Kiashke Zaaging Anishinaabek (KZA) MASHKAWIZIWIN CLEAN ENERGY FUTURE

NEWSLETTER SPRING 2018

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Kiashke Zaaging Anishinaabek – Gull Bay First Nations Mashkawiziiwin Clean Energy Future

A word from your Energy Manager Councilor Kevin King,

Boozhoo everyone and welcome to our Spring 2018 Newsletter.

First, I would like to thank everyone who came out to the, very chilly, Micro-Grid Launch Ceremony. Despite the cold weather, it was well attended and went quite well. I would like to send a big Thank You out to the workers and volunteers for all your efforts that made this launch a proud moment, not only for myself but for all the members of Kiashke Zaaging Anishinaabek. I would also like to thank our honored guests, who travelled great distances to attend the ceremony. It was our pleasure to feast with you all, and offer you the opportunity to try our traditional foods. I would like to take this time to welcome the newest member of the Clean Energy

Team, Denise Shonias. Denise will assist AJ the project coordinator in making this dream of energy self - reliance for the community of Gull Bay become a reality. With spring comes longer warmer days, new life and new beginnings for Gull Bay.

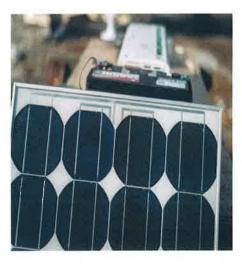
Miigwetch

Kevin W King Councilor – Kiashke Zaaging Anishinaabek Clean Energy Team



Kevin King demonstrating to the community how the solar panel works.





What an Solar Panel looks like.

Mashkawiziiwin Clean Energy Future A word From Your Coordinator

Mino giizhigad Kiashke Zaaging Anishinaabek! - Good day Gull Bay First Nation! It's Spring Time and the geese and ducks are coming back! It also means the days are getting longer and the nights are getting shorter, which is great for capturing solar energy and important in

considering energy efficiency.

A big chi miigwetch/Thanks to all the community members, workers and guests who supported and attended the KZA Micro Grid Launch Ceremony. It was a wonderful celebration that was well received by all. Also, I am pleased to welcome Denise Shonias to the team as the newly hired Mashkawiziiwin Energy Projects Intern. Welcome aboard Denise! KZA is well on its way to a clean energy future! In this Spring 2018 Mashkawiziiwin Clean Energy Futures Newsletter, there will information on status of the KZA Micro Grid Project development, more fun activities, Alltrade Job fair, beautiful pictures of the KZA Micro Grid Project Launch Ceremony and much more. If you have any questions regarding the KZA Micro Grid Project and or Clean Energy Projects for KZA,

feel free to contact me or stop by the KZA Government Office for a visit.

Chi miigwetch, Thank you,

Sincerely,

AJ Esquega

Mashkawiziiwin Energy Projects Coordinator

Email: energy@gbfn.ca Phone: (807) 982-0006 Cell: (807) 627-8402 Fax: (807) 982-0009

A word From Your Energy Intern

Boozhoo/Ahnee/Good Day!

My name is Denise Shonias, I am a band member of KZA. I'm excited to announce that I am the Mashkawiziiwin Energy Projects Intern. I'm looking forward in working with Kevin King, our Clean Energy Manager and A.J Esquega, our Projects Coordinator and for you the people of KZA, to establish our Micro Grid Project for a Clean Energy Future.

Miigwetch

Denise Shonias Mashkawiziiwin Energy Projects Intern





ALLTRADE INTRODUCTION

ALLTRADE is a Cambridge-based construction company that has long had its roots in the energy market. We deliver sustainable and efficient energy solutions to build powerful projects, implementing best practices and innovation. We execute construction services for our clients who generate power to be distributed across many different communities in Ontario. Our strength lies with our self-performed trades and our flexible construction delivery methods, providing construction management as well as subcontracting services.

ALLTRADE is excited to be the general contractor to construct the Gull Bay Diesel Offset Renewable Micro Grid Project with GBFN and OPG. The team members on this project will be:

Tony Murphy – Site Supervisor

Tony is an electrical foreman and will be the Site Supervisor on this project. He has past experience as a general foreman on solar generation construction projects in Ontario. He will be directing and working with his crew to ensure the project is completed safely and efficiently. Tony will be working from the project location in Gull Bay, Ontario.



Andréa McKay – Project Coordinator

Andréa is an engineer-in-training and will be the Project Coordinator on this project. She will be assisting the Project Manager and Site Supervisor to ensure the safe and timely completion of the project. Should community members have any questions regarding the project, or upcoming job opportunities on this project, they may contact Andréa at amckay@alltradeindustrial.com.



