

Green Criteria

June 5, 2003

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Green Criteria: Low Impact Biogas Facilities

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Biogas facilities will be defined as low environmental impact and new if the following criteria are met:

Low Impact Principles	Descriptors	Compliance Measure/Evidence
<p>The facility must provide new energy.</p>	<p>The facility must meet one of the following definitions of “new”.</p> <ul style="list-style-type: none"> • Definition 1: The facility is on a site where there is no other pre-existing electrical generating facility and the facility began generating electricity on or after 01 April 2001. • Definition 2: The facility is repowered on or after 01 April 2001 and not less than 80% of the fair market value of the facility is attributable to new generation equipment installed as part of the repowering project. • Definition 3: The facility is a separable improvement to, or separable enhancement of, an existing and operating electrical generating facility that was first in operation prior to 01 April 2001, construction of the facility was completed on or after 01 April 2001 and the incremental generation is contractually available for sale and metered separately from existing generation at the facility. 	<p>A written statement by the proponent supported by their analysis confirming that the facility will meet the Descriptor.</p> <p>For this Descriptor, analysis refers to:</p> <ul style="list-style-type: none"> • An explanation of how the facility meets a Definition; and • Financial calculations of fair market value for Definition 2; or • Facility design drawings including metering for Definition 3.

Low Impact Principles	Descriptors	Compliance Measure/Evidence
<p>Biogas is from organic waste material that has no other commercial use or is the lowest environmental impact alternative</p>	<p>Biogas is from:</p> <ul style="list-style-type: none"> • Organic waste products associated with residential waste, commercial waste (e.g., spoiled vegetables from farm markets or restaurants) and sewage or livestock, and does not include toxic or hazardous waste; and • Organic waste products that have no viable alternative use with a reasonable financial profile (e.g., solids from a digester process are used as a co-product, such as fertilizer, to minimize waste). 	<p>A written statement by a reputable scientist¹ or regional district confirming that the fuel consumed meets the Descriptors provided.</p>
<p>Derive energy from renewable, sustainably managed resources</p>	<p>Non-renewable fuel must only be used as a back up or in case of an emergency.</p> <p>Only landfills that are capped or landfills that are accompanied with curbside pick-up programs for garden waste and paper can be used as fuel sources.</p> <p>An energy source must be derived from a renewable feedstock produced in a sustainable manner (e.g., livestock waste) or an existing, non-renewable source (e.g., landfill) and cannot trade off one environmental problem for another (i.e., cannot create significant environmental problems elsewhere in the ecosystem, such as hazardous waste production).</p>	<p>A written statement by the proponent confirming that the use of supplementary, non-renewable fuels for start-ups, etc. will be kept to a minimum (i.e., typically 1 to 3% of fuel heat input as defined by current literature).</p> <p>Documentation by the regional district confirming that the landfill is capped or the date of implementation of curbside pick-up programs for garden waste and paper for the areas serviced by the landfill.</p> <p>Documentation by the regional district that the facility, and any use of municipal solid waste by the facility, is in compliance with the approved solid waste management plans of the regional district.</p> <p>If the energy source is derived from a renewable feedstock (e.g., livestock waste), a written statement by a reputable agricultural scientist² or</p>

Low Impact Principles	Descriptors	Compliance Measure/Evidence
		<p>regulatory agency confirming that the renewable feedstock is produced in a sustainable manner.</p> <p>A written statement by a reputable agricultural scientist or regulatory agency confirming that the facility does not trade off one environmental problem for another.</p>
Produce minimal (or reduce net) GHG emissions	Net greenhouse gas (GHG) emissions reduction is achieved.	Calculations that demonstrate the emissions reduction using output and publicly valid emission factors.

Low Impact Principles	Descriptors	Compliance Measure/Evidence
<p>Conserve sensitive areas and endangered species</p>	<p>The physical facility has no impact on a "sensitive stream" as designated under the B.C. Fish Protection Act.</p> <p>The physical facility does not threaten or harm migration or habitat of endangered species, threatened species or species of regional concern.</p>	<p>A written statement by a reputable scientist or regulatory agency confirming that there is no impact by the physical facility on a "sensitive stream" as designated under the B.C. Fish Protection Act.</p> <p>A written statement by a reputable scientist or regulatory agency supported by their scientific analysis confirming that the physical facility does not impact threatened or endangered species as designated by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) or species of regional concern as designated by the provincial Conservation Data Centre (CDC) (i.e., red and blue listed species).</p> <p>For this Descriptor, scientific analysis refers to:</p> <ul style="list-style-type: none"> • Identification of all threatened species, endangered species and species of regional concern in the physical facility area as designated by COSEWIC or CDC; and • An explanation of why the physical facility will or will not impact identified species based on field reconnaissance, literature review and the experience of the reputable scientist or regulatory agency. <p>A copy of all relevant studies provided to regulatory agencies on threatened species, endangered species and species of regional concern.</p>

Low Impact Principles	Descriptors	Compliance Measure/Evidence
<p>Preserve or improve the overall regional air quality</p>	<p>The facility must not:</p> <ul style="list-style-type: none"> • Cause a net decrease in the overall regional air quality as measured by ambient common air contaminants (CACs); and • Exceed the upper limit (6) for total load points for operational air emissions as calculated in Appendix 2 of the Dec. 8, 2001, draft of the EcoLogo Renewable Low-Impact Electricity guidelines. 	<p>Calculations showing that the facility does not cause a net decrease in the overall regional air quality as measured by ambient CACs.</p> <p>Calculations showing that the facility does not exceed the upper limit (6) for total load points for operational air emissions as calculated in Appendix 2 of the Dec. 8, 2001, draft of the EcoLogo Renewable Low-Impact Electricity guidelines.</p> <p>A written statement by the proponent that:</p> <ul style="list-style-type: none"> • Identifies the air quality variables to be monitored and reported for the life of the facility; • Provides an explanation of the monitoring program; and • Provides an explanation of the process for corrective action and a commitment to take appropriate action when the need for corrective action is identified by monitoring results. <p>A copy of the regulatory air emissions permit.</p>
<p>Facility development has low environmental impact on land resources</p>	<p>The incremental transmission and distribution components of the facility (including all road building, land clearing and powerline construction activities) and generation facilities have minimal impact on the environment.</p> <p>For landfill sites, a leachate management program must be in place.</p>	<p>A written statement by a reputable scientist or regulatory agency confirming that the incremental transmission and distribution components of the facility and the generation facilities have minimal environmental impact.</p>

Low Impact Principles	Descriptors	Compliance Measure/Evidence
	Existing scenic, recreational and cultural values will not be adversely affected.	<p>For landfill sites, provision of a leachate management plan.</p> <p>A written statement by a reputable scientist or regulatory agency or proponent supported by their analysis confirming that existing scenic and recreational values will not be adversely affected.</p> <p>For this Descriptor, analysis on existing scenic and recreational values refers to:</p> <ul style="list-style-type: none"> • A socio-economic study of the project's impacts on the local community; or • A written summary of the existing scenic and recreational values, how these values were determined (by literature review, interview, consultation or site visit) and an explanation of how the facility will not adversely affect these values. <p>A written statement by an archaeological/cultural specialist³ or regulatory agency supported by their analysis confirming that existing cultural values will not be adversely affected.</p> <p>For this Descriptor, analysis of existing cultural values refers to:</p> <ul style="list-style-type: none"> • An archaeological study of the facility area; or • An assessment of existing cultural values by a provincial agency based on existing information (e.g., databases).

