



## Written Question

**Asked by:** Adam Arreak Lightstone

**Asked of:** Hon. Jeanie Ehaloak

**Minister Responsible for the Qulliq Energy Corporation**

**Number:** 34-5(2)

**Date:** June 5, 2019

**Subject:** QEC Solar Panel Project

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**Purpose:** It is known that burning diesel has negative impacts on the environment including air pollution, greenhouse gas emissions, and fuel spills.

As Nunavut is almost completely reliant on fossil fuel for power, diesel generators are constantly spewing out greenhouse gases, which is contributing to climate change while the arctic is seeing the most dramatic impacts.

The average electricity price in Canada is about 11 cents per kWh while in Kugaaruk the price for a residential customer is currently \$1.12 per kWh – more than 10 times the national average.

Renewable energy generation systems offer an environmentally friendly approach to producing electricity in Nunavut. Solar energy potential in the territory is comparable to the amount of solar energy that reaches southern Canada while the investment in the area is not.

Although installation costs of solar panel projects are high due to the cost of transporting equipment to the territory, the use of renewable solar systems results in energy savings and the reduction of greenhouse gases.

Adam Arreak Lightstone

I would like to request information on QEC's Iqaluit solar panel pilot project to make this information public, and encourage others to invest in renewable energy in Nunavut.

### **Panels**

1. What solar panel make and model was selected for the Iqaluit project?
2. Why did QEC select these particular solar panels?
3. How does this specific solar panel compare in quality to other make and models?
4. How did QEC decide that 11 panels would suffice?

### **Inverter**

5. What inverter make and model was selected for the Iqaluit project?
6. Why did QEC select this specific inverter?

### **Location**

7. How did QEC determine the location of the panels?

### **Installation**

8. What certified electrical contractor was hired to install the system?
9. Why was this company chosen to perform the installation?
10. Were any local technicians or QEC employees trained on solar installation or operation as part of the project? If so, what did the training involve?

### **Inspection**

11. Who performed the final inspection?
12. What were the results of the inspection?

### **Cost**

QEC reported that the total project cost \$73,000

13. What was the purchase price of the;
  - a. Solar panels;
  - b. Inverter;
  - c. Additional equipment to monitor performance; and
  - d. other
14. What was the transportation cost of the;
  - a. Solar panels;

- b. Inverter;
  - c. Additional equipment to monitor performance; and
  - d. other
15. What was the installation cost of the
- a. Solar panels;
  - b. Inverter;
  - c. Additional equipment to monitor performance; and
  - d. Other
16. What other costs were included in the \$73,000 total project cost?

### **Other**

17. Have the solar panels performed as expected?
18. Can QEC share the total energy generated from this project so far, as well as how much energy the panels generate each month?
19. What lessons did QEC learn from the project?
20. Has this pilot project helped QEC to develop other potential renewable energy projects?
21. If the project were to be repeated, what would be done differently?
22. Are the results from this project helping to inform QEC on how to shape their renewable energy policies as they move forward?
23. What other relevant information would Nunavummiut gain from QEC's solar panel project?
24. What sort of maintenance has been required on this solar project, and at what cost?
25. Does QEC have end-of-life concerns for solar energy systems?
26. How long do they expect panels to last, and can they be recycled at the end of their lifetime?
27. Will QEC roll out any incentive programs to assist Nunavummiut to take part in the net metering program?