Renewed Regulatory Framework For Electricity

OEB Stakeholder Conference Vision and Context Consumer Panel

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Background

- The presentation today is on behalf of:
  - The City of Thunder Bay;
  - Common Voice Northwest (CVNW);
  - Northwestern Ontario Associated Chambers of Commerce (NOACC); and
  - Northwestern Ontario Municipal Association (NOMA) in collaboration with other Stakeholders.

Outline

- This presentation will focus on challenges facing consumers in the Northwest Region and expectations those consumers have for a renewed regulatory framework
- The presentation will have five sections:
    - EB-2011-0043 Staff Discussion Paper;
    - The need for regional needs assessment;
    - Social imperatives unique to the Northwest Region;
    - Enabler transmission connection cost responsibility as an example of needs based cost allocation; and

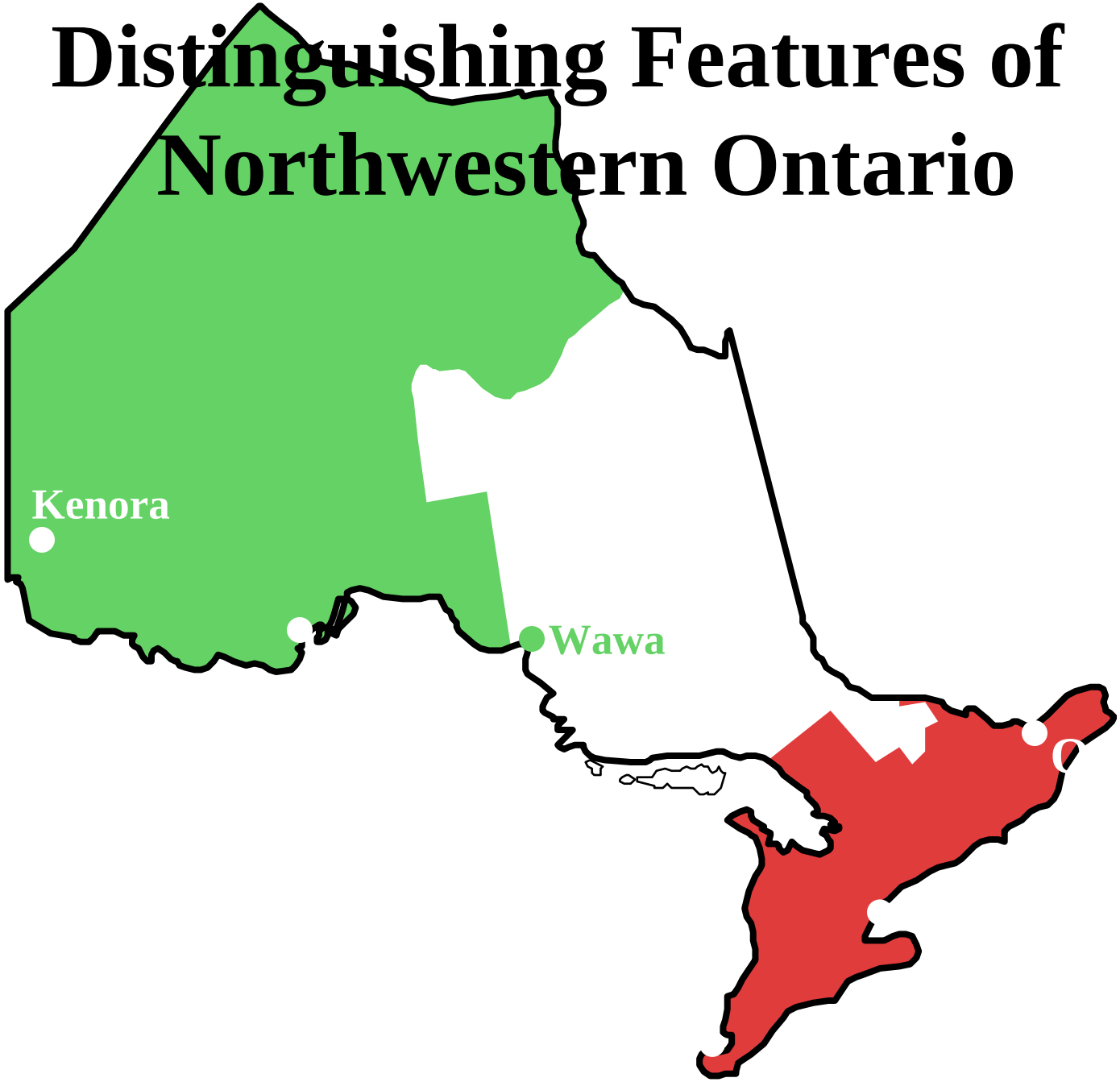
Regional Planning for Electricity Infrastructure Staff Discussion Paper (EB-2011-0043)

