

# Introduction

- “Nisichawayasihk Cree Nation (NCN) has embarked on a comprehensive program of economic development that addresses employment, training, healing from past experiences, infrastructure development and energy self-reliance.
- NCN is vitally concerned with nurturing young people, and is now interested in sharing its learning with other First Nations communities.
- NCN’s development initiative is reflective of a convergence, or self-reliance approach to community economic development (i.e. Converging local production with meeting local basic needs) Loxley, 2010.”

# Introduction

- “The program also reflects the quadruple bottom line of social enterprise (employment creation, environmental protection, social development, and income generation) (Berkes and Ross, 2013)
- NCN’s Training program goes beyond simply imparting employment skills to young participants who must then find their way in uncertain labour markets.
- The program functions as a labour market intermediary connecting NCN trainees and residents to employment opportunities and employers, and supporting them after the hiring phase in adapting to possible employment challenges (Bernas and Mckinnon, 2015).

# Beginnings

- The Atoskiwin Training and Employment centre (ATEC) currently runs the Mature Student Diploma program and has been doing this since 2013.
- “In 2017, NCN assessed 545 residents between the ages of 18-35 who were on social assistance in the community. Of these, 170 expressed interest in learning trades. (Pewapun, 2019)”
- That year ATEC began its Construction Trades Apprenticeship Program, accredited by the Manitoba Government. That summer under supervision from red seal carpenters the trainees built their first two houses.

# Beginnings

- An inspector from Winnipeg was hired and certified the quality of their work as “meeting or exceeding work in urban centres” Pewapun Manager, 2019.
- “The economic effects of this contract completion were significant. The Trainees incomes’ incomes rose from \$311 per month in social assistance payments they were receiving as students, to \$3,338 per month (\$19.26 per hour) as first-year apprentices.
- The students were also able to put in their required hours of on-the-job training as apprentices.”

# Beginnings

- “As residents of the community, the students could be expected to spend significant amounts of their earnings at the local store, at the gas station, in payments to their housing providers, and to childcare providers.
- This would create a multiplier effect as these earnings were in turn spent by the local businesses and their employees. As much as possible building material for the houses was purchased from Meetah Building Supplies, a local company based at NCN that serves several communities in the North. Employees in this company again re-spent some of their earnings locally. Not only wages retained and circulated within the community, but social assistance resources at NCN were saved and reallocated to other community needs.”

# Beginnings

- This reflects principles in convergence economic development referred to as import substitution (substituting locally-built housing for imported homes), and closing leakages of income from the local economy (Loxley, 2010)

# Pewapun Construction

- “Some potential contractors objected that ATEC, as a training program had unfair advantages in the bidding process.
- This led to the creation of a for-profit construction company, Pewapun (A New Day) Construction Ltd. that could hire ATEC apprentices and bid on construction opportunities.
- Beginning 2017, Pewapun constructed another six individual houses, a four-plex facility to house NCN seniors, and an extension to the ATEC training centre. (14,000 square ft.)
- The most recent project is an *energy-efficient* eight-apartment complex for staff of the community’s Medicine Lodge treatment centre. (Pewapun 2019)

# Pewapun Construction

- “By 2018, Pewapun had logged 67,200 person hours of employment for 35 NCN citizens. (Youth) At apprenticeship wages this was a total of \$1.29 million in earnings retained and recirculated in the community. As of 2019, the company had 55 apprentices in its workforce (Pewapun, 2019a).”

# Heat and Energy Efficiency

- The NCN Strategic plan stated that the community would “consider alternative energy-based development such as solar, wind power, geothermal, and hydrogen power projects (Nisichawayasihk, 2019, p.50)
- “The four plex living facility was the first building constructed with a view to energy and heat efficiency. The roof of the building was lined with twenty-five 325 watt solar panels delivering 8000 watts of power. This solar energy was used not only for lighting and appliances, but also to power electric baseboard heating.”
- “The building envelope was constructed with Insulated Composite envelope (ICE) panels. These are highly compressed sheets of Styrofoam insulation held in place by galvanized steel ribs. These are similar to the more widely used structural insulated panels (SIP’s) which use oriented strand board instead of steel ribs.”

# Heat and Energy Efficiency

- “ICE and SIP panels are manufactured to precision standards to seal much more tightly than regular frame constructions walls. This really reduces “thermal bridges” (loss of energy at studs and areas where walls join or the house structure meets the foundation) (CMHC, 2016; Natural Resources Canada, 2019).”
- The highly compressed Styrofoam creates high insulation values (R-36 to R-42) at reasonable wall thicknesses. The airtightness of these materials has been shown to greatly reduce the risk of mould which is an endemic problem in housing in the north ( CMHC, 2017; Opis, Shaw, Stephenson, and Wild, 2012).

