

# OMUSHKEGO ISHKOTAYO TIPACHIMOWIN

A publication of Five Nations Energy Inc. Volume 6 Issue No. 2

# FNEI Prepares for Spring Break-up

Spring in our communities is always welcomed after a long cold winter; however, this welcome is always tempered with the fear that comes with the unpredictable behaviour at the spring break-up of the Albany and Attawapiskat rivers. Five Nations has prepared as best as it can in case the ice takes out any poles like last year's damage to FNEI's transmission system which resulted in a power outage. Learning from the damage we incurred last year. Five Nations undertook a work program last summer to better protect the transmission system from ice damage.

The most important work that was done to prepare for possible ice jamming and flooding was constructing a new berm around one of the most vulnerable poles and reinforcing it. Pole structure #909, which is located on the north side of the north channel of the Albany River, was threatened last year when the flooding and ice destroyed the original berm. In order to prevent damage to structure #909 in the future, a new and much stronger berm was constructed. The new berm is 13 feet high, constructed of wood and stainless steel, and reinforced by earth which was built up behind the berm wall.

The spring break-up is a time of concern for all who live in the communities. Many of us have seen the water rise into our communities and damage our homes. As always we must not underestimate the power of our rivers



and we must take precautions and be ready for possible power interruptions.

If the power supply is interrupted by damage to the transmission line, Five Nations will move to repair the line as soon as the damaged area can be safely accessed. This usually means when the water recedes so that we can fly work crews in to the damaged areas in order begin repairs and restore power as quickly and safely as possible.

# Fibre-Optic Connection Moves Forward

As part of its overall capital improvement plan for the transmission system that services Attawapiskat, Kashechewan and Fort Albany, Five Nations Energy Inc. is installing a fibre-optic telecommunications cable from Moosonee to Attawapiskat. The new fibre optic line will contain 24 fibre cables of which 12 will be retained by FNEI for its use to provide real time monitoring of the transmission system, and the remaining 12 will be made available to the Western James Bay Telecom Network. This new project is valued at \$7.5 million.

Improved telecommunication services and access to high speed internet and broadband services are essential

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The Omushkego Ishkotayo Tipachimowin is a free newsletter published by Five Nations Energy Inc.

The purpose of this publication is to keep the Mushkegowuk Communities as well as other members of the public informed about the Five Nations Energy Inc. Transmission Line Project and other issues associated with energy use.

Five Nations Energy Inc. is a federally incorporated non-profit corporation that owns and operates a 138kv electrical transmission line from Moosonee to Attawapiskat, ON. This line connects three remote Cree communities to the main Ontario transmission grid and covers a distance of 270 kms. For more information contact Mr. Cecil MacDonald at (705) 268 0056 or visit http://www.fivenations.ca. Cree translation provided by Greg Spence.

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### President's Message

As leaders or people in places of authority, it is our obligation to thank all those folks who are involved in making Five Nations Energy Inc. an ongoing success. Without our group of talented and dedicated personnel, we would not be able to boast such of accomplishments. I would especially like to recognize our General Manager, Cecil McDonald, who continues to dedicate himself to the well-being of the organization despite having to deal with his own personal challenges. I recently had a chat with him and it just amazed me how committed he is to the success Five Nations Energy Inc. On behalf of the Board and the communities, I say Thank You - We are very fortunate to have people like you working for the ongoing success of Five Nations Energy Inc.

I would also extend the same courtesy and acknowledgment to FNEI's other staff members, to the group of consultants who continue to plug away despite the criticisms, and to the current and past Board members who continue to provide their support and wisdom. It is through teamwork and the combined efforts of all involved that Five Nations continues to succeed.

As we continue nurturing the growth of Five Nations, the potential of the communities grows as well. If I can just reflect back on when I first started working on this project from my community, it was the belief that we needed infrastructure to be in place in order for our communities to grow and prosper, that made us determined to see Five Nations succeed. The diesel generators that had historically supplied our communities were designed to meet the basic needs of the community at the time, but they limited the ability for the communities to meet their growing economic and social needs.

