the Board made any other error of law.[81]
Jurisdiction with Respect to Renewable Energy Development	None

3.5 Ontario

Jurisdiction	Ontario
Name of Board	Mining and Lands Tribunal (MLT)
Powers and Mandate	The Mining and Lands Tribunal, a constituent tribunal of Tribunals Ontario, has jurisdiction to deal with disputes between the owners of the surface rights and the owners of the mining rights, whether they be unpatented, leased or patented mining claims, pursuant to section 79 of the *Mining Act*, R.S.O. 1990, c. M. 14.[82] The Mining and Lands Tribunal determines appeals, applications, referrals and conducts inquires on disputes involving the following acts: the *Conservation Authorities Act*, R.S.O. 1990, c. C.27; the *Oil, Gas and Salt Resources Act*, R.S.O. 1990, c. P. 12; the *Aggregate Resources Act*, R.S.O. 1990, c. A.8; the *Lakes and Rivers Improvement Act*, R.S.O. 1990, c. L.3; and the *Assessment Act*, R.S.O. 1990, c. A.31.
Quasi-judicial?	Yes. The Mining and Lands Tribunal is an independent adjudicative tribunal responsible for hearing and deciding matters under legislation administered by the Ministry of Energy, Northern Development and Mines (ENDM) and the Ministry of Natural Resources and Forestry (MNRF).[83]
Dispute Resolution Process	The MLT has a pre-hearing stage where meditation is offered and disclosure of evidence and information is made. Many applications and appeals are settled at this stage. Decisions are then formalized by an Order of the Tribunal.[84] If the pre-hearing stage does not resolve the issue, the matter proceeds to a hearing.[85] Decisions are issued by the Tribunal that are open to appeal to the Ontario Superior Court of Justice.[86]
Jurisdiction with Respect to Renewable Energy Resource Development	No case has yet come before the Tribunal with respect to Renewable Energy Resource Development. However, they would be eligible if they either owned the surface or the "mining" rights of a particular piece of land.[87]

3.6 Quebec

Jurisdiction	Quebec
Name of Board	There is no equivalent to the Surface Rights Board in Quebec. If a dispute arises between a landowner and mineral developer, both can apply to the civil courts.[88]

3.7 New Brunswick

Jurisdiction	New Brunswick
Name of Board	Mining Commissioner, Energy and Resource Development
Powers and Mandate	The Mining Commissioner arbitrates disputes between surface rights holders and mineral rights holders with respect to the accessing of minerals as defined in the *Mining Act*, S.N.B. 1985, c. M-14.1. Disputes between surface rights holders and oil and gas rights holders are not heard by the Mining Commissioner. A rights holder who is unable to make an agreement with the owner of private lands for land access and use may apply in writing to the Minister of Energy and Resource Development for a special order to enter upon such lands.[89] Applications are heard by the Minister in accordance with section 10 of the *Oil and Natural Gas Act*, S.N.B. 1976, c. O-2.1.
Quasi-judicial?	Yes
Dispute Resolution Process	The Mining Commissioner normally conducts a hearing in a manner similar to the procedures of the courts, including such steps as what may or may not be entered into evidence, and issuing summonses for witnesses. A decision or order of the Mining Commissioner may be appealed to a judge of the Court of Queen's Bench of New Brunswick to review and possibly set aside the order or decision of the Mining Commissioner. However, a legal challenge can only be made on grounds that the decision was outside of the jurisdiction of the Mining Commissioner or that there was an error of law.[90]
Jurisdiction with Respect to Renewable Energy Development	None

3.8 Nova Scotia

Jurisdiction	Nova Scotia
Name of Board	N/A. Disputes are settled by the appropriate Minister, or a person authorized by the Minister.[91]
Powers and Mandate	Expropriation by a private company is possible through application to the Ministry.[92]
Quasi-judicial?	N/A
Dispute Resolution Process	When there is dispute over access the Licensee can apply to the Minister for permission to proceed. After hearing both sides of the disagreement the Minister, or a person authorized by the Minister, may grant a license to enter and set terms and conditions as may be considered appropriate.
Jurisdiction with Respect to Renewable Energy Development	Focus is on mining, oil and gas.

3.9 Newfoundland and Labrador

Jurisdiction	Newfoundland and Labrador
Name of Board	No equivalent boards or tribunals.[93]

3.10 Prince Edward Island

Jurisdiction	Prince Edward Island
Name of Board	N/A
Powers and Mandate	No permanent board is established to hear disputes between surface rights holders and holders of mineral rights or oil/natural gas rights. The *Mineral Resources Act*, R.S.P.E.I. 1988, c. M-7 and the *Oil and Natural Gas Act*, R.S.P.E.I. 1988, c. O-5 empower the Minister of Transportation, Infrastructure and Energy to hear disputes on an ad hoc basis.

3.11 Yukon

Jurisdiction	Yukon
Name of Board	The Yukon Surface Rights Board
Powers and Mandate	The Board's jurisdiction is derived from several statutes. The primary authority for the Board is set out in the *Yukon Surface Rights Board Act (Canada)*. The Act was drafted to reflect the principles established in Chapter 8 of the Council for Yukon Indians (now the Council of Yukon First Nations – "CYFN") Umbrella Final Agreement (the "UFA"). The UFA is an agreement between the Government of Canada, CYFN, and the Government of Yukon which established the framework for comprehensive land claim agreements in Yukon with Yukon First Nations.[94] In relation to settlement land the responsibilities of the Board, include: • resolving access disputes between a Yukon First Nation and a person with a right to enter and use, cross, or stay on that Yukon First Nation's settlement land; • resolving access disputes between a Yukon First Nation and a person with right to access settlement land in order to exercise a mineral right; • resolving disputes between Government and a Yukon First Nation relating to Government's use or restoration of gravel quarries located on settlement land; and • determining the compensation to be provided to a Yukon First Nation for the expropriation of settlement land.[95] In relation to non-settlement land the primary responsibility of the Board is to resolve disputes between a person with a right or interest in the surface of the land, for example a landowner, and a person who has a right of access to that land under a mineral right. The Board's specific responsibilities under the *Placer Mining Act* and the *Quartz Mining Act* are to hear and determine disputes about compensation to be paid under those Acts for loss or damages, or about the adequacy of security required by the mining recorder.[96]
Quasi-judicial?	Yes. Orders of the Board are binding and may be enforced in the same manner as an order of the Supreme Court of Yukon.[97]
Dispute Resolution Process	The Yukon Surface Rights Board is intended to be the last means of resolving disputes that fall within the Board's jurisdiction. Applicants must attempt to resolve their disputes through negotiation before they apply to the Board for an order. Negotiation attempts must be documented and meet the minimum requirements outlined in the Board's Rules of Procedure.[98] If the dispute is not resolved by negotiation, either party may submit an application to the Board for consideration. The application must include the supporting documentation required by the *Surface Rights Board Act* and the Board's Rules of Procedure.[99] When the Board accepts an application, it will first offer mediation to the parties.[100] If the dispute is not resolved by mediation, the matter will normally proceed to a hearing. The hearing will follow the process set out in the *Yukon Surface Rights Board Act* and the *Board's Rules of Procedure.* An application to the Board will usually be heard and decided by a panel of three Board members. If settlement land is involved at least one of the panel members will be a Board member nominated by the Council of

