

# OMUSHKEGO ISHKOTAYO TIPACHIMOWIN

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**A publication of Five Nations Energy Inc.  
Volume 6 Issue No. 1**

## Five Years of Grid-Based Power

The release of this issue of the Omushkego Ishkotayo Tipachimowin celebrates the fifth anniversary of connecting the communities of Fort Albany and Kashechewan to Ontario’s electricity grid through Five Nations Energy Inc.’s transmission line. Fort Albany was energized on November 7, 2001, followed by Kashechewan on December 12, 2001. Attawapiskat was energized two years later, on December 3, 2003.

In the five years that the transmission line has been operating, the three communities have experienced the benefits that a connection to the provincial grid offers. Grid-based power is much more reliable than power from the diesel generators. This increased reliability benefits all community members and businesses, improving our quality of life. The quality of education for our children has improved, with reliable electricity meaning fewer interruptions in the classroom due to power outages.

Not only is the electricity more reliable, but the atmosphere in the community has improved. “The communities are much quieter at night now,” said Mike Metatawabin, President of FNEI. “There isn’t the constant noise of the diesel generators. The quality of the air has also improved because there is no more need for burning diesel all the time.”

Although some diesel fuel is still required in the communities, the amount of fuel needed by the back up generators is greatly reduced. This means along with



*The 2006 spring break-up caused significant damage but FNEI was able to repair it faster than expected. Read more on page 14.*

lowering the amount of emissions put into the air by burning diesel, there is much less risk to the environment from possible spills.

The three communities had reached the capacity of the existing diesel generators by the time the FNEI transmission line was built and could not have grown without increasing the electrical capacity of the system. The FNEI transmission line allowed further economic development in the communities. This includes new residential sub-divisions, schools and recreational facilities, and several new businesses. The capacity of the local diesel generation plants is no longer a planning consideration for the communities. The extra cost of

upgrading diesel plants every three years or when a major community improvement project occurs is no longer a major impediment to improving life in the communities.

While reflecting on the successes and positive steps forward that Five Nations Energy Inc. has made in the past five years, it is important to consider the challenges that remain and what we must do in the future. Please read further in this newsletter to find more information about what Five Nations Energy Inc. has done this year and what we are working on and planning for the future, and how YOU can help to make sure our communities continue to grow and improve and remain safe.





## President's Message

It's hard to list in detail or in chronological order the events leading up to the successful completion of the grid-based electrification project to our communities. Along the way there were so many obstacles to overcome, not only with Indian and Northern Affairs, but with our local issues as well. Most of our issues had to do with transfer of assets from one party to another and the potential liability issues that came with it. There seemed to be so much abandoned infrastructure in place and the number of interest groups involved was overwhelming. I have to applaud the stick-handling work of the team to see this project through. I can't recall exactly how many legal firms were involved, each looking out for their client's interests. It is amazing the amount of work involved and how much control the department of Indian Affairs has over our communities. There was this lawyer who represented the department and he seemed to be the most problematic of the bunch but in hindsight, understandably so. I cannot explain exactly what I mean by that comment but each legal representative did what they had to for their client.

One particular experience I recall most vividly is our flight from Fort Albany over to Thunder Bay and on to Toronto from there the next day. It is amazing the types of hoops we had to jump through and what we did to get over them as well. Leaving our community very early in the morning in late fall itself was a gamble. As you know, we have inclement weather and most times travel is not possible at

that time. Anyway, we needed to get to Thunder Bay first to sign off on some documents to make a deadline; otherwise we were told that the connection to Fort Albany would be delayed. The situation we were facing had to do with our new houses and school. They had just been completed but could not be connected to the existing diesel generators and it was late October already. Our system was already to its limit and hence the reason why we needed to get connected to a reliable source. The trip and the meeting at Thunder Bay worked out and from there we continued on to Toronto flying on Commercial Airlines. I cannot say if we had anyone who was uncomfortable flying but if we did those flights would have been their last. We were flying through blizzards throughout the trip and they weren't smooth either. Anyway we got to Toronto and we sat down to proceed with our meeting. All the delegates from Indian Affairs and Hydro One were there along with our delegation. We needed to come to an agreement with Hydro One about the accounts that were left owing from individual homes and the First Nation. The Vice President and his Assistant were the last to arrive and we sat down to get underway. It wasn't too long after when the Vice President announced that he would have to leave very shortly to meet another commitment. We hadn't even begun to get anywhere near to an agreement. For anyone who finds themselves in this situation, don't feel any shame when you have to put your foot down and demand that the agenda tabled for discussion be completed. This bureaucrat living comfortably in the big city was just going to leave our new houses and school without power throughout the winter not realizing what the implications were. I have to give credit to the Indian Affairs representatives for backing us up then and there. It is rare moments like these which make partnerships successful. The Vice President relented and stayed to continue finding a solution to our predicament.

