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# Keeyask EIS

## Excerpts from the Socio-Economic Record

CAC Manitoba November, 2013

Table 3-5: Keeyask Cree Nations Employment Model Skills by Job Category (2014, 2021)

	2014 (Constructio		2021 (Construction End)		
Skills By J ob Category <sup>1</sup>	KCNs Labour Supply Resulting From HNTEI <sup>2</sup>	KCNs Total Labour Supply <sup>3</sup>	KCNs Labour Supply Resulting From HNTEI <sup>2</sup>	KCNs Total Labour Supply <sup>3</sup>	
Designated Trades (Construction, Transportation and industrial)	31	85	31	90	
Non-Designated Trades (Construction, Transportation and Industrial)	116	165	116	170	
Construction Support and Service Trades	95	230	95	255	
TOTAL	242	480	242	515	

Source: Source: Derived from Wuskwatim Keeyask Training Consortium 2009/10 fourth quarter report and other WKTC derived data. Analysis prepared by InterGroup Consultants Inc. 2010.

1. Complete data set provided in Appendix 3A (Table 3A-5).

 Table includes a portion (5%) of apprentices that have achieved less than Level 1 apprenticeship. Table includes trainees that have undertaken training through the HNTEI in occupational classifications that align with Keeyask workforce estimates as of August 2010.

Derived from HNTEI labour supply projection and projection of Statistics Canada occupational data (2001). Analysis
prepared by InterGroup Consultants Inc, 2010.

Numbers are subject to rounding.

The HNTEI program ended in 2010. In subsequent years, there may be some opportunities for training new labour force entrants, but they will be much smaller in number and likely concentrated in regional centres, such as Thompson and The Pas, rather than in the KCNs communities. The analysis shows that a large portion of the KCNs workforce expected to be available for the start of construction in 2014 will have received some training through the HNTEI Program (i.e., approximately 50%). New entrants trained after the HNTEI program ended in March 2010 would increase the total labour pool to some degree during the construction period, although this is not expected to have a substantial effect on the total available KCNs labour supply.

Carpenters account for more than half of the KCNs' Members in the designated trades, with approximately 45% of these carpenters receiving some training through the HNTEI program. Heavy equipment operators are the most common non-designated trade, accounting for more than one-third of all non-designated trade jobs. More than three-quarters of heavy equipment operators received some HNTEI. Clerks and typists are the most common construction support and service trades, accounting for about 50% of these kinds of jobs. Approximately three-quarters of those clerks and typists received some training through HNTEI (Appendix 3A, Table 3A-5).



To characterize the effect of these challenges and to reflect uncertainty, low and high assumptions were applied in the employment model. Estimates that resulted in higher levels of KCNs, CBN and northern Aboriginal employment assumed that the influence of all of the challenges were less pronounced. In contrast, low employment estimates assumed that employment challenges were more pronounced. More detail regarding the assumptions made to incorporate employment challenges can be found in Section 3.2.1.1.

### 3.4.1.2.2 Construction Employment Estimates

Results of the Keeyask construction employment modelling analysis are presented below.

#### **KEEYASK CREE NATIONS EMPLOYMENT EFFECTS**

This section presents the estimated extent of participation by KCNs Members in Project construction employment, based on results of the employment supply/demand model. Key effects for discussion include person-years of employment and employment by job category. Analysis is also provided that estimates the percentage of available Project employment filled by qualified KCNs Members, as well as the job categories in which the KCNs estimated labour force would exceed the expected number of opportunities. Finally, estimates are provided for average total KCNs employment (quarterly and by job category).

Table 3-22 and Table 3-23 show the estimated person-years of employment for KCNs Members by job category for both high and low employment estimates. These tables do not include employment related to pre-construction activities or the Keeyask Infrastructure Project.