Because we have put the basic infrastructure in place, today our opportunities are boundless. We now have the capacity to meet the challenges to fulfill our obligations to our community members, keep our communities safe and remain good stewards of the environment. Take the Victor Diamond Mine as an example. Our communities were totally opposed to seeing shipments of diesel fuel transported through the Hudson's and James Bay because of the potential for spills and resulting damage to the environment. Together we voiced our opposition and were able to offer a feasible alternative, which was to supply electricity to the mine through the Five Nations transmission line. This success was made possible only because we had the infrastructure and management capacity in place to propose an alternative power supply. We need to pat ourselves on the back for this. We did this together. If the infrastructure had not been in place, if we had not worked together, would the result have been?

The need for De Beers Canada to twin the existing transmission line in order to bring electricity to the Victor Mine site has provided FNEI with an opportunity to install a fibre optic communication line which will connect to each of its substations in the communities. Five Nations will use part of the fibre-optic capacity to assist in managing the transmission line, and the excess capacity will be available for communication services to replace the current analog/micro-wave based phone system. This modern digital/

### – Spring 2007 **Omushkego Ishkotayo Tipachimowin**

light-based communication capacity has the potential to greatly improve the communications services available to community members, but there will be a need for people to step up and put the rest of the network in place, as this goes beyond the mandate of Five Nations Energy. Once again, Five Nations is in the process of bringing more regional infrastructure improvements to our communities. This technology will help in all sectors of service delivery. The potential is endless.

Ontario Power Generation is considering the development of dam(s) on the Albany River to generate hydroelectricity. There is also significant wind power potential also in our area and developers are starting to look at this potential. We already have many of the basic assets that would be required to transport this power to where it is needed. The discussions to construct a line from Manitoba to Sudbury may also have potential for our transmission line. Five Nations is currently not directly involved in those discussions but could get involved if we wish to work together to propose an option to assist our north-western sister communities, who are not as fortunate at we are to be connected to a grid-based electricity supply.

Despite the optimism I am conveying I realize the community membership does not often have enough information made available to them to have the same enthusiasm. This is why we have to keep communicating and keep our minds open to new opportunities. Once we can get the technology in place, our young population will be the ones to benefit. It will help them through education, enhanced health services, access to limitless information and overall improvements in other services. The potential is there and it is our job to go out and find those other opportunities that will create jobs and better prospects for our future generations.

Michael Metatawabin, President

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### - Spring 2007 Omushkego Ishkotayo Tipachimowin

# General Manager's Message



After a long winter, the warmer spring weather brings some relief but also some apprehension. At Five Nations Energy Inc., spring means the potential for ice-jams on the rivers and flooding, which means possible damage to our transmission line.

As we explain in the article called "Preparing for Spring Break-up" in this newsletter, FNEI has taken all reasonable precautions to protect the transmission system. As always though, we are at the mercy of the

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weather and melting ice and snow, and hope that the spring break-up does not cause any damage this year.

FNEI is continuing to implement our capital plan which includes several upgrades to the transmission system over the next five years. Currently, the focus continues to be on upgrades to our stations in Fort Albany, Kashechewan, and Attawapiskat, and installing the fibre-optic wires from Moosonee to Attawapiskat. Unfortunately,

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# the fibre optic project ran into

some unexpected delays. FNEI received a letter from its contractor Valard dated March 9, 2007. This letter stated that due to purchasing delays, very bad weather and power outages in British Columbia where the poles are made, as well as the CN rail work stoppages and transportation delays the expected date of completion of construction of the fibre won't happen until the Summer of 2008. FNEI is hoping that we will be able to provide the opportunity of connecting the Fort Albany and Kashechewan to broadband telecommunications this fall and then Attawapiskat next summer. You can find more information about this project later in the newsletter.

As the weather becomes warmer, Five Nations Energy Inc. hopes you and your family can enjoy it safely - remember to be careful around electricity!

**Cecil MacDonald, General Manager** 

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### Omushkego Ishkotayo Tipachimowin Spring 2007.

## FNEI's Commitment to Community Support

When FNEI was created in 1997, its purpose was to help the communities of Fort Albany, Attawapiskat and Kashechewan bring a higher quality of life to the communities. FNEI mainly does this through the transmission of reliable, safe and environmentally friendly electricity to the communities. The grid based supply of electricity also ensures that each community on the system will have more than enough electricity to meet their current and future requirements.

