

Federal Authority Advice Record (FAAR)

The FAAR must be submitted to the Registry by January 28, 2024.

Marguerite Lake Compressed Air Energy Storage Project – Federation Group Inc.

Department/Agency	Health Canada
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1. a) 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.

b) Please describe any Indigenous or public consultation that will be undertaken in relation to the exercise of that power, duty or function, including when it would take place.

[Not applicable \(N/A\)](#)

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

Specify the specialist or expert information or knowledge.

[As a federal authority, Health Canada will provide specialist or expert information and knowledge in the Department's possession \(expertise\) to support the assessment of impacts on human health from projects considered individually or cumulatively under the Impact Assessment Act \(IAA\). It should also be noted that expertise related to assessing human health that is relevant to impact assessment \(IA\) may be held by other federal, provincial, and municipal partners, reflecting the shared jurisdiction for environmental and human health within Canada. For example, the Public Health Agency of Canada \(PHAC\) has expertise in the social determinants of health approach and health equity, and may provide that expertise through Health Canada, upon request from the reviewing body\(ies\). How the expertise provided by Health Canada and PHAC will be used in the IA process will ultimately be determined by the reviewing body\(ies\).](#)

[Health Canada can provide human health expertise in the following areas:](#)

- Air quality;
 - Recreational and drinking water quality;
 - Country foods;
 - Noise;
 - Methodological expertise in human health risk assessment;
 - Methodological expertise in health impact assessment;
 - Electromagnetic fields;
 - Radiological emissions; and
 - Public health emergency management of toxic exposure events.
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3. Has your department or agency 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?

Please specify if applicable.

Not applicable (N/A)

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

Please provide an overview of the information or advice exchanged.

No

5. Does your department or agency have additional information or knowledge about the project not specified above, including information about its geographic, environmental, economic or social context (for example, location of protected or sensitive areas, history between local communities and proponent or similar projects, local or regional social or economic concerns)?

Please specify if applicable.

No

6. From the standpoint of your department's mandate and expertise, what are the main issues concerning the project?

For each key issue, please:

- describe the effect or the nature of the issue, including any relevant context;
- provide the rationale and/or evidence for why it is a key issue;
- briefly provide solutions to the issue, including information or studies that, if applicable, should be requested to the proponent in the Tailored Impact Statement Guidelines, potential mitigation measures, or regulatory requirements relevant to the issues;
- provide a concise, plain-language summary of the issue for inclusion in the Summary of Issues.

The information provided will be taken into consideration by the Agency to formulate an opinion on whether an impact assessment is required and, if applicable, will be taken into account in developing project-specific Tailored Impact Statement Guidelines in the next steps of the impact assessment process.

Please use Table 1 to answer this question.

7. If applicable, specify any additional information the proponent could provide in the Detailed Project Description or in its response to the Summary of Issues that:
- would make it possible to verify whether certain minor issues could be addressed and managed by clear measures, existing guidelines, other regulatory processes or other existing tools;
 - help the Agency to provide an opinion if an impact assessment is required, or
 - would support the tailoring of the Impact Statement Guidelines if the Agency is of the opinion that an impact assessment is required.

These clarifications and additional information will be included as specific questions/issues in the Summary of Issues provided to the proponent.

Please use Table 2 to answer this question.

[Health Canada](#)

Name of department or agency involved

[Brenda Woo - Regional Manager,
Environmental Health Program](#)

Speaker title

[January 26, 2024](#)

Date

Table 1: Key issues to inform the impact assessment process

The Agency asks that federal authorities guide expert advice on the Agency's approach to project specific tailoring, if the Agency is in the opinion that an impact assessment is required. This approach aims to focus the assessment on the Project's key issues, with an emphasis on the prevention of adverse environmental effects in areas of federal jurisdiction. In determining key issues, federal authorities should be mindful of the Project's context (size, scope, location), Indigenous knowledge and perspectives, and public concerns.

