



## **Related projects**

In section 2.4 (page 2–5 of volume 1 of the impact study), the proponent refers to the construction of the access road to the generating station as a related project not specifically mentioned in schedules A or B of the Environment Quality Act. It also undertakes to obtain the exemptions for these infrastructures and all government authorizations required to carry them out in a timely manner.

**QC - 1.** The Commission asks the proponent to describe, in general, the proposed construction of the access road and its potential impacts on the environment and the social environment. The Commission also asks the proponent why it did not include the proposed access road to the project of power generating station.

## **Information and consultation activities**

**QC - 2.** In section 3.3.1 (page 3-2 of volume 1 of the impact study), the proponent mentions the adoption of resolution 2020-13 by the Kangiqsujuaq municipal council. The Commission asks the proponent to file this resolution.

**QC - 3.** In section 3.3.2 (page 3-2 of volume 1 of the impact study), the proponent mentions the adoption of resolution 2021-23 by the Kangiqsujuaq municipal council. The Commission asks the proponent to file this resolution.

**QC - 4.** In section 3.3.4 (page 3-3 of volume 1 of the impact study), the proponent summarizes the meeting with representatives of the Kangiqsujuaq municipal council and the Nunaturlik landholding corporation concerning the recommended site and the results of the analysis of potential sites. The Commission asks the proponent to provide the minutes of this meeting.

**QC - 5.** In section 3.3.5 (page 3-3 of volume 1 of the impact study), the proponent mentions the adoption of resolution 2022-29 by the Kangiqsujuaq municipal council and resolution 2022-49 by the Nunaturlik landholding corporation. The Commission asks the proponent to provide these resolutions.

**QC - 6.** In section 3.3.6 (page 3-3 of volume 1 of the impact statement), the proponent mentions that it held an information and consultation session on November 9, 2022, on the local radio in Kangiqsujuaq, during which it provided listeners with updated information on the project. Some residents would like the site protected by physical barriers to ensure public security during construction. The Commission asks the proponent to specify whether such barriers will be installed during construction and, if not, why not.

## **Operating phase**

In section 4.2.9 (page 4-16 of volume 1 of the impact study), the proponent mentions that it is working with partners on a wind power project in parallel with the construction of the new generating station. It also mentions that the Kangiqsujuaq power grid will initially be supplied entirely by the new generating station, which will then gradually be operated with a combination of diesel, wind and battery power.

**QC - 7.** The Commission asks the proponent to specify whether it is the designated proponent for the wind power project, which could be considered a phase 2 of the present project, or whether the parallel project will be carried out with partners and thus be considered a new project requiring another assessment.

## **Layout of borrow pits**

Section 4.3.2 (page 4–20 of volume 1 of the impact study) explains that the location of the borrow pits have not yet been determined. There is little granular material available in Kangiqsujuaq, and that available is already largely used by the village.

- QC - 8.** The Commission asks the proponent to locate and map all existing and planned operations (borrow pits, sand pits, quarries) for the purposes of the project, specifying their proximity to the location of roads, watercourses and proposed protected areas to take into account the regulations, characteristics and possibilities of the environment. It must evaluate the areas and volumes required and, if necessary, will submit sounding reports describing the stratigraphy and provide grading curves. The proponent must indicate how the evaluation of the required borrow material was optimized. Finally, an overview of the redevelopment and decommissioning measures for these sites must also be provided.

## **Dismantling of the existing plant**

- QC - 9.** In section 4.3.5 (page 4-20 of volume 1 of the impact study), the proponent indicates that the dismantling of the existing plant and the site's restoration are planned to take place after the new generating station is commissioned in 2028. The Commission wishes to remind the proponent that it must file an exemption request for this purpose.
- QC - 10.** The Commission notes that for a project to dismantle a thermal power plant in another Northern Village, the proponent offered the community certain buildings for reuse rather than destruction. The Commission asks the proponent to indicate whether it intends to do the same for this project.

## **Hazardous residual materials**

- QC - 11.** Section 4.4 (pages 4-21 and 4-23 of volume 1 of the impact study) briefly presents the management of hazardous residual materials during the construction and operating phases. The Commission asks the proponent to submit a plan for managing these hazardous residual materials, including a list of all materials generated during the project's operating phase (metals, plastics, electronic products, etc.), the storage conditions for these materials, disposal sites, transportation route including distance to be covered and number of trucks per week. This management plan for hazardous residual materials must also include an estimate of the quantities of materials generated during the operating phase, as well as a description of the measures put in place to ensure compliance with the 3RV principle, whenever applicable.
- QC - 12.** In section 4.4.1 (page 4-21 of volume 1 of the impact study), the proponent indicates that an agreement could be reached with the Northern Village of Kangiqsujuaq for the disposal of construction waste at the village's northern landfill. Residual materials generated during the operating phase will also be disposed of at this site, as is the case for the existing plant. The Commission asks the proponent to provide documents confirming its agreement with the Northern Village of Kangiqsujuaq to receive construction waste and residual materials during generating station's operating phase.

