



Managing Your Renewables Project

Michael Barnard, Energy Transition Officer

EFCL's Green Leagues Program

Presentation Outline

About Me

Green Leagues

Managing Your Renewables Project

Funding Your Renewables Project

Tips for Successful Projects

Leagues Without Community Halls

Resources

Michael Barnard

- **Background:**

- B.A. in Philosophy from the U of A
- Alternative Energy Technology Diploma from NAIT
- E.M.I.T. Certification from AEE

- **Experience:**

- Off-Grid Solar with Light Up The World
- Grid-Tied Solar with Nu Energy Group
- Developed a Community Energy Plan with 3D Energy

- **Currently:**

- Energy Transition Officer with EFCL
- EFCL's Green Leagues Program



Green Leagues

Mission:

- “To help Community Leagues become leaders in energy efficiency and solar power for their communities.”

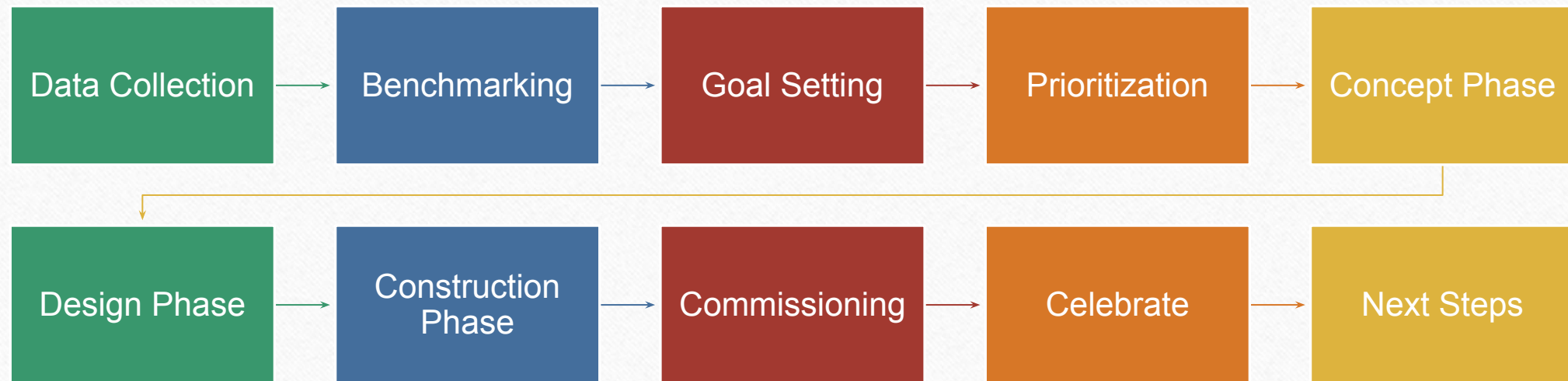
Focus:

- Facilitating the installation of solar PV arrays and energy efficiency retrofit projects.

Broadly:

- Assisting Leagues with sustainability initiatives and celebrating their successes.