Potential effects that are considered minor, or that can be mitigated through clear measures, existing guidance or other regulatory processes, may be subject to simplified information requests or be disregarded. Advice from federal authorities on key issues and solutions - and on the scope and detail of the studies and information requested - will enable the Agency to focus the analysis on those issues that are important for the impact assessment process.

Comment ID	Relevant section of the initial project description	Valued Component or Factor to Consider	Description of key issue (context and rationale)	Advice	Plain-language summary for inclusion in Summary of Issues
<p>Please present comments by organization and comment number</p> <p>e.g.: IAAC-01</p>	<p>If the comment relates to a specific section of the initial project description, please provide the reference.</p>	<p>Identify valued component(s) or factor to consider—within the mandate of your department or agency—to which the potential effect or issue applies.</p>	<p>Please provide a brief description of the issue and rationale for being a key issue.</p> <p>Include, where relevant:</p> <ul style="list-style-type: none"> the sequence of potential effects; the relevant context that specifies why this is a key issue; key uncertainties that should be addressed in the impact assessment; Indigenous or public concerns or perspective; scientific data or traditional knowledge, including from previous projects, that justifies the inclusion of the key issue in the project assessment. 	<p>If applicable, please provide brief solutions/advice to address the issue or potential effect, including:</p> <ul style="list-style-type: none"> studies or information relevant to describing and characterizing the potential effect, including any guidance for data collection or analysis or existing data sources to inform the assessment; any powers your department or agency has that may mitigate, manage or set conditions related to the issue; advice or policies to frame and mitigate the potential effect; standardized mitigation or monitoring measures that could manage potential effects, including follow-up on monitoring activities; commitments the proponent could make to respond to the issue. 	<p>For issues to be included in the Summary of Issues, provide a concise, plain language synopsis of the key issue and any questions or directions for the proponent, if applicable.</p>
HC-01	<p>Section 4.1 – Indigenous Groups</p> <p>Section 4.2 – Indigenous Engagement</p> <p>Section 4.3 – Plans for Future Indigenous Engagement</p>	Human Health – Human Receptors	<p>Without sufficient information on the locations of human receptors or traditional land use activities, Health Canada (HC) cannot provide informed comments on Key Issues.</p> <p>For a project to present a risk to human health from exposure to chemical substances, three criteria must be present: the potential for releases of contaminants of potential concern (COPCs), the presence of human receptors, and route(s) of exposure. Human health may also be affected by noise emissions reaching human receptors in the vicinity of a project-related activity (e.g., construction activities,</p>	<p>HC recommends that the following information be requested:</p> <ol style="list-style-type: none"> If possible, provide a map indicating the Project area and approximate locations of known temporary/permanent/seasonal residences, traditional land uses (e.g., hunting, trapping), and known locations of sensitive human receptors (e.g., schools, daycare centres, hospitals, assisted care homes). If a map cannot be made available, provide the distances of human receptor locations from project components. 	<p>There is insufficient information regarding the location of human receptors in the project location during the construction and operation phases of the Project to assess the potential impacts of the Project on human health.</p>