	Yukon First Nations. However, the Act does allow the parties to an application to agree to a panel comprised of a single Board member.[101] Upon completion of a hearing, the Board issues its decision with reasons.[102]
Jurisdiction with Respect to Renewable Energy Resource Development	N/A[103]

3.12 Northwest Territories

Jurisdiction	Northwest Territories
Name of Board	The Northwest Territories Surface Rights Board (Department of Lands)
Powers and Mandate	The Northwest Territories Surface Rights Board is established to resolve matters in dispute relating to access to Gwich'in, Sahtu, Tłı̨chǫ and Inuvialuit lands, and the waters overlying those lands, as well as surface access to land in unsettled areas. The Board is responsible for setting out the terms and conditions on which an individual or entity may access those lands and waters and the appropriate compensation to be paid in respect of that access.[104]
Quasi-judicial?	Yes
Dispute Resolution Process	The Board shall deal with an application for, or a review of, an order as informally and expeditiously as considerations of fairness and the circumstances permit. In particular, the Board: (a) is not bound by any legal or technical rules of evidence; and (b) shall take into account any material that it considers relevant, including Aboriginal traditional knowledge.[105] The Board has the power to render binding decisions on settlement and non-settlement lands; grant access orders setting out the terms and conditions by which the access can be exercised; determine the compensation to be paid in respect of that access; determine compensation for unforeseen damage resulting from access; periodically review any access order (terms and conditions) and compensation; terminate access orders; and award costs.[106]
Jurisdiction with Respect to Renewable Energy Development	It appears to have none.

3.13 Nunavut

Jurisdiction	Nunavut
Name of Board	Nunavut Surface Rights Tribunal
Powers and Mandate	The Nunavut Surface Rights Tribunal is a tribunal established under law by the Government of Canada. The Tribunal provides an independent and impartial process when developers and the Nunavut land owners or occupants fail to agree on compensation related to resource activity on Inuit-owned lands. The Tribunal has responsibilities to arbitrate on regulating entry and access to lands, for determining rights of, and compensation payable to, the titleholder and for determining the amount for wildlife compensation claims in the Nunavut Settlement Area.[107]
Quasi-judicial?	Yes
Dispute Resolution Process	There are different processes depending on the type of development and whether the land is Inuit-owned or not.[108]
Jurisdiction with Respect to Renewable Energy Development	It appears that the Tribunal may have limited jurisdiction over disputes related to renewable energy projects on Inuit-owned land, particularly with respect to wildlife compensation in accordance with Division V of Part II of the *Nunavut Waters and Nunavut Surface Rights Tribunal Act*, S.C. 2002, c. 10. However, no disputes have come before the Tribunal as there is currently very little development of renewable energy in Nunavut, and the Qulliq Energy Corporation (owned by the Government of Nunavut) is currently the only generator and distributor of electricity in Nunavut.[109]

4.0 Reclamation of Renewable Energy Installations

In the *Property Rights Advocate Office 2017 Annual Report*, the Advocate recommends that the Government provide landowners with protections when renewable energy development occurs on their land. Specifically, the Advocate recommends that

> Alberta Energy and Alberta Environment and Parks develop policy and legislative options to promote greater fairness in the treatment of landowners by operators who lease private property for renewable energy development. (2017.01)[110]

In her discussion of the recommendation the Property Rights Advocate notes that property owners are in a weaker position than developers of renewable energy, and vulnerable in situations when, "for example, a wind tower operator fails to comply with the terms of the lease/contract, and the landowner as a result was to cut off access [to the land]." In this scenario "who would be responsible in the event of damages that result from a lack of maintenance to the wind tower?"[111] Another concern raised by the Advocate is abandonment. "If a wind tower corporation declared bankruptcy, the wind tower would still exist and take up land, excluding the owner and possibly disrupting farm operations." The landowner in this scenario has no means to operate or maintain the structure or face costs of removal to reclaim the land.[112]

In calling for policies and legislative options to promote greater fairness in the treatment of landowners who lease private property for renewable energy development, the Advocate refers to Alberta's experience with oil and gas, and particularly orphan wells. The Advocate suggests that this should inform policy on renewable energy. She notes that "[w]e are in the early days of renewable development," relative to oil and gas," and calls for policy solutions to these problems as proactive steps towards "a responsibly affordable and comprehensive management plan."[113]

In order to obtain additional information on reclamation after renewable energy development, the Committee directed Research Services to obtain some cross-jurisdictional information on the principle.

This section examines policies and frameworks in the jurisdictions of Alberta, British Columbia, Ontario, Quebec, California, Colorado, Montana, North Dakota, Texas, and Wyoming that refer to the decommissioning of renewable energy installations on and reclamation of private land, if any exist, as well as the mandate and powers of the United States Bureau of Land Management and the United States Bureau of Reclamation.

The Canadian jurisdictions of Ontario and Quebec were selected because, according to a profile of provincial and territorial energy sources produced by the National Energy Board, these provinces, along with Alberta, hosted the majority of wind facilities in the country in 2017.[*] Home to over 99 per cent of Canada's solar installations, Ontario is a good reference for a discussion of solar energy.[114] The jurisdiction of British Columbia is discussed because it is a neighbouring province to Alberta.