Low Impact Principles	Descriptors	Compliance Measure/Evidence
		<p>A copy of all relevant studies provided to regulatory agencies on impacts to the terrestrial ecosystem and existing scenic, recreational and cultural values.</p> <p>A copy of a Construction Environmental Management Plan.</p>
Commitment to continual improvement	<p>The facility must be reliable, non-temporary and practical (i.e., not maintained in the development stages or as a pilot-scale demonstration facility).</p> <p>Operations are consistent with an ISO 14001 equivalent Environmental Management System (EMS) or a reasonable alternative.</p> <p>A documented plan will be made available for review on a periodic basis for commercially reasonable opportunities for increasing the efficiency or reducing the environmental impact of the facility.</p> <p>Power generation is coordinated with existing operations where appropriate and commercially reasonable.</p> <p>May include a verifiable life-cycle analysis for the facility. The verifiable life-cycle analysis for the facility may consider all stages of power generation, including upstream raw material acquisition, fuel production, manufacturing, operation, maintenance and final decommissioning.</p>	<p>A written statement by the proponent committing to develop and implement a BC Hydro-approved EMS that is:</p> <ul style="list-style-type: none"> • Consistent with ISO 14001; and • Commensurate with the complexity of the operations. <p>A written statement by the proponent committing to provide performance-checking reports (audits) of the EMS to BC Hydro on a regular basis.</p> <p>A written statement by the proponent committing to include a documented plan of commercially reasonable opportunities for increasing efficiency or reducing the environmental impact of the facility as part of the EMS.</p>

Subscript 1 A reputable scientist is defined as a biologist who is registered or eligible for registration with the Association of Professional Biologists of B.C., and who has never been disciplined for unethical activities.

Subscript 2 A reputable agricultural scientist is a recognized expert in the field of agriculture.

Subscript 3 An archaeological/cultural specialist is defined as a recognized expert in the field of archaeology and cultural values.

Green Criteria - Low Impact Biomass Facilities

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Biomass facilities will be defined as low environmental impact and new if the following criteria are met:

Low Impact Principles	Descriptors	Compliance Measure/Evidence
The facility must provide new energy.	<p>The facility must meet one of the following definitions of “new”:</p> <ul style="list-style-type: none"> • Definition 1: The facility is on a site where there is no other pre-existing electrical generating facility and the facility began generating electricity on or after 01 April 2001. • Definition 2: The facility is repowered on or after 01 April 2001 and not less than 80% of the fair market value of the facility is attributable to new generation equipment installed as part of the repowering project. • Definition 3: The facility is a separable improvement to, or separable enhancement of, an existing and operating electrical generating facility that was first in operation prior to 01 April 2001, construction of the facility was completed on or after 01 April 2001 and the incremental generation is contractually available for sale and metered separately from existing generation at the facility. 	<p>A written statement by the proponent supported by their analysis confirming that the facility will meet the Descriptor.</p> <p>For this Descriptor, analysis refers to:</p> <ul style="list-style-type: none"> • An explanation of how the facility meets a Definition; and • Financial calculations of fair market value for Definition 2; or • Facility design drawings including metering for Definition 3.
Biomass is derived from organic waste	Biomass is derived from organic waste material	A written statement by a reputable

Low Impact Principles	Descriptors	Compliance Measure/Evidence
<p>material that has no other commercial use or is the lowest environmental impact alternative (no other high-order use)</p>	<p>that meet one or more of the following types:</p> <p><i>Woodwaste</i></p> <ul style="list-style-type: none"> • Waste by-products associated with the processing of forest materials are bark, sawdust, solid trim, shavings, veneer clippings, logging residues (slash, sort-yard debris, thinnings, stumps, roots). • Does not include painted or varnished wood, pressure-treated lumber, chipwood, plywood, or wood contaminated with plastics or metals. • Woodwaste by-products must have no viable alternative use with a reasonable financial profile, such as particleboard manufacture. <p><i>Agricultural</i></p> <ul style="list-style-type: none"> • Agricultural by-products (crop residues), such as straw, chaff, corn cobs, bean residues, dried stalks of harvested grain, that are not needed for reincorporating into the soil. <p style="text-align: center;">Dedicated Energy Crops</p> <ul style="list-style-type: none"> • Dedicated energy crops are non-food crops grown specifically for their fuel value (e.g., poplar trees, switch grass). • Crops to be grown in previously logged areas or on marginal, agricultural land (i.e., not to occur in native forest areas that require deforestation to clear the land for crop growing). <p style="text-align: center;">Liquid fuels</p> <ul style="list-style-type: none"> • Liquid fuels, such as ethanol or methanol, derived from biomass materials, and liquid and gaseous fuels produced from biomass by pyrolysis or similar processes that meet the above requirements. 	<p>agriculture scientist¹, a professional forester² or regulatory agency confirming that the fuel consumed meets the Descriptors provided.</p> <p>A description of the contents and source of the fuel, including an outline of fuel supply contracts.</p>

Low Impact Principles	Descriptors	Compliance Measure/Evidence
Displace a less efficient use of the waste	The facility diverts the material from being sent to a landfill or from being simply incinerated.	A written statement by a reputable agriculture scientist, professional forester or regulatory agency confirming the material will be diverted (i.e., from simply being burned or sent to a landfill) as a result of this facility. The statement should include the names of the landfills, incinerators or other areas of burning from which the waste has been diverted.
Produce minimal (or reduce net) GHG emissions	A net greenhouse gas (GHG) emissions reduction is achieved.	Calculations that demonstrate the emissions reduction using output and publicly valid emission factors.
Derive energy from renewable, sustainably managed resources	<p>Non-renewable fuel must only be used as a back up or in case of emergency.</p> <p>Energy source must be derived from a renewable feedstock produced in a sustainable manner and cannot trade off one environmental problem for another (i.e., cannot create significant environmental problems elsewhere in the ecosystem, such as hazardous waste production).</p>	<p>Documentation by a regional district confirming that the facility is in compliance with the approved solid waste management plans of the regional district hosting the facility and the regional district(s) where the waste was generated.</p> <p>A written statement by the proponent confirming that the use of supplementary, non-renewable fuels for start-ups, etc. will be kept to a minimum (i.e., typically is 1 to 3% of fuel heat input as defined by current literature).</p> <p>A written statement by a reputable agriculture scientist, professional forester, regulatory agency or existing certification body supported by their analysis confirming that the feedstock is produced in a sustainable manner. The analysis shall include an explanation of:</p> <ul style="list-style-type: none"> • How the rate of harvest does not exceed levels that can be sustained;

Low Impact Principles	Descriptors	Compliance Measure/Evidence
		<ul style="list-style-type: none"> • The sustainable forestry management practises that would be implemented in the harvesting and other operations sourcing the feedstock; and • The tree species cut and a confirmation that they are not listed on the Convention on International Trade of Endangered Species Appendices (CITES). <p>If the feedstock is produced on land owned or harvested by the proponent, the written statement by a reputable agriculture scientist, professional forester, regulatory agency or existing certification body should be supported by evidence of:</p> <ul style="list-style-type: none"> • Planting/regeneration and harvest records; and • Examples of sustainable forestry management practises and procedures implemented.

