

# Appendix K

## Correspondence with Aboriginal Communities

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**From:** ljob@taykwatagamounation.com  
**Sent:** Wednesday, July 25, 2012 9:59 AM  
**To:** Male, Sean  
**Cc:** Justine Prevost; Roger Archibald; Bruce Archibald; Tina Gagnon; Peter Archibald; Tracey Prevost; archibaldfranc@gmail.com  
**Subject:** Northland Power Solar Project & TTN Protocol  
**Attachments:** TTN Consultation Protocol - Final January 2011\_392155 (1).PDF

Hi Sean,

Following up on our brief conversation this morning, find attached Taykwa Tagamou Nation Consultation Protocol and information for Ontario Microfit program that was announced on July 12, 2012, at the following web link: <http://microfit.powerauthority.on.ca/who-can-apply>

We look forward to meeting with you and discussing aboriginal participation in the project.

Also please send us another copy of the draft support documents for the project.

Thank you.

Linda Job  
Chief Taykwa Tagamou Nation

Cc: TTN Council  
Francis Archibald, Business Development Advisor

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**From:** Rob Miller [Rob.Miller@Northlandpower.ca]  
**Sent:** Tuesday, September 18, 2012 10:19 PM  
**To:** jm\_prevost@hotmail.com; ljob@taykwatagamounation.com;  
rarchibald@taykwatagamounation.com; barchibald@taykwatagamounation.com;  
parchibald@taykwatagamounation.com  
**Cc:** TimRichardson; Male, Sean  
**Subject:** Follow-up to Taykwa Tagamou Nation Meeting

Hello everyone,

I wanted to follow-up and say thank you for your time this morning. It was a pleasure meeting you. I hope I got Peter's e-mail correct?

Please let me know if you have any questions or comments regarding Northland's proposed 40 MW's of solar development and 22 km of associated transmission line. Sean Male from Hatch is also available to answer any questions that you may have.

The project web sites are below, which is where all of the studies and reports are contained in electronic format.

Martins Meadows	<a href="http://www.northlandpower.ca/martinsmeadows">http://www.northlandpower.ca/martinsmeadows</a>	
Abitibi	<a href="http://www.northlandpower.ca/abitibi">http://www.northlandpower.ca/abitibi</a>	
Empire	<a href="http://www.northlandpower.ca/empire">http://www.northlandpower.ca/empire</a>	
Long Lake	<a href="http://www.northlandpower.ca/longlake">http://www.northlandpower.ca/longlake</a>	

As discussed, we would be pleased to participate in a dedicated public meeting for the Taykwa Tagamou Nation. Tentatively, we're wondering if Wednesday, October 3 would work for you. We currently have 2 meetings scheduled for the general public on Thursday, October 4, one in Cochrane (5:00 to 7:00) and the other in Hunta (7:30 to 9:30).

Peter, I'm interested in speaking with you directly to determine what might be required from Northland in order to facilitate Northland's consultation and accommodation. I have a copy of TTN's protocol.

Thanks again for everyone's time today. I'm looking forward to working with you in the future.

Regards,

Rob.

**Rob Miller, M.Sc., P.Eng.** | Manager, Solar Development  
Northland Power Inc.  
30 St. Clair Avenue West, 12<sup>th</sup> Floor, Toronto, ON M4V 3A1  
d: 647.288.1066 | c: 416.305.1235



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**From:** Gibson, Melissa  
**Sent:** Thursday, October 04, 2012 9:15 AM  
**To:** 'andy@metisnation.org'  
**Cc:** 334844  
**Subject:** Notice of Public Meeting for Four Proposed Solar Facilities  
**Attachments:** Notice of Public Meeting - cover letter.pdf; Notice of Public Meeting - Northland Power.pdf

Hello Andy,

Please find attached a letter and Notice of Public Meeting for four proposed solar facilities for this evening in Cochrane. We apologize for the short notice as unfortunately our mailed letter was returned.

Thanks,

Melissa

**Melissa Gibson B.Sc**

Environmental Scientist/Environmental Assessment & Management



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Fax: +1 905 374 1157

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Welcome to the Public Meeting for the  
115-kV Transmission Line to Interconnect the  
Long Lake Solar, Empire, Abitibi, and Martin's Meadows  
Projects



**Thursday October 4, 2012**

**Public Information Centre #3 (PIC#3)**



# Agenda

## **Cochrane 5:00 – 7:00 and Hunta 7:30 – 9:30**

### 1) Presentation (approx. 30 minutes)

- Introduction – Northland and Panel
- Purpose of the Meeting
- Permitting Process and Schedule
- Transmission Line
- Next Steps

### 2) Question and Answer Period (approx. 30 minutes)

### 3) Open House – Display Boards (approx. 60 minutes)

# Northland Power Inc.

Northland Power develops and operates clean and green power generation facilities, mainly in the provinces of Ontario and Quebec. Our facilities produce about 1,000 MW of electricity. Northland Power has been in business since 1987 and has been publicly traded since 1997.