Policies and frameworks with respect to reclamation in the American states of California, Colorado, Montana, North Dakota, Wyoming, and Texas as well as the mandates and powers of the United States Bureau of Land Management and the United States Bureau of Reclamation are provided at the request of the Committee. Please note: the Bureau of Land Management manages federal public lands in the United States and the Bureau of Reclamation is the largest wholesaler of water in the United States. Neither agency is relevant to a discussion of reclamation of private land after use for renewable energy development.

[*] Please note: the website from which this information is taken was last modified on June 12, 2019; however, the website also clearly states that this data refers to the year 2017.

4.1 Alberta

In September of 2018 the Government of Alberta issued a Conservation and Reclamation Directive for Renewable Energy Operations (the Directive) which provides conversation and reclamation requirements for renewable energy operations – wind, solar, and geothermal – producing renewable electricity.[115] The directive outlines reclamation expectations for various types of land, including cultivated land, tame pasture, native grassland, upland forest, and peat land. The Directive is a technical document and applies to all renewable energy operations except those

- reclaimed prior to July 1, 2018;
- where the renewable electricity generated or produced is less than equal to that which is defined for large micro-generation in the *Micro-generation Regulation* (AR 27/2008) and the total footprint boundary is no greater than one hectare in size; or,
- located within the boundary of Federal Lands, including, but not limited to, the following: Indigenous Reserves, Military Bases, and National Parks, unless directed to by the applicable regulating body.[116]

The Directive was made through the *Environmental Protection and Enhancement Act*, R.S.A. 2000, c. E-12 (EPEA) and the *Conservation and Reclamation Regulation*, A.R. 115/1993 (C& R Regulation). The C & R Regulation outlines an Operator's obligation to reclaim specified land to equivalent land capability. Under the EPEA, after a specified land activity has been decommissioned, operators must obtain a reclamation certificate. Reclamation certificates are managed through Alberta Environment and Parks and the Alberta Energy Regulator.[117]

The Directive provides information on the Conservation and Reclamation Plan requirements on private and public land. The purpose of providing this information is to "help ensure Renewable Energy Operators are poised to meet equivalent land capability."[118] Submitted as part of a project application package to the Alberta Utilities Commission (AUC), the renewable energy operator's Conservation and Reclamation Plan must include project-specific information related to: land use planning, including proposed changes to end land use; footprint tracking, including temporary and progressive reclamation; site assessments, including pre-disturbance, interim monitoring, and final reclamation certification; and reclamation criteria.[119]

Of interest to the Committee may be the fact that the Directive addresses "temporary activities such as temporary roads and workspaces. As such, areas used for these activities during construction, operation, or reclamation of the renewable energy operator must be identified in a project application and the operator must obtain a reclamation certificate for these areas once they are no longer required."[120] In addition, the "REO C & R plans and reclamation certificate applications prepared and submitted to the Department must be prepared and signed off by one or more Qualified Environmental Professional(s)." The Directive lists seven professional regulatory organizations whose scopes of practice include land reclamation and remediation and who may sign on the C&R plans and reclamation certificate applications.[121]

Overall, the Directive outlines a set of procedures, technical practices, and standards with the aim of improving final reclamation outcomes, decreasing final reclamation costs, and reducing ongoing liability to the operator and the province. The plan recognizes that "the criteria may evolve, so careful planning from the beginning of the project is essential."[122]

The Directive does not, however, create a fund, similar to that which exists for oil and gas wells to reclaim sites if a company goes bankrupt.

4.2 British Columbia

In British Columbia the main types of generation from clean energy projects are water power, wind power, tidal energy, ocean energy, biomass power, solar energy power, and geothermal energy power.[123] Since

solar energy in British Columbia "is typically pursued on a small scale for self supply,"[124] it will not be included in this discussion, nor will water power, tidal energy, ocean energy, or biomass power.

Please note: most of the policy documents discussed below pertain to development of renewable energy resources on Crown lands.

Clean Energy Projects on Crown Land

The Government of British Columbia has developed a number of policies to support clean energy projects on Crown land, and particularly for water power, wind power, and ocean energy.[125] Each policy includes fairly detailed requirements for decommissioning, and some require financial assurance.

To assist in the navigation of these policies, the Government of British Columbia has produced the Clean Energy Production in B.C.: An Inter-Agency Guidebook for Project Development. This Guidebook is mainly aimed at operators developing renewable energy projects on Crown lands and includes a brief discussion on decommissioning as the final stage of the project authorization and review processes. This section of the Guidebook states:

> Clean energy projects are expected to have a life span of 10 to 50 years. If a project is not completed, is shut down, or needs to be decommissioned, proponents are legally liable and responsible for site remediation. In the event that any tenures are not renewed, the site must be decommissioned by the tenure holder as per the terms and conditions of the tenure document, unless different arrangements are negotiated with the Crown. The length of time to complete the decommission is project specific.[126]

This Guidebook and similar documents are mainly aimed at operators developing renewable energy projects on Crown lands with very little reference to development on private property.

Information Pertaining to Projects on Private Land

Information pertaining to projects on private land is minimal. For example, the Clean Energy Development Plan Information Requirements document, last updated in July 2016, mentions development of private land, but only in passing:

> This document is focused on providing the Proponent with information necessary to obtain provincial authorizations required for clean energy projects occurring on Crown land … There is also information provided pertinent to project occurring on private land.[127]

Proponents are required to provide information on decommissioning activities. This includes information on the expected lifetime of the project or of temporary project components, and "conceptual decommissioning or reclamation plan(s), removal of structure(s) and ancillary equipment, site remediation, estimated costs of removing infrastructure and deactivating roads, removing buried cables, transmission lines, etc."[128]

Appendix 2 of the same document lists the details proponents are required to provide if their project is "located wholly on private or federally controlled land but still requires multiple Provincial authorizations."[129] For example, proponents are required to describe arrangements with private landowners regarding the use of the land for the project, or components of the project, and whether the authorization to use private land expires upon change of ownership.[130] Proponents are also required to discuss whether any expropriation of private land is required for the project. If required, proponents are required to "discuss the steps that will be taken to complete expropriations, including public consultations, landowner compensation, etc."[131]

Wind Energy and Liability Insurance

With respect to wind energy, British Columbia's Land Use Operational Policy: Wind Power Projects applies to projects on Crown upland, foreshore, and aquatic Crown land. The Policy deals with wind turbines, maintenance buildings, other plant facilities, road(s), transmission line(s), and surrounding Crown land.[132]

A minimum of $2 million in liability insurance is required "for all phases of a Wind Power Project, including the initial investigative phase."[133] In addition, "[a]ll Wind Power Project tenure holders are required to provide an appropriate form of security to the Province in the event the Crown is forced to assume the cost of site clean-up in the case of de-commissioning or abandonment."[134]

4.3 Ontario

In Ontario it appears that there are no measures which explicitly protect property owners from potential responsibility for decommissioning. As in British Columbia there are measures in place to protect the Crown from financial loss.

