

TOWN OF INUVIK

*"endeavor to be a leading example
of sustainable innovation"*

Arctic Resiliency: Community
Accounts of Innovation

June 12, 2019



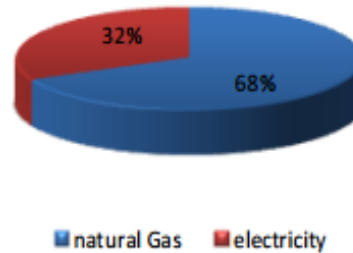


BUILDING ENERGY MONITORING

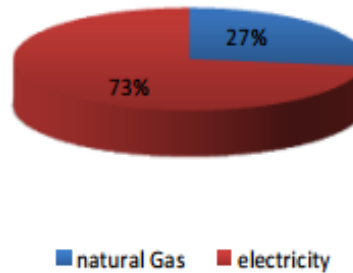
Utilities Cost

Electrical Demand

Midnight Sun Recreation Complex
annual energy consumption - 13000 GJ

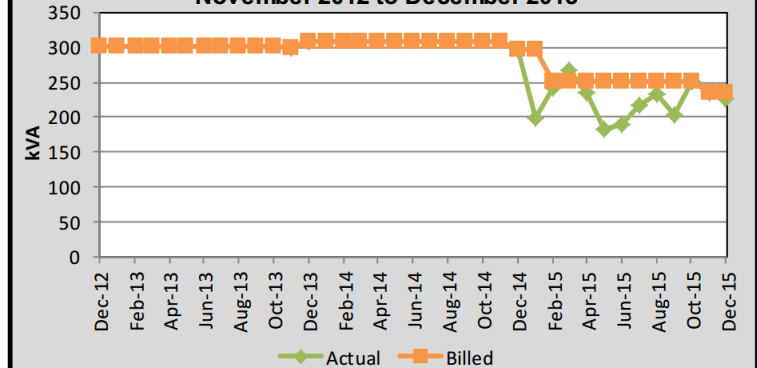


Midnight Sun Recreation Complex
annual energy costs - \$1,200,000



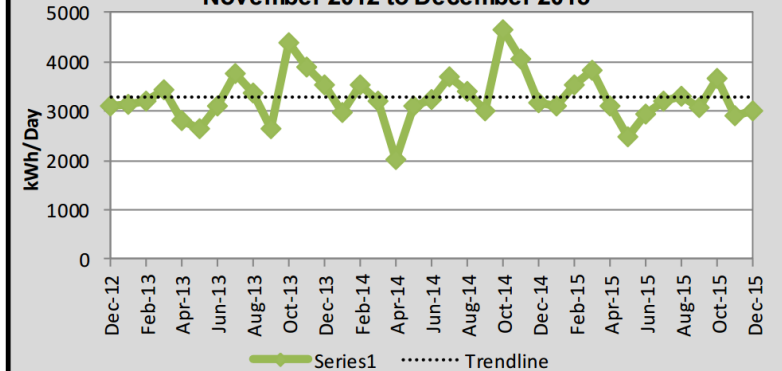
In this facility natural Gas represents 68% of the energy used but only 27% of cost.
A unit of electrical energy is about 5.5 times the cost of natural Gas.

Midnight Sun Recreation Complex Electrical Demand
November 2012 to December 2015



Electrical Consumption

Midnight Sun Recreation Complex Electrical Consumption
November 2012 to December 2015