Low Impact Principles	Descriptors	Compliance Measure/Evidence
<p>Conserve sensitive areas and endangered species</p>	<p>The physical facility has no impact on a designated "sensitive stream" as designated under the B.C. Fish Protection Act.</p> <p>The physical facility does not threaten or harm migration or habitat of endangered species, threatened species or species of regional concern.</p>	<p>A written statement by a reputable scientist³, or regulatory agency confirming that the physical facility has no impact on a "sensitive stream" as designated under the B.C. Fish Protection Act.</p> <p>A written statement by a reputable scientist or regulatory agency supported by their scientific analyses confirming that the physical facility does not impact threatened or endangered species designated by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) or species of regional concern as designated by the provincial Conservation Data Centre (CDC) (i.e., red and blue-listed species)</p> <p>For this Descriptor, scientific analysis refers to:</p> <ul style="list-style-type: none"> • Identification of all threatened species, endangered species or species of regional concern in the physical facility area as designated by COSEWIC or CDC; and • An explanation of why the physical facility will or will not impact identified species based on field reconnaissance, literature review and the experience of the reputable scientist or regulatory agency. <p>A copy of all relevant studies provided to regulatory agencies on threatened species, endangered species and species of regional concern.</p>

Low Impact Principles	Descriptors	Compliance Measure/Evidence
<p>Preserve or improve the overall regional air quality</p>	<p>The facility must not:</p> <ul style="list-style-type: none"> • Cause a net decrease in the overall regional air quality as measured by ambient common air contaminants (CACs); and • Exceed the upper limit (6) for total load points for operational air emissions as calculated using Appendix 2 of the Dec. 8, 2001, draft of the EcoLogo Renewable Low-Impact Electricity guidelines. 	<p>Calculations showing that the facility does not cause a net decrease in the overall regional air quality as measured by ambient CACs.</p> <p>Calculations showing that the facility does not exceed the upper limit (6) for total load points for operational air emissions as calculated using Appendix 2 of the Dec. 8, 2001, draft of the EcoLogo Renewable Low-Impact Electricity guidelines.</p> <p>A written statement by the proponent that:</p> <ul style="list-style-type: none"> • Identifies the air quality variables to be monitored and reported for the life of the facility; • Provides an explanation of and a commitment to implement the monitoring program; and • Provides an explanation by the proponent of the process for corrective action and a commitment to take appropriate action when the need for corrective action is identified by the monitoring results. <p>A copy of the regulatory air emissions permit.</p>
<p>Facility development has low environmental impact on land resources</p>	<p>The incremental transmission and distribution components of the facility (including all access roads, land clearing and powerline construction activities) and the generation facilities have minimal impact on the environment.</p> <p>Existing scenic, recreational and cultural values</p>	<p>A written statement by a reputable scientist or regulatory agency confirming that the incremental transmission and distribution components of the facility and the generation facilities have minimal environmental impact.</p>

Low Impact Principles	Descriptors	Compliance Measure/Evidence
	will not be adversely affected.	<p>A written statement by a reputable scientist, regulatory agency or proponent supported by their analysis confirming that existing scenic and recreational values will not be adversely affected.</p> <p>For this Descriptor, analysis of existing scenic and recreational values refers to:</p> <ul style="list-style-type: none"> • A socio-economic study of the facility's impacts on the local community; or • A written summary of the existing scenic and recreational values, how these values were determined (by literature review, interview, consultation or site visit) and an explanation of how the facility will not adversely affect these values. <p>A written statement by an archaeological/cultural specialist⁴ or regulatory agency supported by their analysis confirming that existing cultural values will not be adversely affected.</p> <p>For this Descriptor, analysis of existing cultural values refers to:</p> <ul style="list-style-type: none"> • An archaeological study of the facility area; or • An assessment of cultural values by a provincial agency based on existing information (e.g., databases). <p>A copy of all relevant studies provided</p>

Low Impact Principles	Descriptors	Compliance Measure/Evidence
		<p>to regulatory agencies on impacts to the terrestrial ecosystem and scenic, recreational and cultural values.</p> <p>A copy of a Construction Environmental Management Plan.</p>
Commitment to continual improvement	<p>The facility must be reliable, non-temporary and practical (i.e., not maintained in the development stages or as a pilot-scale demonstration facility).</p> <p>Operations are consistent with an ISO 14001 equivalent Environmental Management System (EMS) or a reasonable alternative.</p> <p>A documented plan will be made available for review on a periodic basis for commercially reasonable opportunities for increasing the efficiency or reducing the environmental impact of the facility.</p> <p>Power generation is coordinated with existing operations where appropriate and commercially reasonable.</p> <p>May include a verifiable life-cycle analysis for the facility. The verifiable life-cycle analysis for the facility may consider all stages of power generation, including upstream raw material acquisition, fuel production, manufacturing, operation, maintenance and final decommissioning.</p>	<p>A written statement by the proponent committing to develop and implement a BC Hydro-approved EMS that is:</p> <ul style="list-style-type: none"> • Consistent with ISO 14001; and • Commensurate with the complexity of the operations. <p>A written statement by the proponent committing to provide performance-checking reports (audits) of the EMS to BC Hydro on a regular basis.</p> <p>A written statement by the proponent committing to include a documented plan for commercially reasonable opportunities for increasing efficiency or reducing the environmental impact of the facility as part of the EMS.</p>

- Subscript 1 A reputable agricultural scientist is a recognized expert in the field of agriculture.
- Subscript 2 A professional forester is a forester who is registered or eligible for registration with the Association of B.C. Professional Foresters, and who has never been disciplined for unethical activities.
- Subscript 3 A reputable scientist is defined as a biologist who is registered or eligible for registration with the Association of Professional Biologists of B.C., and who has never been disciplined for unethical activities.
- Subscript 4 An archaeological/cultural specialist is defined as a recognized expert in the field of archaeology and cultural values.

Green Criteria - Low Impact Hydroelectric Facilities

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Hydroelectric facilities will be defined as low environmental impact and new if the following criteria are met:

Low Impact Principles	Descriptors	Compliance Measure/Evidence
<p>The facility must provide new energy.</p>	<p>The facility must meet one of the following definitions of “new”:</p> <ul style="list-style-type: none"> • Definition 1: The facility is on a site where there is no other pre-existing electrical generating facility and the facility began generating electricity on or after 01 April 2001. • Definition 2: The facility is repowered on or after 01 April 2001 and not less than 80% of the fair market value of the facility is attributable to new generation equipment installed as part of the repowering project. • Definition 3: The facility is a separable improvement to, or separable enhancement of, an existing and operating electrical generating facility that was first in operation prior to 01 April 2001, construction of the facility was completed on or after 01 April 2001 and the incremental generation is contractually available for sale and metered separately from existing generation at the facility. 	<p>A written statement by the proponent supported by their analysis confirming that the facility will meet the Descriptor.</p> <p>For this Descriptor, analysis refers to:</p> <ul style="list-style-type: none"> • An explanation of how the facility meets a Definition; and • Financial calculations of fair market value for Definition 2; or • Facility design drawings including metering for Definition 3.