Sustainability is a core value of Northland Power Inc. Sustainability has many dimensions including:

- Environmental
- Community
- Health and Safety
- Financial
- Operational



# Presenters

- Northland Power
  - Rob Miller, M.Sc., P.Eng., Manager Solar Development
  - Luke Kupczyk, M.Eng, P.Eng., Project Engineer, Engineering Department
- Hatch
  - Sean Male, M.Sc., Terrestrial Ecologist, Environmental Assessment & Management
- Intrinsic Environmental Sciences Inc.
  - Dr. Chris Ollson, PhD., Environmental Health Scientist

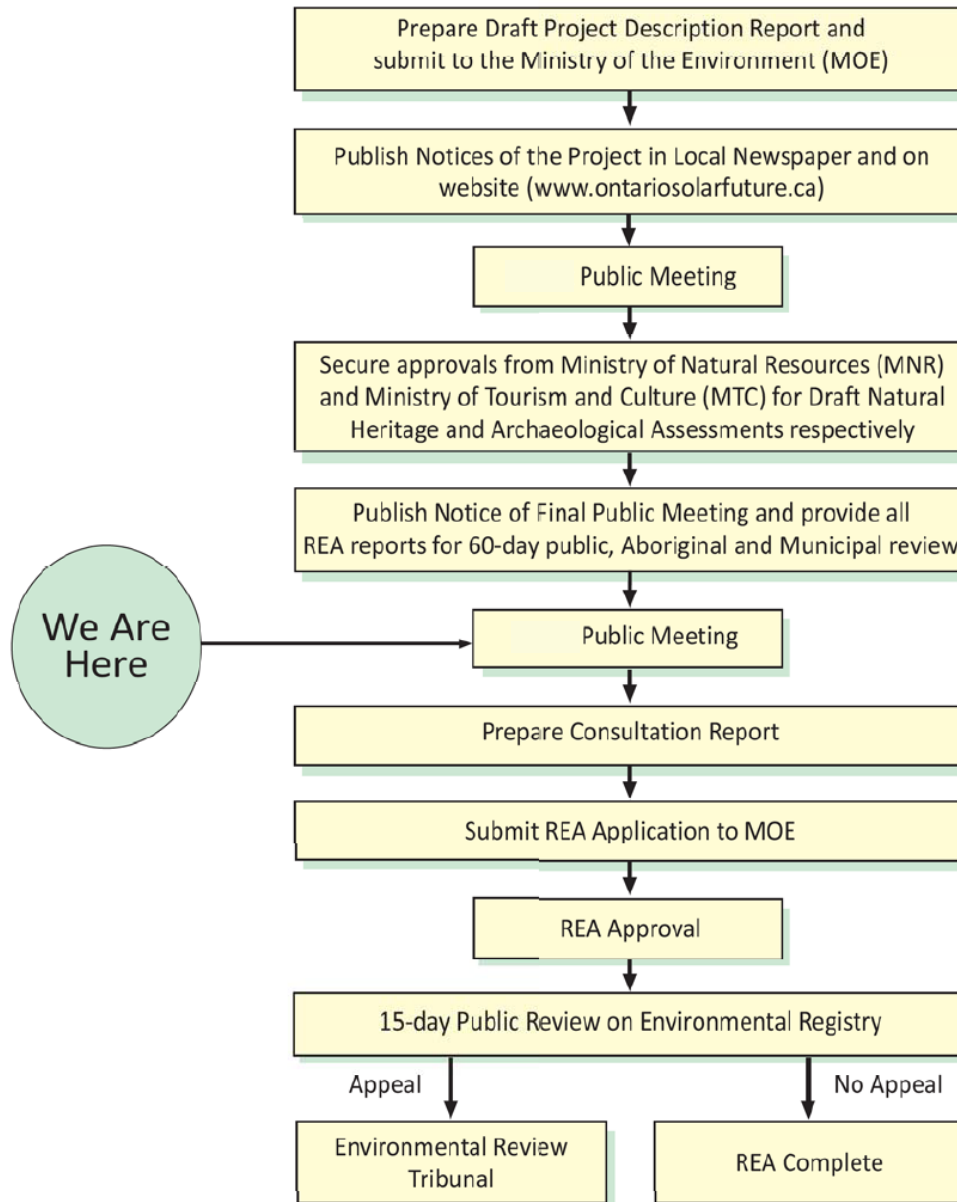
# Purpose of this Public Meeting

- To communicate project details and to solicit stakeholder input, with a focus on the transmission line
- You Can:
  - Ask Questions
  - Obtain information
  - Gain a greater understanding of the Project and the REA process
  - Express any comments or concern
- Comments or Concerns can be provided:
  - In a comment form
  - Through discussions with the representatives in attendance
  - Or contact the Environmental Coordinator, Sean Male, after the meeting

# Benefits of Solar Energy

- Advantages of solar energy include:
  - Fuel is free
  - No pollutants or green house gases
  - Components are safe and non-toxic
  - Low environmental impact - most benign form of power generation
  - Low maintenance costs, no moving parts
  - Power production matches supply and demand patterns
    - Ontario has a summer peaking utility due to air conditioning loads