There are many other milestones that were achieved and perhaps the other members can recall those moments. I do want to recount the day when the seed was planted to carry out this project. It was a Chiefs meeting in Kasabonika and at the time it was Ignace Gull who was Chief in Attawapiskat. He tabled a resolution seeking support to undertake a project to connect our communities from the south. All I could picture at the time was this small hydro line cutting through the muskeg from Moosonee to our communities. I could not imagine the magnitude and the scale. I don't know how the idea came about but I do want to acknowledge the vision of former Chief Ignace Gull. Our communities would not have been able to have what they have today. We would not have been able to connect our water lines and baseboard heaters to our homes. The diesel units would not have been capable of supporting the demand. Our lifestyle changed for the better and our time with our families became even more comfortable. We now have running water and reliable heating sources. Our children are now able to take showers and be comfortable inside electrically heated homes. The days of being chased out of bed to get water are long gone and you no longer have to go out to the outhouse or throw out the honey bucket. Let us remember though, there are still homes that do not have what we now take for granted. It is now up to you as well to extend the same privilege you have been granted.

Despite the success we have had with connecting our communities we now have to learn from the challenges we continue to meet. We need to understand our past and how the system works and what it takes to control the cost of using these services. We had people who were thinking about our wellbeing when this project was envisioned. It wasn't done to take away anything from you but to bring comfort. It also allowed our

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### General Manager's Message

As we begin a new year, there are a lot of exciting things happening at FNEI. I would like to take the opportunity to welcome a new member of the FNEI team, Chris Innes, who has been hired as an Operations Technician. Since our last newsletter, we have also brought Bev Innes on board as our Administrative Assistant. You can find more information about these important new members of the FNEI team further on in this newsletter.

FNEI staff members are working hard to get part of the capital plan underway which will improve the reliability and quality of service that we are able to provide to you, our customers. We are working on, or have completed, the following projects:

- The second transformer has

been connected and tested in Attawapiskat, which means it is now ready for service. Although this transformer was already located in the Attawapiskat substation, it would have taken many days to bring it on-line in case of the primary transformer failure. Now it is capable of being brought online to restore power in a matter of hours. This will provide better reliability and will decrease the amount of time that the power is out, if the primary transformer is not functioning. Similar work is progressing in Fort Albany to connect the second transformer there as well, which will be in service in the summer of 2007.

- De Beers' Canada's Victor Project has been connected to the transmission line and FNEI is now providing the project with the electricity it needs for its construction phase. The Victor Mine Project will need a lot more electricity when it begins mining operations, which is why De Beers Canada Inc. is building a second transmission line between Otter Rapids and Kashechewan to provide more capacity to the system. This new transmission line is scheduled to be completed and operational in late 2007, if construction goes well and Mother Nature cooperates.
- The Kashechewan, Attawapiskat

and Fort Albany substations are also undergoing upgrades related to the construction of the De Beers Canada second transmission line. Upgrades to the Attawapiskat substation were completed this summer.

- Valard Construction is installing fibre-optic cable from Moosonee to Attawapiskat under contract with FNEI. We anticipate that the fibre-optic project will be completed by fall 2007. Construction of fibre-optic control and connection buildings at each substation in the communities are underway.
- Repairs have been made to the berm wall that was damaged during 2006 spring breakup on the Albany River. Two other berms near the same location were also constructed this summer. Project Manager Jacques Camirand ensured that the berms are higher and stronger than they were before they were damaged.
- Switches on the transmission line have been installed in Fort Albany so that any problems on the transmission line north of Fort Albany would be isolated the community of Fort Albany and enable us to power the community from the transmission line. This is especially important since Fort Albany currently doesn't have any back-up generation in place. Attawapiskat would temporarily be powered from their community back-up generators until the problem is repaired.
- FNEI is also having discussions with contractors to repair erosion problems at structure 908 on Albany Island along the north channel of the Albany River. We are looking at possibly installing sheet piling this coming winter of 2007.