FNEI also helps the communities through its scholarship program and through donations. The community support budget of Five Nations Energy Inc. is set at \$50 000 per year, and part of this budget goes to supporting CreeFest (\$10,000 per year) and FNEI's scholarship program (\$12,000 per year). Since 2003, FNEI has given more than \$180,000 to worthwhile community and regional causes and to deserving students through the scholarship program. More information about each of these programs and how people can apply is as follows:



Local workers installing mid-span openers (MSOs) near Fort Albany. MSOs allow FNEI to isolate parts of the line if there is damage. FNEI uses local workers whenever possible to provide employment to community members as part of its commitment to the communities.

### **General Donations**

The guidelines that Five Nations Energy Inc. follows when donating funds are as follows:

1. Apart from the annual FNEI Scholarships, FNEI will not provide donations to individuals, only groups or organizations.

2. FNEI will attempt to support activities and events for both sexes equally.

3. Applications for funding must originate and be of benefit to organizations and or groups in the following communities: Attawapiskat, Kashechewan, Fort Albany, Moose Cree, Taykwa Tagamou Nation. 4. Donation requests must be made in writing well in advance of the activity or event if possible. Event organizers are encouraged to plan ahead.

5. Any organization that receives sponsorship must be willing to sign an agreement that includes the following:

• FNEI can not be held liable for any legal action that may be taken against the organization;

• Organizations must publicly acknowledge that they have received support from FNEI;

• The organization will prepare and submit a report to Five Nations Energy Inc. about the event or activity that was *Continued on page 12* 

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### - Spring 2007 Omushkego Ishkotayo Tipachimowin

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### Omushkego Ishkotayo Tipachimowin Spring 2007 —

# **Electricity Rates**

When Five Nations Energy Inc. (FNEI) was first started in September 1997, the electricity market in Ontario was very different than it is today. At that time, Ontario Hydro was the main company that was responsible for generating and delivering electricity, and with the "break up" of Ontario Hydro in 1998, big changes were on the horizon.

FNEI's development team moved forward with the belief that according to the rules that were in place in 1997, local distribution companies (LDC's) would purchase electricity directly through the transmission companies (Hydro One Networks and FNEI), and pay them for it. This would have meant that Attawapiskat Power Corporation, Kashechewan Power Corporation and Fort Albany Power Corporation would buy electricity directly from FNEI, and pay FNEI for this electricity. FNEI would then pay the electricity generator, and possibly other transmission companies, depending on where the power originated. Based on the market rules at the time, FNEI's project team explained how the new electricity system would work for the communities that it served. In fact, this is the way the system did work from December 2001 until May 1, 2002 when the electricity market was opened for generation competition. As it was developing and building the Five Nations transmission system, the development team also understood that the rules were changing, but there was no way to know how they would ultimately end up.

As of May 1, 2002 the provincial government drastically changed the way the electricity system works. This happened for a number of reasons, including the fact that the three communities of Attawapiskat, Fort Albany and Kashechewan all use electricity that has actually traveled over at least two different transmission systems, and sometimes more, depending on where the electricity was generated. This system was not fair for the residents of remote communities who had to pay two different transmitters, just because they are located in a remote region. In addition to our communities there are other remote and rural communities that were in the same situation. The solution developed for this problem was a "postage stamp" transmission rate that would be paid by all residents of Ontario, regardless of where they were located. All five transmission companies (including FNEI) became part of a transmission pool, and are paid out of that pool by the Independent Electricity System Operator (IESO).

The IESO was formed to handle the financial dealings of the electricity market. They pay the generators and the transmitters, from money that is collected from the local distribution companies which in turn the LDC's collected from their customers. So, instead of the LDC's paying FNEI for the electricity, they pay the IESO. The payment system is set out in the diagram below.

A question that is often asked is who sets the prices for electricity? How are the prices that end up on YOUR bill decided?

If you look at your invoice, electricity bills in Ontario typically have four different charges as set out in the table on the next page.

As you can see, all of the prices for electricity are controlled by the government of Ontario through the Ontario Energy Board. Five Nations Energy Inc. and your local distribution companies must get approval from the Ontario Energy Board for their rates, which are calculated based on what it costs to run the system. The OEB has the final say and is there to make sure that electricity rates are fair for customers.

The money that FNEI receives from the IESO is used to pay the salary of FNEI's staff, to maintain and upgrade the transmission system including the installation of the fibre-optic line, to provide donations and the scholarship programs to community members, to pay back the debt that the company has taken on to build and improve the system, and ensure that FNEI has enough money to repair the line if something goes wrong.