## **Impacts on the human environment and mitigation measures**

### **Greenhouse gases and climate change**

Section 6.8.2 (pages 6-23 to 6-34 of volume 1 of the impact study) presents specific mitigation measures and plans to install wind turbines. However, there are no plans to completely replace the new generating station's energy input with renewable energy, such as solar or wind power, at the end of the station's expected useful life. The most

optimistic scenario forecasts a reduction of around 52% for 2077; yet, Quebec's carbon neutrality target is set for 2050.

**QC - 13.** The Commission asks the proponent to specify the issues involved in meeting Quebec's 2050 carbon-neutral objective, and how the project's current strategy could be modified to address this shortcoming. Finally, the proponent must include in its environmental monitoring program a plan for monitoring GHG emissions during the operating phase.

### **Health, safety and quality of life**

Section 6.8.7 (page 6-47 of volume 1 of the impact study) states that the proponent intends to adopt certain measures to minimize potential social impacts, given the external workers who will be in the community during the construction phase.

**QC - 14.** Section 8.1.10 (page 8-10 of volume 1 of the impact study) assesses the risk of contamination of watercourses and wetlands by runoff in the event of petroleum product spills or leaks, and proposes management measures. The Commission asks the proponent to also assess the risk of contamination of bedrock and groundwater, taking into account local conditions, such as permafrost depth. It must also propose mitigation, control and follow-up measures, where appropriate.

### **Identifying potential for accidents**

**QC - 15.** Section 8.1.10 (page 8-10 of volume 1 of the impact study) assesses the risk of contamination of watercourses and wetlands by runoff in the event of petroleum product spills or leaks, and proposes management measures. The Commission asks the proponent to also assess the risk of contamination of bedrock and groundwater, taking into account local conditions, such as permafrost depth. It must also propose mitigation, control and follow-up measures, where appropriate.

### **Emergency preparedness plan during operations**

Section 8.3 (pages 8-18 and 8-19 of volume 1 of the impact study) states the proponent will implement emergency response measures for the operating phase of the generating station. These measures will be integrated into the emergency preparedness plan already in place for all Hydro-Québec's autonomous power plants in Nunavik. This plan takes into account their location in small, isolated communities. It also provides a preliminary version of these emergency measures. It specifies that the municipality and other involved public authorities will be consulted, and the plan will be submitted to the MELCCFP before the station is commissioned.

**QC - 16.** The Commission asks the proponent to complete the emergency preparedness plan with the following measures:

- Ensure its station's emergency preparedness plan is coordinated with the Kangiqsujuaq fire department, as well as with the Kativik Regional Government for fire prevention services, the risk coverage plan and the civil protection plan. The same applies to the transitional emergency measures plan during the construction phase (hazardous materials for the work site and residual materials).
- Inform the municipality and fire department of Kangiqsujuaq, as well as the Kativik Regional Government, of any transshipments of old reservoirs and the initial filling of new reservoirs. The same applies to the dismantling of old reservoirs.
- Organize a tour of the final station with the fire department to familiarize first responders with procedures specific to the station's hazards. The frequency of training and drills should be determined.

- Include the COG (24/7), specifying that it is the Ministère de la Sécurité publique, in the telephone list of external resources.
- Pay attention to the different perimeters in relation to the multi-dwelling building located approximately 300 metres from the KAQ-2 site (page 4-5 of volume 1 of the impact study report)

### **Phase I site characterization studies**

According to the Phase I site characterization report in Appendix F (volume 2 of the impact study), a former contractor's work area and heliport, as well as a former dump site, are identified on adjacent land, just to the north of the proposed generating station site.

**QC - 17.** The Commission asks the proponent to assess the risk of contamination from activities that have taken place on this neighbouring property (e.g. atmospheric dispersion from burning open waste or from runoff). If the land is likely to have been contaminated, the proponent must carry out a soil characterization adapted to the risk (number, location and depth of test pits).

### **Atmospheric dispersion study**

Appendix J (section 3.9, page 14 of volume 3 of the impact study) states that the atmospheric dispersion modeling of contaminants was carried out in accordance with Appendix H of the *Règlement sur l'assainissement de l'atmosphère (RAA)* and generally accepted methodology, except for the modelling method for nitrogen oxides. In fact, section 3.9 mentions that the Plume Volume Molar Ratio Method (PVMRM) was used. The PVMRM method is recommended when sources are isolated and elevated. However, it is possible to see that the generating station's springs are side by side and 12 metres high.

**QC - 18.** Thus, the Commission asks the proponent to redo the modelling using the total conversion method, and if the limit values of Appendix K of the RAA are exceeded with this method, it must redo the modelling according to the Ozone Limiting Method (OLM). This method is more appropriate when the sources are close to the surface and when the plumes can overlap. If the second option is chosen, the ozone concentrations and initial NO<sub>2</sub> concentrations from the "Northern rang" in Table 1 will have to be used for the new modelling.

If the new modelling shows exceedances in NO<sub>2</sub> and odour concentrations, the proponent will have to plan additional mitigation measures to make the project acceptable in terms of ambient air.

Cordially,

Chairperson,

Pierre Philie