

# Project Dashboard

## Proposed New Power Plant at Chesterfield Inlet (149761)

### Proposal Status: Conformity Determination Issued

- **Overview**
- Documents
- Correspondence
- Questionnaire

#### Project Overview

Type of application: **New**

|                 |        |
|-----------------|--------|
| Proponent name: | MFrind |
| Company:        | QEC    |

**Schedule:**

|                 |            |
|-----------------|------------|
| Start Date:     | 2027-01-01 |
| End Date:       | 2067-12-12 |
| Operation Type: | Annual     |

**Project Description:**

Qulliq Energy Corporation (QEC) is proposing to construct and operate a new power plant in the Hamlet of Chesterfield Inlet, which is located in the Kivalliq Region of Nunavut. This multi-year project will include a new four-engine power generation facility (proposed generating capacity of 1,820 kilowatts) designed for a life expectancy of over 40 years. It will also incorporate new technology in order to improve reliability, efficiency, operation, safety, and to reduce environmental impacts. Construction will include a fuel storage system consisting of two 90,000 litre double-walled, 110% contained horizontal fuel tanks, appropriate fuel pumping facilities, Quonset garage, transformer storage, pole racks, oil and glycol drum storage and waste disposal area (with secondary containment berm). Space will also be provided for a transient staff accommodation unit, sea cans for storage, and a back-up emergency generator. Upgrades to the existing distribution system will also be required to connect to the new power plant. An approximately 250-metre fuel pipeline will be constructed to connect to the Government of Nunavut's Petroleum Products Division (PPD) bulk fuel storage facility located to the south. The pipeline is anticipated to be of aboveground construction. The new plant will be capable of integrating renewable energy sources, including wind and solar.

**Personnel:**

|          |     |
|----------|-----|
| Persons: | 5   |
| Days:    | 250 |

#### Project Map

**List of all project geometries:**

| ID   | Geometry | Location Name        |
|------|----------|----------------------|
| 8715 | polyline | New project geometry |

**Planning Regions:**

Kitikmeot

**Affected Areas and Land Types**

Municipal

Settlement Area

Keewatin Planning Region

## Project Land Use and Authorizations

### Project Land Use

Other

### Licensing Agencies

No data found.

### Other Licensing Requirements

No data found.

## Material Use

### Equipment

| Type                                   | Quantity | Size     | Use   |
|--|----------|----------|---|
| Construction equipment                 | 10       | 5 metres | Standard construction equipment pieces including backhoes, excavations, loaders, forklifts, boom cranes, graders, tele-handlers, welders, concrete mixers, dump trucks, bulldozers. |
| Diesel generators for power generation | 5        | 8 metres | Power generation plant (once constructed). Includes four main generators and one backup generator.  |

### Fuel Use

| Type   | Container(s) | Capacity | UOM          | Use   |
|--------|--------------|----------|--------------|---|
| Diesel | 2            | 90       | Cubic Meters | Diesel fuel for construction purposes, will be kept in double-walled portable tank. This is for the construction of the power plant itself. The completed |

power plant will have two large 90-cubic-metre fuel tanks, double-walled and with continuous electronic monitoring. There will also be small day tanks inside the power plant.

**Hazardous Material and Chemical Use**

| Type              | Container(s) | Capacity | UOM | Use |
|-------------------|--------------|----------|-----|-----|
| No records found. |              |          |     |     |

**Water Consumption**

| Daily Amount (m <sup>3</sup> ) | Retrieval Method             | Retrieval Location       |
|--------------------------------|------------------------------|--------------------------|
| 0.5                            | Domestic-type usage at plant | Supplied by tanker truck |

**Waste and Impacts**

**Environmental Impacts**

Construction of the new power plant will entail similar construction wastes as would arise from building a typical concrete-and-steel residential, commercial, or institutional building. Domestic-type wastes will also arise. These types of wastes would be disposed of via the standard municipal facility (assuming the same permission would be granted as has been granted for the existing power plant in the community). Meanwhile, domestic sewage will be taken away by tanker truck, thus reflecting the same procedure as is done for the existing power plant. Waste crankcase oils, glycol coolant, and similar operational fluids from the power plant, once constructed, will be disposed of via sealift southwards, as we have been doing for the existing power plant at Chesterfield Inlet.

**Waste Management**

| Waste Type           | Quantity Generated | Treatment Method                  | Disposal Method                               |
|----------------------|--------------------|-----------------------------------|---|
| Sewage (human waste) | 100 litres         | Municipal                         | Tanker truck via standard municipal disposal. |
| Combustible wastes   | 1000 litres a year | Waste oil is recycled in southern | As with our existing power                    |

|                        |                        |  |  |
|------------------------|------------------------|--|--|
|                        |                        | Canada at a refinery equipped for the purpose. | plant, waste engine crankcase oils will be drummed and shipped out annually via sealift. Glycol coolants from regular                |
| Non-Combustible wastes | 1000 litres a year     | Recycled at facility in southern Canada.       | changes are stored in drums and shipped out via annual sealift to southern Canada. These are standard households wastes as generated |
| Non-Combustible wastes | 1 cubic metre per year | Standard municipal waste facility              | on-site, such as waste printer paper, food waste, and so on.   |