Low Impact Principles	Descriptors	Compliance Measure/Evidence
<p>Conserve existing fish habitat capability</p>	<p>The facility meets the Federal Fisheries Act's "no net loss" objective for conserving fish and fish habitat.</p>	<p>A written statement by a reputable scientist¹ or regulatory agency confirming that the protection, mitigation or compensation measures planned for the facility will meet the "no net loss" objective for conserving all relevant parameters associated with fish and their habitat.</p> <p>For this Descriptor, if the facility impacts fish or fish habitat, the written statement should include:</p> <ul style="list-style-type: none"> • The nature and degree of the impacts; • The measures being taken to mitigate, or compensate for, the impacts; and • How the measures being taken to address the impacts meet the "no net loss" objective of the Federal Fisheries Act. <p>A copy of all relevant studies submitted to regulatory agencies used in their determination of whether the facility meets the "no net loss" objective.</p> <p>A brief written explanation of the protection, mitigation or compensation program required by the regulators to meet the "no net loss" objective.</p> <p>A copy of the conditional water license and operating conditions issued for the facility.</p>

Low Impact Principles	Descriptors	Compliance Measure/Evidence
	<p>Facility preserves ability of anadromous fish to migrate.</p>	<p>A written statement by a reputable scientist or regulatory agency supported by their scientific analysis confirming that migration of anadromous species will not be affected by all aspects of the facility.</p> <p>For this Descriptor, scientific analysis refers to:</p> <ul style="list-style-type: none"> • A description of all anadromous fish communities in the facility area and the studies or methods used to make this determination; • An explanation of why the facility will or will not preserve the ability of anadromous fish to migrate based on field reconnaissance, literature review, and the experience and expertise of the reputable scientist or regulatory agency. <p>A copy of all relevant studies provided to the regulatory agencies concerning anadromous fish and migration.</p>

Low Impact Principles	Descriptors	Compliance Measure/Evidence
	<p>Facility preserves resident fish communities.</p>	<p>A written statement by a reputable scientist or regulatory agency supported by their scientific analysis confirming that resident fish communities will be preserved by maintaining natural migration patterns.</p> <p>For this Descriptor, scientific analysis refers to:</p> <ul style="list-style-type: none"> • A description of all riverine, anadromous and catadromous fish communities in the facility area and the studies or methods used to make this determination; • A description of the natural migration patterns of the riverine, anadromous and catadromous fish communities in relation to all facility components; and • A description of the technologies, structures or measures that will be installed and an explanation of how these will ensure that natural migration patterns of riverine, anadromous and catadromous fish communities are maintained. <p>A copy of final design drawings that illustrate the technologies, structures or measures installed to maintain resident fish communities' natural migration patterns.</p> <p>A copy of all relevant studies provided to the regulatory agencies on resident fish communities.</p> <p>A description of the regulatory agency requirements for fish protection measures.</p>

Low Impact Principles	Descriptors	Compliance Measure/Evidence
	<p>Flows in the bypassed reach and downstream of the tailrace are adequate to support indigenous aquatic and riparian species at pre-facility ranges.</p>	<p>A written statement by a reputable scientist or regulatory agency confirming that flow discharges (including seasonal flow fluctuations) are adequate to support indigenous aquatic and riparian species at pre-facility ranges.</p> <p>The written statement should include:</p> <ul style="list-style-type: none"> • An explanation of the flow requirements including seasonal discharges; and • An explanation of how the flows are adequate to support indigenous aquatic and riparian species at pre-facility ranges. <p>A copy of all relevant studies provided to the regulatory agency for use in their determination of the facility flow requirements.</p> <p>A copy of the conditional water license and operating conditions issued for the facility.</p>

Low Impact Principles	Descriptors	Compliance Measure/Evidence
	<p>The facility has minimal impact on the water quality in the head pond, bypassed reach, and the reaches downstream of the tailrace and diversion dams/dykes.</p>	<p>A written statement by a reputable scientist or regulatory agency supported by their scientific analysis, confirming that facility construction and operations will not result in significant changes in:</p> <ul style="list-style-type: none"> • Water turbidity; • pH; • Total gas pressure; • Water temperature; and • Physical or chemical properties that could have an acute or chronic impact on indigenous aquatic species. <p>For this Descriptor, scientific analysis refers to:</p> <ul style="list-style-type: none"> • The past experience of the reputable scientist or regulatory agency in assessing water quality impacts on facilities of a similar nature; • Review of relevant literature on water quality impacts; • Water quality sampling to establish baseline data. <p>A copy of all relevant studies provided to the regulatory agencies for use in their determination of facility water quality impacts.</p>

Low Impact Principles	Descriptors	Compliance Measure/Evidence
	<p>The facility is operated in a manner to ensure conservation of fish habitat, including aquatic or terrestrial organisms.</p>	<p>A written statement by a reputable scientist or regulatory agency identifying key variables that are potentially harmful to existing fish communities and an explanation of how these key variables will be monitored and reported for the life of the facility.</p> <p>A written statement by the proponent providing an explanation of and a commitment to the process for corrective action and a commitment to take appropriate corrective action when the need for corrective action is identified by the monitoring results.</p> <p>A copy of all relevant studies provided to the regulatory agencies on key variables that are potentially harmful to existing fish communities.</p> <p>A copy of the conditional water license and operating conditions for the facility.</p>

Low Impact Principles	Descriptors	Compliance Measure/Evidence
<p>Maintain a minimum flow in the river</p>	<p>Maintain a minimum wetted channel perimeter, at all control structures, with a constant flow in the river throughout the year.</p>	<p>A written statement by a reputable scientist or regulatory agency confirming that a minimum flow is established.</p> <p>A written statement by the proponent committing to adhere to the minimum flow throughout the year (including normal and dry-year operating conditions) and an explanation of how this commitment will be achieved in dry-year conditions.</p> <p>A copy of the conditional water license and operating conditions issued for the facility.</p>

Low Impact Principles	Descriptors	Compliance Measure/Evidence
<p>Conserve sensitive streams and endangered species</p>	<p>The facility avoids "sensitive streams" as designated under the B.C. Fish Protection Act.</p> <p>The facility does not threaten or harm migration or habitat of endangered species, threatened species or species of regional concern.</p>	<p>A written statement by a reputable scientist or regulatory agency confirming that the facility is not located on a sensitive stream as designated under the B.C. Fish Protection Act.</p> <p>A written statement by a reputable scientist or regulatory agency supported by their scientific analysis confirming that the facility does not impact threatened or endangered species as designated by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) or species of regional concern as designated by the provincial Conservation Data Centre (CDC) (i.e., red and blue listed species).</p> <p>For this Descriptor, scientific analysis refers to:</p> <ul style="list-style-type: none"> • Identification of all threatened species, endangered species and species of regional concern in the facility area as designated by COSEWIC or CDC; and • An explanation of why the facility will or will not impact identified species based on field reconnaissance, literature review and the experience of the reputable scientist or regulatory agency. <p>A copy of all relevant studies provided to regulatory agencies on threatened species, endangered species and species of regional concern.</p>

Low Impact Principles	Descriptors	Compliance Measure/Evidence
Conserve existing wildlife resources	The facility has no significant impact on existing wildlife habitat and populations.	<p>A written statement by a reputable scientist or regulatory agency supported by their scientific analysis, confirming that the facility has no significant impact on existing wildlife habitat and populations.</p> <p>For this Descriptor, scientific analysis refers to:</p> <ul style="list-style-type: none"> • Identification of key wildlife habitat and populations in the facility area; and • An explanation of why the facility will or will not impact identified species based on literature review, field reconnaissance and the experience of the reputable scientist or regulatory agency. <p>A copy of all relevant studies provided to regulatory agencies on wildlife habitat and populations.</p>