Renewable Energy Approvals

Most large-scale solar, wind, or bio-energy projects in Ontario require a Renewable Energy Approval from the Ministry of Environment and Climate Change.[135] Rules related to Renewable Energy Approvals are governed by O.Reg.359/09 of the *Environmental Protection Act*.[136]

Renewable Energy Approvals in Ontario require a Decommissioning Plan Report (DPR).[137] The Decommissioning Plan Report is a mandatory report that is included as part of the complete application sent to the Ministry of Environment and Climate Change for approval of all renewable energy projects. The Decommissioning Plan Report must set out procedures for dismantling or demolishing the facility, activities related to the restoration of any land and water negatively affected by the facility, and procedures for managing excess materials and waste.

Ontario's Technical Guide to Renewable Energy Approvals provides detailed requirements for submitting a complete application for Renewable Energy Approvals and acknowledges that

> [a]t the time of submitting a DPR … actual decommissioning will likely be a number of years in the future. For this reason, an applicant may not be able to predict with complete certainty the specific details of how decommissioning activities will ultimately be carried out. The importance of the DPR at the time of submission is to require the proponent to consider the proposed decommissioning activities and to identify negative environmental effects that will or are likely to result from decommissioning and outline potential mitigation measures when the project is still being planned.[138]

In most cases, according to the Technical Guide to Renewable Energy Approvals, when a project is approved, applicants will be required to generate "an updated and comprehensive decommissioning plan six months in advance of the start of decommissioning and submit it." This "will be more detailed than the DPR when submitted with a Renewable Energy Approval."[139]

Mitigation against Project Abandonment

Moreover, according to O.Reg.359/09 of the *Environmental Protection Act* and explained by the Technical Guide to Renewable Energy Approvals, there are a number of provisions to mitigate against project abandonment in Ontario. Applicants, for example, must "include a separate section with a plan for decommissioning in the event that the project is abandoned during construction."[140]

Of particular interest may be the fact that O.Reg.359/09 of the *Environmental Protection Act* also requires ongoing compliance monitoring throughout the project's lifetime, and financial assurance with respect to

certain facilities.* The Technical Guide to Renewable Energy Approvals provides the following overview of these processes:

> As part of our compliance monitoring approach, the Ministry of the Environment and Climate Change undertakes unannounced, proactive inspections of renewable energy generation facilities. As well, the Ministry routinely undertakes inspections, as warranted, in response to complaints. If a facility is found failing to comply with the conditions of its Renewable Energy Approval, the Ministry can use enforcement powers under the *Environmental Protection Act*, as appropriate, to bring the facility into compliance.
>
> The Ministry of the Environment and Climate Change also has the authority under section 132 of the *Environmental Protection Act* to require Financial Assurance on a project-specific basis, on any project issued a Renewable Energy Approval. Typically the Ministry requires Financial Assurance against potential future environmental impacts and liability and against potential future waste disposal costs.
>
> …
>
> While well-planned and well-managed renewable energy generation facilities are not expected to pose environmental risks at the time of decommissioning, the ministry will use its powers of compliance enforcement and the requirement for financial assurance, as appropriate, to ensure risks are managed.[141]

Financial Assurance

Financial assurance may be provided to the Crown in the form of a "certificate of property use" which is issued to an owner of property. The certificate of property use requires a property owner to

1. Take any action that is specified in the certificate and that, in the Director's† opinion, is necessary to prevent, eliminate or ameliorate any adverse effect that has been identified in the risk assessment, including installing any equipment, monitoring any contaminant or recording or reporting information for that purpose.
2. Refrain from using the property for any use specified in the certificate or from constructing any building specified in the certificate on the property.‡[142]

With respect to financial assurance, Ontario's *Environmental Protection Act* states that the

> Director may include in a certificate of property use a requirement that the person to whom the certificate is issued provide financial assurance to the Crown in right of Ontario for any one or more of,
>
> (a) the performance of any action specified in the certificate of property use;
> (b) the provision of temporary or permanent alternate water supplies to replace those that the Director has reasonable and probable grounds to believe are or are likely to be contaminated or otherwise interfered with by a contaminant on, in or under the property to which the certificate of property use relates; and
> (c) measures appropriate to prevent adverse effects in respect of the property to which the certificate of property use relates.[143]

* The type of facilities is not defined, nor does it appear to be clarified in the Technical Guide, Act, or Regulation.
† The Director is a public servant or other individual appointed by the Minister. Ontario, *Environmental Protection Act*, R.S.O. 1990, c. E. 19, s 5(1).
‡ For more information on certificate of property use, please see Government of Ontario, "Brownfields – Answers-Technical Questions - Certificate of Property Use," available at https://www.ontario.ca/page/brownfields-answers-technical-questions#section-7 (accessed on August 2, 2019).

Failure to provide financial assurance is "grounds for revocation of the approval and for an order in writing by the Director prohibiting or restricting the carrying on, operation or use of the works."[144]

Similarly, failure to provide financial assurance specified in a certificate of property use "is grounds for an order in writing by the Director prohibiting or restricting the use of the property to which the certificate of property use relates."[145]

It therefore appears that these forms of financial assurance in Ontario are in place to provide potential recompense to the Crown and are not a form of potential compensation to property owners.