Table 3-22: Construction Phase Estimated Employment Participation by KCNs Members in the Keeyask Generation Project - High Employment Estimate (Person-Years)

Employment	High Employment Estimate: KCN <sup>1</sup>									
	Construction Support		Non- Designated Trades		Designated Trades		MH and Supervisory <sup>2</sup>		Total	
	PY	%	PY	%	PY	%	PY	%	PY	%
Total KCNs Participation	325	8%	170	4%	95	2	10	<1%	600	14%
Total Demand	852		952		1,346		1,068		4,218	

Source for the Demand: Derived from data provided by Manitoba Hydro in 2010. Source for the Participation: Analysis prepared by InterGroup Consultants Ltd. Notes:

1. Numbers are subject to rounding.



Estimated KCNs Participation within the Manitoba Hydro and Supervisory employment category resulted in a value of less than one percent.

Table 3-23: Construction Phase Estimated Employment Participation by KCNs Members in the Keeyask Generation Project - Low Employment Estimate (Person-Years)

	Low Employment Estimate: KCN <sup>1</sup>									
Employment	Construction Support		Non- Designated Trades		Designated Trades		MH and Supervisory <sup>2</sup>		Total	
	PY	%	PY	%	PY	%	PY	%	PY	%
Total KCN Participation	125	3%	45	1%	55	1%	10	<1%	235	6%
Total Demand	852		952		1,346		1,068	шшт	4,218	

Source for the Demand: Derived from data provided by Manitoba Hydro in 2010. Source for the Participation: Analysis prepared by InterGroup Consultants Ltd. Notes:

Numbers are subject to rounding.

2. Estimated KCNs Participation within the Manitoba Hydro and Supervisory employment category resulted in a value of less than one percent.

KCNs workers are projected to account for between 6% in the low employment estimate and 14% in the high employment estimate of the total construction workforce for the Project. This would constitute between 235 and 600 person-years of the 4,218 person-years of total construction employment. The participation percentages are strongly influenced by the relatively small number of qualified KCNs Members who could work on the Project relative to the large number of Project construction jobs that are available. While the percentage of the total appears to be relatively small, the absolute amount of employment is substantial for the KCNs as the Project is expected to involve a large percentage of available workers from the KCNs. The difference between the high and low estimates illustrates the effect that challenges to employment would potentially have on KCNs participation in construction employment. When these effects are assumed to be less prominent, KCNs employment is estimated to be substantially higher than when these challenges are assumed to have more influence.

For both high and low estimates of construction site employment, more than half of KCNs employment is expected to be in construction support occupations, while about one-third is expected to be in non-designated trades at higher estimates and about one-fifth at low estimates. About 18%-28% of KCNs employment is expected to be in designated trades and Manitoba Hydro and contractor supervisory occupations for low and high estimates, respectively.

Implications of these estimates are as follows:

• In small to medium-sized First Nations these levels of employment could contribute noticeably to reducing unemployment levels for their rapidly growing labour force during the construction phase. If these were full-time positions, approximately 30 to 70 KCNs Members would be working throughout the construction phase. However, much of the Keeyask construction work would be seasonal and therefore, a person-year of work would be spread over several individual jobs. Assuming two jobs per person-year, the number of KCNs Members working during a given year would be on average 60 to 140 persons, which would be substantial in these high unemployment settings. This would vary among construction

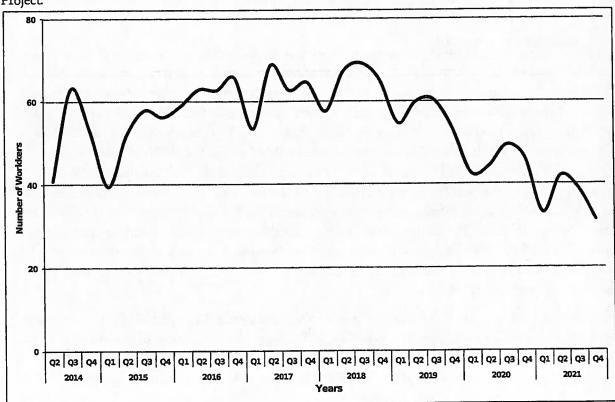


years, reflecting differences in numbers and skills mix of workers required throughout the construction phase.

