



DES
CULTURES WIND FARM
Project

PUBLIC MEETING

NOVEMBER 2018



- **Founded in 2010**
- **Subsidiary of Tewaohnhi'saktha, Kahnawà:ke's Economic Development Commission**
- **Mission**
 - help meet energy demands by developing renewable energy projects that are respectful of the natural world, reduce our collective energy footprint, and generate revenue, employment opportunities and other benefits for the host communities, Kahnawà:ke, and the surrounding regions.

- **Hydro-Québec Distribution call for tenders (2009)**
 - 12 contracts signed with
 - Municipal sector (10)
 - Co-operative sector (1)
 - First Nations (1)


- **Stems from the « Stratégie énergétique du Québec 2006-2015 »**
 - Development of 4 000 MW of wind projects
 - Development of a manufacturing industry in the Gaspésie/Matane region

- **A partnership of**
 - Kruger Energy (70% ownership)
 - Kahnawà:ke Sustainable Energies (30% ownership)
- **Kruger Energy will be in charge of development, construction and operation of the wind farm**
- **KSE will control the Board of the partnership**

PROJECT LOCATION


MAP 1.1
PROJECT AREA LOCATION


PROJECT


 Project area

TERRITORY


 Provincial road


 Local road

 Municipal boundary

 Regional county municipality (RCM)