			<p>increased traffic, etc.). Well-being may also be impacted by changes to social and economic conditions.</p> <p>Section 4.3 of the Initial Project Description (IPD) identified consultation activities that were undertaken with 11 Indigenous communities who may have asserted traditional territory in the Project area, or whose traditional land use activities or Aboriginal and Treaty Rights may be affected by the project. Some of these groups have stated that they use the area for traditional practices and that they access the area around the project site. One group continues to have outstanding issues with traditional land use concerns.</p>		
<p>Given the information available, Health Canada (HC) considers it premature to attempt to remove relevant human health Key issues at this phase. However, the scope of the analysis recommended in comments HC-02 to HC-08 should be adapted to the human receptors present and their concerns.</p>					
HC-02	<p>Section 4.2 – Indigenous Engagement</p> <p>Section 4.3 –Plans for Future Indigenous Engagement</p> <p>Section 22.1 – Potential Effects to Indigenous Health</p>	Human Health – Country Foods	<p>Given the use of the local area for traditional harvesting by Indigenous communities, additional information is recommended on the potential for contamination of country foods from Project-related changes in air, water, and/or soil quality.</p> <p>In Section 4.2, Indigenous communities have expressed concerns regarding accessing the project area for practicing traditional harvesting and have stated that they do harvest country foods in the project area. Additionally, Section 4.3 indicates there are outstanding concerns related to land access for the purpose of undertaking traditional harvesting practices.</p>	<p>HC recommends that the following information be requested:</p> <ol style="list-style-type: none"> 1) Provide a discussion on the potential for country food contamination related to the discharges from project activities during all phases. <ol style="list-style-type: none"> i. Assess country food consumption as a potential pathway of contaminant exposure for traditional land users. Identify potential country food types/species (e.g., plants, fish, birds, and wildlife) that may be harvested from the area. Relevant information may be collected from Indigenous engagement activities and/or dietary/consumption surveys. If collection of local data is not possible, proxy/surrogate data may be used provided a justification is given on how the proxy data is representative of local consumption patterns. 	There is insufficient information regarding the potential impacts to country food contamination due to project activities.

			<p>In the IPD, there is minimal discussion related to the potential for country food contamination other than what is stated in Section 22.1. <i>“The project will result in a temporary reduction in the area available for plant harvesting but is not anticipated to cause indirect effects to the health of country foods or the abundance of plants for traditional harvesting outside the disturbance area.”</i></p> <p>Further information is recommended to clarify whether there is potential for contamination of country foods due to project-related changes in air, water, and/or soil quality over the life of the project.</p>	<p>ii. Identify all COPCs from Project-associated emissions and potential transport pathways of the COPCs into country foods (e.g., aquatic food web accumulation, atmospheric deposition).</p> <p>iii. Provide any available information on background concentrations of Project-related COPCs in relevant country foods and discuss whether concentrations may increase because of the Project. Discuss the human health impacts associated with these potential Project-related changes to country foods quality.</p> <p>For reference: HC’s guidance document on assessing potential human health risk from projects: Guidance for Evaluating Human Health Effects in Impact Assessment: Country Foods (Health Canada 2023): https://publications.gc.ca/collections/collection_2024/sc-hc/H129-54-5-2023-eng.pdf</p>	
HC-03	<p>Section 4.2 – Indigenous Engagement</p> <p>Section 7.3 – Potential Benefits of the Project</p> <p>Section 14.10 – Air Quality</p> <p>Section 15.3.2 – Transportation network</p>	Human Health – Air Quality	<p>Insufficient rationale and assessment details were provided in the IPD for air quality COPCs.</p> <p>Section 14.10.2 of the IPD states, <i>“Based on the implementation of these measures and the modelling results indicating the Project will comply the with the [Alberta Ambient Air Quality Objectives] AAAQO for <u>NO₂ and NH₃</u>, the Project is not expected to cause high magnitude adverse effects to air quality.”</i> Rationale is not provided for the selection of these (COPCs) or the exclusion of other COPCs from the assessment of the air quality.</p> <p>Additionally, the IPD relies on the AAAQO for its assessment and does not refer to the Canadian Ambient Air Quality Standards (CAAQS). The CAAQS were developed in consideration of both human health and the environment. Modelled predictions within an air quality assessment’s study area should be compared to the most stringent air</p>	<p>HC recommends that the following information be requested:</p> <ol style="list-style-type: none"> 1) Provide a complete inventory of all potential air pollutants including, but not limited to, NO_x, SO₂, CO, ozone (O₃), PM_{2.5}, coarse particulate matter (PM₁₀), PAHs, VOCs, DPM, and metals. Justify the exclusion of any common air pollutants from further consideration. 2) Identify whether potential Project effects on ambient air quality may result in pathways of exposure to pollutants for identified human receptors. 3) Compare baseline and predicted air quality to the most stringent and most up-to-date federal and provincial air quality criteria. 	There is insufficient information regarding the potential impacts to human health from air emissions generated during the construction and operation phases of the Project.