# Heat and Energy Efficiency

- Pewapun has built an extension to the ATEC training building to create a manufacturing facility for SIP panels to be used for housing construction.
- “Five of Pewapun’s apprentices spent a week in training at a SIP manufacturing plant where the trainees manufactured all the SIP panels for Pewapun’s latest housing project.” Four SIP energy efficient homes should be finished construction in February.
- “This reflects a convergence development principle of building backward linkages from production (Loxley,2010). Development begins with a production initiative that meets basic community needs (in this case housing). It then considers opportunities to provide some of the inputs of this production (SIP panels). Backward linkages create further opportunities for employment or retention of income.”

# Heat and Energy Efficiency

- “In the convergence approach, the surpluses of local production can be used for export. The ATEC facility will have the capacity to manufacture SIP panels for 100 houses per year. These can be shipped by rail, and then by barge on rivers, or by truck on winter roads, to communities that currently purchase them from southern non-Indigenous suppliers.”
- The ATEC factory facility will have roof mounts for 30 solar panels and ground mounts for another 153, These photovoltaic arrays will power all the radiant floor heat for the 14,000 square foot facility, and will supply most of the power for the machinery and power tools used in the manufacturing.

# Heat and Energy Efficiency

- Pewapun has now received a grant to convert a further four SIP homes in the community to solar power. These houses should be finished construction sometime in February with solar panels installations forthcoming.
- “Currently, Nisichawayasihk pays approximately 1 million per year for hydro power for community-owned businesses, community service facilities (such as the senior’s residence), and for families on social assistance.”
- “Reductions in these hydro bills through reliance on solar energy will mean significant savings to the First Nation. This is another instance of import substitution. Local production of solar power substitutes for imported hydro power and saves on hydro costs.”

# Leadership: Training to Employment and the Transition to Sustainable energy.

- “There is a critical need for the kind of expertise that Pewapun is developing among its young people at Nisichawayasihk. The training of young people in construction and management, the knowledge of net zero construction, and expertise in renewable energy technologies, all constitute highly important capabilities in Northern and First Nations communities.”
- “Both Indigenous Services Canada and the Assembly of First Nations identify development of capacity in Indigenous communities to construct, manage, and maintain housing, as key components in meeting housing needs in First nations and in transitioning to sustainable energy and emissions.”

# Replicating ATEC

- “ATEC has pioneered holistic development that combines localised production, retention of income, skill development, personal healing, and sustainable energy use.”
- “ATEC and Pewapun are aiming to develop a network of training centres among First Nation communities that will provide qualifications not only in housing construction, but also in business management and leadership. ATEC/Pewapun’s experience in training young people in both construction and alternative energy technologies will be highly important in the next decade.”
- “An entity called Indigenous YouthBuild Canada (IYBC) has been established that will develop a network of training sites similar to ATEC and Pewapun. IYBC will begin operations in four indigenous communities in 2020.” (YouthBuild Canada, 2020).

# Replicating ATEC

- “ATEC is now working to broaden its impact by creating a network of facilities among First Nations that will share this experience. The Network will not only train indigenous young people in technical skills, but will also nurture management and leadership ability, provide counselling and culturally-based healing, and support graduates as they enter the workforce.”
  - Graduates will be encouraged to lead and manage social enterprises like Pewapun that emerge from this training by enrolling in ATEC construction management courses.

# Replicating ATEC

- “ATEC has partnered with YouthBuild International, an organisation that has a 40 year track record in the US of youth training, leadership development, and housing renewal. YouthBuild’s international arm has worked in 19 countries over a 20 year period to nurture similar work outside of North America (YouthBuild, 2020).”
- “Indigenous YouthBuild Canada (IYBC) has created an initial network of four training sites. These include the Manitoba Institute of Trades and Technology (MITT) in Winnipeg, Thompson Rivers University (TRU) in Kamloops, Akwesasne Reserve near Montreal, and ATEC at NCN.”
- “The Assembly of First Nations has passed a resolution supporting Indigenous YouthBuild Canada (AFN 2019).”

# Replicating ATEC

- “IYBC will develop local chapters tailored to local conditions and localized cultural characteristics.”
- “IYBC has letters of intent from six additional sites to eventually create a network of ten learning centres across the country. Each site is unique, but each will apply principles that have been pioneered at ATEC.”