Low Impact Principles	Descriptors	Compliance Measure/Evidence
<p>Maintain integrity of current upstream ecosystem</p>	<p>Maintains an upstream ecosystem, at all control structures, which does not differ significantly from existing conditions. Specifically, the facility design and description must:</p> <ul style="list-style-type: none"> • Ensure that natural upstream barriers that may separate distinct fauna on a waterway are not removed or submerged; and • Meet one of the following facility types. <p>Type 1: The facility design conforms to "run of river" concept with no seasonal storage or diversion between separate basins and the head pond capacity is limited to a maximum volume of up to 24 hours of average annual flow, or</p> <p>Type 2: Where electricity generation does not currently occur, the facility makes use of existing natural storage (i.e., lakes) and natural hydrograph and lake levels are maintained at pre-generation levels, or</p> <p>Type 3: Where electricity generation does not currently occur, the facility makes use of existing water storage for electricity generating purposes (e.g., municipal water reservoirs or abandoned sites), increases the efficient use of the existing water storage without significantly altering the upstream ecosystem from the existing conditions prior to electricity generation but does not provide justification for maintenance of a site that would otherwise be dismantled.</p>	<p>A written statement by a reputable scientist, hydrologist or professional engineer confirming that natural upstream barriers that may separate distinct fauna on a waterway have not been removed or submerged.</p> <p>Type 1: A written statement by a reputable scientist, hydrologist or professional engineer confirming that the facility meets all aspects of the facility type description.</p> <p>Type 2: A written statement by a reputable scientist confirming that the facility meets all aspects of the facility type description and an explanation of how facility operations will ensure that the existing upstream ecosystem is maintained.</p> <p>Type 3: A written statement by a reputable scientist confirming that the facility meets all aspects of the facility type description and an explanation of how facility operations will ensure that the existing upstream ecosystem is maintained.</p> <p>A copy of final design drawings and an explanation of the size of headpond or storage area and drawdown zone.</p> <p>A copy of all relevant studies provided to regulatory agencies on hydrology and flow.</p>

Low Impact Principles	Descriptors	Compliance Measure/Evidence
<p>Maintain integrity of current downstream ecosystem</p>	<p>Maintains a downstream ecosystem, at all control structures, which does not differ significantly from existing conditions.</p>	<p>A written statement by a reputable scientist or regulatory agency supported by their scientific analysis and scientifically valid indicators, such as benthic invertebrates, confirming that the existing downstream ecosystem will not be significantly changed due to development.</p> <p>For this Descriptor, scientific analysis refers to:</p> <ul style="list-style-type: none"> • Identification of key scientifically valid indicators considered in the analysis; and • An explanation of why the existing downstream ecosystem will or will not be significantly changed due to development based on literature review, field reconnaissance and the experience of the reputable scientist or regulatory agency. <p>A copy of all relevant studies provided to regulatory agencies on downstream ecosystem impacts and indicators, such as benthic invertebrates.</p>

Low Impact Principles	Descriptors	Compliance Measure/Evidence
<p>Facility development has low environmental impact on land resources</p>	<p>The incremental transmission and distribution components of the facility (including access roads, land clearing and powerline construction activities) and generation facilities have minimal impact on the terrestrial ecosystem.</p> <p>Noise levels from operations should be below levels that would have a significant impact on area residents and other potential receptors.</p> <p>Existing scenic, recreational and cultural values will not be adversely affected.</p>	<p>A written statement by a reputable scientist or regulatory agency confirming that the incremental transmission and distribution components of the facility and the generation facilities have minimal environmental impact.</p> <p>A written statement by the proponent committing to adhere to applicable noise by-laws or regulations.</p> <p>A written statement by a reputable scientist, regulatory agency or proponent supported by their analysis confirming that existing scenic and recreational values will not be adversely affected.</p> <p>For this Descriptor, analysis of existing scenic and recreational values refers to:</p> <ul style="list-style-type: none"> • A socio-economic study of the facility's impacts on the local community; or • A written summary of the existing scenic and recreational values in existence, how these values were determined (by literature review, interview, consultation or site visit) and an explanation of how the facility will not adversely affect these values. <p>A written statement by an archaeological/cultural specialist² or regulatory agency supported by their analysis confirming that existing cultural values will not be adversely affected.</p> <p>For this Descriptor, analysis of existing cultural values refers to:</p> <ul style="list-style-type: none"> • An archaeological study of the facility area; or • An assessment of cultural values by a provincial agency based on existing information (i.e. databases).

Low Impact Principles	Descriptors	Compliance Measure/Evidence
Commitment to continual improvement	<p>The facility must be reliable, non-temporary and practical (i.e., not maintained in the development stages or as a pilot-scale demonstration facility).</p> <p>Operations are consistent with an ISO 14001 equivalent Environmental Management System (EMS) or a reasonable alternative.</p> <p>A documented plan will be available for review on a periodic basis of commercially reasonable opportunities for increasing the efficiency or reducing the environmental impact of the facility.</p> <p>Facility operations are coordinated, to the extent commercially reasonable, with any other hydroelectric facility on the same stream to reduce impacts and protect indigenous species and habitats.</p> <p>May include a verifiable life-cycle analysis for the facility. The verifiable life-cycle analysis for the facility may consider all stages of power generation, including upstream raw material acquisition, fuel production, manufacturing, operation, maintenance and final decommissioning.</p>	<p>A copy of all relevant studies provided to regulatory agencies on impacts to the terrestrial ecosystem and existing scenic, recreational and cultural values.</p> <p>A copy of a Construction Environmental Management Plan.</p> <p>A written statement by the proponent committing to develop and implement a BC Hydro-approved EMS that is:</p> <ul style="list-style-type: none"> • Consistent with ISO 14001; and • Commensurate with the complexity of the operations. <p>A written statement by the proponent committing to provide performance-checking reports (audits) of the EMS to BC Hydro on a regular basis.</p> <p>A written statement by the proponent committing to include a documented plan of commercially reasonable opportunities for increasing efficiency or reducing the environmental impact of the facility as part of the EMS.</p>

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Subscript 2 An archaeological/cultural specialist is defined as a recognized expert in the field of archaeology and cultural values.

Green Criteria: Low Impact Wave Facilities

These criteria were prepared by BC Hydro for the sole purpose of determining if facilities are low environmental impact to the standard of BC Hydro for the purpose of BC Hydro’s acquisition strategy. The determination of low environmental impact by BC Hydro does not imply certification of compliance to any certification process. BC Hydro does not accept responsibility for the use or reliance upon these criteria and the BC Hydro determination of low environmental impact by any other party.

Wave facilities will be defined as low environmental impact and new if the following criteria are met:

Low Impact Principles	Descriptors	Compliance Measure/Evidence
<p>The facility must provide new energy.</p>	<p>The facility must meet one of the following definitions of “new”:</p> <ul style="list-style-type: none"> • Definition 1: The facility is on a site where there is no other pre-existing electrical generating facility and the facility began generating electricity on or after 01 April 2001. • Definition 2: The facility is repowered on or after 01 April 2001 and not less than 80% of the fair market value of the facility is attributable to new generation equipment installed as part of the repowering project. • Definition 3: The facility is a separable improvement to, or separable enhancement of, an existing and operating electrical generating facility that was first in operation prior to 01 April 2001, construction of the facility was completed on or after 01 April 2001 and the incremental generation is contractually available for sale and metered separately from existing generation at the facility. 	<p>A written statement by the proponent supported by their analysis confirming that the facility will meet the Descriptor.</p> <p>For this Descriptor, analysis refers to:</p> <ul style="list-style-type: none"> • An explanation of how the facility meets a Definition; and • Financial calculations of fair market value for Definition 2; or • Facility design drawings including metering for Definition 3.