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Cecil MacDonald, FNEI's General Manager, beside Structure 910 in Spring 2006

















# Ontario's Electricity Market: How it Works, What it Costs, and Why

With all of the changes in Ontario's electricity industry over the past few years and the switch from diesel generators owned and operated by Hydro One Remote Communities Inc. (formerly Ontario Hydro) to a transmission line owned and operated by FNEI, you might be wondering what these changes really mean. Now that your home is connected to Ontario's electricity grid, it might interest you to know how the provincial energy market works, exactly what you are paying for, and why you pay your Local Distribution Company (LDC) what you do.

## Who are the participants in the electricity industry?

The Independent Electricity System Operator (IESO) works 24 hours a day, 7 days a week and oversees the entire electricity market in Ontario. It forecasts how much power is needed throughout the province every 5 minutes and makes sure that there is enough power to meet the demand. To do this, it buys power from generators and other suppliers in Ontario, and if necessary outside of the Province. It also monitors the transmission of electricity throughout the province. The IESO is also responsible for collecting money from Local Distribution Companies (LDCs) and paying transmission and generation companies.

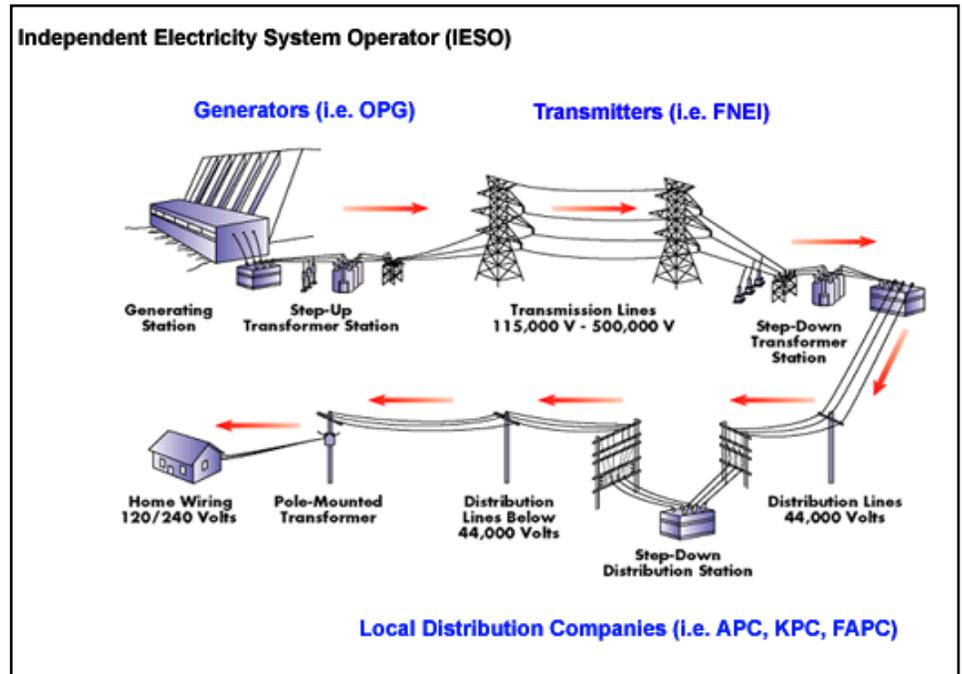
Generators make the electricity we use. The biggest generation company in Ontario is Ontario Power Generation (OPG) which used to be a part of Ontario Hydro. OPG generates 75% of the electricity used in Ontario. Generators are paid by the IESO.

Transmission Companies move the electricity created by generators around the province using high-

voltage transmission lines. FNEI is the transmission company that services the western James Bay coast. Hydro One owns and operates most of the transmission assets (high-voltage lines and towers) in Ontario, although there are other transmission companies in the province. Transmission companies are also paid by the IESO according to

## How does the money flow?

Each LDC receives a monthly bill from the IESO, which is based on the total electricity used by the community, measured by a meter in the substation in each community. Some of the monies collected from electricity customers (homes and businesses) by the LDCs are used to pay the IESO and the rest is used



rates that are set by the Ontario Energy Board.