Managing a Renewables Project



Baseline Data Collection



**How much energy do we use
(utility bills)?**

Electricity
Natural Gas

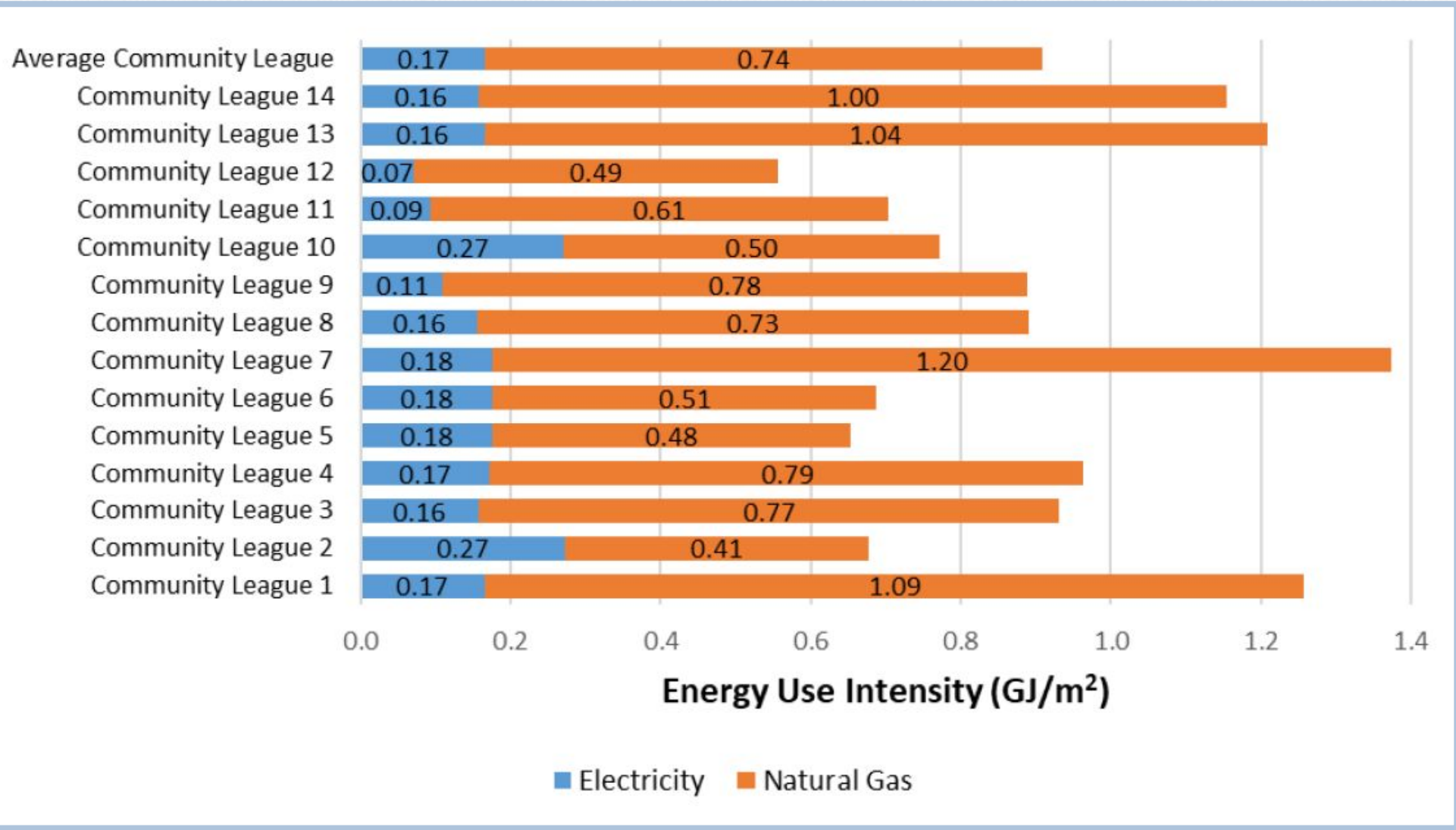


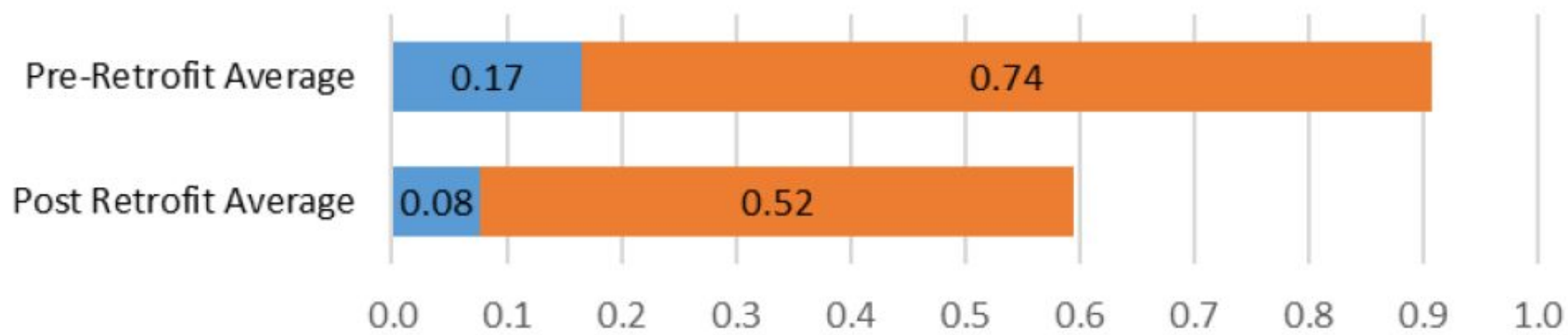
Building Info

Building Age
Roof Age
Square Footage
Equipment Specs.

Benchmarking

- Energy Use Intensity (EUI)
 - Energy per Square Meter (GJ/m^2)
- Community Hall Pre-retrofit Benchmark $\text{EUI} = 0.91 \text{ GJ}/\text{m}^2$
- Community Hall Post-retrofit $\text{EUI} = 0.56 \text{ GJ}/\text{m}^2$