BENEFITS OF USING **BMON**

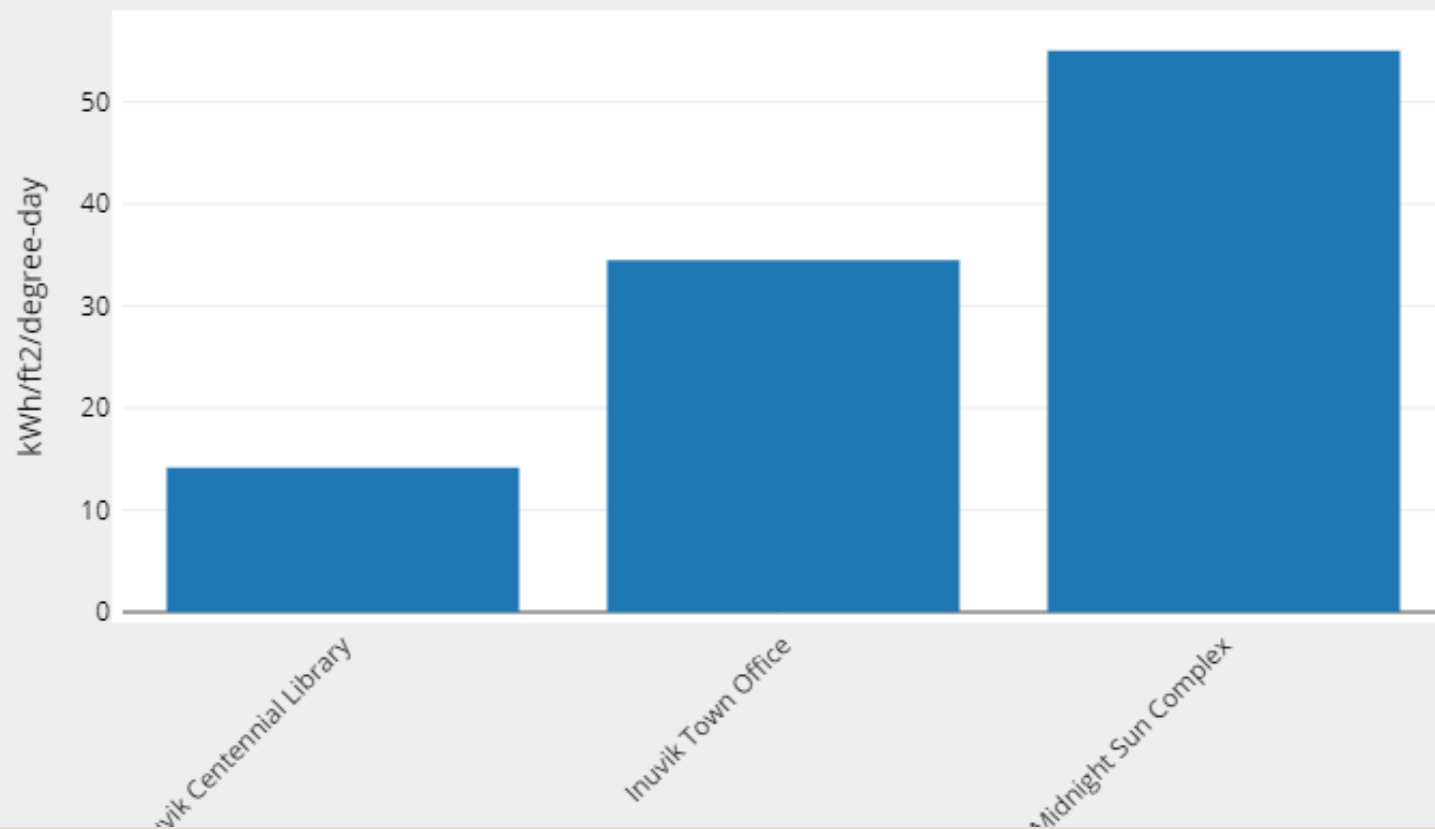


- Real Time Notification
- Reduce Energy Use
- Reduce Energy Cost
- Simple Interface
- Data Graphing
- Improve Building Maintenance