# Renewable Energy Approval (REA) Process



# Anticipated Project Schedule

- Submission of Renewable Energy Approval (REA) Documents to MOE – October 2012
- Renewable Energy Approval Received – April 2013
- Construction Begins – Spring 2013
- Construction Complete – Fall 2013, but could stretch to 2014

# Northland



**115 kV Transmission Line**







# CONCEPTUAL TRANSMISSION LINE ROUTE

**CONCEPTUAL**



# Why This Route Was Selected

- Learned / told by Hydro One we could not connect to the tap line servicing Cochrane.
  - It is not big enough, i.e. conductor is too small.
  - Need to connect to main circuit, for example C2H
  - Spur line capacity of 59 MVA. This is not enough to carry the output of the 30 MW solar plus Cochrane NP plant
- Northland, Hydro One and IESO want to minimize connections to the grid.
  - This is easier to monitor and control and it is less expensive

# Why This Route Was Selected (cont'd)

- The proposed route is the most direct
- Least number of landowners, predominantly the Town and MNR.
- Utilities are typically or best located in municipal road ROW's, and not cross country – less environmental impacts, better for O&M, compatible with intended use of land
- Optimizes use of existing linear severances ( i.e. roads)
- Takes advantage of areas that have already been cut and disturbed
- Relatively flat gentle topography

# Private Algonquin and H2O Lines

- Approached Algonquin, and cannot connect to their line because it is already limited in terms of capacity and there are other technical and commercial reasons why we cannot.
  - It does not make sense environmentally, or from a cost perspective, to parallel the Algonquin line
- Same reason we cannot connect to H2O's line running through Cochrane

# Existing 115 kV Line in Cochrane



This is what Northland is proposing.

Northland will not use large metal lattice towers.



# H2O Line Along 8<sup>th</sup> Street Next to School



# H2O Line Along 8<sup>th</sup> Street

Looking West



Looking East

# H2O Line Next to Minto Health Centre





# Health Canada on EMF from Power Lines

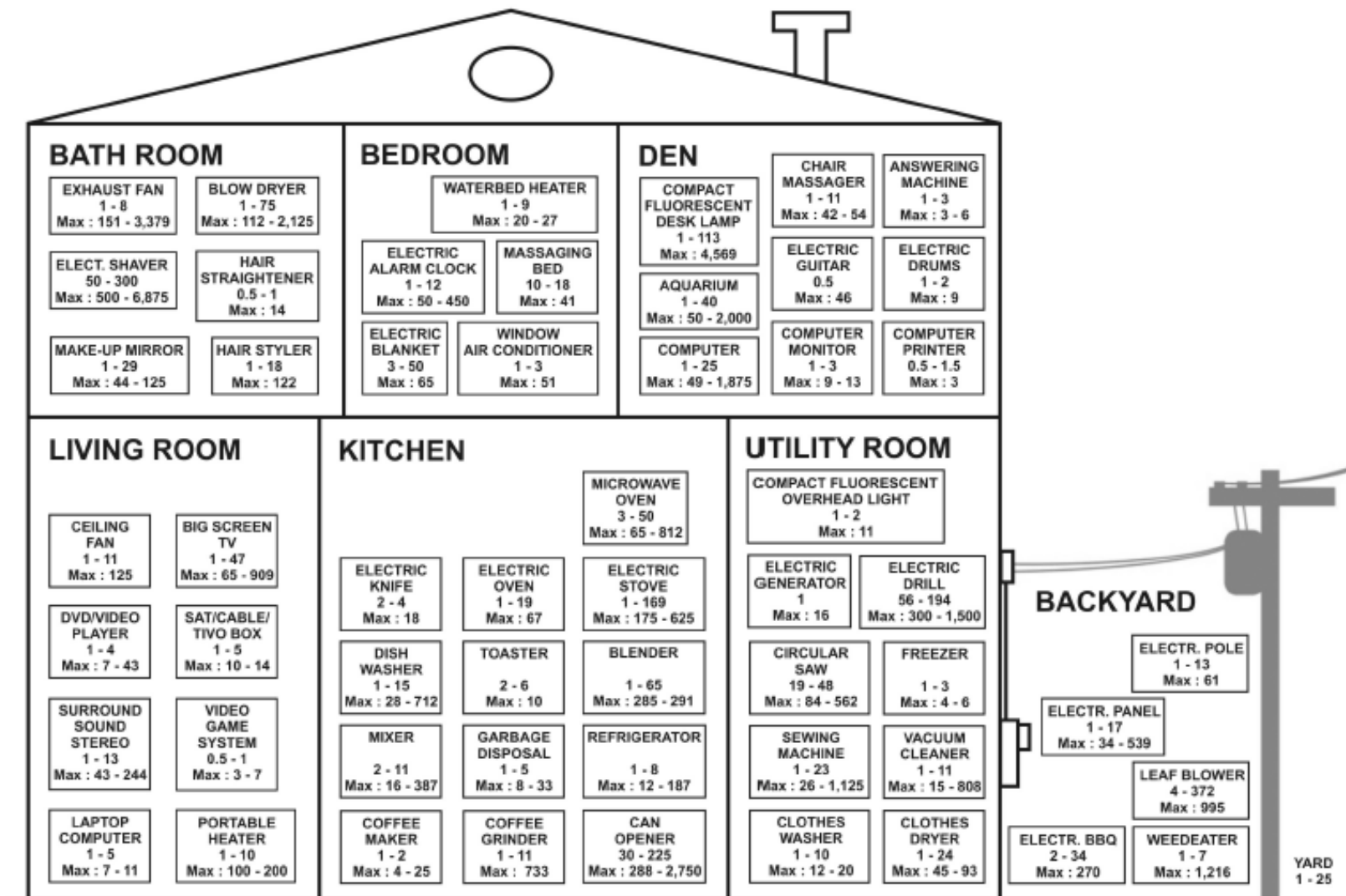
“There is no conclusive evidence of any harm caused by exposures at levels found in Canadian homes and schools, including those located just outside the boundaries of power line corridors.”