NATURAL ENVIRONMENT

 Watercourse

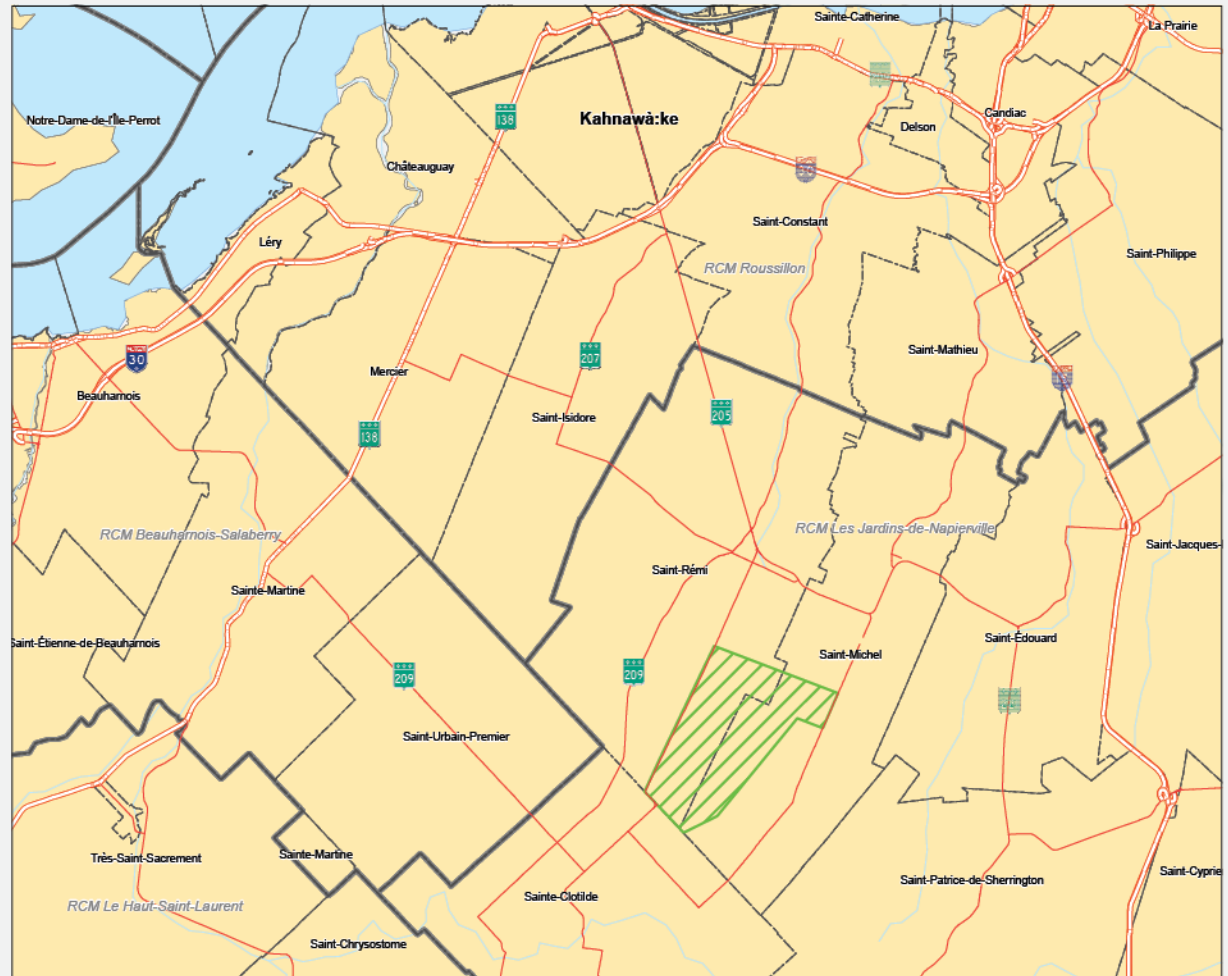
 Waterbody

0 1000 2000 4000 6000 8000 m

Projection NAD 1983 MTM 8

Sources: Gouvernement du Québec, CIC 2013, Kruger Énergie, Activa Environnement

Map prepared by: Véronique Bisailon, Forest Engineer
Project: E1810-123 / 13063
November 5, 2018



KRUGER ENERGY: SUSTAINABLE DEVELOPMENT

- **A business unit of Kruger Inc., a Montreal-based company founded in 1904**
- **Specialized in renewable energy generation:**
 - Hydro
 - Wind
 - Solar
 - Biomass cogeneration

THE DES CULTURES COMMUNITY PROJECT

- **The project will include 6 to 10 wind turbines**
- **Installed capacity of 24 MW**
- **Located in the southern part of Saint-Michel and Saint-Rémi**

PROPOSED TECHNOLOGY

- **Wind turbine capacity** 2.5 – 4.0 MW
- **Tower Height** 100 – 130 m
- **Rotor diameter** 120 – 150 m
- **Wind speed for operation** 10 – 120 km/h

WIND FARM DEVELOPMENT AND AGRICULTURE

- **Footprint of a wind turbine: 180 m² (0.018 ha)**
- **Access road: width of 5 to 7 m**
- **Underground collector system**
- **Protection of agricultural drainage systems**
- **Preservation of topsoil during construction**
- **Rehabilitation of disturbed land and monitoring**
- **Landowner consultation prior to positioning infrastructure on their land**