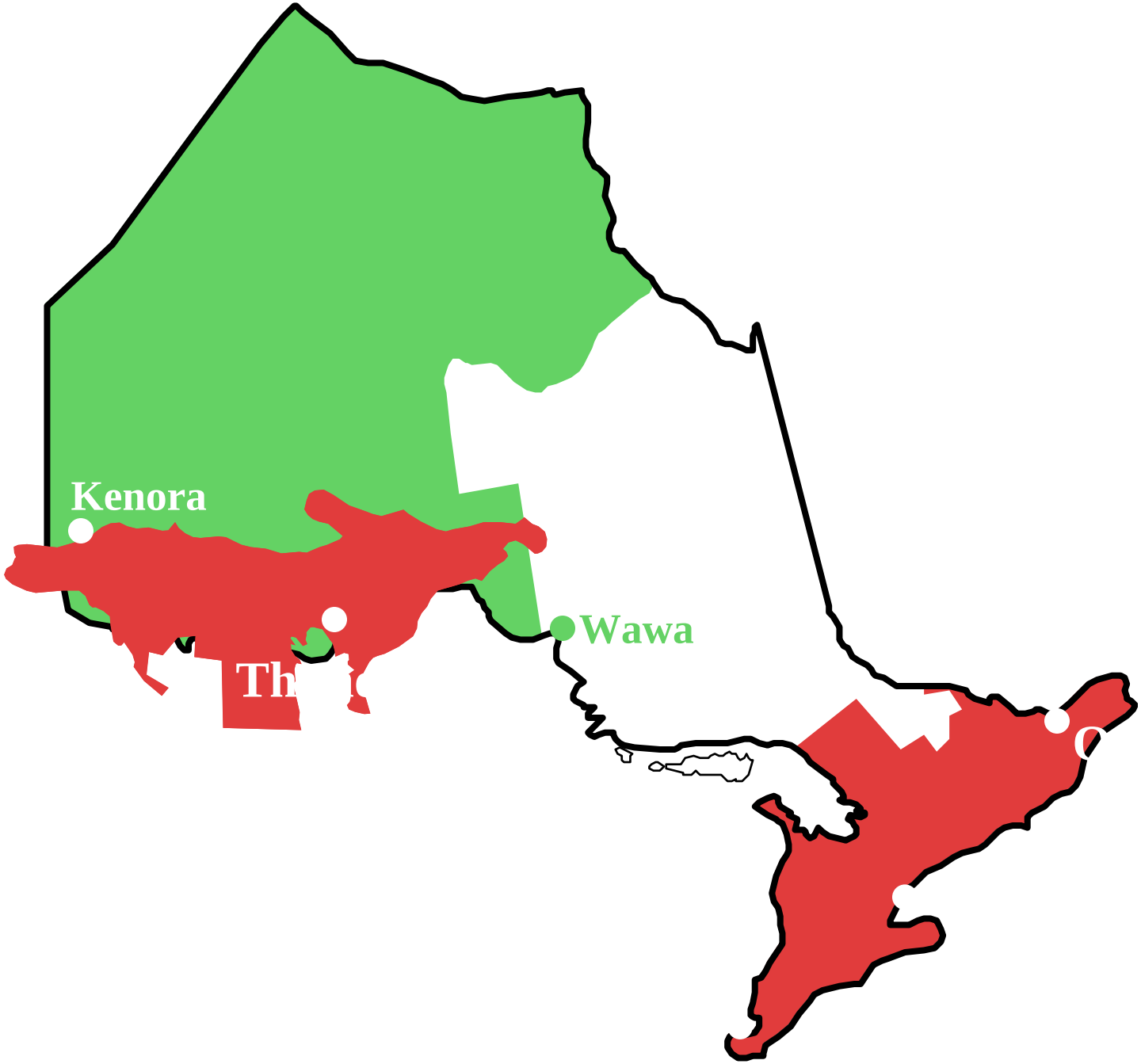
- NOACC and NOMA appreciate the openness to change expressed in the Board Staff Discussion Paper and wish to respond to several of “Issues for Comment”.

- NOACC and NOMA would welcome the designation of the Northwest as a region on the following bases

- The Northwest Region has economic, topographical and demographic features that tend to distinguish it from other areas of Ontario