- Accountability

Uses and Benefits

Compare Energy Use Across Buildings

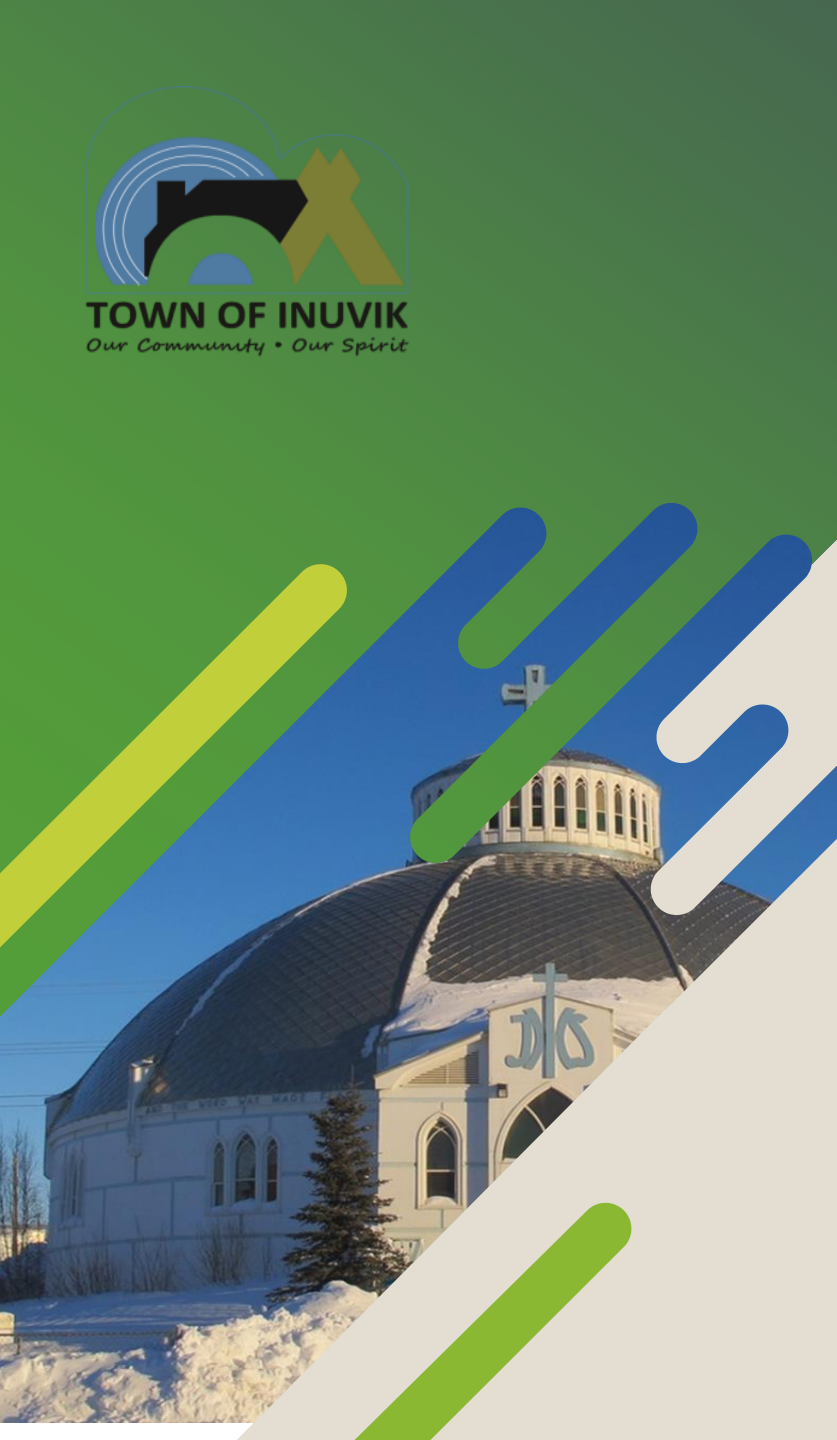
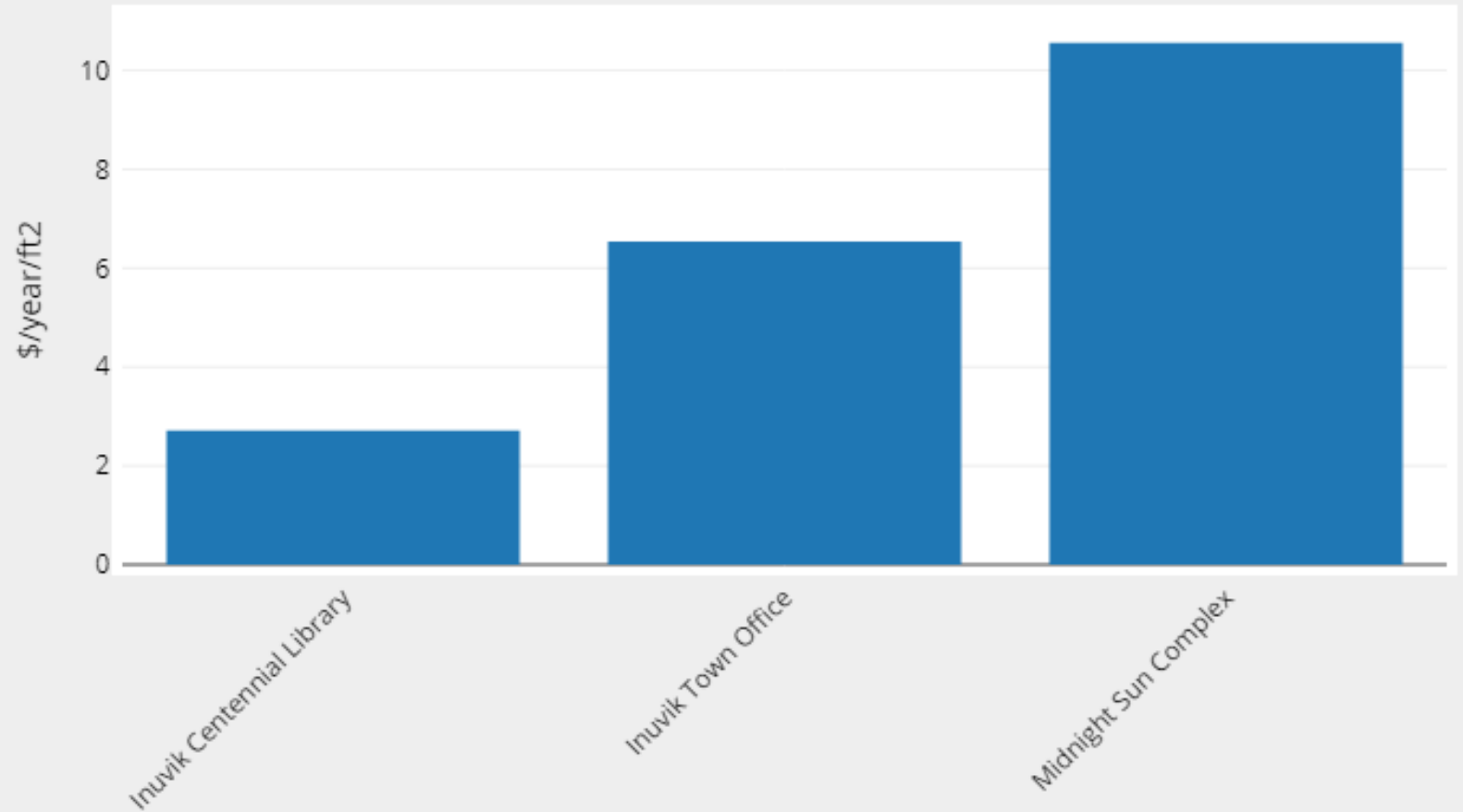
Energy Use per Degree-Day per Sq. Ft.