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Type of Charge	Rate	Who Decides?	Explanation
Electricity	5.5 ¢ per kWh for the first 1000 kWhs, and 6.4 ¢ thereafter	This price is currently frozen by the Ontario government.	This is the charge for the electricity you use (some- times called "the electrons used")
Delivery to the commu- nity and delivery to you	Varies according to com- munity but includes regu- latory charges	Based on rates applica- tions approved by the Ontario Energy Board	This covers the cost of delivering electricity from generating stations to the substations in the commu- nity along the high-volt- age transmission system and then from the substa- tion to your house along your utility's distribution system.
Debt retirement charge	0.07 ¢ per kWh	Ontario Energy Board	This is a cost which is charged to all Ontario electricity consumers to cover the old Ontario Hy- dro debt. Status Indians and First Nations organi- zations are exempted from the debt retirement charge if they are located on a reserve.
Service charges	Varies according to the LDC	Ministry of Energy	This is a montly charge to have an account with the LDC.

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improvements for residents the communities of Attawapiskat, Fort Albany, Kashechewan, Moose Factory and neighbouring Moosonee. Five Nations is working with the Mushkegowuk Council through the Western James Bay Telecom Network (WJBTN) to build a fibre optic network that will connect the communities to each other, and create a high speed internet link to the rest of the world.

On February 1, 2007 the Mushkegowuk Council, as the proponent for the WJBTN, issued a Request for Proposals for the following: the local access and transport equipment to activate the network; proposals for enhanced local services and high-speed internet from existing and new service providers; and network management services including training of First Nation employees to operate and manage the network. The closing date for the RFP was April 4, 2007.

Business planning for the WJBTN is underway and once complete, Mushkegowuk will submit funding applications to the Northern Ontario Heritage Fund Corporation (NOHFC) and Fed-Nor (Industry Canada) for capital and start-up financial assistance to deliver broadband and telecom services.

Due to the remoteness and small populations of the communities there is a high cost for current and new providers to deliver services to the communities. As a result, the Western James Bay Telecom Network is proposing a public-private partnership for this initiative. The private sector will commit  $\langle \mathsf{P} \mathsf{D}_{\mathbf{a}} \cdot \mathsf{L} \rangle \rangle \land \forall \mathsf{A} \cdot \mathsf{U} \cdot \Delta \mathsf{e} \cdot \mathsf{A}^\circ \circ \mathsf{o}^\mathsf{C}$   $\langle \mathsf{A} \mathsf{C} \mathsf{A}^\mathsf{C} \rangle \land \mathsf{A} \cdot \mathsf{C} \rangle \land \mathsf{A} \cdot \mathsf{C} \circ \mathsf{A}^\mathsf{C} \circ \mathsf{a}^\mathsf{C}$   $\langle \mathsf{A} \mathsf{C} \mathsf{A}^\mathsf{C} \rangle \land \mathsf{A} \circ \mathsf{C} \circ \mathsf{A}^\mathsf{C} \circ \mathsf{A}^\mathsf{C}$ 

### - Spring 2007 Omushkego Ishkotayo Tipachimowin

New fibre-optic shelter buildings like these are being installed in all three communities to house new equipment to help FNEI monitor the transmission system.



capital to introduce new and enhanced services in the communities and identify where financial support is required. WJBTN will request capital and startup funding from NOHFC and FedNor for access, transport and Customer Premises Equipment and installation to enable the sustained delivery of services by the private sector.

Fibre service may be available in Kashechewan and Fort Albany by Fall 2007 if construction of towers to cross the Albany River is completed. Construction of the new pole line and deployment of fibre from Kashechewan to Attawapiskat will be completed during the 2008 winter road season. The network is expected to be in full service by October 2008.

The fibre optic network will make its revenues from service providers and enterprise customers for transport and access fees. Current and new service providers are expected to introduce services including: high speed Digital Subscriber Line (DSL), cable modem and wireless services; improved voice and long distance services; on-line, data, entertainment and information services for residents, teachers, students, businesses, government agencies and health care providers; distance video-conferencing education; for medical consultations, training & education, etc.; tele-radiology and picture archiving and communication systems (PACS) to store, retrieve, distribute and present patient images for the Weeneebayko Hospital, the Kashechewan Health Centre, and James Bay General Hospital in Attawapiskat, Fort Albany and Moosonee. These services are only possible with a fibre optic network. The current analogue microwave based system can not deliver advanced telecommunication or broadband services that can be delivered by a modern fibre-optic based communication system.

