



## Written Question

**Asked by:** Adam Arreak Lightstone

**Asked of:** Hon. Patterk Netser

**Minister Responsible for the Nunavut Arctic College**

**Number:** 35-5(2)

**Date:** June 5, 2019

**Subject:** NAC Solar Power System

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**Purpose:** Nunavut Arctic College first installed solar panels on its main building in Iqaluit in 1995. The 20-year-old installation has been producing 200 kilowatt hours of electricity annually – or, enough to power one classroom for a year according to a CBC article which also stated that despite being two decades old, most of the 60 panels are still active and working at about 70 to 75 per cent capacity.

A report titled Performance Monitoring of the Nunavut Arctic College PV System: Nine Years of Reliable Electricity Generation concluded that “The PV system has worked reliably and well during its first nine years of operation... On an annual basis, the system performs at 70% of its rated capacity, which corresponds to a typical value obtained for PV systems installed at lower latitudes. This shows that PV systems can perform just as well in Northern climates.

Renewable energy generation systems offer an environmentally friendly approach to producing electricity in Nunavut.

Adam Arreak Lightstone

I would like to request information on the Iqaluit solar project to make this information public and encourage other to invest in renewable energy in Nunavut.

### **Panels**

1. What solar panel make and model was selected for the Iqaluit project?
2. Why did NAC select these particular solar panels?
3. How does this specific solar panel compare in quality to other make and models?
4. How many panels were installed, and how was that number determined?

### **Inverter**

5. What inverter make and model was selected?
6. Why was this specific inverter selected?

### **Position**

7. How did NAC determine the position 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 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**

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 total project cost?

**Other**

17. Have the solar panels performed as expected?
18. What is the total energy generated from this project so far?
19. How much energy the panels generate each month?
20. What lessons did NAC learn from the project?
21. If the project were to be repeated, what would be done differently?
22. Are the results from this project helping to inform NAC on how to shape their renewable energy policies as they move forward? Is the learning from this project helping NAC to develop other renewable energy projects?
23. What other relevant information would Nunavummiut gain from NAC's solar panel project?
24. What sort of maintenance has been required on this solar project?
25. Does NAC 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?