Distinguishing Features of Northwestern Ontario

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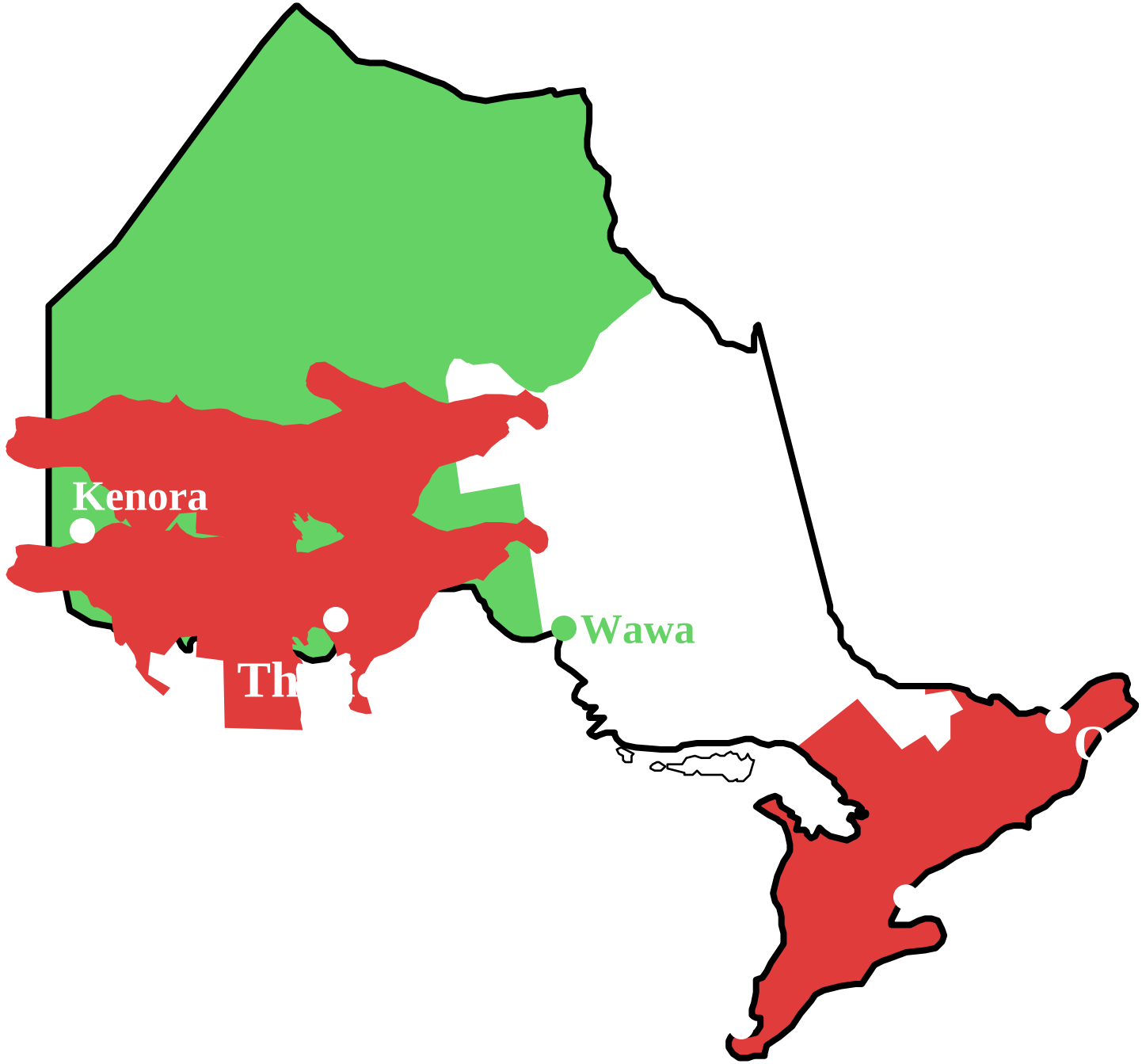