- **$> 0.91 \text{ GJ}/\text{m}^2$**
 - **Poor** building performance; lots of opportunity for improvement!
- **$< 0.56 \text{ GJ}/\text{m}^2$**
 - **Good** building performance; always room for improvement!



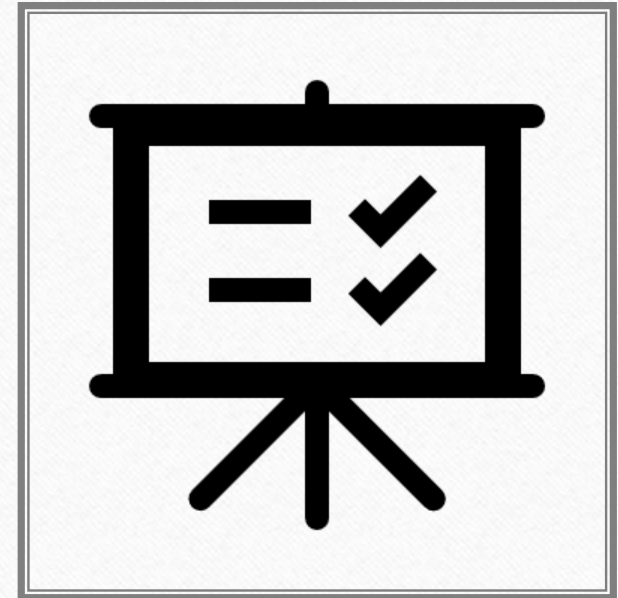


Energy Use Intensity (GJ/m²)

■ Electricity ■ Natural Gas

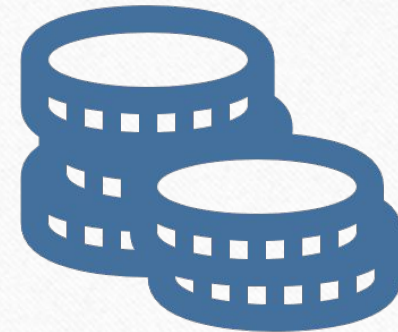
Goal Setting

- Timeline:
 - 1 Year
 - 5 Years
 - 10 Years
- Align goals with community values.
 - E.g. Environmental, Economic