Low Impact Principles	Descriptors	Compliance Measure/Evidence
<p>Conserve existing marine environment</p>	<p>The facility meets the federal Fisheries Act's "no net loss" objective for conserving fish and fish habitat.</p>	<p>A written statement by a reputable scientist¹ or regulatory agency confirming that the protection, mitigation or compensation measures planned for the facility will meet the "no net loss" objective for conserving all relevant parameters associated with fish and their habitat.</p> <p>For this Descriptor, if the facility impacts fish or fish habitat, the written statement should include:</p> <ul style="list-style-type: none"> • The nature and degree of the impacts; • The measures being taken to mitigate, or compensate for, the impacts; and • How the measures being taken to address the impacts meet the "no net loss" objective of the federal Fisheries Act. <p>A copy of all relevant studies submitted to regulatory agencies used in their determination of whether the facility meets the "no net loss" objective.</p> <p>A brief written explanation of the protection, mitigation or compensation program required by the regulators to meet the "no net loss" objective.</p> <p>A copy of the conditional license and operating conditions issued for the facility.</p>

Low Impact Principles	Descriptors	Compliance Measure/Evidence
	<p>Facility preserves resident marine life communities.</p>	<p>A written statement by a reputable scientist or regulatory agency supported by their scientific analysis confirming that marine life communities will be preserved.</p> <p>For this Descriptor, scientific analysis refers to:</p> <ul style="list-style-type: none"> • A description of all marine life communities in the facility area and the studies or methods used to make this determination; • A description of the natural migration patterns of the marine life communities if relevant in relation to all facility components; and • A description of the technologies, structures or measures that will be installed and an explanation of how these will ensure those marine life communities are maintained. <p>A copy of final design drawings that illustrate the technologies, structures or measures installed to maintain resident marine life communities' natural migration patterns.</p> <p>A copy of all relevant studies provided to the regulatory agencies on marine life communities.</p> <p>A description of the regulatory agency requirements for protection measures.</p>

Low Impact Principles	Descriptors	Compliance Measure/Evidence
	<p>The facility has minimal impact on the water quality.</p>	<p>A written statement by a reputable scientist or regulatory agency supported by their scientific analysis, confirming that facility construction and operations will not result in significant changes in:</p> <ul style="list-style-type: none"> • Water turbidity; • pH; • Total gas pressure; • Water temperature; and • Physical or chemical properties that could have an acute or chronic impact on indigenous aquatic species. <p>For this Descriptor, scientific analysis refers to:</p> <ul style="list-style-type: none"> • The past experience of the reputable scientist or regulatory agency in assessing water quality impacts on facilities of a similar nature; • Review of relevant literature on water quality impacts; • Water quality sampling to establish baseline data. <p>A copy of all relevant studies provided to the regulatory agencies for use in their determination of facility water quality impacts.</p>

Low Impact Principles	Descriptors	Compliance Measure/Evidence
	<p>The facility is operated in a manner to ensure conservation of marine life habitat.</p>	<p>A written statement by a reputable scientist or regulatory agency identifying key variables that are potentially harmful to existing marine life habitat and an explanation of how these key variables will be monitored and reported for the life of the facility.</p> <p>A written statement by the proponent providing an explanation of and a commitment to the process for corrective action and a commitment to take appropriate corrective action when the need for corrective action is identified by the monitoring results.</p> <p>A copy of all relevant studies provided to the regulatory agencies on key variables that are potentially harmful to existing marine life habitat.</p> <p>A copy of the conditional license and operating conditions for the facility.</p>

Low Impact Principles	Descriptors	Compliance Measure/Evidence
	<p>The facility has no significant impact on existing marine mammal habitat and populations.</p>	<p>A written statement by a reputable scientist or regulatory agency supported by their scientific analysis, confirming that the facility has no significant impact on existing marine mammal habitat and populations.</p> <p>For this Descriptor, scientific analysis refers to:</p> <ul style="list-style-type: none"> • Identification of key marine mammal habitat and populations in the facility area; and • An explanation of why the facility will or will not impact identified species based on literature review, field reconnaissance and the experience of the reputable scientist or regulatory agency. <p>A copy of all relevant studies provided to regulatory agencies on marine mammal habitat and populations.</p>

Low Impact Principles	Descriptors	Compliance Measure/Evidence
Conserve existing bird habitat	The facility is developed and operated in a manner to ensure conservation of bird habitat.	<p>A written statement by a reputable scientist or regulatory agency identifying key variables that are potentially harmful to existing bird habitat and an explanation of how these key variables will be monitored and reported for the life of the facility.</p> <p>A written statement by the proponent providing an explanation of and a commitment to the process for corrective action and a commitment to take appropriate corrective action when the need for corrective action is identified by the monitoring results.</p> <p>A copy of all relevant studies provided to the regulatory agencies on key variables that are potentially harmful to existing bird habitat.</p> <p>A copy of the conditional license and operating conditions for the facility.</p>

Low Impact Principles	Descriptors	Compliance Measure/Evidence
<p>Conserve sensitive areas and endangered species</p>	<p>The physical facility has no impact on a designated "sensitive stream" as designated under the B.C. Fish Protection Act.</p> <p>The physical facility does not threaten or harm migration or habitat of endangered species, threatened species or species of regional concern.</p>	<p>A written statement by a reputable scientist or regulatory agency confirming that the physical facility has no impact on a "sensitive stream" as designated under the B.C. Fish Protection Act.</p> <p>A written statement by a reputable scientist or regulatory agency supported by their scientific analyses confirming that the physical facility does not impact threatened or endangered species designated by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) or species of regional concern as designated by the provincial Conservation Data Centre (CDC) (i.e., red and blue-listed species)</p> <p>For this Descriptor, scientific analysis refers to:</p> <ul style="list-style-type: none"> • Identification of all threatened species, endangered species or species of regional concern in the physical facility area as designated by COSEWIC or CDC; and • An explanation of why the physical facility will or will not impact identified species based on field reconnaissance, literature review and the experience of the reputable scientist or regulatory agency. <p>A copy of all relevant studies provided to regulatory agencies on threatened species, endangered species and species of regional concern.</p>
<p>Facility development has low</p>	<p>The incremental transmission and distribution</p>	<p>A written statement by a reputable</p>

Low Impact Principles	Descriptors	Compliance Measure/Evidence
<p>environmental impact on land resources</p>	<p>components of the facility (including access roads, land clearing and powerline construction activities) and any terrestrial generation facilities have minimal impact on the terrestrial ecosystem.</p> <p>Noise levels from operations should be below levels that would have a significant impact on area residents and other potential receptors.</p> <p>Existing scenic, recreational and cultural values will not be adversely affected.</p>	<p>scientist or regulatory agency confirming that the incremental transmission and distribution components of the facility and any terrestrial generation facilities have minimal environmental impact on the terrestrial ecosystem.</p> <p>A written statement by the proponent committing to adhere to applicable noise by-laws or regulations.</p> <p>A written statement by a reputable scientist, regulatory agency or proponent supported by their analysis confirming that existing scenic and recreational values will not be adversely affected.</p> <p>For this Descriptor, analysis of existing scenic and recreational values refers to:</p> <ul style="list-style-type: none"> • A socio-economic study of the facility's impacts on the local community; or • A written summary of the existing scenic and recreational values, how these values were determined (by literature review, interview, consultation of site visit) and an explanation of how the facility will not adversely affect these values. <p>A written statement by an archaeological/cultural specialist² or regulatory agency supported by their analysis confirming that existing cultural values will not be adversely affected.</p>

Low Impact Principles	Descriptors	Compliance Measure/Evidence
		<p>For this Descriptor, analysis of existing cultural values refers to:</p> <ul style="list-style-type: none"> • An archaeological study of the facility area; or • An assessment of existing cultural values by a provincial agency based on existing information (i.e. databases). <p>A copy of all relevant studies provided to regulatory agencies on impacts to the terrestrial ecosystem and existing scenic, recreational and cultural values.</p> <p>A copy of a Construction Environmental Management Plan.</p>