# Replicating ATEC

- ATEC partners with the local Education Authority that funds the Mature Student Diploma Program. They pay for the instructor and they give the credits for the MSDP.
- Eight credits are required for the MSDP. Grade 11 English and Math, Grade 12 English and Math. You can also use 440 hours work experience which can be coded to the Manitoba Curriculum such as community service, outdoor education, woodworking, .. for four more credits.
- The ISETS funding is used to pay for the wages for the MSDP program at \$12.50 per hour.

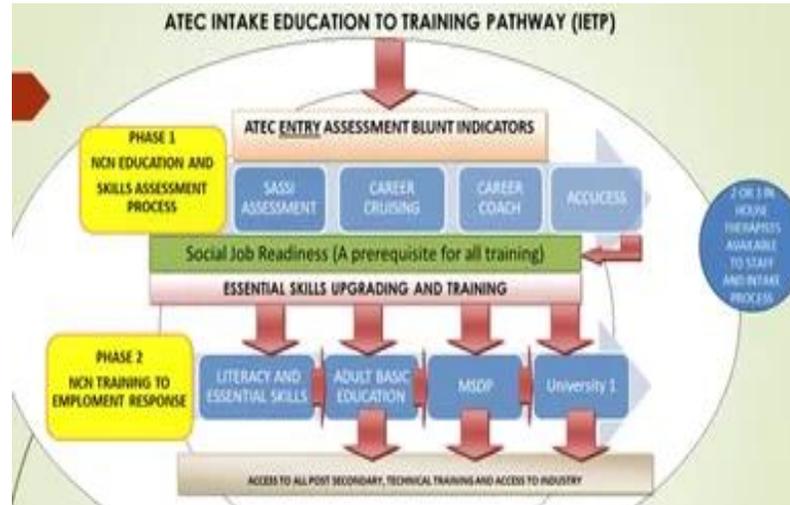
# Replicating ATEC

- In partnership with the local Housing Authority; the students are placed for work experience to do renovations for housing and learn on the job about carpentry, plumbing and electrical work. Red Seal carpenters, plumbers and electricians mentor and supervise them at work.
- In partnership with the Manitoba Apprenticeship Branch students are registered as apprentices when they graduate from the MSDP.
- Similarly the local ISETS funding is used to pay for wages for the Carpentry Level 1, ten month program. Learn the theory in the classroom in the morning and then do the work experience in the afternoon.
- NCN ISETS funding is also used to pay for the work experience for the Business Certificate students which is in partnership with Yellowquill College for the credits. Yellowquill is affiliated with the university of Wpg.

# Replicating ATEC

- You can also affiliate yourself with any college or university; however you would need a curriculum developer to work with you develop the curriculum associated with the University or College.
- There is also the Indigenous Service Canada funding through the Skills Link Program that submit proposals for funding. This program also pays for wages and mentorship for the students. We combine the wages from this program to pay the students the \$19.26 per hour as a level 1 Carpenter apprentice. Skills link program call for proposals has already began for this year.
- **“STUDENTS CAN LEARN AND EARN MONEY AT THE SAME TIME WHILE THEY ARE TRAINING.”**

# ATEC Intake Process



- Central to the effectiveness of the ATEC program is its intake process. IYBC will attempt to replicate this holistic approach in all future sites

# ATEC Social Readiness Program

- Program description
- There is a great deal of data indicating that large numbers of First Nations people are contending with significant social, emotional, and mental health barriers that prevent them from succeeding in both school and work fields.
- This program addresses the multiple and complex issues and challenges that often prevent First Nation people from graduating.
- The program offers students multiple techniques by which they will develop essential skills and emotional intelligence to ensure they will be well equipped to stay in the program, graduate and keep their jobs afterwards.

# ATEC Social Readiness Program

- It presents a variety of mindfulness based techniques to help participants address emotional issues resulting from negative experiences, and will introduce students in the use of Power of the Mind strategies to vision healthy achievable goals.
- It addresses Time Management and Budgeting strategies to help students organize time and money to stay in school and have healthy living.
- It will also empower students in the exploration of the wisdom of First Nations' ways of knowing and ceremonies, and will teach them Indigenous modes of expression and healing such as drum-making.

# ATEC Intake Process

- Interview with Jacqueline Hunter the Social Readiness Instructor at ATEC.
- <https://youtu.be/dkxnfMjPFvc>
- ATEC in partnership with Pewapun and NCN Human Resource Development Authority currently has 59 apprentices and 22 Red Seals with NCN. 24 Business Certificate graduates and employed within the Nation.
- MSDP is now beginning its second semester and students interested in trades will have 220 hours of work experience doing renovations with the housing authority.
- This year in partnership between ATEC/ IYBC there will be 18 more students scheduled to start carpentry level 1 in March 2020 and 12 to 15 more for the Business Certificate courses.