Local Distribution Companies deliver electricity from substations connected to the transmission lines to individual homes and businesses. They maintain their local distribution systems (poles and wires), and conduct the billing and collections from its customers in the community. All LDC's in Ontario collect money on behalf of the IESO which then pays the generators and transmission companies. FNEI's transmission line brings electricity to the substations in the communities of Attawapiskat, Kashechewan and Fort Albany. The local distribution companies then distribute this electricity to homes and businesses in their communities. Local distribution companies set the rates charged to their customers according to the distribution rates that are approved by the Ontario Energy Board.

to cover the LDC's operating costs.

The bill from the IESO is received on or about the 15th of each month and payment is due within 48 hours of receiving a bill – no exceptions. The IESO then pays the generators, transmission companies and itself from these funds. If the IESO is not paid on time, the LDC would be considered to be in default and the Ontario Energy Board (OEB) could appoint another distributor to take over its operations. This would mean that the LDC would no longer be locally owned and operated – which is why it is so important for everyone to pay their electricity bills on time!

## How are electricity prices determined?

Rates are determined through a rates application process to the Ontario Energy Board (OEB). The OEB sets the rates based on:

## Spring 2006 Break-up: FNEI Team Repaired Damage Faster Than Expected

As many of you will recall, FNEI customers experienced a power blackout this spring due to damage to the transmission line caused by the spring break-up. At about 5:00 pm on Saturday, April 22, 2006, extremely high water and ice conditions on the Albany River caused one transmission line pole to break completely and caused another pole to lose two of its three guy wires, making it lean over. Once the line went out of service, safety protection measures caused the entire Five Nations Energy Inc. system to disconnect at Moosonee.

The damage caused to the transmission line during this time was the most severe that FNEI has had to deal with in its five years of operations. Fortunately, an excellent team, the necessary equipment, and the right plans were in place to get the line repaired quickly and power restored to FNEI customers as soon as possible.

“The damage caused to the transmission line during the 2006 spring break-up was worse than we had expected,” said Cecil MacDonald, General Manager. “It was a test of our team and our resources, and fortunately, we had the right ingredients in place to restore the power to our customers even sooner than we thought would be possible,” he said.

Soon after the power went out, George Edwards and Douglas Nakogee of Fort Albany Power Corporation inspected the transmission line using a helicopter and determined that pole structures were damaged between Kashechewan and Fort Albany. Due to the switches that FNEI had recently installed in preparation for such a situation, it was possible for the community of Fort Albany to be isolated from the problems on the line to the North. Power was

restored to Fort Albany at 12:45 am on Sunday, April 23, after an outage of approximately eight hours. Electricity in Kashechewan and Attawapiskat was supplied by back-up diesel generation systems during this time.

In order to safely restore power to the FNEI transmission line, there was a planned power outage in the community of Fort Albany during the afternoon of May 2nd for about 1 hour. This allowed crews to reconnect the previously damaged portion of the circuit so that Kashechewan and Attawapiskat could shut down their back-up diesel generators and go back to grid-based electricity. The restoration of grid-based supply of electricity in Attawapiskat and Kashechewan also required short power outages in those communities, when the local distribution companies switched from locally generated electricity to the transmission line.

The Five Nations Energy Inc. transmission line system was restored

to service as of the evening of May 2, 2006. At 6:02 pm the M3K and K5 circuits went back into full service and the communities of Kashechewan and Attawapiskat were transferred back to grid-based power from their standby diesel generation units soon after.

FNEI would like to recognize several key people and organizations that allowed the swift repair of the transmission line and the restoration of power. Special thanks to Wayne Taipale, Hydro One’s representative from Moosonee, the utility workers from Fort Albany Power Corporation, (Douglas Nakogee and George P. Edwards), the utility workers from Kashechewan Power Corporation, (David C. Wesley and Mathew Wynne), the Hydro One high tension crew and helicopter team from Sudbury, as well as a crew of Fort Albany labourers that went in to prepare the site. This hard work and dedication allowed restoration of the line a full 11 days sooner than originally estimated.



*Ice flows around the transmission line poles*