### Omushkego Ishkotayo Tipachimowin Spring 2007 —

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Organizations can apply by sending a request in writing to:

FNEI Givings Program Five Nations Energy Inc. 70-C Mountjoy Street N., Suite 421 Timmins, ON P4N 4V7

### **Sponsorship Program**

Each year, the following organizations are asked by FNEI to recommend a deserving student for a scholarship of \$2000 each:

- Attawapiskat Education Authority
- Hishkoonikun Education Authority
- Mundo Peetabeck Education Authority
- Northern Lights Secondary School
- Moose Cree Education Authority
- Taykwa Tagamou Nation

In order to be considered for an FNEI scholarship, interested students should have achieved a 75% or better average, plan to pursue a post-secondary education in a technical field, and have made an application to their respective Education Authority. The Education Authorities decide who the successful candidates are for their respective school.

# Spring 2007 Omushkego Ishkotayo Tipachimowin Five Nations Energy Inc.'s New Operations Technician

In our last newsletter, we told you that Five Nations Energy Inc. hired Chris Innes on November 6, 2006 as our new Operations Technician. Now that he has had a chance to settle into his role, he sat down with the writer of the Omushkego Ishkotayo Tipachimowin for the following interview.

**OIT:** Congratulations on joining the FNEI team. Can you tell us a little bit about your educational background?

**CI:** I have an Advanced Electrical Engineering Technology Diploma from Northern College in South Porcupine. I went to high school in Timmins, at Timmins High and Vocational School (THVS).

OIT: What kind of work experience did you have before you joined FNEI? CI: I spent two summers working for Hydro One as a summer student. The first summer, I worked on a civil maintenance crew. We were responsible for maintaining the grounds of Hydro One's facilities. The second summer I worked on an electrical maintenance crew. That was a really great experience because I got to work at Hydro One's transmission stations every day, working inside control buildings and watching and learning from the other workers. It made me familiar and comfortable with the systems that I am now responsible for at FNEI.

**OIT:** What has your experience at FNEI been like so far?

**CI:** It has been a great experience so far. I have had the opportunity to learn a lot about FNEI's transmission system through reading and also by visiting all of the substations in each of the three communities.

**OIT:** What have you been focusing on lately?

**CI:** Lately I have been familiarizing myself with the new transmission line being built by Valard Construction. I have been reviewing the Auto-CAD diagrams of the line, visiting the equipment and stations and observing the crew from Hydro One inspection methods.

I have also had the opportunity to take courses about project management, arc flash training, and MicroScada software. The Canadian Electricity Forum Arc Flash training is basically safety training on how to go about troubleshooting certain faults on an electrical power system to avoid the hazard of an arc flash which can be fatal on a high voltage system like FNEI.

MicroScada software allows FNEI to monitor our power system from remote locations. MicroScada allows FNEI to take readings such as Voltage, Amperage and Wattage. Also, with MicroScada, FNEI has control over the components involved in our power system allowing us to transmit power safely and efficiently.

I am also learning about the fibreoptic project since that is one of my responsibilities, and overseeing the construction of the shelters in each of the communities.

**OIT:** Can you tell us more about the fibre-optic project? What kinds of benefits will FNEI get from this project?

**CI:** Currently FNEI monitors its transmission system through copper wires, which transmit data slowly, and the signal is not always reliable. Also, we only get updates on the status of the system every 30 minutes. That means that if a problem happens on the line, we might not know about it for 30 minutes.

Once the fibre-optic system is up and running, we will be able to monitor the system in real-time. That means if there is a problem on the line, we will know about it right away. Overall, it will be a much more reliable system.

OIT: Who have you been working



with the most and who have you been able to meet through your job?

**CI:** I have been working closely with Cecil MacDonald, FNEI's General Manager as well as Larry Brooksbank, our Technical Advisor. They are both very knowledgeable and I've learned a lot from them. I have also met with people from the Independent Electricity Systems Operator – the IESO is responsible for managing the entire Ontario power grid and making sure that the supply of electricity is meeting the demand.