• The percentage of KCNs employment is affected by the nature of Project construction. Since the Project consists mainly of building the major civil works and installing mechanical and electrical equipment, the workforce requirements would be heavily oriented towards designated trades, requiring more trained and skilled workers. This would temper the levels of KCNs participation that could occur.

During construction, Project-related employment for KCNs Members will also be generated through on-site representatives, participation in technical and ATK monitoring programs, and community based job referral and partner implementation staff. These jobs will contribute at least 35-40 additional person-years of construction related employment for KCNs Members.

Figure 3-26 illustrates the quarterly peak employment levels of KCNs Members during construction of the Project.



Source: Analysis prepared by InterGroup Consultants Ltd.

Figure 3-26: Construction Phase Estimated Average Total Employment among KCNs Members (Number of Jobs Filled)

This figure illustrates the following:

• Throughout the construction phase from 2014 to 2021, KCNs employment is estimated to vary between 30 and 70 workers.



Table 3-25: Construction Phase Estimated KCNs Gross Employment I ncome from the Keeyask Generation Project (in millions of dollars)

	High Wage Range			Low Wage Range			
	All Contracts	DNC	тс	Ali Contracts	DNC	тс	
Construction Support	31.7	27.9	3.8	9.8	9.4	0.4	
Non-Designated Trades	17.6	11.8	5.8	3.6	3.0	0.6	
Designated Trades	12.3	7.8	4.5	7.6	5.3	2.3	
Subtotal	61.6	47.5	14.1	21.0	17.7	3.3	
Manitoba Hydro And Contractor Supervisory	0.6			0.6			
Total	62.2			21.6			
Construction Support	51%	45%	6%	47%	45%	2%	
Non-Designated Trades	29%	19%	9%	17%	14%	3%	
Designated Trades	20%	13%	7%	36%	25%	11%	
Total	100%	77%	23%	100%	84%	16%	

Sources: Derived from data provided by Manitoba Hydro in 2010 with analysis prepared by InterGroup Consultants Ltd. Note:

Keeyask Cree Nations workers are expected to earn between \$21 and \$62 million working on construction of the Project. Most of this income would be generated from DNCs, even though these contracts only represent about 27% of total Project employment.

The high level of KCNs employment on DNCs illustrates the importance of the DNCs to KCNs employment income. The importance of the DNCs can also be seen by comparing total KCNs income to estimated construction employment income that would accrue to the whole CBN area (see Section 3.4.1.8). Keeyask Cree Nations represents about 23% of the total CBN population, yet it is estimated that KCNs would secure between approximately 50% to 60% of CBN employment and gross employment income. Keeyask Cree Nations and CBN workers would share the same preferences on TCs.

Monitoring would be undertaken to determine the amount of gross labour income accruing to KCNs Members from Project construction employment.

#### **B**USINESS INCOME

While businesses with awarded DNCs would be active during the entire course of the construction phase, profits from these contracts would depend substantially on how well the contractors are able to manage their costs over the length of the contracts. Profits generated and business income created by the DNCs would only be evident after the contracts are completed. If costs are effectively managed, profits in excess of \$15 million could be earned on the DNCs, of which more than half could accrue to KCNs businesses, who must



Numbers do not always add due to rounding. Actual results will vary from estimates provided here.

own at least half of the contracted enterprises. This level of profit is based on a target return of 10% of contract earnings.

#### 3.4.1.4.2 Gillam

Gillam would experience some income benefits as a result of the Project. Employment income would accrue primarily to FLCN Members living in Gillam; that income is included in estimates of employment income accruing to KCNs workers as a whole in Table 3-25.

Income benefits would also result from the increased economic activity that is estimated to occur in Gillam during the construction phase of the Project. This would affect both employment and business income for workers and businesses in the transportation, hospitality, retail and construction sectors. This spending is dependent on individual spending preferences of employees, therefore, quantitative estimates of spending in the specific Gillam economy are difficult to determine.