Uses and Benefits

Compare Energy Cost Across Buildings

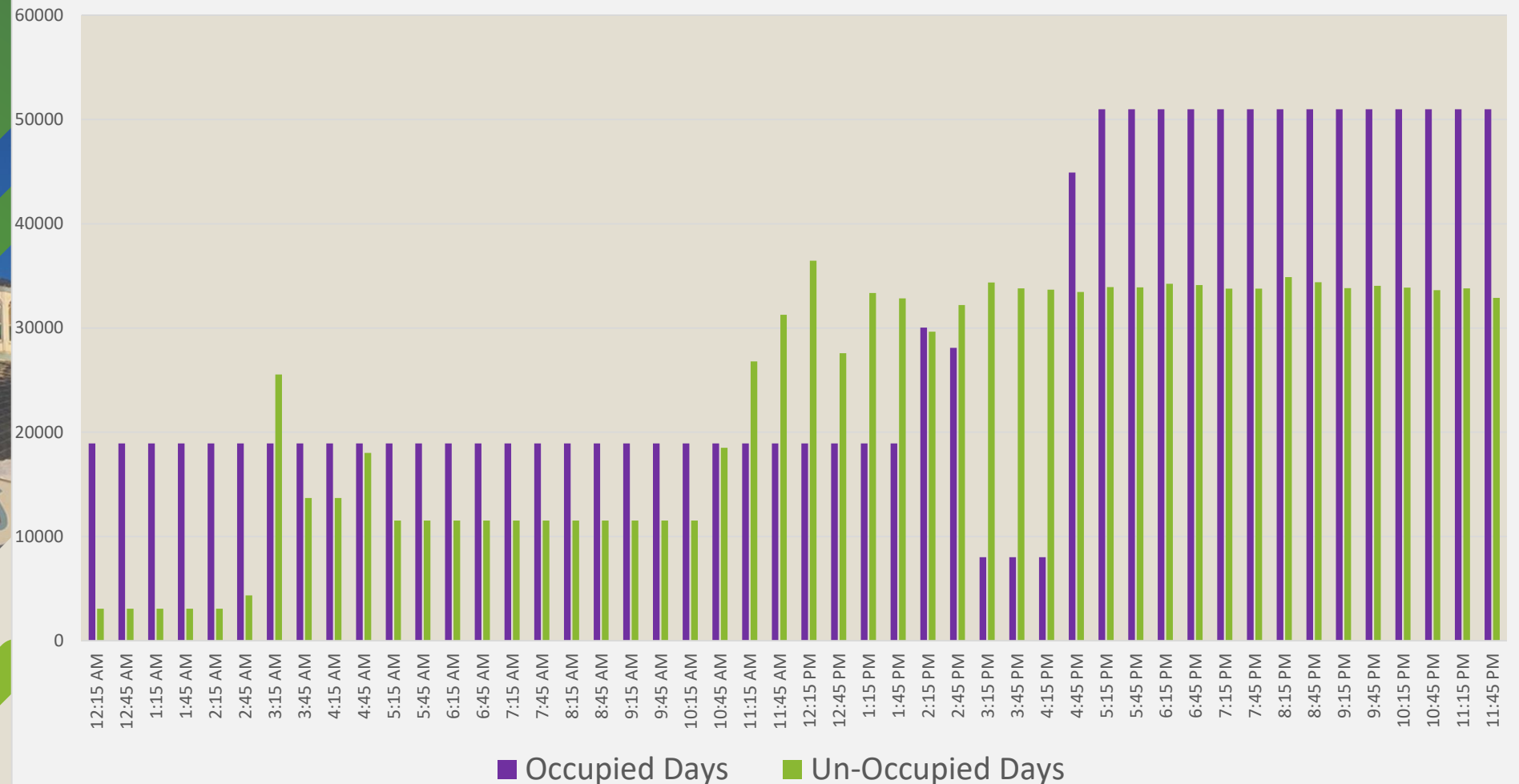
Cost per Sq. Ft per year



Uses and Benefits

Heating Fuel use during Unoccupied Periods

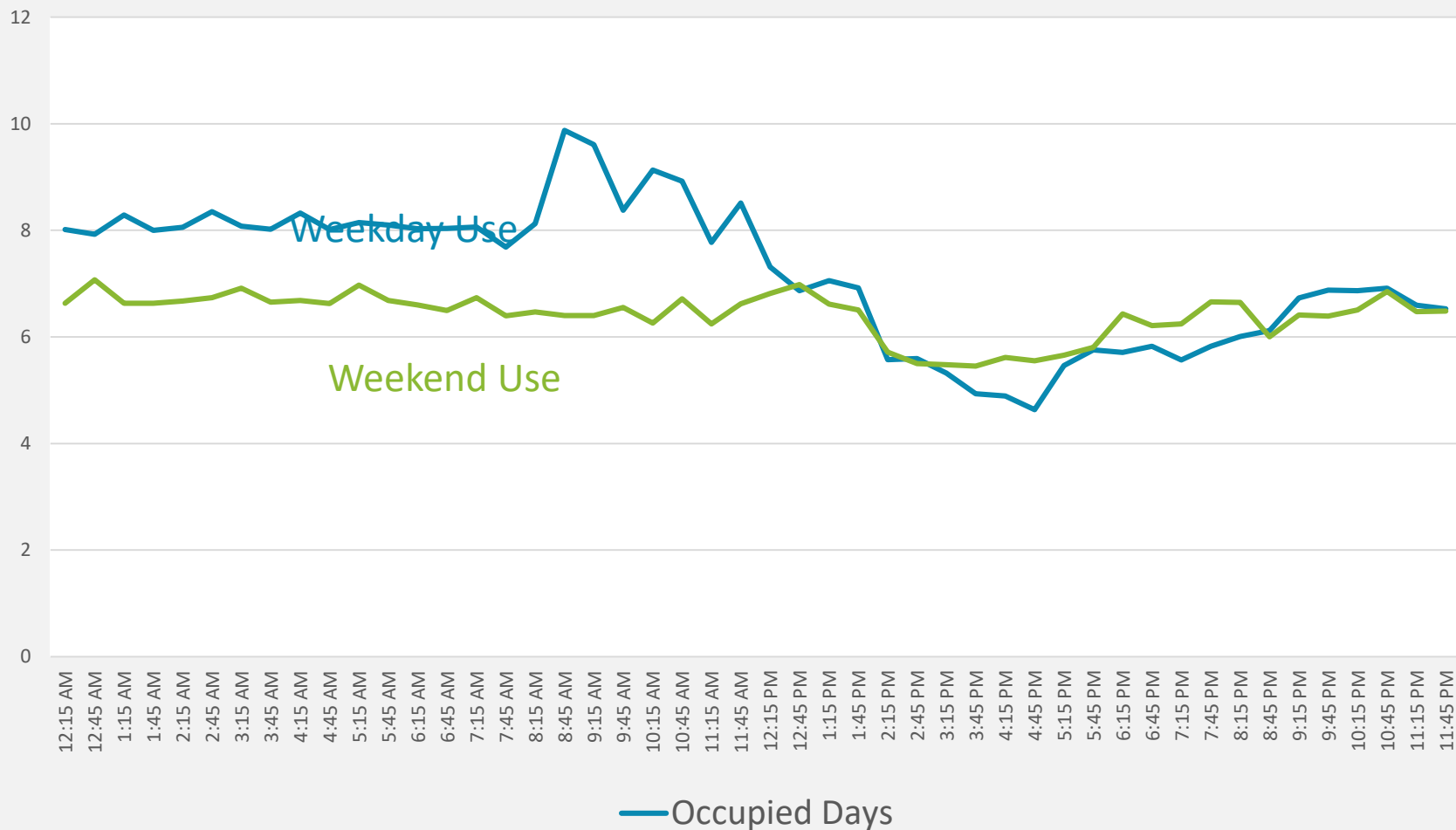
Town Office: Heating Fuel Use During Unoccupied Periods



