

FAAR ECCC RESPONSE PRAIRIE LIGHTS POWER PROJECT

ATTACHMENT: December 13, 2019

Federal Authority Advice Record

Response due by 12-DEC-2019

Prairie Lights Power Project – Prairie Lights Power GP Inc.

Agency File: [80324]

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1. Is it probable that your department or agency may be required to exercise a power or perform a duty or function related to the Project to enable it to proceed?

If yes, specify the Act of Parliament and that power, duty or function.

Based on the Initial Project Description, ECCC does not expect that it will be required to exercise a power or perform a duty or function related to the Project to enable it to proceed. It is unlikely that Migratory Bird Convention Act (MBCA) and Species at Risk Act (SARA) permits would be needed.

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2. Is your department or agency in possession of specialist or expert information or knowledge that may be relevant to the conduct of an impact assessment of the Project?

Specify as appropriate.

ECCC is in possession of specialist or expert information that may be relevant to the conduct of the impact assessment in the areas listed below, notably regarding baseline data, potential effects, mitigation measures, monitoring and follow up, as well as relevant federal policies, standards, and regulations:

FAAR ECCC RESPONSE PRAIRIE LIGHTS POWER PROJECT

- **Air Quality:** ambient air quality, sources of emissions, emissions estimation and measurement, dispersion modelling, and follow-up monitoring and federal policies and regulations.
- **Greenhouse gas emissions and climate change:** estimations of net greenhouse gas (GHG) emissions (direct and upstream), GHG mitigation measures and determination of Best Available Technologies/Best Environmental practices (BAT/BEP), climate change science to inform project resiliency to effects of climate change, climate change policies, and national GHG projections.
- **Water quality and quantity:** surface water quality and effects to changes on aquatic life, contamination sources for surface water, wastewater and runoff management, management of contaminated soils or sediments, surface water hydrology, follow-up monitoring.
- **Wildlife and habitat:** migratory birds, their nests, eggs, and habitat; species at risk, their habitat and critical habitat; ecological function of wetlands.
- **Environmental emergencies:** emergency management planning and guidance where releases of hazardous substances could affect human health and/or environmental receptors such as fish, fish habitat, aquatic species, or migratory birds; atmospheric transport and dispersion modelling of contaminants in air; fate and behaviour, hydrologic trajectory modelling of contaminants in water.

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3. Has your department or agency considered the Project; exercised a power or performed a duty or function under any Act of Parliament in relation to the Project; or taken any course of action that would allow the Project to proceed in whole or in part?

Specify as appropriate.

Not at this time.

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4. Has your department or agency had previous contact or involvement with the Proponent or other party in relation to the Project? (for example, enquiry about methodology, guidance, or data; introduction to the project)

Provide an overview of the information or advice exchanged.

As indicated by the Proponent (Initial Project Description, Section 1.3) and based on information readily available, ECCC has not had any involvement with the Proponent or other parties that would be relevant to the assessment of this Project. ECCC Prairie and Northern Region has not been in contact with the Proponent regarding permitting or authorizations for the Project.

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5. Does your department or agency have additional information or knowledge not specified, above?

Specify as appropriate.

Not at this time.

FAAR ECCC RESPONSE PRAIRIE LIGHTS POWER PROJECT

6. From the perspective of the mandate and area(s) of expertise of your department or agency, what are the issues that should be addressed in the impact assessment of the Project, should the Agency determine that an impact assessment is required?

For each issue discussed, provide a concise, plain-language summary that is appropriate for inclusion in the Summary of Issues.

Environmental Emergencies

The proposed Project includes the use of hazardous materials (i.e., natural gas, fuel and oil) near water, and has the potential to release explosive gases to the atmosphere; fuels and hazardous materials may also be released during construction and operations phases. Therefore, there is a potential for Project accidents and malfunctions to create adverse environmental and human health effects. Prevention, preparedness and response measures and systems will be important given the risk of spills of hazardous substances to water and uncontrolled releases of explosive gases.

Air Quality

The combustion turbine generator will emit criteria air contaminants, including nitrogen oxides, carbon monoxide, and fine particulate matter. This can increase air pollutant concentrations, and potentially contribute to acid deposition in sensitive ecosystems over the long term. Construction of the power plant, transmission line, and pipeline will include physical disturbances like clearing and earth moving, which can create particulate matter (dust). This particulate matter may degrade air quality and contaminate nearby land and waterbodies, which could impact fish and their habitat.

Road Transportation emissions

Fuel combustion in on-road vehicles and mobile off-road machines emit air pollutants and thereby effect air quality. Potential air pollution from construction, operation and decommissioning activities should be assessed.

Greenhouse Gas Emissions and Climate Change

The Project may release greenhouse gas (GHG) emissions and have an impact on Canada's ability to meet its obligations and commitments in respect of climate change. The draft strategic assessment of climate change (SACC) provides interim guidance on the information requirements related to climate change throughout the impact assessment process including GHG emissions, GHG mitigations measures and climate change resilience, the circumstances in which an upstream GHG assessment will be required, and when additional information such as determination of the best available technology/best environmental practice (BAT/BEP) will be required.

Net GHG Emissions

The Proponent estimates that the GHG emissions attributable to the Project is 1,104,000 tonnes CO_{2e} per year from 2022-2052/2053. The Project's expected emissions may not align with the Government of Canada's long term goal to reduce GHG emissions.

FAAR ECCC RESPONSE PRAIRIE LIGHTS POWER PROJECT

ECCC will review the Proponent's estimate of construction and operation GHG emissions including methodologies and assumptions used to quantify emissions over the lifecycle of the Project including the decommissioning phase.

Climate Change Resilience

There is the potential for environmental conditions to result in effects on the Project itself, including potential effects due to climate change.

Alternatives to

ECCC notes that the list of alternatives to the Project should be expanded which could include, but not be limited to, the use of a small modular nuclear reactor, sources of renewable energy, or use of biofuels. ECCC requests the Proponent provide additional information in the Detailed Project Description of the ``alternatives to`` considered in their evaluation.

Alternative means

ECCC notes that the list of potential alternative means of carrying out the Project should be expanded to include alternatives that would reduce GHG emissions.

Migratory Birds

Construction activities have the potential to harm migratory birds and their eggs and nests. Under the *Migratory Birds Convention Act, 1994* (MBCA) and its regulations, all migratory birds, eggs and nests are protected wherever they occur, including those that are species at risk. Further, the MBCA prohibits the deposit of a substance harmful to migratory birds in waters or an area frequented by migratory birds. The Proponent must describe the potential effect(s) of their activities on migratory birds, nests, and eggs and implement appropriate avoidance and mitigation measures, including the use of infrastructure lighting. Information on how proponents can avoid harm to migratory birds can be found on the Government of Canada's website under "Avoiding harm to migratory birds" <https://www.canada.ca/en/environment-climate-change/services/avoiding-harm-migratory-birds.html>.

There is potential for neotropical migrant birds to collide with Project infrastructure. One of the stacks described (Initial Project Description - Appendices, Section 2.0, Table 1) is 50m tall, which is 25 meters above the adjacent tree canopy and other Project infrastructure. Stacks in remote areas have been known to attract migrating songbirds, resulting in collisions and mortality (especially during inclement weather events).

<Original signed by>	Dec 13, 2019
_____ Signature	_____ Date

_____ Andrea McLandress Name of Departmental / Agency Responder
_____ Regional Director, Environmental Protection Operations Directorate – Prairie and Northern Region Title of Responder