“Health Canada does not consider guidelines for the Canadian public necessary because the scientific evidence is not strong enough to conclude that exposures cause health problems for the public.”

# IEEE - EMF In The Environment

## MAGNETIC FIELD ENVIRONMENT

Units: milliGauss (mG)



## Typical EMF Levels for Power Transmission Lines\*

### 115 kV



Approx. Edge  
of Right-of-Way

15 m  
(50 ft)

30 m  
(100 ft)

61 m  
(200 ft)

91 m  
(300 ft)

Electric Field (kV/m)	1.0	0.5	0.07	0.01	0.003
Mean Magnetic Field (mG)	29.7	6.5	1.7	0.4	0.2

### 230 kV



Approx. Edge  
of Right-of-Way

15 m  
(50 ft)

30 m  
(100 ft)

61 m  
(200 ft)

91 m  
(300 ft)

Electric Field (kV/m)	2.0	1.5	0.3	0.05	0.01
Mean Magnetic Field (mG)	57.5	19.5	7.1	1.8	0.8

### 500 kV



Approx. Edge  
of Right-of-Way

20 m  
(65 ft)

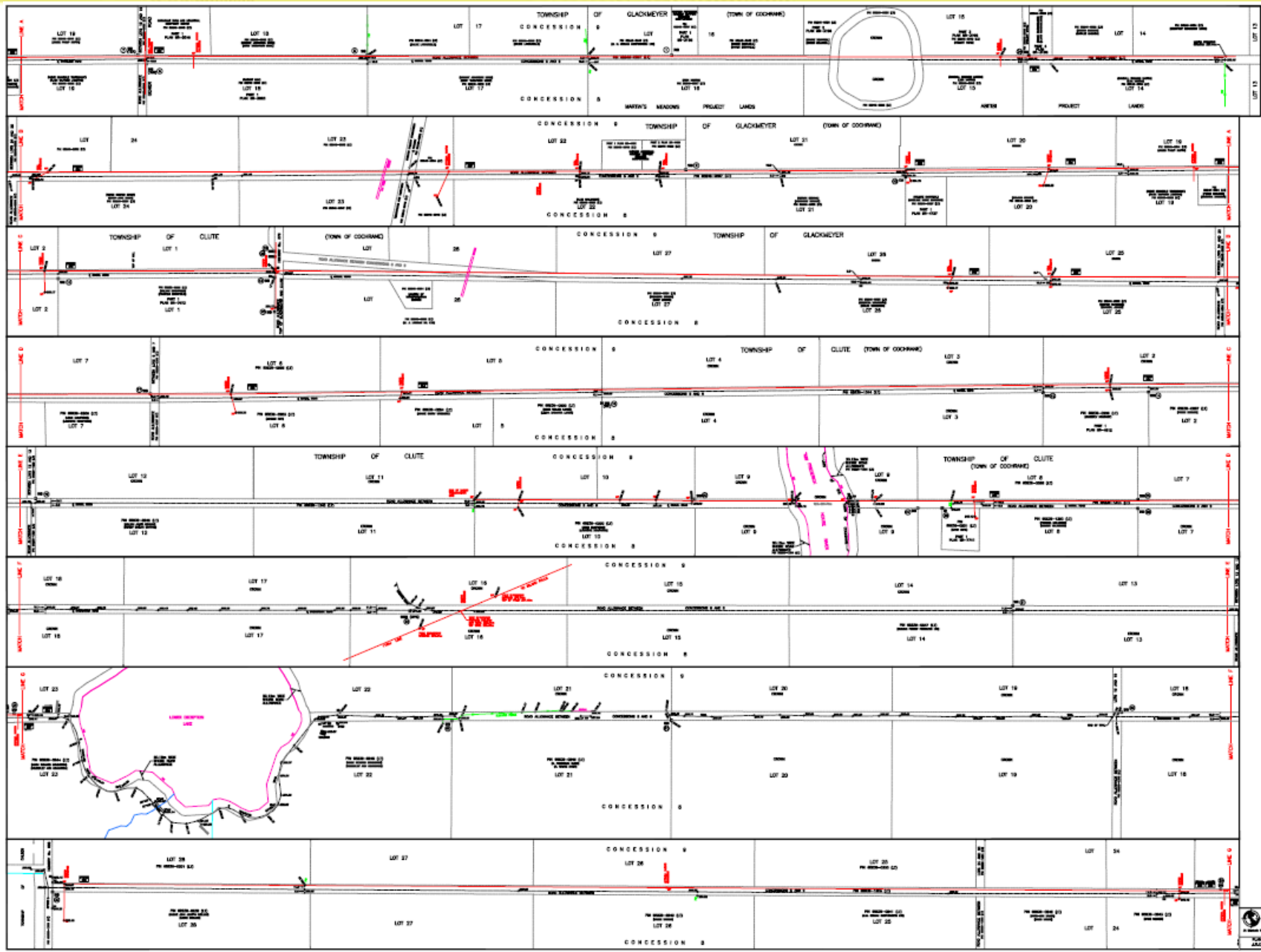
30 m  
(100 ft)