Wawa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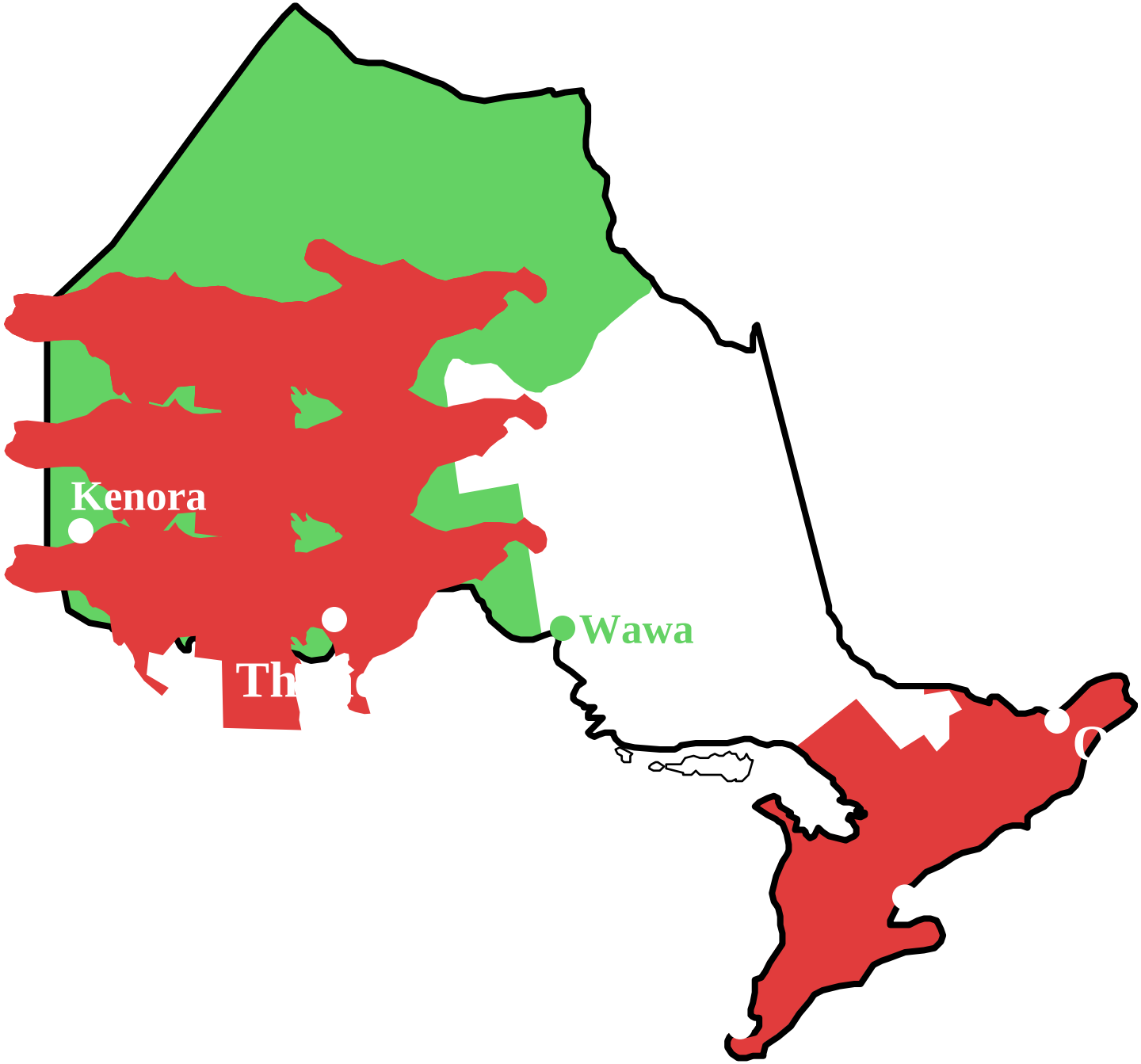
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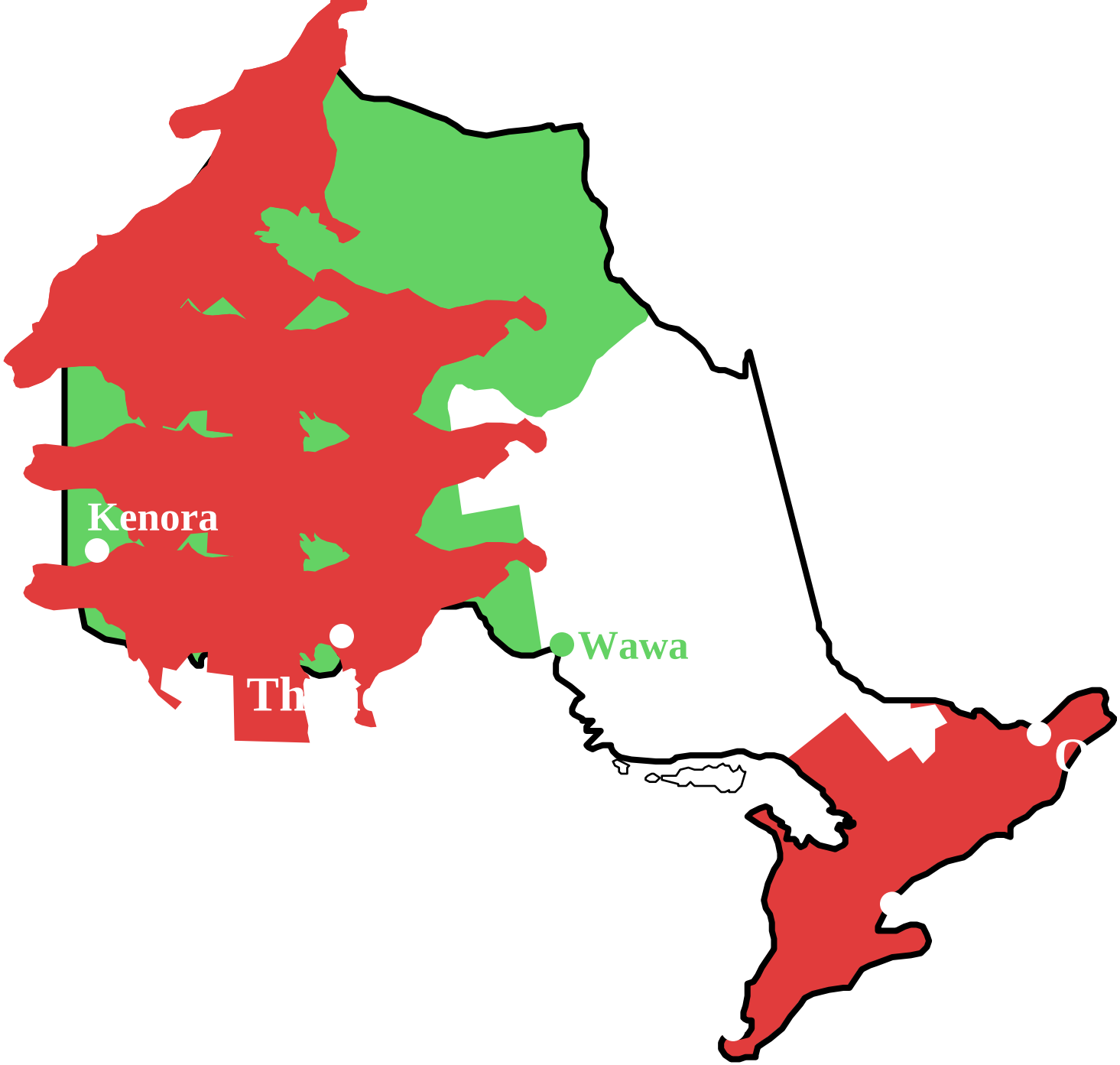