David Pettit – Project Manager

David is a mechanical engineer and acting Project Manager on the Gull Bay Diesel Offset Renewable Micro Grid Project. He has been a part of over 300MW of solar construction and has recently completed a 2MW Battery Storage Facility west of Toronto. David is eager to be working with GBFN and OPG to construct this unique Micro Grid Project. He will be working from the ALLTRADE main office in Cambridge, Ontario and making regular visits to the site to oversee site production, quality and safety.



JOB FAIR

ALLTRADE will post available jobs on the community engagement board at the local community centre and will host a job fair within the KZA community. The date of the job fair is still to be determined but is expected to be June 5, 2018. Job descriptions and minimum qualifications will be sent to KZA prior to the job fair. Should community members have any questions regarding the upcoming job fair, they may contact the Project Coordinator at amckay@alltradeindustrial.com.

VOLUNTEER PROGRAM

ALLTRADE will run a volunteer program in July and August 2018 for high school or post-secondary students. Participants will be able to build technical skills and learn about renewable energy through hands-on learning. Opportunities will be posted on the community engagement board in June 2018. Should community members have any questions regarding the volunteer program, they may contact the Project Coordinator at amckay@alltradeindustrial.com.

HEALTH & SAFETY TIPS

During project construction, KZA community members are encouraged to respect all construction signage (including speed limits, and off-limit areas during the construction period), the work site, and the workers in order to promote a safe work environment. Any questions or concerns regarding health & safety on the project may be directed to the ALLTRADE Project Coordinator.





Mashkawiziiwin Clean Energy Future

NEWSLETTER Spring 2018

Project Launch & Pictures





























Cha Miigwetch to the community members who attended! Making GBMG launch ceremony a SUCCESS!

KZA's Clean Energy Future









Mashkawiziiwin Clean Energy Team would like to thank all KZA community members who attended. Miigwetch to Elder Steve Penagin Sr. for the opening prayer and to the Water Heart Singers for opening songs. Miigwetch Cecillia Penagin for making traditional moose nose and liver, and to Emma King & Debbie Esquega for serving the food, and to Amik Catering for proving the food.

Milgwetch to councilor Kenny King, Patrick Kwissisens and Randolph King Sr. for making fire, the KZA maintenance staff; Tim Shonias, Farrell Bouchard Jr., L.J Shonias, Leonard Mc Cauley for prepping and setting up the site.

A big shout out to Tim Shonias and Farrell Bouchard Jr. for making the launch event sign and the stage last minute and on time. – **GOOD JOB!**

Miligwetch to councilor Kevin King for making a solar panel demonstration and sharing his knowledge on solar intergration.

Milgwetch to Ian Bannon, Nokiiwin Tribal for presenting KZA with a gift.

Milgwetch to Stacey Barry and Chardon photography for taking pictures of KZA Micro site launch.

We also would like to thank the Ontario Provincial Governments, Ministry of Northern Development Mines, Ministry of Energy as well as Independent Electricity Systems Operator for attending. Also Miigwetch to They Media for capturing some of the launch on film.

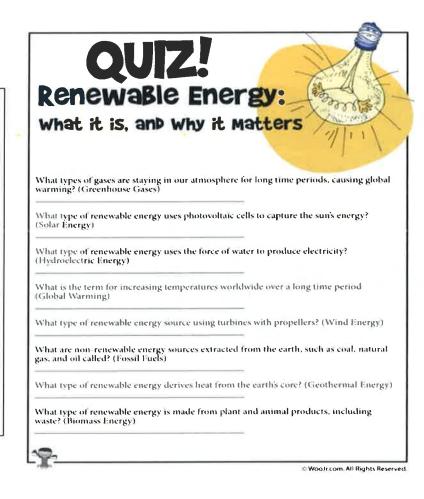


Mashkawiziiwin Clean Energy Activities

Word Jumble

Topic: Trees rapep richb slamba irf albkc erpcus twieh pcseru samlba opprla kauqnig nspea koceh. Herecy tomaninu aplem

Answers : paper birch, balsam fir, black spruce, white spruce, balsam poplar, quaking aspen, choke cherry, mountain maple



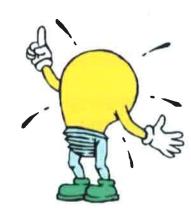
5	3			7				
6			1	9	5			
	9	8					6	
8				6				3
8 4 7			8		3			1
7				2				1
	6					2	8	
			4	1	9			5
				8			7	5 9

Mashkawiziiwin Clean Energy Activities

What Do You Think Aboriginal Power Means?



is the ability to do work.