Uses and Benefits

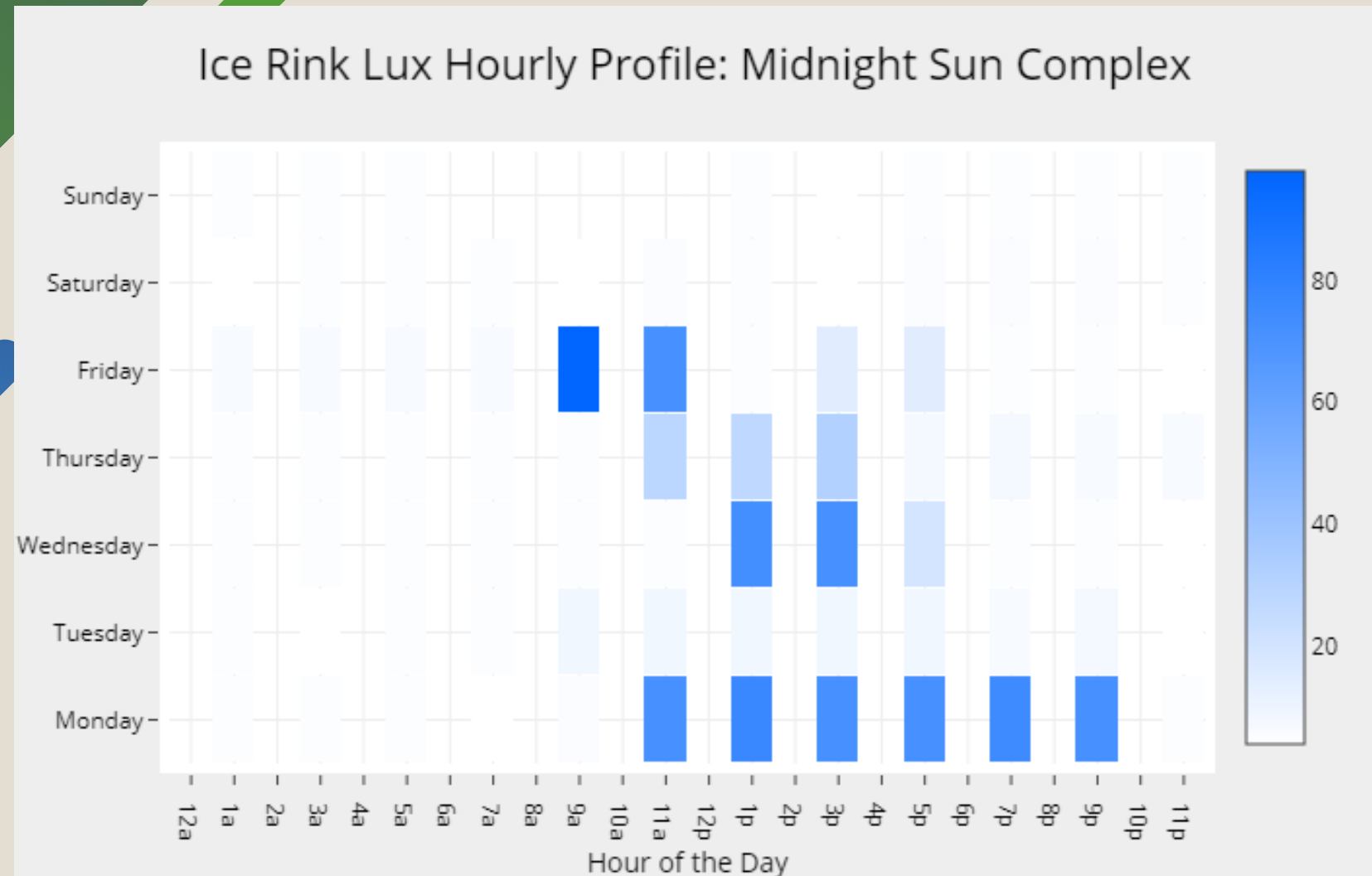
Excess Unoccupied Electricity Use

Town Office Electricity Use: Hourly Profile





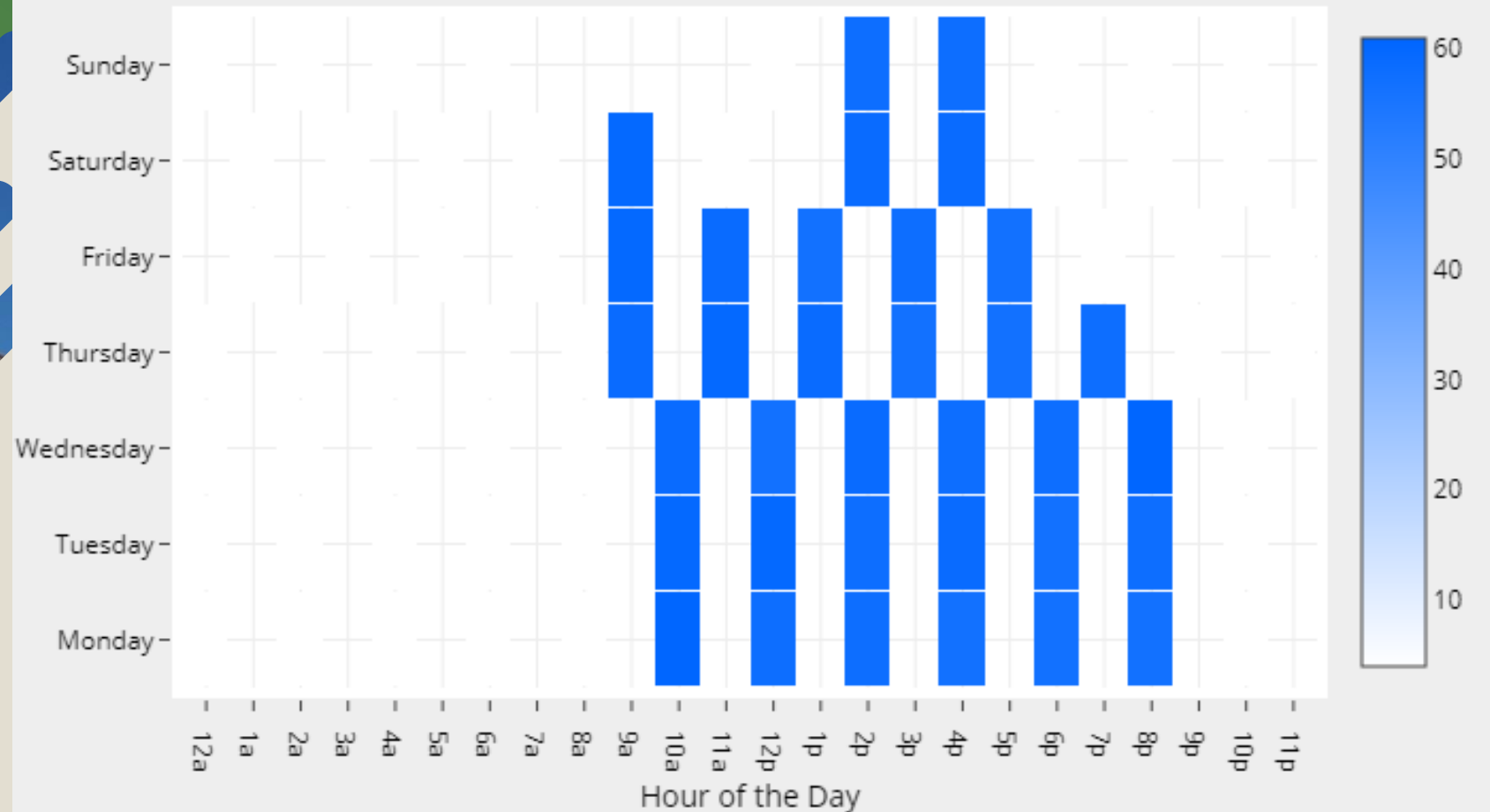
How Many Hours are Lights On?