According to the Ontario Landowner's Guide to Wind Energy (2005) and published online, it appears that "in Ontario a landowner may be subject to cleanup orders or prosecution under the *Ontario Environmental Protection* Act and may be subject to civil lawsuits even if they are not responsible for the contamination."[146] According to the same document:

> Land lease agreements should clearly identify who will be responsible for removing the wind turbines at the end of their useful lives or if they become inoperative. The lease should describe who determines when the wind turbines will be removed and who will pay for their removal …. The lease should provide assurance to the landowner that the wind project developer will ensure that there are sufficient funds to eventually remove the wind turbines and restore the site to its pre-project use. Typically, the developer will either post a bond to do so or will provide some assurance in the lease that the funds required will be available at the end of the lease period.[147]

4.4 Quebec

On its website, the Government of Quebec provides instructions to proponents seeking to develop wind projects on private land. As in British Columbia and Ontario it appears that there may be measures in place to protect the Crown from financial loss.[*]

In describing the bidding process for proponents of wind energy, the Government of Quebec outlines the stages of installing a wind farm. The last stage, Step 4, refers to dismantling. To fulfill this step, the successful proponent must provide the Ministry of the Environment and Fight against Climate Change (MELCC) with adequate proof of funding, either through a trust deposit or by providing firm guarantees for obtaining the amount required to pay the full cost of dismantling the wind farm. It must also completely dismantle the wind farm at the end of the contract with Hydro-Quebec Distribution, unless otherwise agreed.[148]

To install wind turbines on private land, proponents must establish agreements with landowners guaranteeing the proponent exclusive use of all or part of the property to install the turbines. In return, the owner receives a lump sum payment at the signing of the contract. Alternatively, if this option is waived, the owner can grant the proponent a right that will allow the proponent use of certain areas of the land, while retaining ownership. In exchange, the owner receives financial assistance.[149]

4.5 California

Research Services was unable to find any directly relevant information on decommissioning of renewable energy infrastructure in California, in part because it appears that decommissioning is mainly a matter of local authority and much of the state legislative and policy focus is on small-scale solar installations on residential rooftops.[150] Even recent press coverage of issues of solar installations on agricultural land does not focus on decommissioning or financing of decommissioning and reclamation.[151]

A working paper on state regulation of solar decommissioning from 2016 suggests that across the United States solar decommissioning is typically regulated at the local level. California, according to the working paper, has "some type of statewide decommissioning rules that apply under certain circumstances, as

[*] Please note: because of the language barrier, this analysis is approximate and intended to give the Committee a very general idea of relevant policies in Quebec.

well as requirements to provide a non-specific financial security."[152] Importantly, it appears that the performance bond or other security to fund the restoration of the land "to the conditions that existed before the approval or acceptance of the easement" is issued to the landowner and therefore holds the landowner responsible for the costs of reclamation.[153]

There are, however, two areas in which California is currently developing policy. Both are discussed below.

Renewable Portfolio Standard

California has pursued a variety of policies and programs aimed at advancing renewable energy. Perhaps the most notable is the Renewable Portfolio Standard,[154] which requires utility companies to increase the percentage of energy they obtain from renewable energy sources, including solar, wind, geothermal, biomass, and small hydroelectric sources. In 2018 an estimated 34 per cent of California's electricity was produced from renewable sources. In the same year, California's Renewable Portfolio Standard was increased to require utilities obtain 60 per cent of their energy from renewable sources by 2030 and declaring the goal of carbon neutrality for the state by 2045 with utilities obtaining 100 per cent of their energy from renewable sources.[155] Solar energy represented the largest portion of renewable generation serving the California load in 2018, while solar and wind generation together accounted for more than 69 per cent of all renewable electricity generation.[156]

California does have solar rights laws, which

> address local ordinances' or homeowner association's efforts to prohibit, restrict or significantly increase the cost of installing solar energy systems. These laws can define what type of equipment is included in the law, prevent covenant restrictions from prohibiting solar energy installations, define what constitutes an unreasonable restriction, provide exemptions, clarify which structures are included in the law, and award costs and legal fees for civil action expenses arising from disputes.[157]

Discarding of Photovoltaic Modules

One area of growing concern in California appears to be the discarding of solar panels (photovoltaic (PV) modules) after their approximately 30-year lifespan, and the extent to which solar should be classified as hazardous waste. To address these concerns, the California Department of Toxic Substances Control has the authority to designate end-of-life PV modules as universal waste and subject them to the California's universal waste management procedures that also pertain to batteries, cell phones, and other electronics.[158]

4.6 Wyoming

Wyoming and Colorado both have legislation that creates a property right in the development of wind energy. This section focuses on Wyoming.

In Wyoming the *Wind Energy Rights Act* came into force in 2011. This Act

- creates a property right in the development of wind energy.
- provides that the property right is an interest in real property. It is attached to the surface estate and cannot be severed from the surface estate.
- allows wind energy property rights to be developed through wind energy agreements. A wind energy agreement (or notice of an agreement) must be recorded with the country clerk.
- clarifies that wind energy becomes personal property when it is converted into electricity.
- does not affect wind energy agreement entered into before April 1, 2011, if they are recorded on or before July 1, 2011.
- clarifies that wind energy becomes personal property when it is converted into electricity. [159]

As defined in the Act, a "wind energy right" means "a property right in the development of wind powered energy generation." A "wind energy agreement" means "a lease, license, easement or other agreement, whether by grant or reservation, to develop or participate in the income from or the development of wind powered energy generation."[160]

The Commercial Wind Energy Development in Wyoming: A Guide for Landowners, produced by the University of Wyoming, provides the following interpretation of this legislation, quoted in full:

