Summary of Issues

Salt Springs Natural Gas Power Generation Facility Project

The Summary of Issues outlines the key issues that the Impact Assessment Agency of Canada (IAAC) considers relevant for the federal impact assessment process for the Salt Springs Natural Gas Power Generation Facility Project (the project). The proponent's response to the Summary of Issues will support decision-making by IAAC on whether further assessment is required under section 16 of the *Impact Assessment Act*. If further assessment is required, the key issues outlined below and the proponent's response will inform the scope of the impact assessment, and the development of the Tailored Impact Statement Guidelines and plans, as appropriate.

IAAC was informed by input received to date from federal and provincial authorities, Indigenous groups, and the public on the proponent's Summary of the Initial Project Description. The proponent is encouraged to read all submissions on the Canadian Impact Assessment Registry Internet site for the project (Reference Number 90114).

IESO Nova Scotia is required to describe how it intends to address the key issues identified below as part of the development of its project. A high-level description is sufficient. Where relevant, the proponent is encouraged to identify if the key issues will be addressed through existing legislative and regulatory frameworks (i.e., legislation or regulation), by proponent commitments to best practices, policies or standards, or both.

Key issues

Fish and Fish Habitat

- Adverse effects to fish and fish habitat due to reduced groundwater-surface water baseflow in Watercourse 1, Six Mile Brook, Eight Mile Brook, and the West River due to groundwater withdrawal for operations. Provide additional information on how groundwater and surface flow modelling will be conducted and validated, and measures that would be implemented to mitigate potential adverse effects to fish and fish habitat in Watercourse 1, Six Mile Brook, Eight Mile Brook, and the West River.
- Adverse effects to fish and fish habitat due to effluent discharge into Watercourse 1. Provide additional information on the extent of potential adverse effects to fish and fish habitat from effluent discharge, and measures that would be implemented to mitigate any adverse effects to fish and fish habitat in Watercourse 1, Six Mile Brook, Eight Mile Brook, and the West River.
- Adverse effects to Atlantic salmon and other cold-water species, including availability and effectiveness of cold-water refugia, due to changes to groundwater recharge, baseflow, hydrological connectivity, and downstream thermal regimes that may be caused by vegetation clearing, soil disturbance, and wetland alteration. Provide further information on measures to manage any adverse effects to Atlantic salmon and other cold-water species in Watercourse 1, Six Mile Brook, Eight Mile Brook, and the West River.

Health Conditions of Indigenous Peoples

- Adverse effects to Mi'kmaw communities' health and wellbeing due to exposure to hazardous emissions during accidents and malfunctions. Provide information on how this will be considered in communication and emergency response plans, how the Mi'kmaq will be engaged in the development of these plans, and how input received will be included in such plans.

Indigenous Peoples' Current Use of Lands and Resources for Traditional Purposes

- Adverse effects to Atlantic salmon, American eel, and brook trout and related impacts to Mi'kmaq Aboriginal and treaty rights to fish. Provide information on how potential adverse effects to these species would be addressed with the Mi'kmaq, and how Mi'kmaq Knowledge from all potentially impacted Mi'kmaw communities will be considered.
- Direct and cumulative adverse effects on culturally significant species for the Mi'kmaq, including mainland moose that has core habitat within 2 to 4 kilometres of the project, and black ash that are present on the project site. Provide additional information on how potential adverse effects to these species of importance would be mitigated and how Mi'kmaq Knowledge will be considered.

Indigenous Peoples' Spiritual, Physical and Cultural Heritage

- Adverse effects, such as damage or disturbance to undiscovered Mi'kmaq archaeological resources due to ground disturbance, site clearing, and construction activities. Provide further information on how the proponent will engage with the Mi'kmaq to consider Mi'kmaq Knowledge in protocols for chance finds, how the Archaeological Resource Impact Assessment (ARIA) will be used to inform conclusions on potential adverse effects, how the information in the ARIA will be validated by potentially impacted Mi'kmaw communities, and how issues raised will be addressed in collaboration with the Mi'kmaq.
- Direct and cumulative adverse effects to culturally significant species, habitats, and land-based practices adversely impacting Mi'kmaq Aboriginal and treaty rights and cultural continuity. Provide further information on how Mi'kmaq Knowledge from all potentially impacted Mi'kmaw communities will be meaningfully integrated into the Mi'kmaq Ecological Knowledge Study (MEKS) during project planning, how the results of the MEKS and Mi'kmaq Knowledge shared by potentially impacted Mi'kmaq First Nations will be used to inform conclusions on potential adverse effects, how the information will be validated by potentially impacted Mi'kmaw communities, and how issues raised will be addressed in collaboration with the Mi'kmaq.

Indigenous Peoples' Rights

- Concerns about how the Mi'kmaq have been engaged and how impacts on Aboriginal and treaty rights have been considered. Provide further information on engagement efforts that will be carried out with all Mi'kmaw communities who may be impacted by the project and have interests in the area, how concerns raised will be addressed in collaboration with the Mi'kmaq, and how opportunities for economic benefits to the Mi'kmaq could be achieved throughout the life of the project.

- The project's contribution to adverse cumulative impacts on Mi’kmaq Aboriginal and treaty rights, traditional land use, water availability, habitat connectivity, and ecological integrity. Provide information on how the project could contribute to adverse cumulative impacts on Aboriginal and treaty rights, and how these would be managed, including consideration of Mi'kmaq Knowledge from all potentially impacted Mi’kmaw communities.