	Appendix E – Proposed Mitigation Measures for Potential Adverse Effects		<p>quality standards, guidelines or objectives applicable to the given region that may be affected by project activities. An evaluation using CAAQS may be considered in determining the nature and severity of the project’s impact on air quality levels and the resulting mitigation measures that may be recommended to maintain good air quality levels or to prevent an exceedance of the CAAQS. Note that when assessing the potential health effects from non-threshold air contaminants, there is no level below which there is no adverse health effect.</p> <p>Section 7.3 of the IPD indicates the plan of using hydrogen (H₂) from 50 to 100% in the operation phase of the project, while Section 14.10 mentions only the use of natural gas. It is unclear if the AERMOD modelling results are only for the use of natural gas or if it includes different scenarios that consider the combustion of H₂.</p> <p>In Appendix E, vehicles and equipment are identified as potential sources of adverse effects for air quality, but, an assessment was not available or planned to determine if these components could affect the air quality. Moreover, while the assessment presented in Section 14.10 presents the modelling results for NO₂ and NH₃, increased traffic and the use of onsite equipment may contribute to additional COPCs, beyond NO₂.</p>	<p>For reference: HC’s guidance document on assessing potential human health risk from projects: Guidance for Evaluating Human Health Impacts in Impact Assessment: Air Quality (Health Canada 2023): https://publications.gc.ca/collections/collection_2024/sc-hc/H129-54-1-2023-eng.pdf</p>	
HC-04	<p>Section 4.2 – Indigenous Engagement</p> <p>Section 9.1 – Project Works and Activities</p>	Human Health – Water Quality	<p>Additional information is recommended to assess the potential for Project-related impacts to drinking water quality.</p> <p>Sections 4.2 and 13.5 of the IPD acknowledge that the project area overlaps with areas where activities are undertaken by at least three nations (Health Lake First Nation [HLFN], Cold Lake First Nation [CLFN] and Kikino Metis Settlement [KMS]). CLFN acknowledge that activities include “obtaining</p>	<p>HC recommends that the following information be requested:</p> <ol style="list-style-type: none"> 1) Identify all water sources that are used for drinking, recreational, and traditional purposes, such as potable water wells, municipal drinking water supplies and treatment systems, and the location of water bodies used for recreation and traditional purposes as part of a baseline water quality study. Clarify whether Indigenous users consume treated or untreated water. 	There is insufficient information on locations of water sources related to drinking and recreational use.