Uses and Benefits

How Many Hours are Lights On?

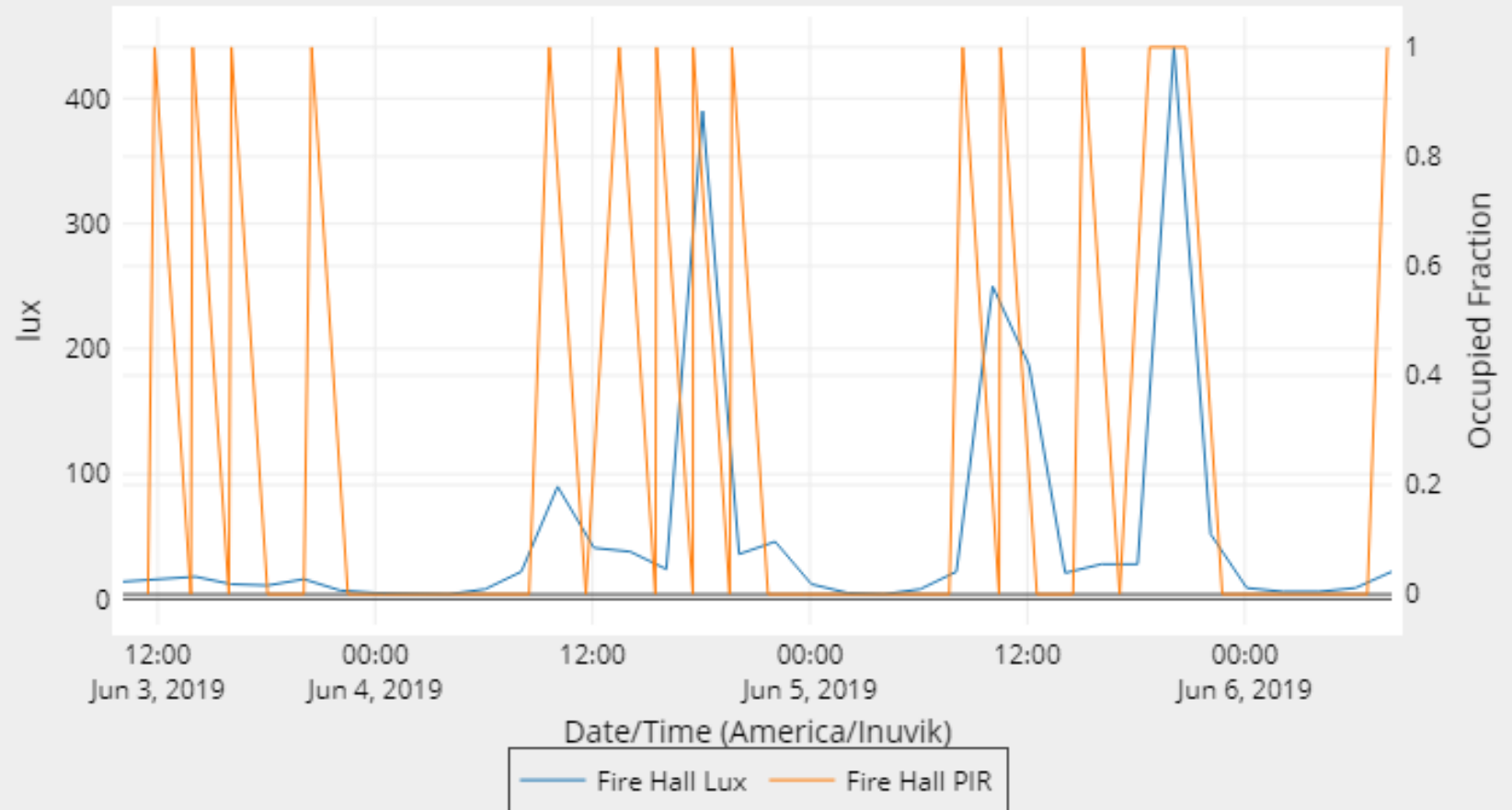
Library Office Lux Hourly Profile: Inuvik Centennial Library



Uses and Benefits

How Many Hours are Lights On when occupied?

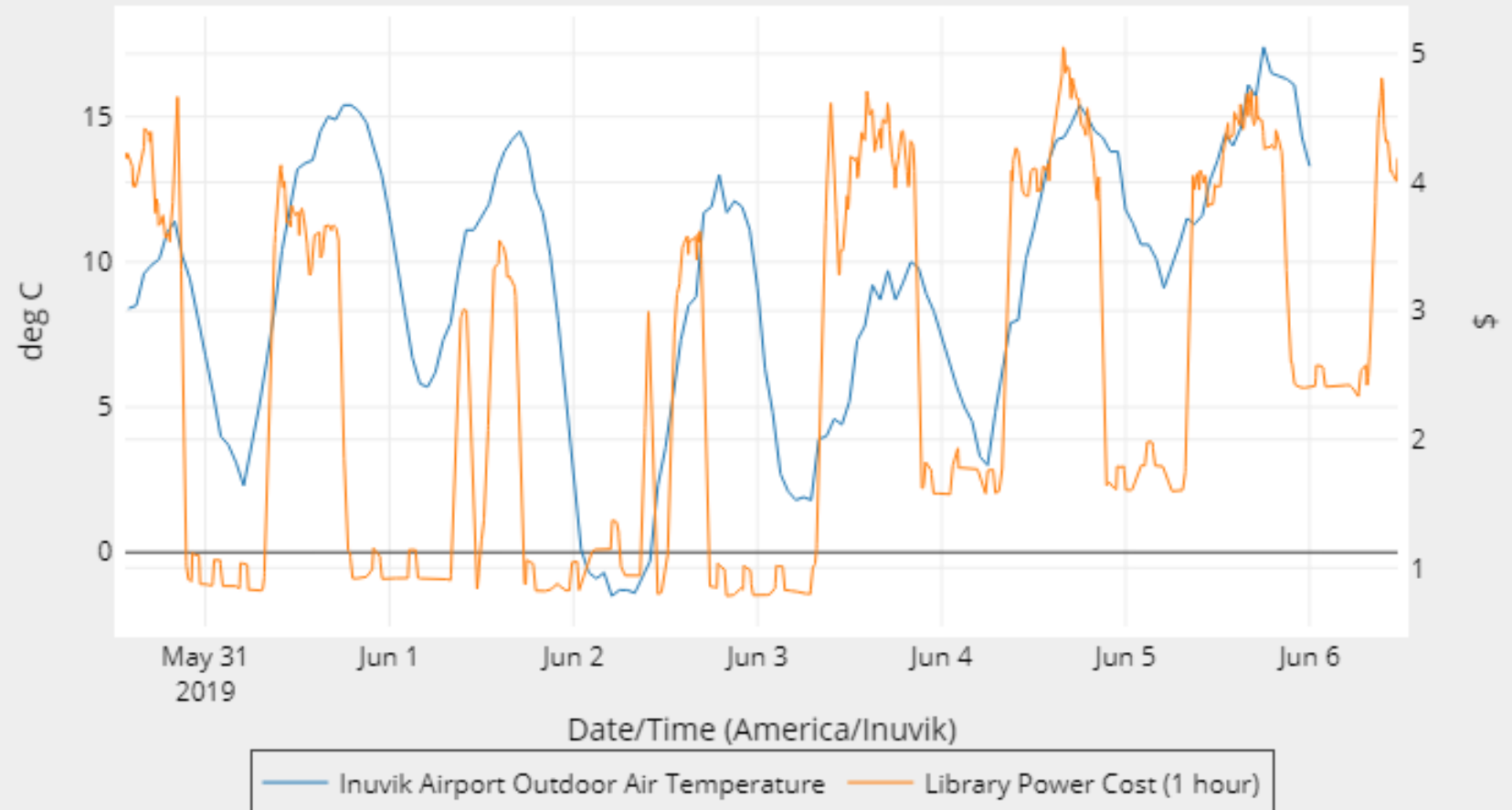
Plot Sensor Values over Time: Inuvik Town Office