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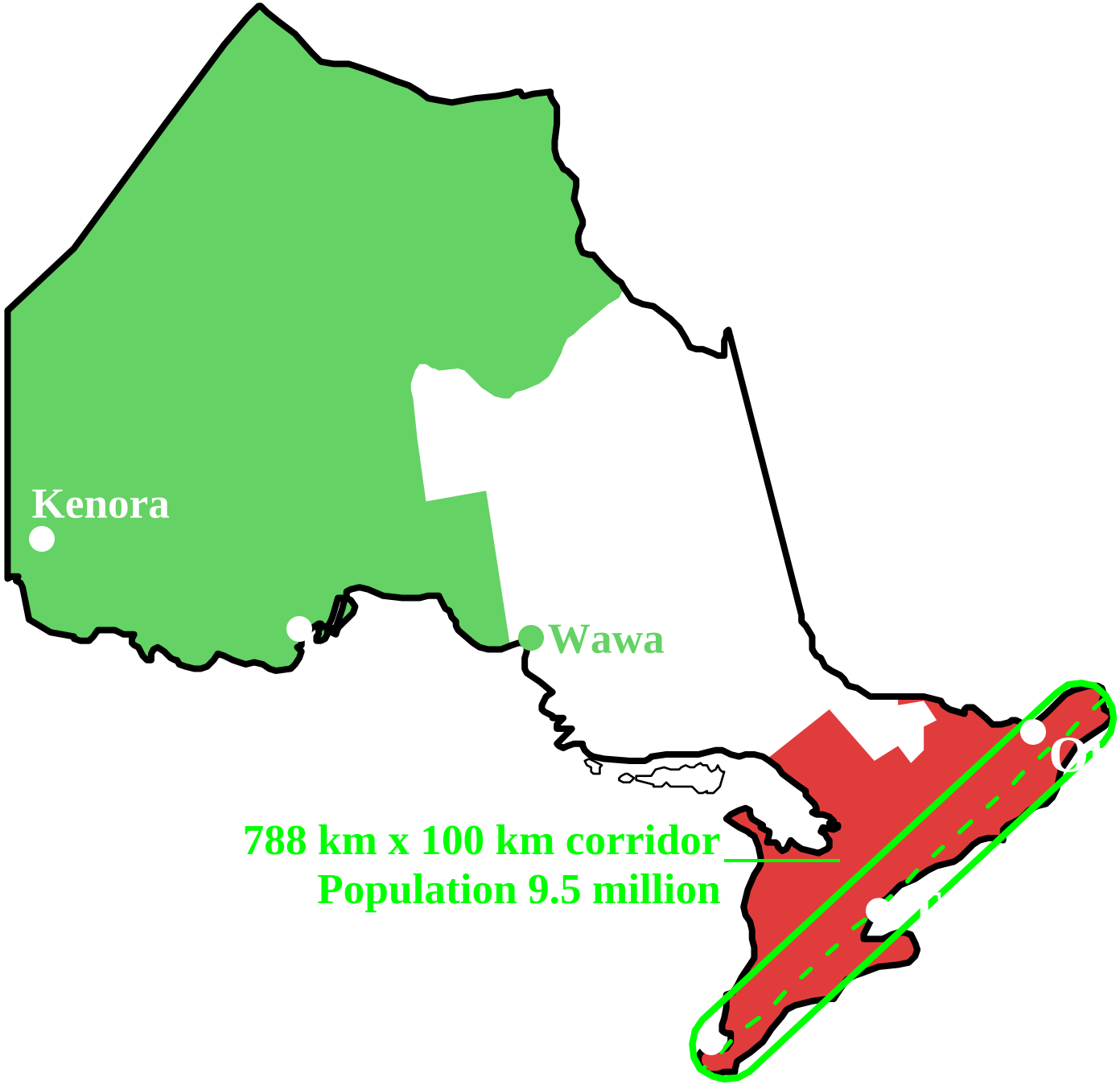
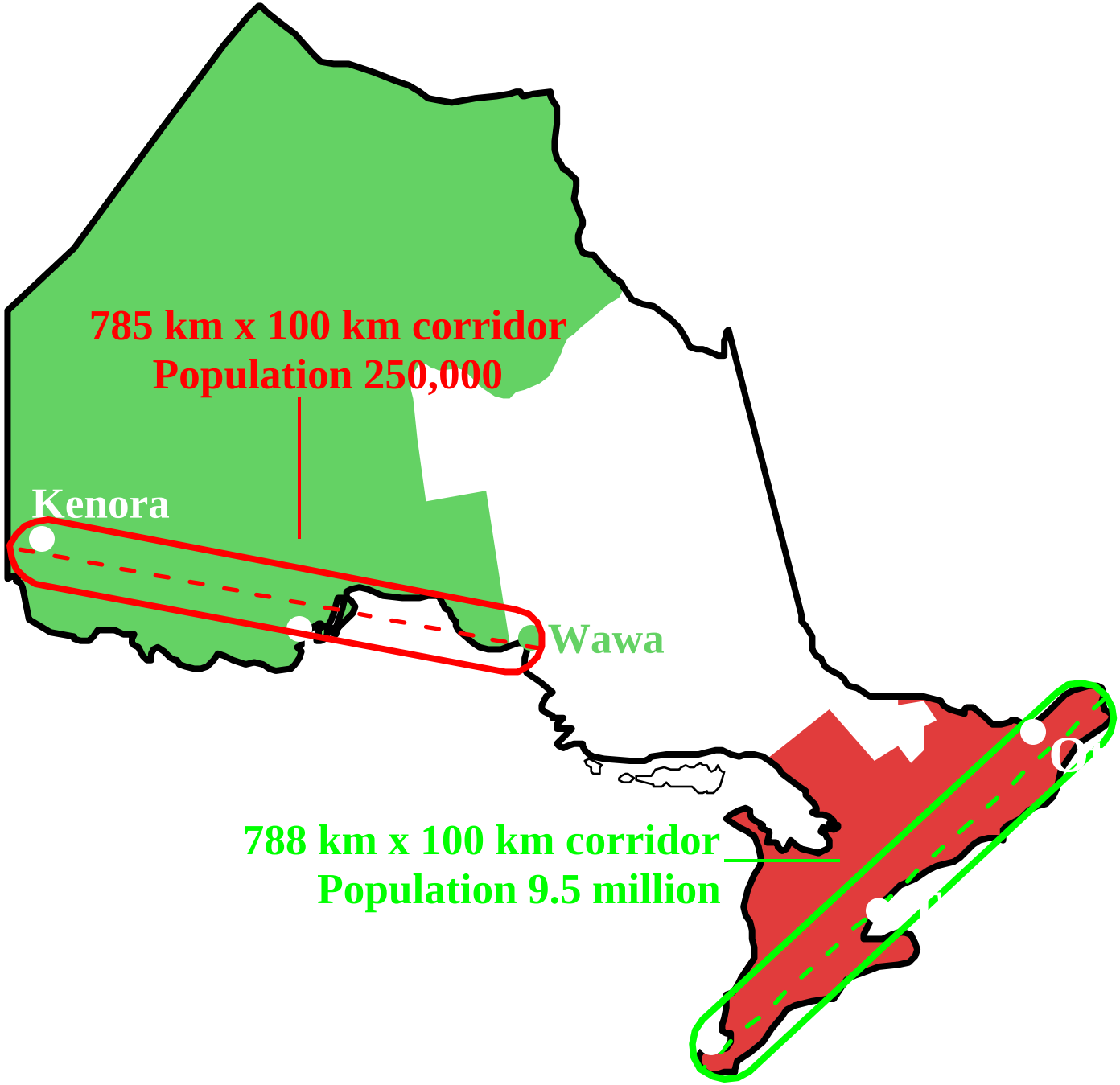