61 m  
(200 ft)

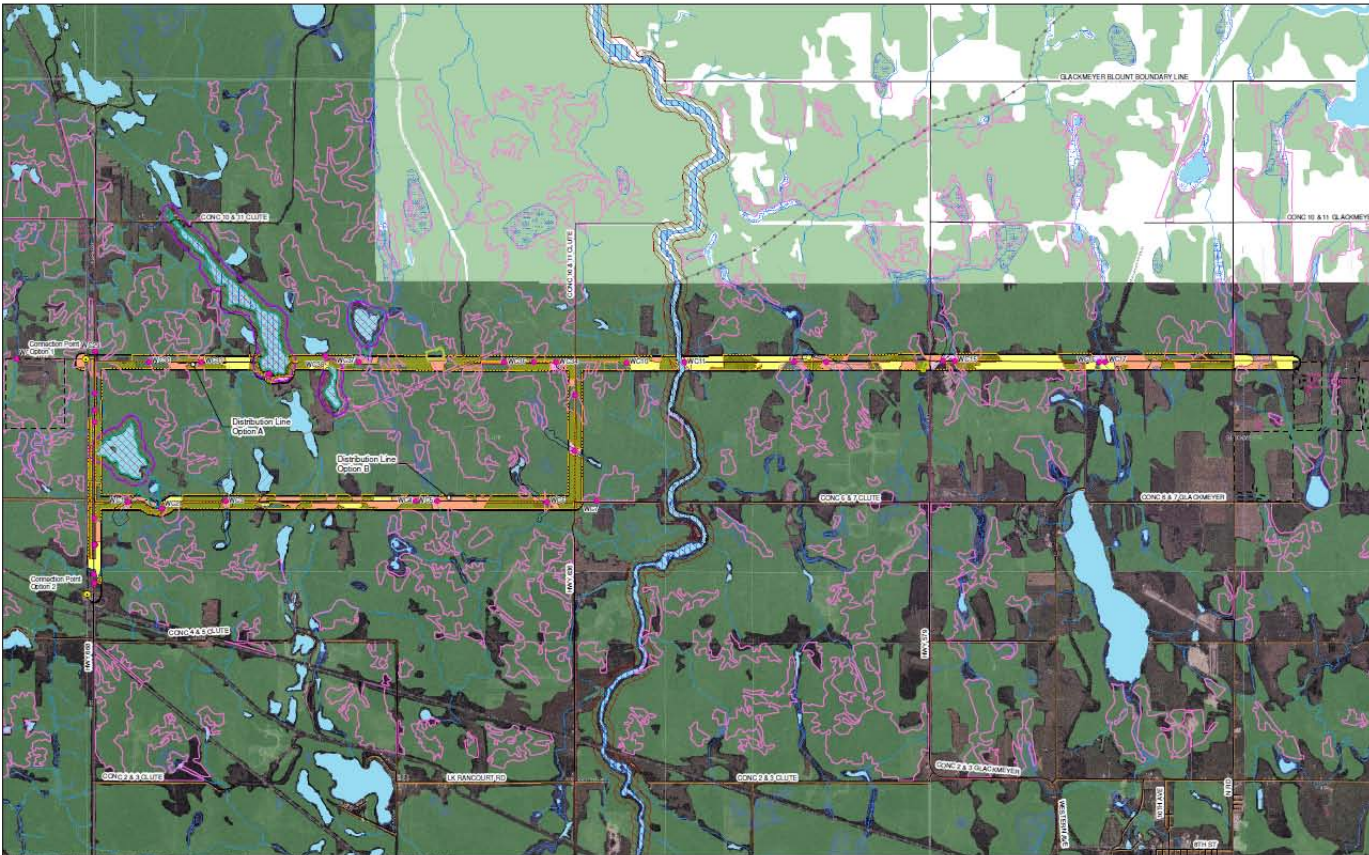
91 m  
(300 ft)

Electric Field (kV/m)	7.0	3.0	1.0	0.3	0.1
Mean Magnetic Field (mG)	86.7	29.4	12.6	3.2	1.4