Uses and Benefits

Outdoor Temperature vs. Power Cost

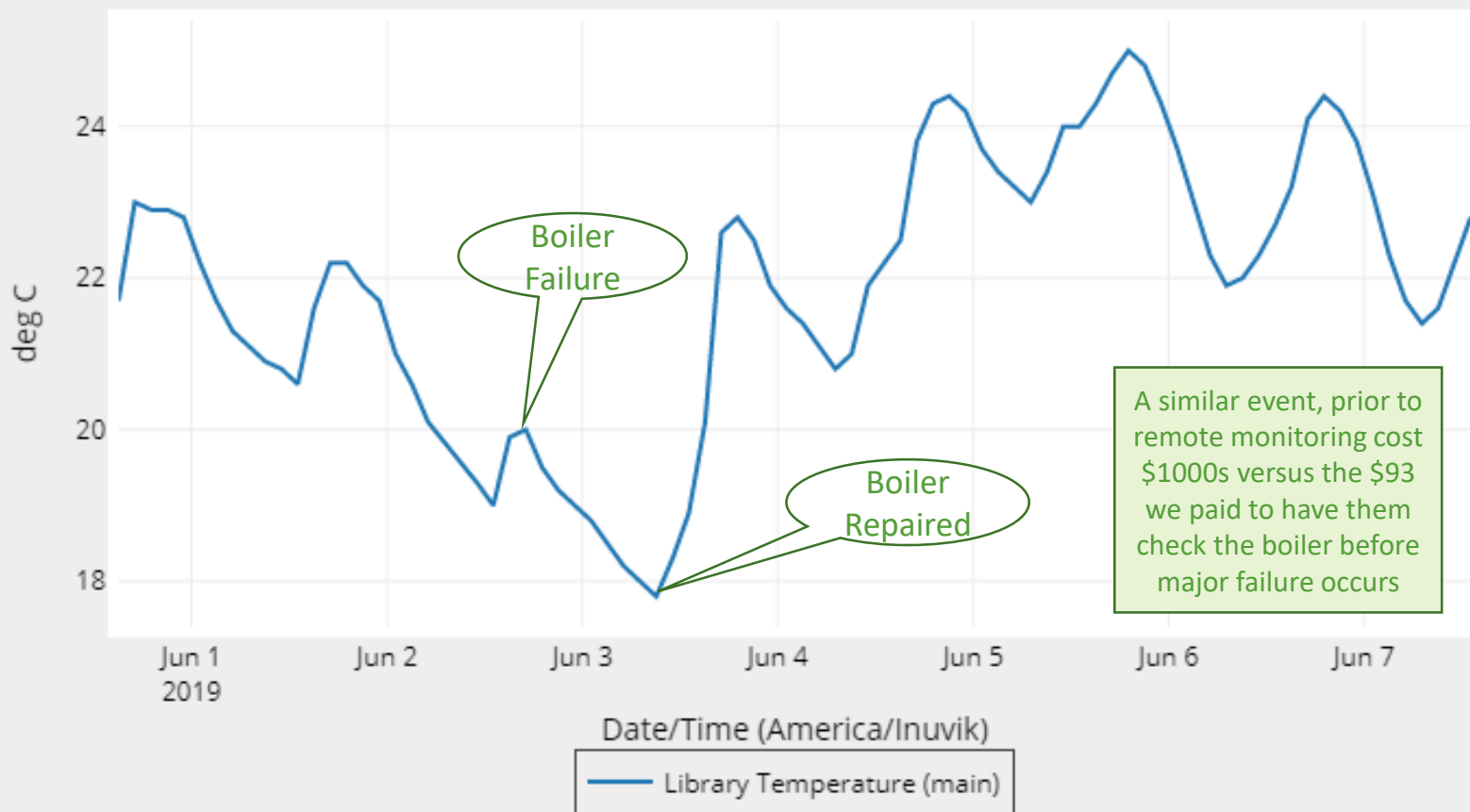
Plot Sensor Values over Time: Inuvik Centennial Library