Kenora
Wawa
788 km x 100 km corridor
Population 9.5 million


785 km x 100 km corridor
Population 250,000
Kenora
Wawa
788 km x 100 km corridor
Population 9.5 million

Distinguishing Features of Northwestern Ontario

- The Northwestern Region constitutes 60% of Ontario's land mass but less than 3% of Ontario's population.
- The electrical load characteristics historically have been the inverse of those of southern Ontario.
  - In southern Ontario the residential load constitutes 70% and the industrial load 30%.
  - In the Northwest Region the relative percentages of industrial load and residential load have historically been 70% & 30%

Find a community in the south, west or east that does not have an alternate source of electricity

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- The Northwestern Region constitutes 60% of Ontario's land mass but less than 3% of Ontario's population.
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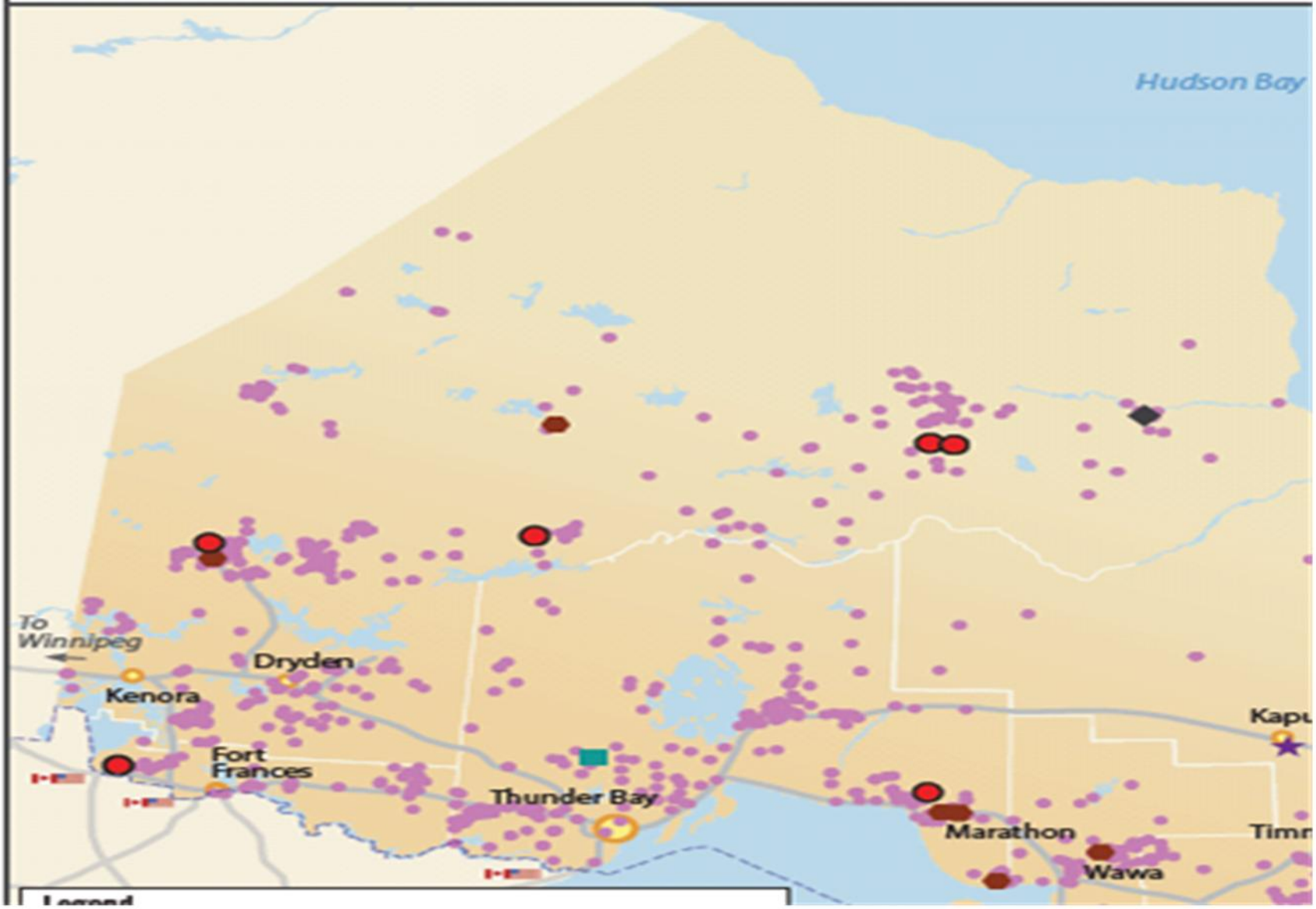
  - In southern Ontario the residential load constitutes 70% and the industrial load 30%.
  - In the Northwest Region the relative percentages of industrial load and residential load have historically been 70% & 30%
- The restructuring of the forest industry and the robust growth in mining will shift the percentages.
- Electrical infrastructure needs in an intensely resource based economy with a small population are materially different from those of a much diversified economy in a comparatively huge population.