**OIT:** So what are your plans in the next few months?

CI: I will be traveling with people from the Electrical Safety Authority to Attawapiskat, Fort Albany and Kashechewan to give the "Hazard Hamlet" presentation to kids at the schools. This presentation is a fun way for the kids to learn about how to be safe around electricity, both inside and outside the home. I will also be working on the completion of the fibre-optic installation.

**OIT:** Thanks for telling us about your new job and what it's like to work at FNEI.

CI: You're welcome.

# Smart Meters Coming to Ontario

As part of the government of Ontario's plan to conserve electricity, the Ontario Ministry of Energy (MOE) has selected the Independent Electricity System Operator (IESO) to act as the Program Coordinator for the 'Smart Meter' initiative. Smart Meters do more things than the electricity meters that are currently installed on houses and buildings in the communities, and will measure not only how much power is used, but also when the power is used. The goal of the MOE is to install Smart Meters for all electricity customers in Ontario by 2010.

Ontario is facing a considerable electricity generation shortage in the future and is now planning a number of actions that will make sure that Ontario will continue to enjoy a reliable supply of electricity for all customers. Smart Meters are a very important part of the Ontario government's strategy to deal with the impending electricity shortage.

Every day in Ontario, electricity customers wake up and turn on their toasters, heat or cool their homes, use their clothes washers and clothes dryers, and everything else in today's world that uses electricity. The problem is that many people are using more electricity at the same times of the day. These times are called 'peak hours'. During the winter, peak hours are usually between 5pm and 8pm, when a lot of people are getting home from work, making dinner, and washing dishes and laundry. During the summer, peak hours are usually between noon and 5pm, when many people have their air conditioners turned on.

To help encourage electricity customers to shift some of their energy use to non-peak hours, smart meters will be installed in all Ontario homes and will record when and how much electricity is used. At the same time a new electricity pricing strategy will be introduced, whereby electricity will be more expensive during peak hours and cheaper during non-peak hours. So if you can change your energy use to mostly nonpeak hours, you will save money on your electricity bill.

Since so much electricity is being consumed at the same time, Ontario needs to have enough electricity generating capacity in place (or the ability to import electricity), to meet its needs during peak hours. If the electricity consumers in Ontario could change their use of electricity to non-peak hours by using their washers and other appliances during the day or later at night, and reduce their use of electricity overall, it would help to solve Ontario's energy shortage.

In order to encourage consumers to change their use of electricity to offpeak hours, electricity will be more expensive during peak hours. It is expected that electricity consumers will react to this pricing change by changing their energy consumption patterns. By reducing peak hour electricity consumption, Ontario will need to build fewer generating stations and/or import less power from neighbouring provinces or states, keeping the overall cost of electricity lower.

Although the IESO will be coordinating this project on the provincial level, it will be up to each local distribution company to make sure that smart meters are installed in their communities. Before we can install Smart Meters in our communities, there will need to be fibre-optic capability in place to handle the large amount of data. The Smart Meters will be "read" automatically and electronically every 5 minutes.

The Fort Albany Power Corporation has already begun planning for this change, while Kashechewan Power and Attawapiskat Power will begin shortly. As a transmission company, FNEI is not directly involved in this initiative; however, it will support the LDCs however it can as they continue to move forward.

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<^P >C >'U~> Pr >PL° b ·⊲·∆σ6U` 9 ⊳r 6c.√σc` ⊳Г¬°₽∙∆ ∆ъ́ЧО¬° ∆ъ́ЧО° ₽Г ⊳РГ Δϳης, ρ υλλεαμ δι σράτου γυ  $\forall < \Box r \cdot \Delta \sigma \sigma^{\circ} \quad \forall \sigma \Delta \quad \forall r \quad \forall r$ Δጋር∙Ľ Δ^⁻ ⊲ቍዮ ⊳୮ቍ°ዮ∆ √۲٦٩٩ ٢٩ ٩٩٠ ٩٩٩ ٩ ٩٩٠ ٩٩٠ ٩٩٠ ٩٩٠  $\mathsf{dCb}$  · $\mathsf{d}$ ,  $\mathsf{p}$  · $\mathsf{d}$ ,  $\mathsf{p}$  · $\mathsf{d}$ ,  $\mathsf{p}$  · $\mathsf{d}$ ,  $\mathsf{p}$ ΓΡ Τσ V9 C ·∇C٦ΓΡ,  $\nabla \nabla \Delta < C \ \Delta = 0^{\circ} \nabla \Delta = 0^{\circ}$ ∠J 4/CL, Z,90° bL ⊳bL, bL ▷ΓσˆΡ·Δ Δ˘dUσ° b d<∩C∩` ▷C ▷<sup>3</sup>U 