> The *Wind Energy Rights Act* (WERA), enacted in 2011, brings more certainty to both wind energy developers and landowners. WERA provides a framework from which landowners may negotiate with developers for wind energy development on their land. It also supports the wind industry by recognizing wind as a viable energy resource in Wyoming.
>
> Wind Energy Rights and Agreements
>
> As defined under WERA, a "wind energy right" means "a property right in the development of wind-powered energy generation." Wind ownership, as well as the rights that are incidental to the use and development of wind, are part of the surface estate and cannot be severed. WERA also recognizes that landowners have the legal right to develop their wind resources.
>
> The act also provides for wind energy to be developed through a "wind energy agreement." Through a wind energy agreement, a landowner can determine which development option is optimal for him/her, including granting an easement or entering into a lease to develop wind energy while reserving a royalty interest from wind energy production. Both landowners and developers have a right to assign or transfer their interest in the agreement, including a landowner's royalty interest. This allows landowners to pledge income from wind development agreements or as a bequest in estate planning.
>
> For landowners who may have already severed the wind from the surface of their land through a contract, lease, memorandum, or other means prior to April 1, 2011, WERA provides a grandfather clause, which permits those previous agreements to remain valid. Any of these contracts or agreements must be recorded at the county clerk where the land under agreement is located no later than July 1, 2011. If a landowner severed the wind estate from the surface, full disclosure must be provided to a prospective buyer. Just as for any other interest in real property, a wind energy agreement should be recorded in the county clerk's office where the land is located both upon creation and termination. However, a wind energy agreement is terminated if energy production ceases for 10 continuous years, or if no energy production takes place 20 years after the initial agreement. The parties may agree to different termination terms within the agreement.
>
> Surface Use Agreement.
>
> Similar to other forms of resource development, a landowner may wish to consider negotiations for a surface use and damages agreement or surface impact payments as the means for addressing impacts on operations and improvements during the construction process. These agreements should be negotiated along with the lease agreement to ensure adequate compensation and protection of the landowner. The surface use agreement or impact payments can be included in a wind energy lease or agreement, can be created as an addendum to a lease, or can be a separate agreement.
>
> Mineral Rights and Wind Energy
>
> WERA also specifies that mineral rights are dominant to wind energy rights. This means a mineral interest owner has a right to be notified prior to state or county permitting. Since the wind rights are part of the surface estate, the wind developer and mineral owner are required to reasonably accommodate their respective activities, as is required with any surface activities.[161]

A recent article published in the *Wyoming Law Review*, however, suggests that the *Wind Energy Rights Act* (WERA) is one of a number of reasons why Wyoming is failing to develop wind energy projects.[162] The article explains that although

> the WERA effectively codifies a wind energy right in favor of Wyoming landowners, it expressly limits what those landowners may do with that right. The wind energy right cannot be severed from the surface estate under the WERA. Wind energy rights are expressly subservient to mineral rights and the wind energy right may only be developed through a "wind energy agreement" that is defined and necessarily limited by the WERA. [163]

Further, according to the article,

> [t]raditionally, in Wyoming, a grant or reservation has been used by property owners to sever mineral rights from the surface estate. It is unclear what would happen if a rancher reserves a wind right when his property is deeded. For example, the law is silent as to whether the rancher can lease that right to a wind developer despite not owning the surface or whether the wind right remains with the surface despite the deal the rancher struck with the buyer. Furthermore, it is unclear who enforces the WERA against the rancher. This issue and others like it may be a source of confusion that can hold up wind energy development in Wyoming.[164]

4.7 Colorado

Colorado Revised Statute 38-30.7-101, first passed in 2012, also establishes a wind energy right in real property. The legislation states that a "wind energy right is not severable from the surface estate but, like other rights to use the surface estate, may be created, transferred, encumbered, or modified by agreement."[165] The legislation requires, among other provisions, that wind energy agreements between landowners and developers be recorded in the Office of the County Clerk and Recorder before they are considered binding by parties other than those directly engaged in the wind energy agreement.[166] The legislation also requires that wind energy developers record a release of the wind energy agreement after it has expired or been terminated.[167] In addition, a wind energy agreement expires if no wind energy development or generation occurs for a continuous 15-year period.[168]

One commentator offered the following interpretation, suggesting that in his opinion this legislation did not change the status quo between landowners and wind energy developers.

> Under the new statute, wind energy rights may now be developed only pursuant to a "wind energy agreement" with a "wind energy developer." A wind energy agreement may take the form of a lease, license, easement, or other agreement addressing the development of wind-powered energy generation or the participation in the income resulting from such a project. As with the landowner's wind energy rights, the legislation clearly provides that a wind energy agreement is an interest in real property. The wind energy developer may be the owner of the real property in question or the other party to such a lease, license, easement, or other agreement. In these respects, HB12-1105 [the legislation] is generally consistent with what is the common practice for many wind energy projects in Colorado whereby a landowner enters into a wind lease or other agreement pursuant to which a renewable energy project developer secures certain rights to utilize the wind blowing across the property for purposes of generating electricity.[169]

This legislation is silent, however, on restoration, decommissioning, and reclamation. Research Services was not able to find any legislation in Colorado that addresses obligations of renewable energy developers towards landowners with respect to restoration, decommissioning, or reclamation.

4.8 Montana

Montana has legislation requiring owners of wind generation facilities 25 megawatts and greater and solar facilities two megawatts and greater (and produces electricity that is not consumed on the premises of the solar facility) to submit decommissioning plans and bonds to Montana's Department of Environmental Quality. The legislation pertaining to wind generation facilities passed the Montana Legislature in 2017, while the legislation pertaining to solar generation facilities is more recent and became effective on May 7, 2019.

The legislation pertaining to solar generation facilities, *An Act Generally Revising Solar Facility Decommissioning and Bonding Laws; Requiring the Owners of Solar Facilities to Submit A Decommissioning Plan and Bond to the Department of Environmental Quality; Establishing Plan and Bonding Requirements and Timelines; Providing Exceptions to Bond Requirements; Establishing Criteria for Bond Release; Providing A Penalty for Failure to Submit a Bond; Allowing the Department to Properly Decommission a Facility in Certain Cases; Providing for Appeals; Granting the Department Rulemaking Authority; Amending Sections 75-26-301, 75-26-304. 75-26-308, 75-26-309, and 75-26-310, MCA; and Providing an Immediate Effective Date* does exactly as it states in its title and amends the legislation that previously pertained solely to wind generation facilities.[170]

As prescribed by the legislation, "decommissioning" means "the removal of buildings, cabling, electrical components, roads, or any other facilities associated with a wind generation or solar facility," "reclamation of surface lands to the previous grade and to comparable productivity in order to prevent adverse hydrologic effects;" and the removal of the solar facility and an above ground wind turbine tower after the end of the facility's useful life or abandonment.[171]