Riddles

- 1.) Three large people try to crowd under one small umbrella, but nobody gets wet. How is this possible?
- 2.) What did the baby LED light bulb say to his mommy?
- 3.) How do we know that wind power is popular?

Answers: The sun is shining; there is no rain, I love you watts and watts, Because it has so many fans.





Micro Crid Project Name Suggestions



Gull Bay Electric Grid KZA Electric Grid Gull Bay Power KZA Power

North Wind

Creating CleaNISH Air

Sunlight Energy Nodin Nibi Shkode Aki Mamota'ook (Wind, Water, Fire, Earth Coming Together)

As One Sun

New Life Movement

Direct Sunlight

Amo

(Bee)

Giiwedin Anong (North Star) Micro Grid

As One Sun Life Movement

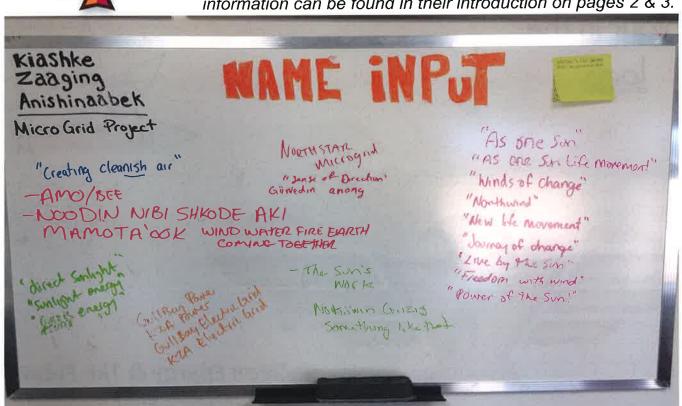
Giizis (Sun) Energy

Journey of Change

Winds of Change

Live By the Sun

Above are some name ideas from KZA members so far. We are keeing this activity open until further notice. If you have an idea or suggestion, feel free to share with the KZA Energy Team, Denise, AJ or Councillor Kevin King. Contact information can be found in their introduction on pages 2 & 3.

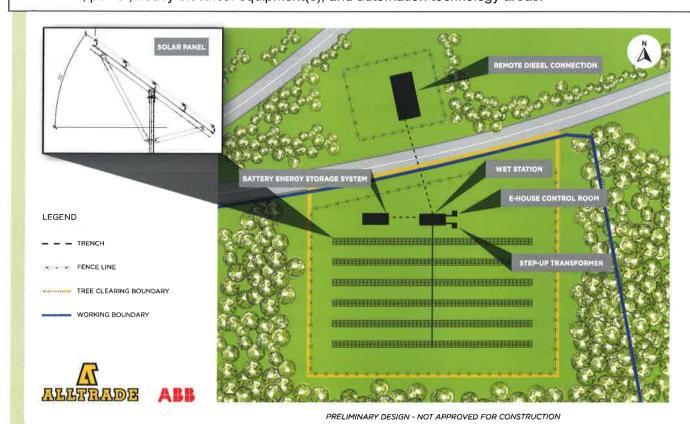


Status Update: KZA Micro Grid Project **

- ✓ ALLTRADE Industrial awarded as the EPC Constructor.
- ✓ ABB awarded as the Battery Energy Storage System Supplier.
- ✓ Clearing/Grubbing of the Project Site to prepare land for construction phase has started.
- ✓ Hiring of a Mashkawiziiwin Energy Projects Intern! Welcome to the Team Denise Shonias!
- ✓ Westfort Productions visited KZA on May 16 to film 1/3 phases for the Micro Grid Project.
- ☐ Alltrade Job Fair is scheduled for June 5, 2018 in Gull Bay First Nation. More details to be posted.
- ☐ Helical Pile Testing & Well Decommissioning in early-mid May.
- □ **KZA Micro Grid Construction** to begin June/ July of 2018. Announcement will be made during the Alltrade Job Fair.
- □ NEW NAME for KZA Micro Grid Project ~ Still looking for ideas for suggestions to the KZA Micro Grid Projects new name. What has been suggested so far can be found on page #10.

*EPC - Engineer, Procurement, Constructor

*ABB - is a Swedish-Swiss multinational corporation headquartered in Zürich, Switzerland, operating mainly in robotics, power, heavy electrical equipment(s), and automation technology areas.



Solar Power

Solar photovoltaic (PV) systems rely on sunlight to generate electricity and can reliably generate power with some maintenance over a period of 15-20 years. PV panels come as small as a few watts to as large as 200W. These panels can be arranged in an array to increase the total power generation potential. Panels should face south (in the Northern hemisphere), inclined at an angle which is equal to the latitude of the location. The panels can be mounted on a roof, or on a dedicated fixture on the ground. The panels can be installed to permanently fixed, or they can be installed to track the path of the sun.