Permitting and Authorizations

- Environment and Climate Change Canada recommend being consulted to ensure that the requirements of the *Migratory Birds Convention Act, 1994* and the *Migratory Birds Regulations, 2022* and the *Species at Risk Act* are taken into account.
- Fisheries and Oceans Canada recommend being consulted to ensure the requirements of the *Fisheries Act* are taken into account and recommend that the proponent submit a request for review that includes groundwater modelling and hydrologic information quantifying how groundwater withdrawals may alter groundwater levels and surface water flows, particularly during low-flow conditions. The submission should outline model assumptions, predicted flow changes, and proposed monitoring or mitigation measures to demonstrate that ecological flows will be maintained and met.

Appendix – Other Comments, Advice, and Recommendations – Salt Springs Natural Gas Power Generation Facility Project

IAAC is providing the following table of other comments, advice, and recommendations for information purposes only. The proponent is encouraged to consult the Canadian Impact Assessment Registry Internet site for the project (Reference Number 90114) to review the original comments.

Accidents and Malfunctions

- Concerns about the potential for accidental releases of hazardous substances that could adversely affect human health, fish and fish habitat, water quality, migratory birds, and Indigenous Peoples in Canada as well as the ability of local services to be able to respond during such emergencies.

Acoustic Environment

- Concerns about the long-term adverse effects to the environment and health of nearby residents due to noise, vibration, and light generated by the facility.

Alternative Means of Carrying Out the Project/ Alternatives to the Project

- Concerns about whether various technically and economically feasible options, such as the use of best available technologies (e.g., combined-cycle versus simple-cycle), fuel sources (e.g., hydrogen, renewable natural gas, propane), and location of the project were adequately considered.
- Concerns about the apparent lack of consideration of alternatives to the project, such as battery storage, wind and solar power generation, interprovincial imports, existing coal power generation and prioritizing community-based and locally owned renewable energy resources.
- Concerns about emissions that would come from the potential use of diesel as a backup fuel, and of hydrogen gas as a future fuel source.

Climate Change and Greenhouse Gas Emissions

- Concerns about lifecycle greenhouse gas emissions, including potential associated methane leaks, generated by the construction and long-term operation of the fossil fuel power generation facility, as well as the adequacy of the assessment of greenhouse gas estimates, the choice of baseline comparison (coal power generation versus wind and solar power generation), potential transboundary effects, and potential adverse effects to carbon sinks within the project footprint, which could contribute to fossil fuel dependency and potentially hinder federal and provincial climate commitments and net-zero objectives.

Cumulative Effects

- Concerns about concurrent development of multiple natural gas power generation facilities in the region that could cumulatively increase air emissions, wetland loss, groundwater withdrawal, and community burden, which could be worsened by climate change.

Human Health and Well-Being

- Concerns about adverse effects to human health conditions related to combustion emissions (including fine particulate matter, nitrogen oxides, volatile organic compounds), operational noise, and associated environmental changes from the facility that could increase exposure to air pollutants and chronic stressors, leading to adverse respiratory, cardiovascular, cancer, maternal-infant, and mental health outcomes for nearby residents, particularly vulnerable populations.

Indigenous Peoples' Health, Social and Economic Conditions

- Concerns about potential adverse effects to the health and well-being of nearby communities from increased pressures on health and social services due to the influx of workers during the two-year construction period.

Migratory Birds

- Concerns about direct, indirect, and adverse cumulative effects on migratory birds and bird species at risk including injury, mortality, sensory disturbance, air emissions, and habitat loss (e.g. wetlands) from project activities.

Non-Indigenous Social and Economic Effects

- Concerns about siting a fossil fuel power generation facility within a rural residential area that could reduce nearby property values and alter established land use character, cause community and service disruptions, and increase long-term electricity costs to ratepayers due to capital, fuel, and operational expenditures associated with the project.
- Concerns about access to hiring and training opportunities for local residents.

Permits and Guidance

- Potential need for an Aeronautical Assessment Form (AAF) to be completed to manage lighting and marking requirements for the proposed stacks and cranes. Review the applicable Canadian Aviation Regulations and AAF for Obstruction Marking and Lighting.

Public Engagement

- Concerns about short notices, compressed timelines, limited engagement since the project was first announced, and lack of accessible information for residents near the proposed project site.

Species at Risk, Terrestrial Wildlife and their Habitat

- Concerns about adverse effects to terrestrial plants, wildlife, and species at risk (e.g., mainland moose, black ash, monarch butterfly, amphibians, bats, fisher, black bear, bobcat, marten, snapping turtle), including injury, mortality, noise, light, and habitat loss and fragmentation resulting from project activities.

Water – Groundwater and Surface Water

- Concerns about the volume of groundwater withdrawal needed for plant operations and potential accidental releases of fuels or process wastewater that could reduce aquifer levels or introduce contaminants and adversely affect the quantity and quality of well water relied upon by nearby residents for drinking water, wastewater treatment methods, alternative water use options, wastewater release rates, and monitoring efforts, including how effects could be worsened by drought conditions recently and regularly experienced in Nova Scotia.
- Concerns about geological risks, including karst risk (sinkholes) and how groundwater quantities and groundwater-surface water interactions could be adversely affected as a result.
- Concerns about the potential adverse effects to surface water quantity and quality of nearby water bodies from wastewater discharge and groundwater depletion, including how effects could be worsened by drought conditions recently and regularly experienced in Nova Scotia.

Wetlands

- Concerns about the loss of wetland area, hydrological connectivity, and ecological functions such as habitat quality and availability for migratory birds, species at risk, and other wildlife.