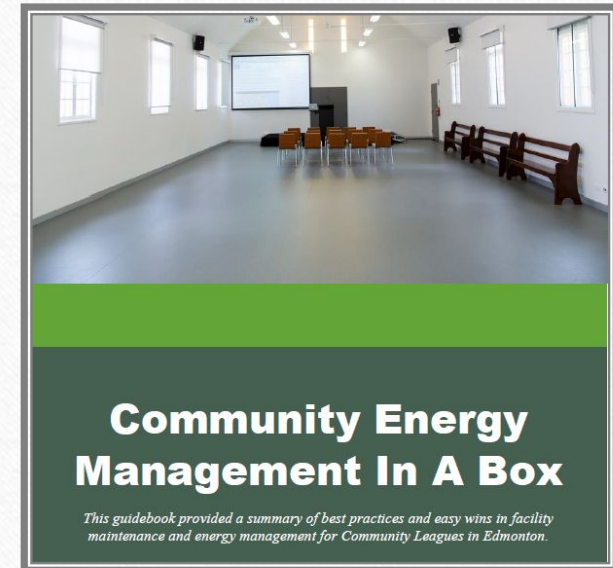
Goal Setting

- Be realistic
 - Ask: How much time can volunteers commit?
 - Ask: How much funding do we have/can we get?
 - Funding Sources: AMSP for solar, CLIP for solar and efficiency upgrades
- Be strategic
 - Early goals should be a natural progression toward later goals.



Prioritization

- Energy auditing
 - Option 1: Contract an energy specialist
 - Option 2: Use the Green Leagues “Community Energy Management In A Box” guidebook
- Low-hanging fruit
- Higher order upgrades
- On-site electricity generation***
- Heating with electricity



Concept Phase



Engage

Engage with the
Community



Get Quotes

Get Quotes from
Contractors



Contact

Contact your NRC



Hire

Hire Contractor



Acquire

Acquire Funding



Contracted Work

Design Phase

Construction Phase

Commissioning

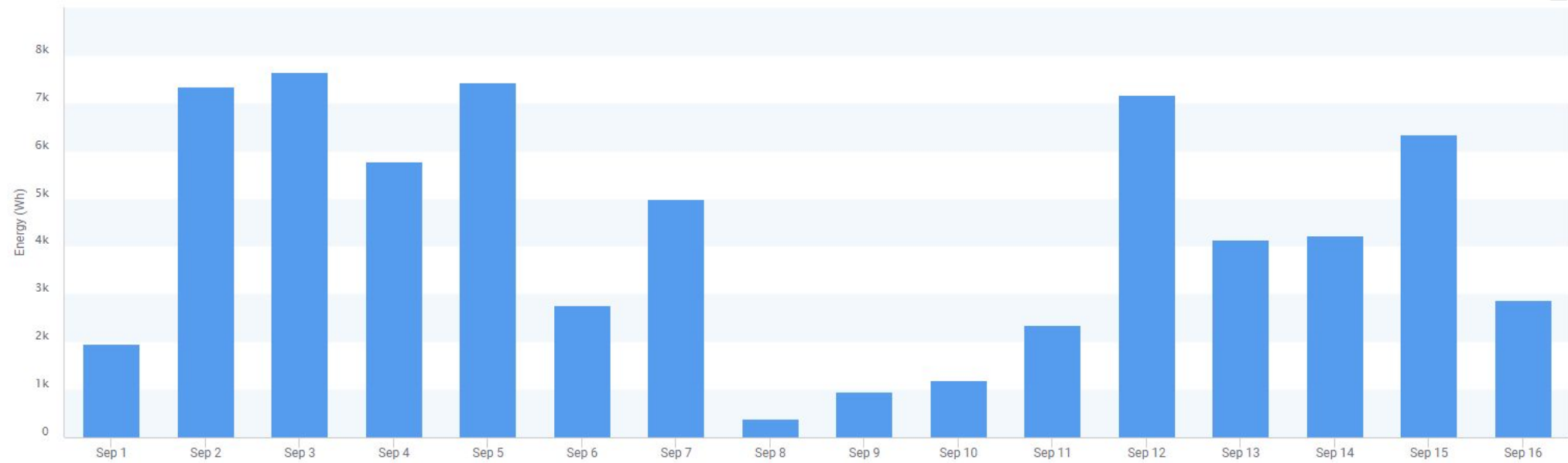
Celebrate!