(/) የያኑ >C >ንሀፈ> ላ^ዮ ላታዮ >Fault 7.40 and  $\label{eq:states} \Delta^{\circ} \cdot b \cdot \mathsf{S}^{\wedge} \quad \forall \mathsf{C} \quad \forall \mathsf{C} \quad \mathsf{C}^{\circ} \quad \mathsf{C}^$ ᠆᠆᠆᠆᠆᠆᠆᠆ ϧ ⊲<<` ⊳Γσ^β·Δ Δισ°x ∇·ϧσ μϧ  $\nabla J \mathbf{e} \cdot \mathbf{p}, \quad \mathbf{L} \mathbf{J}, \quad \mathbf{q} \cdot \Delta \mathbf{e} \mathbf{p} \mathbf{e}, \quad \mathbf{q} \cdot \mathbf{q} + \mathbf{q} \mathbf{q} \mathbf{h} \mathbf{q} \mathbf{h}$ ∆שט° ידר סיכ עאישי √ን-₽ ላይ ለንይ<sup>\*</sup> • 16 ላ≏Γ Γ-∿ 240° \\7160,× 1.6- \> Γ.4- $\nabla V P < V C$  P < V P $\triangleright$  (כן  $\mathcal{V}$   $\vee$   $\mathcal{A}$   $\mathcal{A}$   $\mathcal{A}$   $\vee$   $\mathcal{A}$ ୮ባ⁄ ⊲∙∇σ-₽σ' Ρ (ዓጊዮ) Ρ \. √ )^ `1∇.⊇℃ ∇ ∇.)~10> Γ·ρ α-V, Γ·α- LυCγ ρ α<C</p> ∆"ਰ∪° •ସና" ⊽ ସ<ር የያኈ ∧ታ"  $σ + a^2 \nabla P(dS' \Delta \nabla F \Omega' d \cdot \nabla \sigma b a' b$ Λ<sup>ϵ</sup><σ·ርΓ<sup>\</sup> ⊲σΔ ርb<υΔbc ·⊲<sup>°</sup>bΔbσ<sup>`</sup>\* 9 ⊳r ·∆r⊿d\_\_d' Pr JP∆r' >PLQ\_U
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\_\_\_\_\_\_ Spring 2007 Omushkego Ishkotayo Tipachimowin

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°nc- L6 °r Jp∆r` ⊲-P 6 4<rcl, 2.90° 7.V 4°F 2P ©^^- 6 <<<` ∆~dU° ⊳Гσ^°P·∆ ∆yan r·a- c afrno vy dol 1.p- rp Lp Lv Lv A ▷F@^P•A A"dU@° 6 d<rcr` ∧J"</p> C \)C() \ \ \<\C() \ \ \\C() \ \ \ \\C() \ \\C() \ \ \\C() \ \C() \ \\C() \ \C() \ \C() \ \C() \ \\C() \ \C() \ \C PAL 40-L >P 40-L 200° חיף- דף ⊳יג בטע א מאכר דעמ א מאר דירש  $f_{\star} \nabla \forall d f_{\sigma} b U' \forall \sigma L \Delta' A$  $\Box_{\nabla \nabla} P = \langle \nabla \nabla P = \nabla \nabla P \rangle$ ▷Γσ<sup>^</sup>P·Δ Δ<sup>~</sup>dU·ΔbΓ·b σ<sup>^</sup>C Ja  $\sigma_{V^-}$  (  $\wedge C^{-1} d_3$   $\nabla_{A} f_0$   $\vee D_{A}$   $\triangleright b_{A}$ ⊲σ∆ ዓᡗ·⊲` ∧^ዮር^ዮ∆ ⊲^ዮ৮ ъ°С ∧d LJ T9F, Jub, dub FP A  $\texttt{eller} \ \texttt{Ller} \ \texttt{eller} \$ ᠘ᢗᠻU` ▷ᠮᠳᡥᠻ᠕᠘ᢅ᠔᠐°᠈

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# Omushkego Ishkotayo Tipachimowin Spring 2007 FNEL in Pictures Φμαμ Δαραγία Φμαμ Δαραγία Δταμ Δαραγία Δταμ

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