Distinguishing Features of Northwestern Ontario

- The Northwest is rich in natural resources: vast forests, extensive mineral deposits and two of the largest fresh watersheds in the world. The potential alone for significant additional hydraulic generation is unlike any in the rest of the province.
- The Northwest is a development intensive region. Mineral resource extraction and processing opportunities are virtually limitless. The forest industry will develop value-added components as part of its restructuring – all of which gives rise to energy planning and regulatory requirements distinct from other regions of the province.

Figure 3: Mineral Exploration Properties and Producers



Distinguishing Features of Northwestern Ontario

- Electrical infrastructure:
  - in southern Ontario, must serve the needs of a relatively huge and growing population with a very diversified economy;
  - in the Northwest Region, must be facilitate existing and anticipated resource and industrial development side by side with the replacement, as soon as possible, of diesel generation.
- The Northwest has throughout the existence of electrical power in the region been entirely self-sufficient, producing all of its own consumption, even when southern Ontario experienced brownouts as in the summer of 2003.
- With a structural change in the forest industry underway the Northwest Region has a surplus in its own generating capacity of 700 to 800 MW.

3 Distinct Geographic Zones

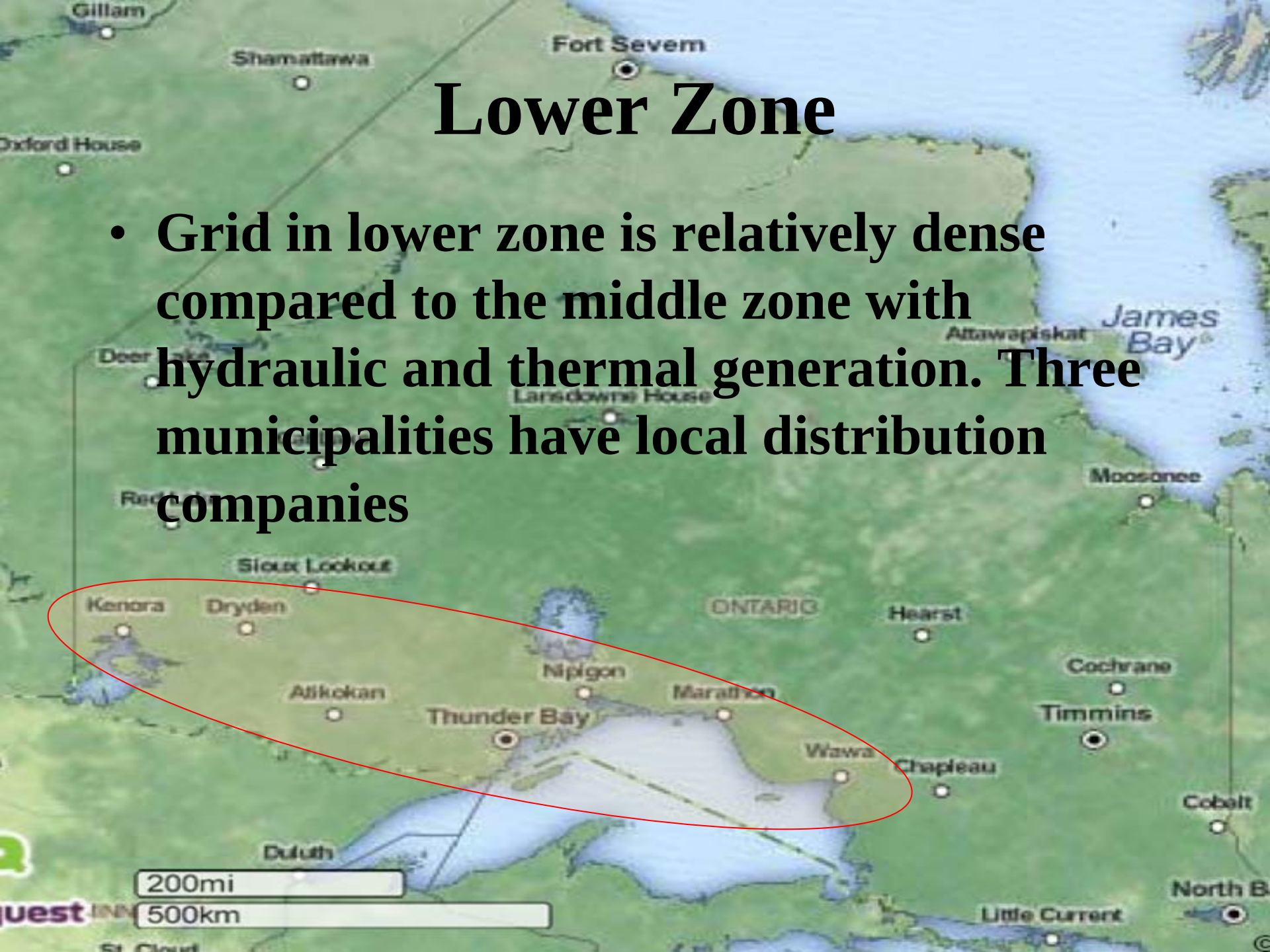
- Lower Zone
- Middle Zone
- Upper One

Lower Zone

- **Ribbon 100 to 150 KM wide running along the border with the United States.**

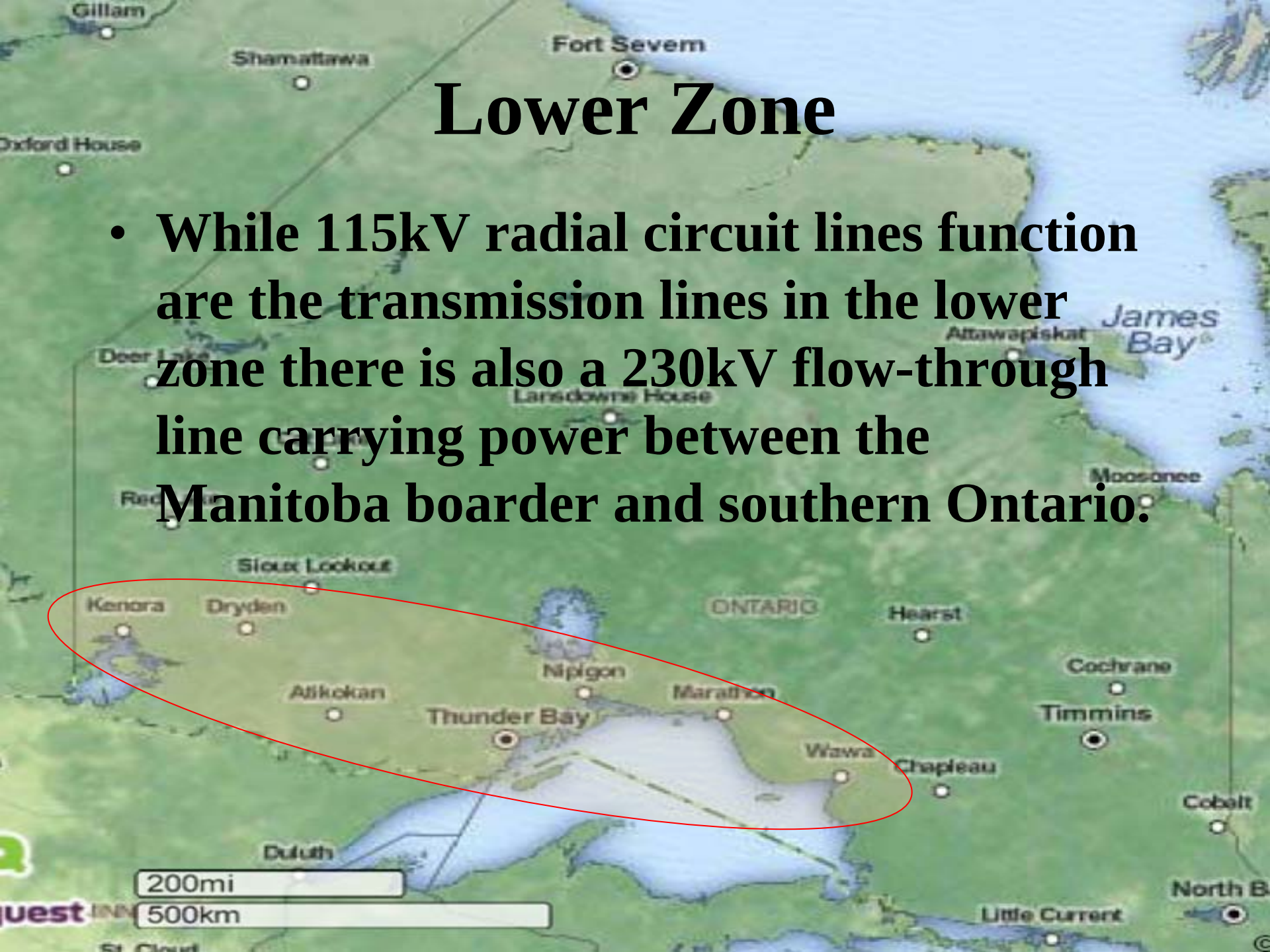
Lower Zone

- Grid in lower zone is relatively dense compared to the middle zone with hydraulic and thermal generation. Three municipalities have local distribution companies