With respect to the bond, it must be submitted to the Department and payable to the state of Montana in a form acceptable by the Department and in the sum determined by the Department, conditioned on the faithful decommissioning of the wind generation facility or solar facility.[172] This bonding requirement pertains to wind and solar generation facilities on private lands, except in cases where the private landowner owns a 10 per cent or greater share of the wind generation facility or solar facility.[173]

This legislation includes a penalty for failure to submit the bond. If the owner of the wind generation facility or solar facility fails to submit a decommissioning bond acceptable to the Department within the required timeframe, the Department provides notice to the facility owner and if after 30 days the owner has not submitted the decommissioning bond, the Department may assess an administrative penalty of "not more than $1,500 and an additional administrative penalty of not more than $1,500 for each day the failure to submit the decommissioning bond continues."[174] Every five years, the owner of a wind generation or solar facility may submit an amended plan for the Department's approval, and this may include a reduction in the amount of the decommissioning bond applicable to the wind energy facility or solar facility.[175]

The Department will release the bond if it is satisfied that an owner of the facility has properly decommissioned the facility in accordance with the plan; however, if the owner fails to properly decommission the facility "and has not commenced action to rectify deficiencies within 90 days after notification by the Department, the Department shall cause the bond to be forfeited."[176]

4.9 North Dakota

In North Dakota, the rules for decommissioning of wind facilities appear to be set by the North Dakota Public Service Commission. The North Dakota Public Service Commission has duties prescribed by law with "varying degrees of jurisdiction over electric and natural gas utilities, telecommunications companies, weights and measures, auctioneers and auction clerks, reclamation of mined lands, the siting of energy plants and electric and natural gas transmission facilities, and railroad safety."[177]

With respect to specific decommissioning requirements for wind facilities, the rules state that "[t]he owner is responsible for decommissioning the facility and for all costs associated with decommissioning."[178] The owner of the facility is required to begin decommissioning within 12 months after abandonment or at the end of its useful life and decommissioning must be completed within 24 months.[*179] A decommissioning plan must be approved by the Commission[180] and a decommissioning cost estimate for a facility must be made by a professional engineer licensed by the state of North Dakota and at the owner's expense.[181]

[*] The rules define abandonment of a facility, when it is presumed to be at the end of its useful life, and when it is presumed to be abandoned after the commencement of construction and prior to completion. See North Dakota Administrative Code, s. 69-09-09-03, 69-09-09-03(3), and 69-09-09-03(4).

This decommissioning cost estimate must be updated and filed with the Commission 10 years after initial approval of the decommissioning plan and then continue to be updated and filed with the commission every five years.[182]

The rules also require financial assurance, which must be provided by the owner of an existing facility after the 10th year of operation and be sufficient to complete decommissioning.[183] Prior to the "commencement of construction of a facility, the owner shall provide financial assurance equal to five percent of the estimated cost of construction of the facility that may be used to decommission the facility in the event it is abandoned prior to operation."[184] In addition, before operation of a facility, the owner shall provide financial assurance that is acceptable to the commission and sufficient to ensure complete decommissioning."[185] The Commission may require additional financial assurance upon finding that the current financial assurance for a facility is not sufficient to ensure complete decommissioning.[186]

Finally, with respect to landowners, the rules state that the

> entry into a participating landowner agreement shall constitute agreement and consent of the parties to the agreement, their respective heirs, successors, and assigns, that the commission may take such action as may be necessary to decommission a facility, including the exercise by the commission, commission staff, and their contractors of the right of ingress and egress for the purpose of decommissioning the facility.[187]

As of yet no equivalent rules exist with respect to solar farms, but it appears that such rules may be under consideration and are drafted.[188]

4.10 Texas

Wind Energy

In Texas legislation was passed in May and came into effect on September 1, 2019 that is intended to address concerns relating to the decommissioning of wind turbines at the end of their useful life. *An Act relating to the removal of wind power facilities* amends Texas's Utilities Code and mandates requirements for a lease agreement between a grantee[*] and a landowner specifying that the lease include provisions related to decommissioning and facility removal bonds.[189]

According to an analysis of the Bill prepared by the Texas Legislature, the new legislative requirements are fairly detailed with respect to facility removal. The lease agreement must provide that the grantee safely clear, clean, and remove:

- each wind turbine generator, each substation, all liquids contained in a generator or substation, and each installed overhead power or communications line;
- each tower and pad-mount transformer foundation from the ground at least three feet from the grade of the affected land; and
- each buried cable installed in the ground at least three feet below the grade of the affected land.

The agreement must provide that, at the request of the landowner, the grantee would clear, clean, and remove each road constructed on the property. If reasonable, the agreement also would have to provide that the grantee, at the request of the landowner, would remove all rocks over 12 inches in diameter excavated during the decommissioning process, return the property to a tillable state using certain methods, and return the surface as near as possible to the same condition as before the grantee dug holes.

[*] "Grantee" means a "person who leases a property from a landowner; and operates a wind power facility on the property." Chapter 1293, H.B. No. 2845 *An Act relating to the removal of wind power facilities*, ss. 301.0001(1)(A) and (B), available at https://webservices.sos.state.tx.us/legbills/files/RS86/HB2845.pdf (accessed on August 27, 2019).

> For the removal of towers, pad-mount transformers, buried cables, roads, and excavated rocks, the grantee must ensure that holes created by the removal were filled with topsoil.[190]

The Bill requires financial assurances. The lease agreement must provide that the grantee "obtain and deliver to the landowner a bond or other form of financial assurance that conformed to certain requirements to secure the grantee's obligation to remove the wind power facilities."[191] The amount of the bond or other financial assistance must "be at least equal to the estimated amount by which the cost of removing the wind power facilities and restoring the property exceeded the salvage value of the facilities, less any portion of the value of the power facilities pledged to secure outstanding debt."[192] (The estimated cost of removing the facilities, restoring the property, and salvage value must be determined by a third-party licensed professional engineer.)