- Promote your project
- Gain exposure for your League
- Encourage residents
- Garner support for future projects

Next Steps

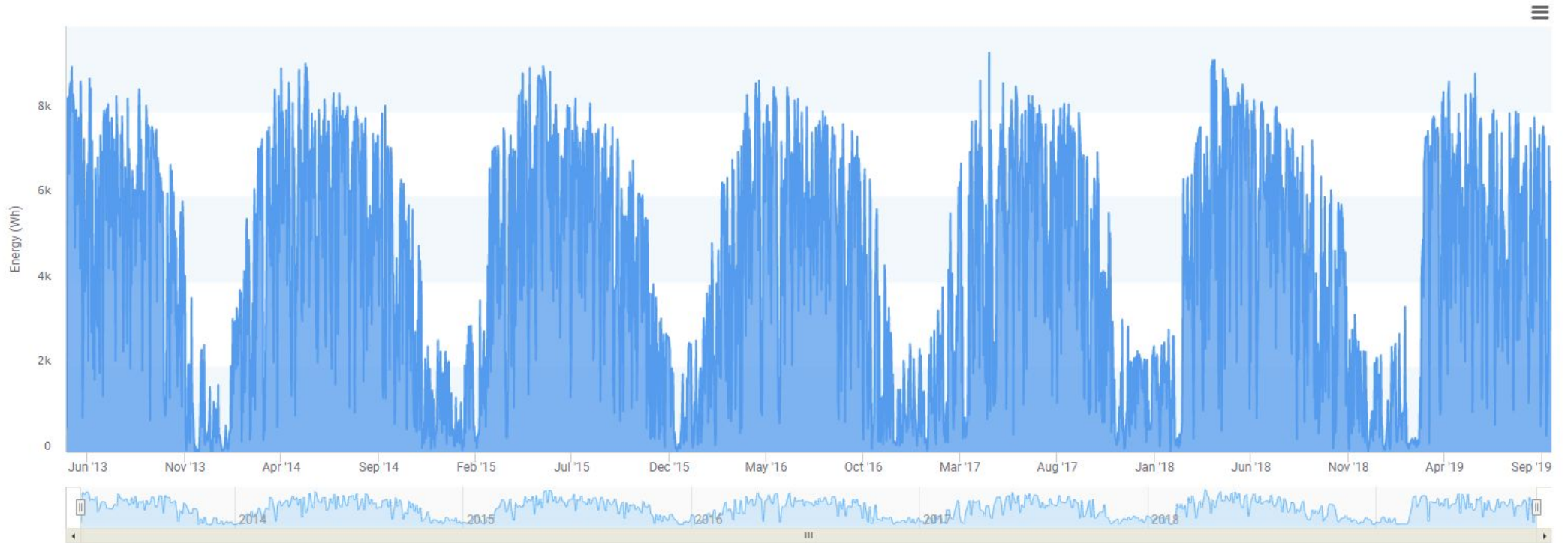
- Monitoring
- Benchmarking
- Showcasing
- Going Further



■ Energy Produced

Maximum Produced
7.64 kWh

Total Produced
67.6 kWh



Maximum
Produced
9.38 kWh

Total
Produced
9.63 MWh

Don't Have a Community Hall?



netzero
home

The ultimate standard for comfort and efficiency

PASSIVEHOUSE
CANADA Build better.
Feel better.

- New halls:
 - Include energy efficiency in the design
 - Build solar-ready
 - Contract builders who specialize in sustainable building:
 - E.g. Net-Zero, Passive House, LEED
- No hall:
 - Promote sustainability among residents
 - Host sustainability events
 - E.g. Solar, Energy Efficiency, Clean Transportation, Community Gardening/Urban Farming, Tree-planting, etc

Resources

- Contact Green Leagues:
 - (780) 437-2913 ext.: 2
 - GreenLeagues@efcl.org
- Green Leagues web resources:
 - [Http://www.efcl.org/events--projects/green-leagues/](http://www.efcl.org/events--projects/green-leagues/)