Uses and Benefits

Avoiding Catastrophic Failure

Plot Sensor Values over Time: Inuvik Centennial Library



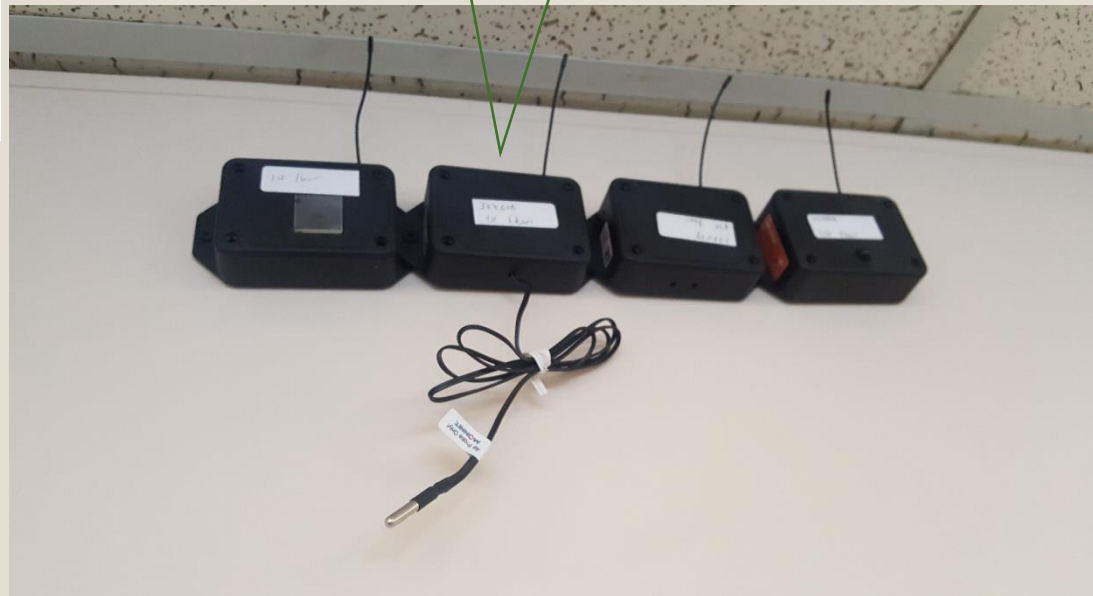
Monitoring Gadgets

Wireless Sensor Installs



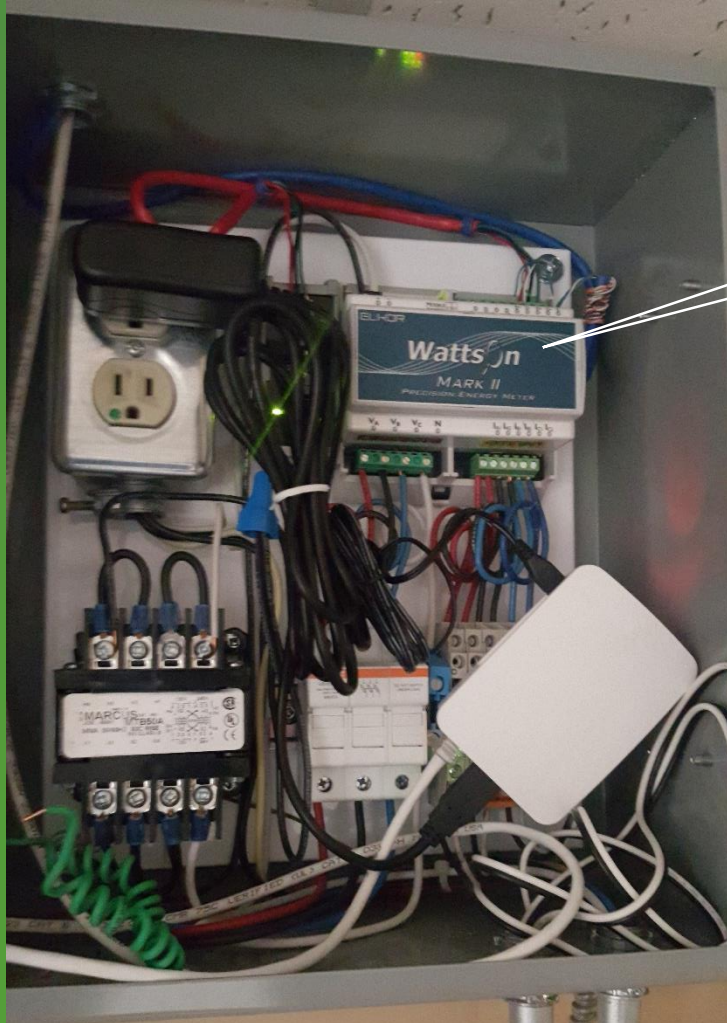
Gateway

Temperature, Humidity,
Motion & Light Sensors



Monitoring Gadgets

Wireless Sensor Installs



WattsOn Power Monitor



Current Transformers



Monitoring Gadgets

Wireless Sensor Installs




Reading Tekmar
Controller Sensor







Ultrasonic
Flow Meters







TOWN OF INUVIK
Northwest Territories

HomeA-Z ServicesContact UsWeatherFeedbackConnect:    

What are you looking for?

Select Language ▼

Living Here

Getting Active

Discovering Inuvik

Doing Business

Town Hall

I'd Like To...

Building Monitoring Information

A A A |  |  SHARE

Town of Inuvik Remote Building Monitoring

Map Data Charts and Reports Custom Reports Training Videos and Project Reports System Administrator

Charts and Reports

Group: All Facilities ▼ Facility: Environment Canada ▼ Report: Current Sensor Values ▼ Refresh Data

Current Values: Environment Canada

Sensor	Value	Unit	When
Weather			
Inuvik Airport Outdoor Air Temperature	-12.4	deg C	1058.1 minutes ago
Inuvik Airport Relative Humidity	88	RH %	1058.1 minutes ago
Inuvik Airport Wind Speed	4	km/h	1058.1 minutes ago
Inuvik Airport Pressure	101,040	Pascals	1058.1 minutes ago

-- Get Link --



Thanks to the Alaska Housing Finance Corporation for providing most of the source code for this website.

BMON Version: Thu Nov 30 09:27:02 2017 -0900

TOWN OF INUVIK WEBSITE

https://www.inuvik.ca/en/building_monitoring.asp



Partners



Sustainable Development
Working Group



ARCTIC ENERGY ALLIANCE



CYGNUS

THANK YOU!

QUESTIONS



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<http://www.Inuvik.ca>



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@townofinuvik