The legislation specifies when the grantee provides the financial assurance: "no later than either the date the facility agreement was terminated or the 10th anniversary of the commercial operations date* of facilities on the property, whichever is earlier."[193] The grantee cannot cancel a bond or other financial assurance before completing its obligation to remove the power facilities, unless the grantee provides the landowner with a replacement bond or other financial assurance at the time of or before the cancellation.[194]

The House Research Organization of the Texas Legislature summarizes the opinions of advocates and opponents of the Bill. This information is a useful indicator of the ways in which the provisions may be interpreted. Advocates of the Bill suggest that it "protect[s] Texas landowners by setting minimum standards for the decommissioning of wind turbines by wind project owners" and its decommissioning requirements follow best practices in the wind industry.[195] The financial assurances provided "would give landowners, communities, and other entities further assurances that if these facilities were abandoned or the company went bankrupt, taxpayers would not carry the financial burden."[196] Moreover, the Bill increases transparency in the wind project decommissioning process, since a landowner previously had "to sign a non-disclosure agreement upon receiving a lease, making it difficult to evaluate whether the decommissioning provisions in contracts [were] strong enough."[197] Opponents of the Bill suggested that it is unnecessary because wind project owners are already incentivized to remove turbines, especially because turbine components have substantial salvage value. Moreover, "the legally binding agreements signed by wind project owners and landowners already ensure that project owners are accountable at the end of a turbine's life cycle."[198] Other opponents argue that the decommissioning provisions in a wind power facility agreement "should be voluntary and actionable at the local level, rather than mandatory."[199]

Solar Energy

Solar power facility decommissioning also appears to be a current concern in Texas, especially as it relates to protecting the taxpayer from potential liability for decommissioning. A proposed Bill appears to take a different approach to that of *An Act relating to the removal of wind power facilities* and makes landowners responsible for decommissioning.

Bill S.B. 1610 *An Act relating to decommissioning requirements for certain solar facilities* appears to create a framework for voluntary decommissioning of solar power facilities in exchange for access to certain tax subsidies and tax benefits. Sections 1 and 2 of the Bill condition the ability of a solar power facility to receive certain tax abatements and tax limitations on an agreement for the decommissioning of the solar power facility.[200] Please note this agreement is between the owner of the land on which the facility would be located and the county in which the land would be located.

Section 3 clarifies that "solar facility" means "a facility designed and used primarily for the purpose of collecting, generating, transferring, or storing solar energy. Solar facility does "not include a facility installed solely on a building."[201] Section 3 also conditions the interconnection of the solar power facility

* The commercial operations date is defined as the date "when wind power facilities were approved for participation in market operations by a regional transmission organization and would not include the generation of electrical energy or other operations conducted before that date." Texas, H.B. No. 2845, s. 301.004(f).

to the Electric Reliability Council of Texas (ERCOT) transmission grid on a decommissioning agreement.[202]

The agreement requires the landowner to be responsible for the decommissioning of the facility and restoration of the land. The landowner would also provide financial assurance to the county "in the form of certified funds, cash escrow, a bond, a letter of credit, or a parent guarantee, payable to the county, sufficient to cover the costs of decommissioning.[203] An estimate of the cost would be made by a qualified engineer, and could not exceed the cost of decommissioning, taking into account the net salvage value of the facility and associated equipment, the administrative costs, and an annual inflation factor.[204] Bill 1610 appears to have been introduced on March 14, 2019, and has been referred to the Senate Committee of Business and Commerce.[205]

4.11 United States Bureau of Land Management

The Bureau of Land Management (BLM) is an agency within the United States Department of the Interior responsible for administering public lands. The mission of the organization is to "sustain the health, diversity, and productivity of the public lands for the use and enjoyment of present and future generations."[206] The BLM manages 245 million surface and 700 million sub-surface acres of land across the United States.[207] It manages public lands for a variety of uses such as energy development, livestock grazing, recreation, and timber harvesting.[208]

Federal legislation sets out the terms of renewable energy development on public lands in the United States. Under Title V of the *Federal Land Policy and Management Act of 1976* and Title 43, Part 2800, of the Code of Federal Regulations, if the proposed project is consistent with BLM land-use planning, the BLM supports energy development on public lands, including the development of renewable energy resources such as wind, geothermal, and solar.[209]

According to section 2805.12 of *Rights-of-Way Under the Federal Land Policy and Management Act*, during construction, maintenance, and termination of the project, a grant or lease holder must ensure in the variety of ways set out in the legislation that the land is maintained and restored at the end of the grant or lease. Section 2805.20 sets out bonding requirements of grant or lease holders. The purpose of a "performance and reclamation bond or other acceptance bond instrument" is "to cover any losses, damages, or injury to human health, the environment, or property in connection with your use and occupancy of the right-of-way, including costs associated with terminating the grant, and to secure all obligations imposed by the grant and applicable laws and regulations."[210] The BLM periodically reviews the bond "for adequacy and may require a new bond, an increase or decrease in value of an existing bond, or other acceptably security at any time during the term of the grant or lease."

However, since these provisions and conditions relate to rights of way on public lands, they are not relevant to the discussion of private property provided in this briefing.

4.12 United States Bureau of Reclamation

The United States Bureau of Reclamation is a federal agency under the U.S. Department of the Interior. It oversees water resource management, including dams, power plants, and canals in the 17 western states.[*] It is the largest wholesaler of water in the country and the second largest producer of hydroelectric power in the United States.[211] Its mission "is to assist in meeting the increasing water demands of the West while protecting the environment and the public's investment in these structures." According to its website, it fulfills water delivery obligations, water conservation, water recycling and reuse, and developing partnerships with its customers, states, and Native American Tribes.[212] Since this agency fulfills water delivery obligations and the "reclamation" in the title refers to water, it is beyond the scope of this discussion.

[*] The 17 western United States are North Dakota, South Dakota, Nebraska, Kansas, Oklahoma, Texas, New Mexico, Colorado, Wyoming, Montana, Idaho, Utah, Arizona, California, Nevada, Oregon, and Washington. See United States Bureau of Reclamation, "Reclamation Land and Water Surface Use," available at https://www.usbr.gov/lands/ (accessed on August 6, 2019).

5.0 Notes

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[32] Ibid., s. 51.
[33] Ibid., s. 52.
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[36] Ibid., ss. 57-58.
[37] Ibid., ss. 25-40. See also Alberta, Land Compensation Board, "Rules," available at https://archive-landcompensation.gov.ab.ca/home/Rules_LCB.aspx (accessed on September 5, 2019).
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[43] Ibid., s. 2 (e).

[44] Ibid., ss. 3(1-3)).
[45] Ibid. ss. 7(1-5) and 8 (1-4).
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