CONSTRAINTS ON WIND TURBINE POSITIONING

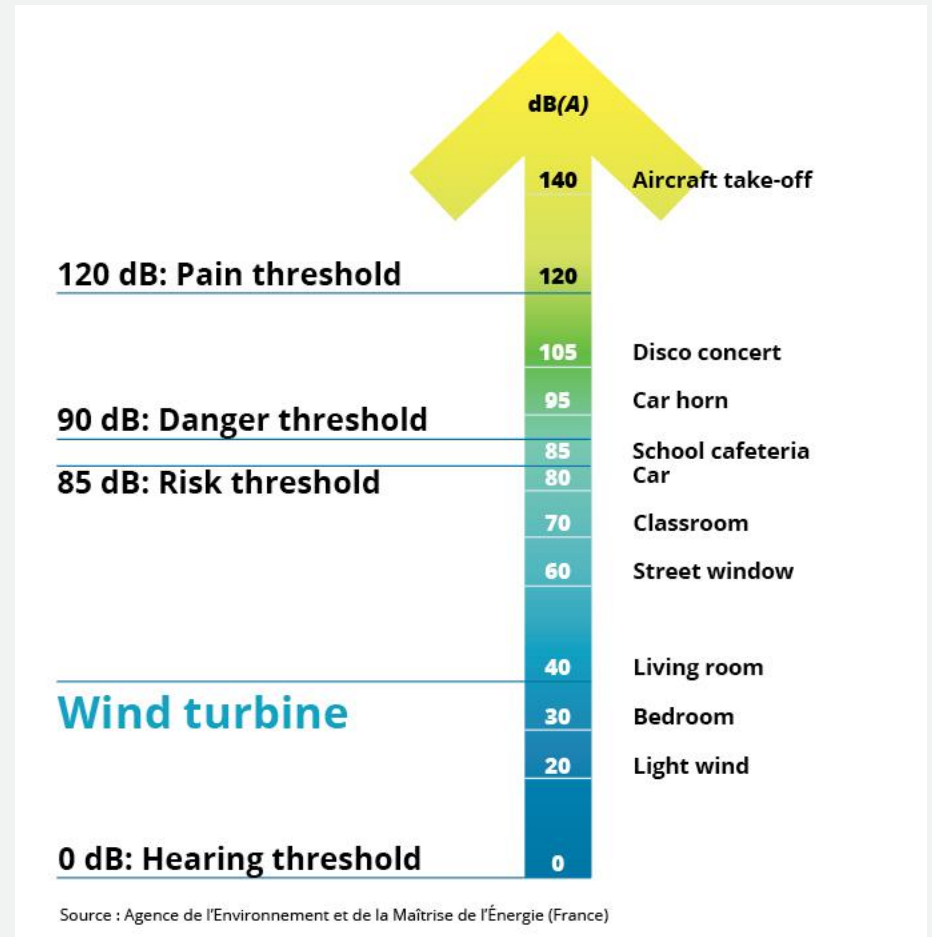
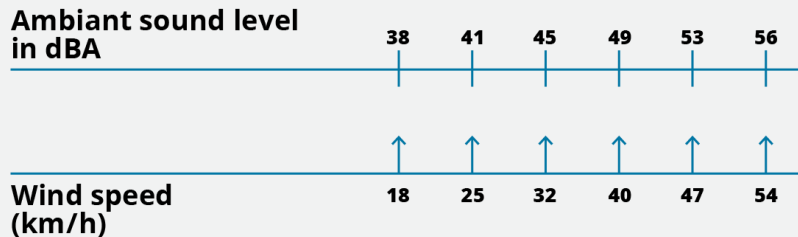
- **Distance from houses: 750 m**
- **Distance from urban perimeter and protected buildings: 2 km**
- **Distance from public roads: 300 m**
- **Avoidance of wetlands, orchards, areas of constraints for bats (mature woods, ponds and streams)**
- **Avoidance of telecommunication networks**
- **Visual integration with surroundings**
- **Compliance with sound level constraints**

COMPARISON OF SOUND LEVELS FROM DIFFERENT NOISE SOURCES

Sound level of a windfarm

Max level required by MELCC

- 45 dBA daytime
- 40 dBA nighttime



Total investment of approximately \$70 million

- Economic benefits for Kahnawà:ke, Saint-Rémi and Saint-Michel
- **60%** of total project cost to be spent in Quebec as per power purchase agreement with Hydro-Quebec
- Regional content (Gaspésie – Matane) of **30%** of wind turbine cost
- Between **\$5 and \$8 million** for local shops, restaurants, hotels, contractors

LOCAL BENEFITS

Direct benefits for municipalities

- Payment of **\$120,000 to \$240,000** annually to municipalities (Saint-Rémi and Saint-Michel combined)
- Total value of **\$3.6 million** over 20 years

Payments to participating landowners

- **\$165,000** per year adjusted for inflation
- Total value in excess of **\$3.3 million** over 20 years

Return on investment

- **30%** of profits from the project will be paid to Kahnawà:ke Sustainable Energies as a return on investment
- These profits will be shared between the Mohawk Council (**50%**) and Tawatohnhi'saktha Kahnawà:ke's Economic Development Commission (**50%**)

Other benefits

- Contracts for local companies and construction jobs
- Training and jobs for operations & maintenance

PRELIMINARY PROJECT SCHEDULE

- **Filing of environmental impact assessment** **December 2018**
- **Filing of CPTAQ authorization request** **December 2018**
- **BAPE consultations** **May to December 2019**
- **Start of construction** **Fall 2020 or spring 2021**



TO REACH US

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