#### 3.4.1.4.3 Thompson

Thompson is expected to experience some income benefits as a result of construction of the Project. Employment income effects would accrue primarily to the city's Aboriginal population many of whom are likely to have some level of hiring preference for Project construction jobs. Income benefits would also result from the increased economic activity that would occur in Thompson as a result of the Project. Income received through Project employment is expected to lead to indirect economic activity in Thompson, particularly in the construction, retail/wholesale goods and service and hospitality sectors. In turn this would affect both employment and business income for workers and businesses in these sectors. As in the case of Gillam, this spending is dependent on the type and location of preferences of individual employees and, therefore, quantitative estimates in the specific Thompson economy are difficult to determine.

### **3.4.1.4.4** Mitigation

No mitigation or enhancement is required.

#### 3.4.1.5 Cost of Living - Local Study Area

Discussion regarding cost of living is intended to capture issues associated with the higher costs for housing, food and household items and transportation in northern communities. The increased employment and business opportunities associated with large construction projects can potentially affect these costs.

In addition to effects related to direct employment, business and income, construction of the Project is expected to result in indirect expenditures in the Local Study Area. Local construction workers and their families could increase their purchases of retail products, transportation and hospitality services as a result of increased income from the Project. Non-local workers could spend more money on transportation, and hospitality services. Local firms that sell products and services for businesses could also see an increase in sales to contractors. While these expenditures are likely to occur primarily in Thompson, some, particularly retail products and services, may also occur in other Local Study Area communities.

Despite the potential for increased purchases, local spending and construction-related expenditures associated with the Project are unlikely to affect the cost of living in the Local Study Area. Construction-related expenditures are anticipated to be concentrated in Thompson, where the size of the local economy would



Table 3-33: Estimated Annual Gross I ncome for Keeyask Cree Nations Members When 20-Year Operation Employment Targets Are Achieved (Million \$)

KCNs Community	Manitoba Hydro 20- year Employment Target	Potential Annual Gross I ncome 12	Potential Annual Net I ncome 1,2
TCN	100 positions	10.8	7.4
WLFN	10 positions	1.1	.7
FLCN	36 positions	3.9	2.6
YFFN	36 positions	3.9	2.6

Source: J KDA, Section 12.7.1 (CNP et al. 2009) Note:

1. Actual results will vary from estimates provided here.

 Expected gross salary per position is provided by Manitoba Hydro, 2011 and assumed to be \$108,157 per year in 2010 dollars. Net Income is calculated based on Canada Revenue Agency's Payroli Deductions Table effective July 1, 2011 for Manitoba.

#### I NVESTMENT I NCOME

Under the JKDA, KCNs communities have the option of acquiring up to 25% equity in the Project. Of this total, the CNP has the opportunity to acquire up to 15% equity in the Project, while FLCN and YFFN each have the opportunity to acquire up to 5%.

Each of the KCNs communities would eventually receive income based on their investment in the Project. Dividends will begin to accrue after the Project becomes operational and produces revenues. KCNs communities can choose to invest in the Project in one of two ways: 1) a common equity option, which requires a higher level of investment and generates a proportionate share of distributions from the Project based on Partnership financial performance, or 2) a preferred equity option. The latter option involves a lower investment and a guaranteed return on investment. In the long-term, annual dividends could provide substantial long-term, sustainable income for the community.

The distribution of annual Project dividends is expected to increase the amount of discretionary income the KCNs have to address economic, infrastructure and social needs. This may contribute to improve socio-economic circumstances for the KCNs. Section 14.2.2 of the JKDA indicates that distributions may be used by a KCNs community for the following purposes:

- Resource rehabilitation and development measures to support increased viability for traditional and commercial resource pursuits and other resource harvesting;
- Initiatives to support its Aboriginal or treaty rights;
- Cultural support and social development initiatives;
- Business and employment development undertakings;
- Local community infrastructure and housing development;
- The construction of capital projects, including related infrastructure, as well as the operation and maintenance of any capital projects, including related infrastructure; and