Low Impact Principles	Descriptors	Compliance Measure/Evidence
Commitment to continual improvement	<p>The facility must be reliable, non-temporary and practical (i.e., not maintained in the development stages or as a pilot-scale demonstration facility).</p> <p>Operations are consistent with an ISO 14001 equivalent Environmental Management System (EMS) or a reasonable alternative.</p> <p>A documented plan will be available for review on a periodic basis of commercially reasonable opportunities for increasing the efficiency or reducing the environmental impact of the facility.</p> <p>Facility operations are coordinated, to the extent commercially reasonable, with any other wave facility to reduce impacts and protect indigenous species and habitats.</p> <p>May include a verifiable life-cycle analysis for the facility. The verifiable life-cycle analysis for the facility may consider all stages of power generation, including upstream raw material acquisition, fuel production, manufacturing, operation, maintenance and final decommissioning.</p>	<p>A written commitment by the proponent to develop and implement a BC Hydro-approved EMS that is:</p> <ul style="list-style-type: none"> • Consistent with ISO 14001; and • Commensurate with the complexity of the operations. <p>A written commitment by the proponent to provide performance-checking reports (audits) of the EMS to BC Hydro on a regular basis.</p> <p>A written commitment by the proponent to include a documented plan of commercially reasonable opportunities for increasing efficiency or reducing the environmental impact of the facility as part of the EMS.</p>

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Green Criteria: Low Impact Wind Facilities

These criteria were prepared by BC Hydro for the sole purpose of determining if facilities are low environmental impact to the standard of BC Hydro for the purpose of BC Hydro’s acquisition strategy. The determination of low environmental impact by BC Hydro does not imply certification of compliance to any certification process. BC Hydro does not accept responsibility for the use or reliance upon these criteria and the BC Hydro determination of low environmental impact by any other party.

Wind facilities will be defined as low environmental impact and new if the following criteria are met:

Low Impact Principles	Descriptors	Compliance Measure/Evidence
The facility must provide new energy.	<p>The facility must meet one of the following definitions of “new”:</p> <ul style="list-style-type: none"> • Definition 1: The facility is on a site where there is no other pre-existing electrical generating facility and the facility began generating electricity on or after 01 April 2001. • Definition 2: The facility is repowered on or after 01 April 2001 and not less than 80% of the fair market value of the facility is attributable to new generation equipment installed as part of the repowering project. • Definition 3: The facility is a separable improvement to, or separable enhancement of, an existing and operating electrical generating facility that was first in operation prior to 01 April 2001, construction of the facility was completed on or after 01 April 2001 and the incremental generation is contractually available for sale and metered separately from existing generation at the facility. 	<p>A written statement by the proponent supported by their analysis confirming that the facility will meet the Descriptor.</p> <p>For this Descriptor, analysis refers to:</p> <ul style="list-style-type: none"> • An explanation of how the facility meets a Definition; and • Financial calculations of fair market value for Definition 2; or • Facility design drawings including metering for Definition 3.

Low Impact Principles	Descriptors	Compliance Measure/Evidence
<p>Conserve existing bird habitat capability</p>	<p>If the facility impacts bird habitat capability, protection, mitigation and compensation measures are taken to ensure no net loss of birds and their habitat.</p>	<p>A written statement by a reputable scientist¹ or regulatory agency supported by their scientific analysis confirming that the protection, mitigation or compensation measures planned for the facility ensure no net loss of birds and their habitat.</p> <p>For this Descriptor, scientific analysis refers to:</p> <ul style="list-style-type: none"> • Studies assessing/surveying bird habitat, migration, breeding, population estimates and trends, etc.; • Literature review; and • The expertise and experience of the reputable scientist. <p>A copy of all relevant studies provided to regulatory agencies on bird and bird habitat impacts.</p> <p>A copy of the regulatory operating permit.</p>

Low Impact Principles	Descriptors	Compliance Measure/Evidence
	<p>The facility is operated in a manner to ensure conservation of bird habitat.</p>	<p>A written statement by a reputable scientist or regulatory agency that:</p> <ul style="list-style-type: none"> • Identifies key variables that are potentially harmful to existing bird habitat; • Provides an explanation of the monitoring program; and • Provides an explanation of how these key variables will be monitored and reported on for the life of the facility. <p>A written statement by the proponent providing an explanation of and a commitment to the process for corrective action and a commitment to take appropriate corrective action when the need for corrective action is identified by the monitoring results.</p> <p>A copy of all relevant studies provided to the regulatory agencies on key variables that are potentially harmful to existing bird habitat.</p>
	<p>The facility preserves ability of birds to migrate.</p>	<p>A written statement by a reputable scientist or regulatory agency supported by their scientific analysis confirming that migration of bird species will not be affected.</p> <p>For this Descriptor, scientific analysis refers to:</p> <ul style="list-style-type: none"> • Studies assessing bird migratory patterns in relation to facility structures; • Literature review; and • The expertise and experience of the

Low Impact Principles	Descriptors	Compliance Measure/Evidence
		<p>reputable scientist.</p> <p>A copy of all relevant studies provided to the regulatory agencies on bird migration.</p> <p>A copy of final facility design drawings and maps illustrating the location of the facility in relation to migration patterns.</p>
<p>Conserve sensitive areas and endangered species</p>	<p>The facility structures (i.e., windmills, towers, access roads, etc.) are not located in areas with a concentration of endangered species.</p> <p>The facility is not located in a “sensitive area” as designated by the Canadian Wildlife Service’s Migratory Bird Sanctuary Regulations.</p> <p>The facility has no impact on a “sensitive stream” as designated under the B.C. Fish Protection Act.</p> <p>The facility does not threaten or harm migration or habitat of endangered species, threatened species or species of regional concern.</p>	<p>A written statement by a reputable scientist or regulatory agency confirming that the facility structures are not located in areas with a concentration of endangered species.</p> <p>A written statement by a reputable scientist or regulatory agency confirming that the facility is not located in a “sensitive area” as designated by the Canadian Wildlife Service’s Migratory Bird Sanctuary Regulations.</p> <p>A written statement by a reputable scientist or regulatory agency confirming that there is no impact on a “sensitive stream” as designated under the B.C. Fish Protection Act.</p> <p>A written statement by a reputable scientist or regulatory agency supported by their scientific analysis confirming that the facility does not impact threatened or endangered species as designated by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) or species of regional concern as designated by the provincial Conservation Data Centre</p>

Low Impact Principles	Descriptors	Compliance Measure/Evidence
		<p>(CDC) (i.e., red and blue-listed species).</p> <p>For this Descriptor, scientific analysis refers to:</p> <ul style="list-style-type: none"> • Identification of all threatened species, endangered species and species of regional concern in the facility area as designated by COSEWIC or CDC; and • An explanation of why the facility will or will not impact identified species based on field reconnaissance, literature review and the experience of the reputable scientist or regulatory agency. <p>A copy of all relevant studies provided to regulatory agencies on threatened species, endangered species and species of regional concern.</p>

Low Impact Principles	Descriptors	Compliance Measure/Evidence
Conserve existing wildlife resources	The facility has no significant impact on existing wildlife habitat and populations.	<p>A written statement by a reputable scientist or regulatory agency supported by their scientific analysis confirming that the facility has no significant impact on existing wildlife habitat and populations.</p> <p>For this Descriptor, scientific analysis refers to:</p> <ul style="list-style-type: none"> • Identification of key wildlife habitat and populations in the facility area; and • An explanation of why the facility will or will not impact identified species based on literature review, field reconnaissance and the experience of the reputable scientist or regulatory agency. <p>A copy of all relevant studies provided to regulatory agencies on existing wildlife habitat and populations.</p>
Facility development has low environmental impact on land resources	<p>The incremental transmission and distribution components of the facility (including access roads, land clearing and powerline construction activities) and generation facilities have minimal impact on the terrestrial ecosystem.</p> <p>Noise levels from operations should be below levels that would have a significant impact on area residents and other potential receptors.</p> <p>Existing scenic, recreational and cultural values will not be adversely affected.</p>	<p>A written statement by a reputable scientist or regulatory agency confirming that the incremental transmission and distribution components of the facility and generation facilities have minimal environmental impact.</p> <p>A written statement by a reputable scientist or proponent confirming that the facility will adhere to applicable noise by-laws and regulations.</p> <p>A written statement by a reputable scientist, regulatory agency or</p>