# 115 kV Transmission Line – Legal Survey



# 115kV Transmission Line – Environmental Features



## Legend

- Road
  - Utility Line
  - Area Sensitive Grassland Habitat / Short-eared Owl Habitat
  - Area Sensitive Shrubland Habitat / *Carex Wiegandii* Habitat
  - Area Sensitive Woodland / Canada Warbler / Olive-sided Flycatcher / *Vaccinium ovalifolium* Habitat
  - Bald Eagle Habitat
  - Carex haydenii* Habitat
  - Carex liliacea* Habitat
  - Common Nighthawk Habitat
  - Old Growth or Mature Forest / Northern Long-eared Bat and Specialized Mink, Otter, Marten, and Fisher Denning Site Raptor Nesting Habitat
  - Moose Aquatic Feeding Area
  - Moose Late Winter Habitat / Winter Deer Yard
  - Scirpus heterochaetus* Habitat
  - Seeps and Springs / *Carex tetanica* Habitat
  - Red-necked Grebe Habitat
  - Waterfowl Stopover and Staging Area
  - Waterfowl Nesting Habitat
  - Wetland Area
  - Wetlands Supporting Amphibian Breeding Ponds
- Waterbody Features**
- Watercrossing (Hatch)
  - Watercourse (LIO Mapping)
  - Waterbody
- Project Infrastructure**
- Connection Point
  - Northland Power Project Location
  - 120 m from Distribution Line

Notes:  
 1. Produced by Hatch under license from Ontario Ministry of Natural Resources. Copyright © Queens Printer 2011.  
 2. Spatial referencing UTM NAD 83.  
 3. Satellite Imagery from Ministry of Natural Resources.



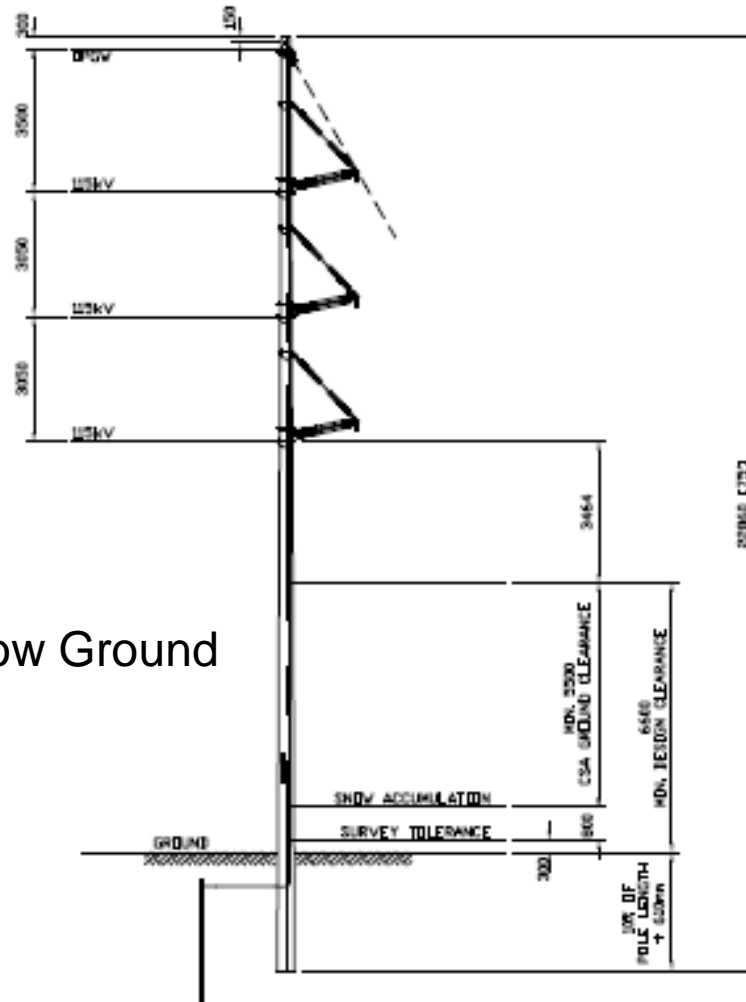
Northland Power Inc.  
 Distribution Line Project Location  
 Generalized Candidate  
 Significant Natural Heritage / Waterbody Features **HATCH**

# 115kV Transmission Line – Typical Pole

Typical 75' Pole

9' Embedment or Below Ground

66' Aboveground



10CT 115kV TRANSMISSION LINE  
TANGENT (0 - 2°) FRAMING

# Northland



## Next Steps

# Next Steps

- A consultation report will be prepared documenting results of this Public meeting
- An application for a Renewable Energy Approval will be submitted to the Ministry of Environment
- A Notice of Environmental Registry Posting will be published
- A Decision Notice will be issued from the Ministry of Environment