	<p>Section 13.5 – Proximity to Indigenous and Traditional Land Use</p> <p>Section 14.0 – Biophysical Setting</p> <p>Section 14.4 – Groundwater and Surface Water</p> <p>Appendix E – Proposed Mitigation Measures for Potential Adverse Effects</p>		<p>drinking water from on-the-land sources”. The IPD does not indicate where these sources are located and where they overlap with the disturbance area. Section 14.4.3 and Appendix E of IPD acknowledge that construction and operational activities may affect groundwater and surface water quality.</p> <p>As indicated in HC-01, further information is recommended to determine if the disturbance area may impact the drinking and recreational water quality.</p>	<p>2) Describe any potential Project-related changes to drinking water and water used for recreation and traditional purposes and associated effects on human health.</p> <p>For reference: HC’s guidance document on assessing potential human health risk from projects: Guidance for Evaluating Human Health Impacts in Impact Assessment: Drinking and Recreational Water Quality (Health Canada 2023): https://publications.gc.ca/collections/collection_2024/sc-hc/H129-54-2-2023-eng.pdf</p>	
HC-05	<p>Section 4.2 – Indigenous Engagement</p> <p>Section 4.3 – Plans for Future Indigenous Engagement</p> <p>Section 11.0 – Schedule</p> <p>Section 14.11 – Noise</p> <p>Appendix E – Proposed Mitigation</p>	Human Health – Noise	<p>Additional information is recommended to assess the potential for Project-related impacts of noise on human health.</p> <p>Section 14.11 of the IPD provides a noise assessment according to Alberta’s AUC Rule 012 for the operational activities of the project. Concerning the noise produced during the construction phase, the IPD states that activities should be limited to daylight hours and will adhere to local by-laws. However, these approaches differ from HC’s guidance, which recommends the assessment of annoyance (e.g., percent highly annoyed [%HA]), sleep disturbance, etc.</p> <p>Additionally, in sections 4.2 and 13.5 of the IPD, CLFN and HLFN had questions regarding the increase in truck traffic and traffic in general due to the project. Section 15.3.2 states that: “<i>The Project will cause a short-term increase in local vehicle traffic</i></p>	<p>HC recommends that the following information be requested:</p> <ol style="list-style-type: none"> 1) Provide detailed information (e.g., location and duration of monitoring, baseline noise levels, location of sensitive receptors, etc.) from the ambient noise surveys. 2) Develop a comprehensive communication plan that describes how residents will be informed ahead of time of any Project-related activities that may lead to noise disturbances, as well as a complaints resolution procedure that describes how noise complaints will be received and addressed. 3) Consider or recommend a follow-up monitoring plan to confirm the effectiveness of mitigation measures. 	There is insufficient information on noise levels assessment, and assessment of residual effects, monitoring and follow-up plans.

	Measures for Potential Adverse Effects		<i>during the construction period</i> , the IPD does not provide further information (e.g., number of trucks per day, traffic routes). Therefore, HC is unable to assess the potential noise impact of the project on human health.	For reference: HC's guidance document on assessing potential human health risk from projects: Guidance for Evaluating Human Health Impacts in Impact Assessment: Noise (Health Canada 2023): https://publications.gc.ca/collections/collection_2024/sc-hc/H129-54-3-2023-eng.pdf	
HC-06	Section 15.3.4 – Labor and Economy Section 15.3.6 – Social and Economic Effects	Human Health – Determinants of Health	There is insufficient information to assess the potential for subpopulations to be differentially impacted by the Project. The IPD does not articulate potential health, social, and economic effects in detail sufficient to determine the possible effects of the Project on the social determinants of health and health equity. Sections 15.3.4 and 15.3.6 of the IPD explain the potential economic, social and health benefits and impacts from the Project. It remains unclear how different subgroups of the population (e.g., men vs. women, Indigenous vs. non-Indigenous, youth vs. elderly, etc.) may be impacted.	HC recommends that the following information be requested: 1) Provide a description of the local communities' subgroups and apply Gender based Analysis Plus (GBA+) to better identify how Project effects may result in differential impacts within each group : i. Identify vulnerable or marginalized groups within the community. ii. Understand the unique challenges and opportunities each group faces. iii. Assess how the project might enhance or mitigate these challenges and opportunities. Further guidance on applying GBA+ to impact assessments is available in the Impact Assessment Agency of Canada's Guidance: Gender-Based Analysis Plus in Impact Assessment, available at: https://www.canada.ca/en/impact-assessment-agency/services/policyguidance/practitioners-guide-impact-assessment-act/gender-basedanalysis.html	There is insufficient information regarding the potential differential impacts of the Project on sub-populations that are disproportionately impacted by inequities.