A PV system produces Direct Current (DC), whereas all domestic appliances and gadgetry run on Alternating Current (AC). Electricity obtained from the grid or from a diesel generator is typically always AC. To convert DC from the solar system to AC, an inverter is required. For an off-grid building, a battery is also required to store the electricity generated.







Control System a Hybrid Solar-Diesel System

While choosing the capacity of a system, it is important to note that the system will not generate 100% of its rated power when the sun is shining. The power ratings for the panels are their peak ratings. In actual practice, over the course of a year, a full system will only operate at a 15 to 20% capacity factor.

The payback period for a solar system is largely dependent on the cost of electricity being substituted. Typically however, the payback for such systems is between 10-20 years. In remote areas, where the cost of operating a diesel generator is high, the payback period can be substantially lower. A solar PV system typically comprises of three components: a) *PV Panels* (mandatory): b) *Inverter* (mandatory); and c) *Storage Batteries* (optional).

Prepared by Lumos Energy Clean Energy Advisor to Kiashke Zaaging Anishinaabek – Guli Bay First Nation



LICENSED ELECTRICIAN

Responsibilities

- Assist in the construction of the electrical infrastructure
- Assist in the commissioning of the equipment
- Troubleshoot and repair electrical problems
- Communicate any problems, materials required, safety or quality concerns to the Supervisor in a timely manner
- Wear the required Personal Protective Equipment (PPE)
- Follow Supervisor's instructions and perform other duties as assigned
- Complete required paperwork

Requirements

- Fully 309A Licensed or apprentice
- Must be a member of IBEW
- Ability to read blue prints
- Troubleshooting skills required
- Must possess good communication and organizational skills
- Must be able to work independently and as a team
- WHMIS and Working at Heights Training preferred

Job Type/Positions

- Temporary Full Time: July/August 2018 November 2018
- One (1) position available

Location

Gull Bay Micro Grid Site, Gull Bay First Nation, Ontario

Application

To apply for this position, submit PDFs of your resume and a cover letter by email to amckay@alltradeindustrial.com by June 13th, 2018.

MECHANICAL LABOURER

Responsibilities

- Provide general labour duties as they pertain to the construction of the solar racking and helical pile install
- Troubleshoot any problems that arise
- Communicate any problems, materials required, safety or quality concerns to the Supervisor in a timely manner
- Wear the required Personal Protective Equipment (PPE)
- Follow Supervisor's instructions and perform other duties as assigned
- Complete required paperwork

Requirements

- Mechanical Labourer experience preferred
- Troubleshooting skills required
- Must possess good communication and organizational skills
- Must be able to work independently and as a team
- Must be punctual
- WHMIS Training preferred

Job Type/Positions

- Temporary Full Time: August 2018 October 2018
- One (1) position available
 - o Potential for one (1) additional position to become available.

Location

• Gull Bay Micro Grid Site, Gull Bay First Nation, Ontario

Application

To apply for this position, submit PDFs of your resume and a cover letter by email to amckay@alltradeindustrial.com by June 13th, 2018.

CIVIL LABOURER

Responsibilities

- Assist in the construction of the civil infrastructure (grading, roads, culvert installations, etc.)
- Troubleshoot any problems that arise
- Communicate any problems, materials required, safety or quality concerns to the Supervisor in a timely manner
- Wear the required Personal Protective Equipment (PPE)
- Follow Supervisor's instructions and perform other duties as assigned
- Complete required paperwork

Requirements

- Civil Labourer experience preferred
- Troubleshooting skills required
- Must possess good communication and organizational skills
- Must be able to work independently and as a team
- Must be punctual
- WHMIS Training preferred

Job Type/Positions

- Temporary Full Time: July 2018 August 2018
- Two (2) positions available

Location

Gull Bay Micro Grid Site, Gull Bay First Nation, Ontario

Application

To apply for this position, submit PDFs of your resume and a cover letter by email to amckay@alltradeindustrial.com by June 13th, 2018.

Instructions

- 1. Cut along Line A above and then along each of the dotted lines (be sure to stop cutting once the dotted line ends).
- 2. Push the straight pin through the 1, then the 2, then the 3 and 4. Next, push the pin through the middle of the back of the pinwheel (where the #5 is on the other side).
- 3. Push the straight pin into the top of your Popsicle®/craft sticks or the eraser of a pencil.
- 4. Your pinwheel is complete!