Low Impact Principles	Descriptors	Compliance Measure/Evidence
		<p>proponent supported by their analysis confirming that existing scenic and recreational values will not be adversely affected.</p> <p>For this Descriptor, analysis of existing scenic and recreational values refers to:</p> <ul style="list-style-type: none"> • A socio-economic study of the facility's impacts on the local community; or • A written summary of the existing scenic and recreational values, how these values were determined (by literature review, interview, consultation or site visit) and an explanation of how the facility will not adversely affect these values. <p>A written statement by an archaeological/cultural specialist² or regulatory agency supported by their analysis confirming that existing cultural values will not be adversely affected.</p> <p>For this Descriptor, analysis of existing cultural values refers to:</p> <ul style="list-style-type: none"> • An archaeological study of the facility area; or • An assessment of existing cultural values by a provincial agency based on existing information (i.e., databases). <p>A copy of all relevant studies provided to regulatory agencies on impacts to the terrestrial ecosystem and existing scenic, recreational and cultural values.</p>

Low Impact Principles	Descriptors	Compliance Measure/Evidence
		A copy of a Construction Environmental Management Plan.
Commitment to continual improvement.	<p>The facility must be reliable, non-temporary and practical (i.e., not maintained in the development stages or as a pilot-scale demonstration facility).</p> <p>Operations are consistent with an ISO 14001 equivalent Environmental Management System (EMS) or a reasonable alternative.</p> <p>A documented plan will be made available for review on a periodic basis of commercially reasonable opportunities for increasing the efficiency or reducing the environmental impact of the facility.</p> <p>Facility operations are coordinated, to the extent of being commercially reasonable, with any other wind facility in the same area to reduce impacts and protect indigenous species and habitats.</p> <p>May include a verifiable life-cycle analysis for the facility. The verifiable life-cycle analysis for the facility may consider all stages of power generation, including upstream raw material acquisition, fuel production, manufacturing, operation, maintenance and final decommissioning.</p>	<p>A written statement by the proponent committing to develop and implement a BC Hydro-approved EMS that is:</p> <ul style="list-style-type: none"> • Consistent with ISO 14001; and • Commensurate with the complexity of the operations. <p>A written statement by the proponent committing to provide performance-checking reports (audits) of the EMS to BC Hydro on a regular basis.</p> <p>A written statement by the proponent committing to include a documented plan of commercially reasonable opportunities for increasing efficiency or reducing the environmental impact of the facility as part of the EMS.</p>

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Green Criteria - Socially Responsible Facilities

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Facilities will be defined as socially responsible if the following criteria are met:

Social Responsibility Principles	Descriptors	Compliance Measure/Evidence
Aboriginal community	Relevant members of the aboriginal community have been contacted and communicated with allowing for informed decision making by the aboriginal community.	<p>Documentation and summary of communications processes undertaken that assure that the communication allowed for informed decision making by the aboriginal community by:</p> <ul style="list-style-type: none"> • Not conflicting with Provincial government policies and guidelines, i.e., relating to heritage issues, archaeological concerns and asserted rights and title; • Providing timely interaction between the parties – proponent and appropriate aboriginal community – in the communications process; • Providing clear information to the aboriginal community on the facility and facility plan; and • Allowing for adequate feedback from the parties in the communication process. <p>The documentation shall include at least the following:</p> <ul style="list-style-type: none"> • A letter from the proponent to the relevant members of the aboriginal

Social Responsibility Principles	Descriptors	Compliance Measure/Evidence
		<p>community notifying them of the facility;</p> <ul style="list-style-type: none"> • A description of the information given to the aboriginal community regarding the facility and the time and process provided for adequate feedback; and • A written summary of all meetings and correspondence between the proponent and the aboriginal community, including dates and attendees, and an explanation of how the process undertaken allowed for informed decision making.
Community values	<p>Involve the public in processes that help create the facility plan and assure:</p> <ul style="list-style-type: none"> • No important community values have been adversely affected; and • Existing recreational access is maintained. 	<p>Documentation and summary of consultation processes undertaken that assure that the public has been involved in processes that help create the facility plan.</p> <p>The documentation shall include at least the following:</p> <ul style="list-style-type: none"> • Evidence that demonstrates that the facility plan was available to the community for comment and therefore as a matter of public record (e.g., public presentation to town council, open house, notice in the paper); • An explanation by the proponent of how the important community values were determined and how the facility does not adversely affect them; and • A written statement by the proponent, supported by their analysis that confirms that existing recreational access is maintained. Analysis should include a description of

Social Responsibility Principles	Descriptors	Compliance Measure/Evidence
		existing recreational access and how the proponent intends not to impact that recreational access.
Facility contributes to local community and economy	Facility balances facility development with supporting local community's economy by: <ul style="list-style-type: none"> • Providing employment opportunities to the community; or • Using local products and resources; or • Making an explicit contribution to the community. 	Policies and procedures that outline practical, commercially reasonable and measurable efforts to: <ul style="list-style-type: none"> • Provide employment opportunities to the community; or • Use local products and resources; or • Make an explicit contribution to the community. Evidence of any jobs created in the community. Evidence of any contracts with local suppliers or contractors. Evidence of any contribution to local community (e.g., volunteer work, taxes, local fees or other expenditures).
Quality health and safety programs	Demonstrates a commitment to the health and safety of employees and general public.	A written statement by the proponent confirming that the facility will demonstrate a commitment to the health and safety of employees and general public. Policies and procedures that demonstrate a commitment to health and safety including but not limited to: <ul style="list-style-type: none"> • Public safety issues (e.g., physical controls such as signage and fencing and other means of protecting public safety at the site or from the operations); • Emergency preparedness and response (e.g., draft Tables of Contents of corporate health and safety manuals, emergency response plans or summaries of the plans, corporate health and safety

Social Responsibility Principles	Descriptors	Compliance Measure/Evidence
		<p>policies); and</p> <ul style="list-style-type: none"> Incident prevention and reporting (e.g., incident prevention and reporting requirements as outlined in a Construction Environmental Management Plan or Environmental Management System (EMS) including the process for reporting spills at the site).
Operates in an ethical manner	<p>Demonstrates a commitment to operate in an ethical manner by:</p> <ul style="list-style-type: none"> Demonstrating transparency in public disclosure of information on financial, environmental and social performance over the life of the facility; and Maintaining accounting records and controls in accordance with generally accepted accounting practices to ensure finances are managed in a responsible manner. 	<p>Policies and procedures on public disclosure that demonstrate transparency (e.g., policies on reporting on facility operations, environmental performance relating to emissions or flows, facility newsletters, website information).</p> <p>Evidence of public disclosure on the facility such as press releases, “triple bottom line” reports, minutes of meetings with stakeholders and the public.</p> <p>A written statement by the proponent that commits to maintain accounting records and controls in accordance with Canadian generally accepted accounting practices (GAAP).</p> <p>Any other policies and procedures that demonstrate a commitment to operate in an ethical manner (e.g., a company Code of Conduct, a membership with the Canadian Business for Social Responsibility or similar organization).</p>