**For more  
information, please  
visit  
[northlandpower.ca](http://northlandpower.ca)**



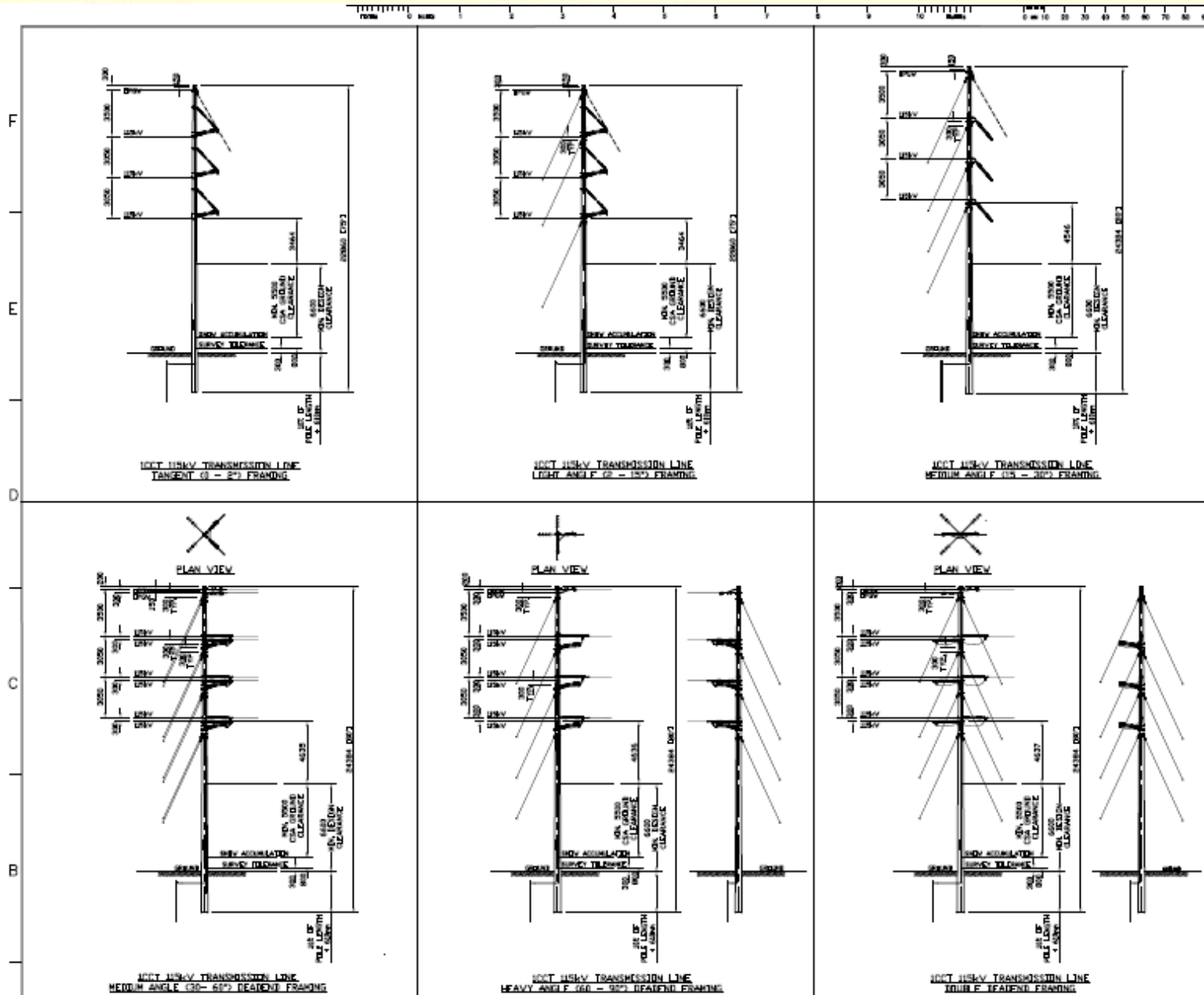
**Questions?**

**Thank You**

**[www.northlandpower.ca](http://www.northlandpower.ca)**



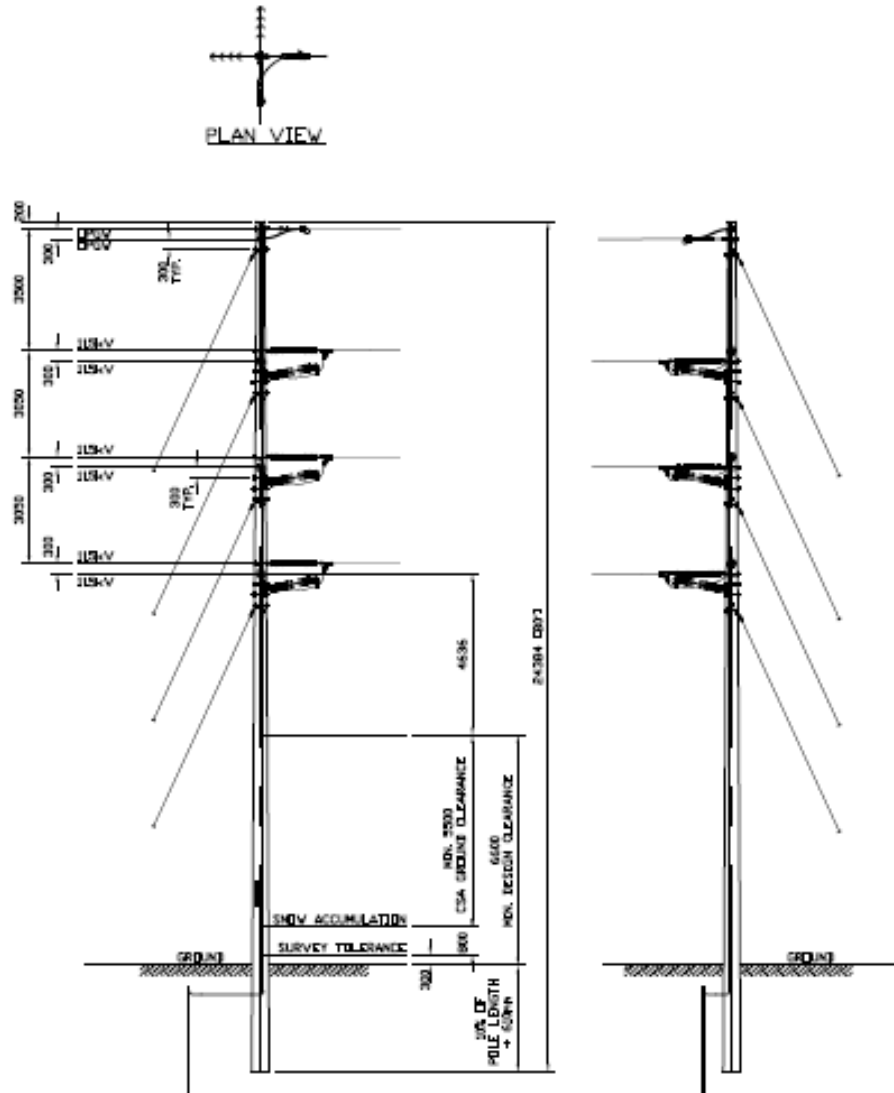