<p>HC-07</p>	<p>Section 14.4 – Groundwater and Surface Water</p> <p>Appendix E – Proposed Mitigation Measured for Potential Adverse Effects</p>	<p>Human Health – Accidents and Malfunctions</p>	<p>Additional information is recommended to determine the potential impacts on human health from accidents and malfunctions.</p> <p>Section 14.4.3 mentions spills of fuel, saltwater, or other chemicals as potential project-related effects on groundwater and surface water. There is an Environmental Protection Plan mentioned several times throughout the document. The specifics of the plan are not presented as a clear, cohesive package. (Appendix E)</p> <p>The IPD lacks references to an Emergency Response Plan or a Health and Safety Plan, which are critical for effectively addressing potential accidents and malfunctions. It is important that such plans be established and documented in advance to ensure that emergencies are managed correctly.</p>	<p>HC recommends that the following information be requested:</p> <ol style="list-style-type: none"> 1) Provide a qualitative discussion of potential impacts (e.g., from spills) at human receptor locations that will inform the development of a proposed Environmental Health and Safety Contingency Plan or an Environmental Emergency Response Plan. <p>HC's guidance on responding to crude oil incidents may be useful to inform emergency response planning if it is determined that an IA is recommended. Guidance for the Environmental Public Health Management of Crude Oil Incidents (Health Canada 2018): https://publications.gc.ca/collections/collection_2018/sc-hc/H129-82-2018-eng.pdf</p>	<p>There is insufficient information regarding accidents and malfunctions scenarios, and response plans to such events.</p>
<p>HC-08</p>	<p>Section 4.2 – Indigenous Engagement</p> <p>Section 13.5 – Proximity to Indigenous and Traditional Land Use</p> <p>Section 14.0 – Biophysical Setting</p> <p>Section 21.1 – Potential Effects to Indigenous Physical and Cultural Heritage and Land Use</p>	<p>Human Health – Cumulative Effects</p>	<p>The IPD does not discuss the Project's contributions to cumulative health effects.</p> <p>The IPD acknowledges the potential cumulative effects in the region on several occasions in Section 14.0. Sections 4.2 and 13.5 outline concerns shared by HLFN and KMS regarding the potential cumulative effects of the projects in the region. The IPD does not list the different active and reasonably foreseeable future projects or describe how cumulative effects will be considered for these projects on different valued components.</p>	<p>HC recommends that the following information be requested:</p> <ol style="list-style-type: none"> 1) Provide information on the potential cumulative environmental, social, and economic effects of existing and future projects within the vicinity of the Project and their potential to collectively impact human health for the identified receptors and pathways. 	<p>There is insufficient information regarding the potential cumulative impacts of the current and future projects in the same area as the Project.</p>

Please insert additional lines if necessary.

Table 2. Details or additional information the proponent could include in the Detailed Project Description or in the response to Summary of Issues

Comment ID	Relevant section of the Initial Project Description	Description of the Issue, Concern or Uncertainty	Clarifications or additional information	Plain-language summary for inclusion in Summary of Issues
<p><i>Please identify comments by organization and comment number.</i></p> <p><i>e.g. AEIC-01</i></p>	<p><i>If the comment is related to a specific section of the Initial Project Description, please provide a reference.</i></p> <p><i>You may also choose to copy the relevant text here.</i></p>	<p><i>Provide a description of the issue, concern or uncertainty that the proponent could include in its Detailed Project Description, which could be framed and managed by clear measures, existing guidelines, regulatory processes or other existing tools, and thus be the subject of a simplified information request in the guidelines, or simply be disregarded.</i></p>	<p><i>Specify what additional information the proponent could provide in the Detailed Project Description to address the issue, concern or uncertainty, for example:</i></p> <ul style="list-style-type: none"> <i>• Clarifications to elements of Project Description (e.g. components, activities, locations or alternatives);</i> <i>• Proposals on Project design changes that could avoid effects;</i> <i>• Evidence that could demonstrate that the effects will be negligible;</i> <i>• Evidence that standard mitigation measures will reduce or eliminate potential effects;</i> <i>• Commitments the proponent could make to respond to the question/issue, including the implementation of federal operational policies or guidance documents.</i> 	<p><i>For issues to be included in the Summary of Issues, provide a concise, plain-language synopsis of the issue and any questions or instructions for the proponent, if applicable.</i></p>

Please insert additional lines if necessary.