# 115kV Transmission Line – Structure Summary







# 115kV Transmission Line – Design Option

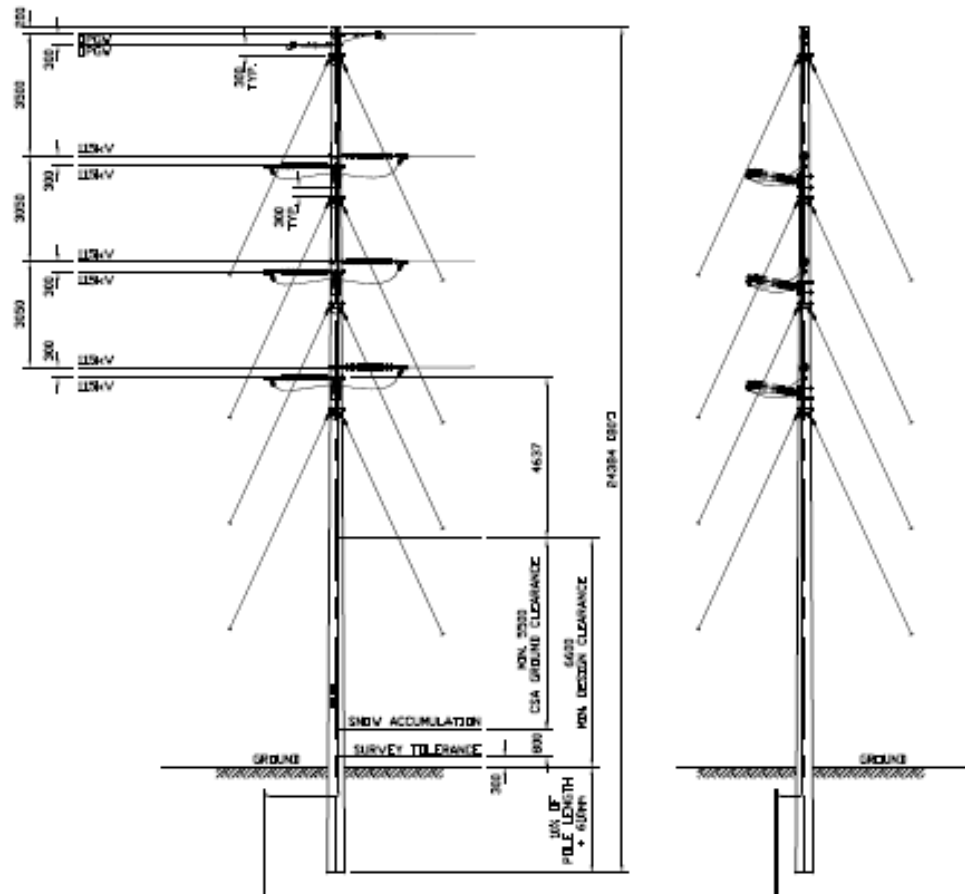


ICCT 115kV TRANSMISSION LINE  
HEAVY ANGLE (60 - 90°) DEADEND FRAMING

# 115kV Transmission Line – Design Option



PLAN VIEW



115kV TRANSMISSION LINE  
DOUBLE DEADEND FRAMING