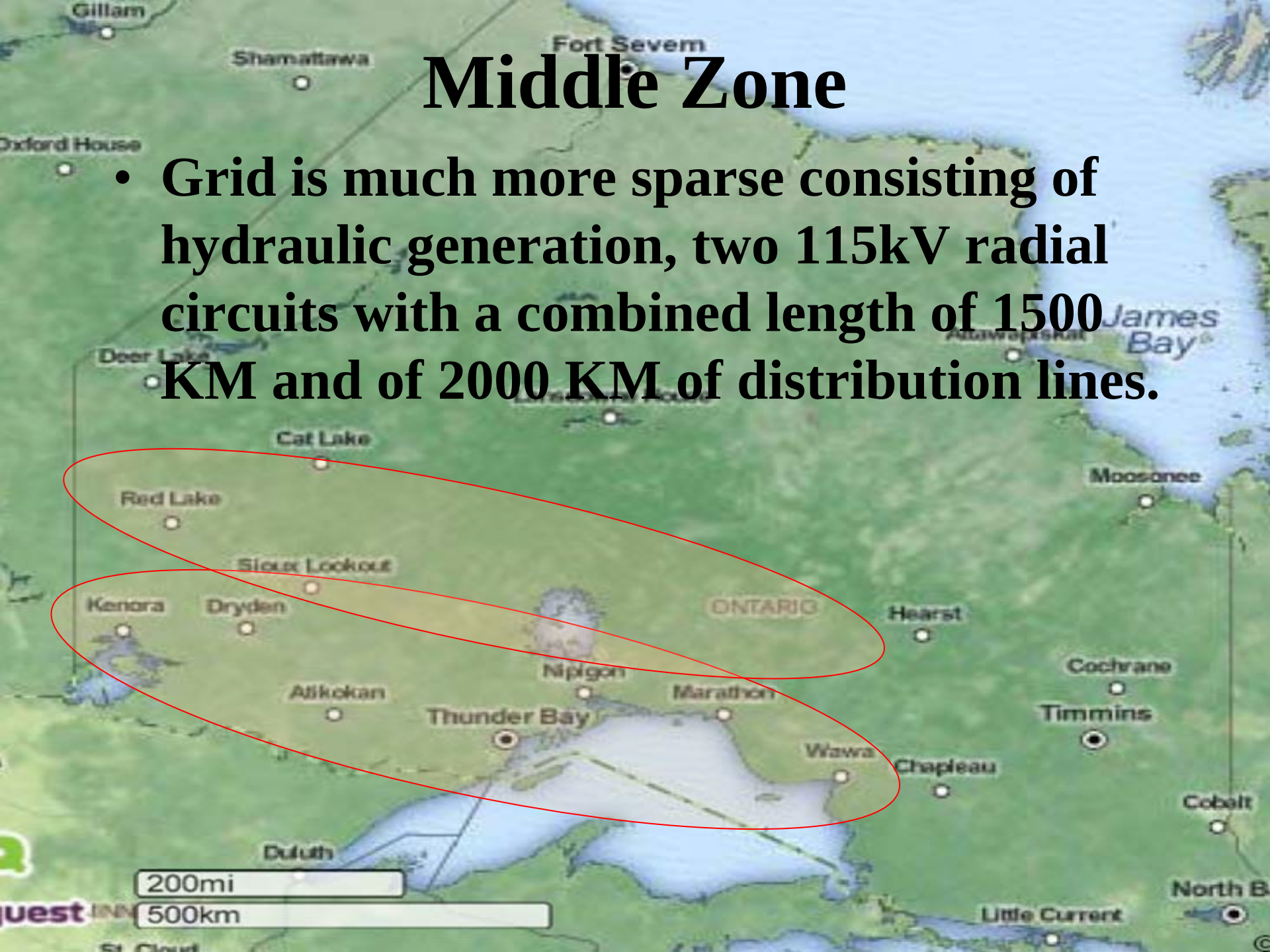
Lower Zone

- **While 115kV radial circuit lines function are the transmission lines in the lower zone there is also a 230kV flow-through line carrying power between the Manitoba boarder and southern Ontario.**



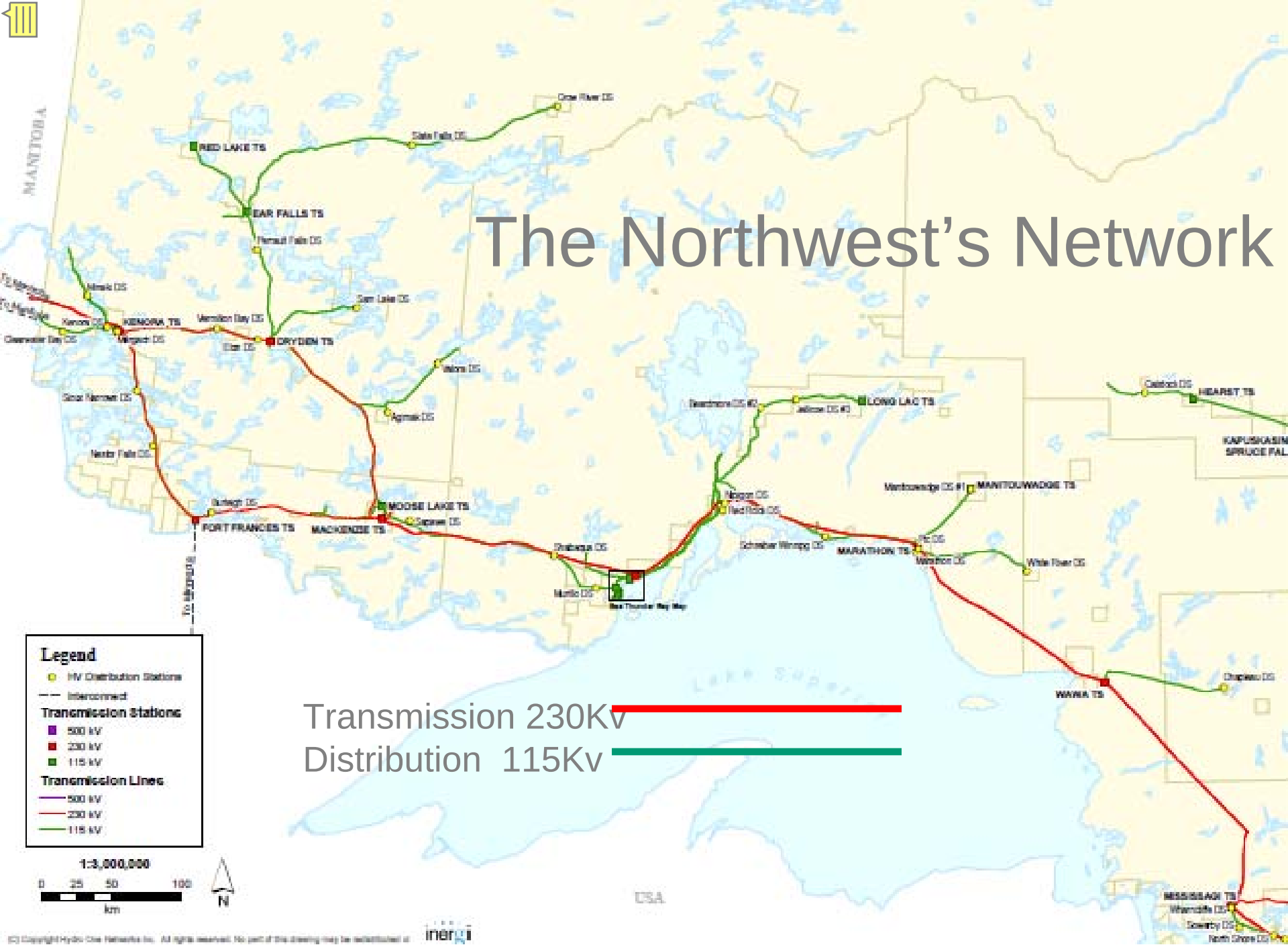
Middle Zone

- Grid is much more sparse consisting of hydraulic generation, two 115kV radial circuits with a combined length of 1500 KM and of 2000 KM of distribution lines.



Middle Zone

- **Power supply is unstable due to transmission deficiencies. Outages and shut down of business, industrial, institutional and residential service are a regular occurrence.**


The Northwest's Network
Transmission 230Kv
Distribution 115Kv
RED LAKE TS
EAR FALLS TS
DRYDEN TS
KENORA TS
MOOSE LAKE TS
PORT FRANCES TS
MACKENZIE TS
LONG LAC TS
MANITOU/WADGE TS
MARATHON TS
WAWA TS
HEARST TS
MISSISSAGI TS
MANITOBA
USA
Legend
HV Distribution Stations
Interconnect
Transmission Stations
500 kV
230 kV
115 kV
Transmission Lines
500 kV
230 kV
115 kV
1:3,000,000
0 25 50 100
km
N

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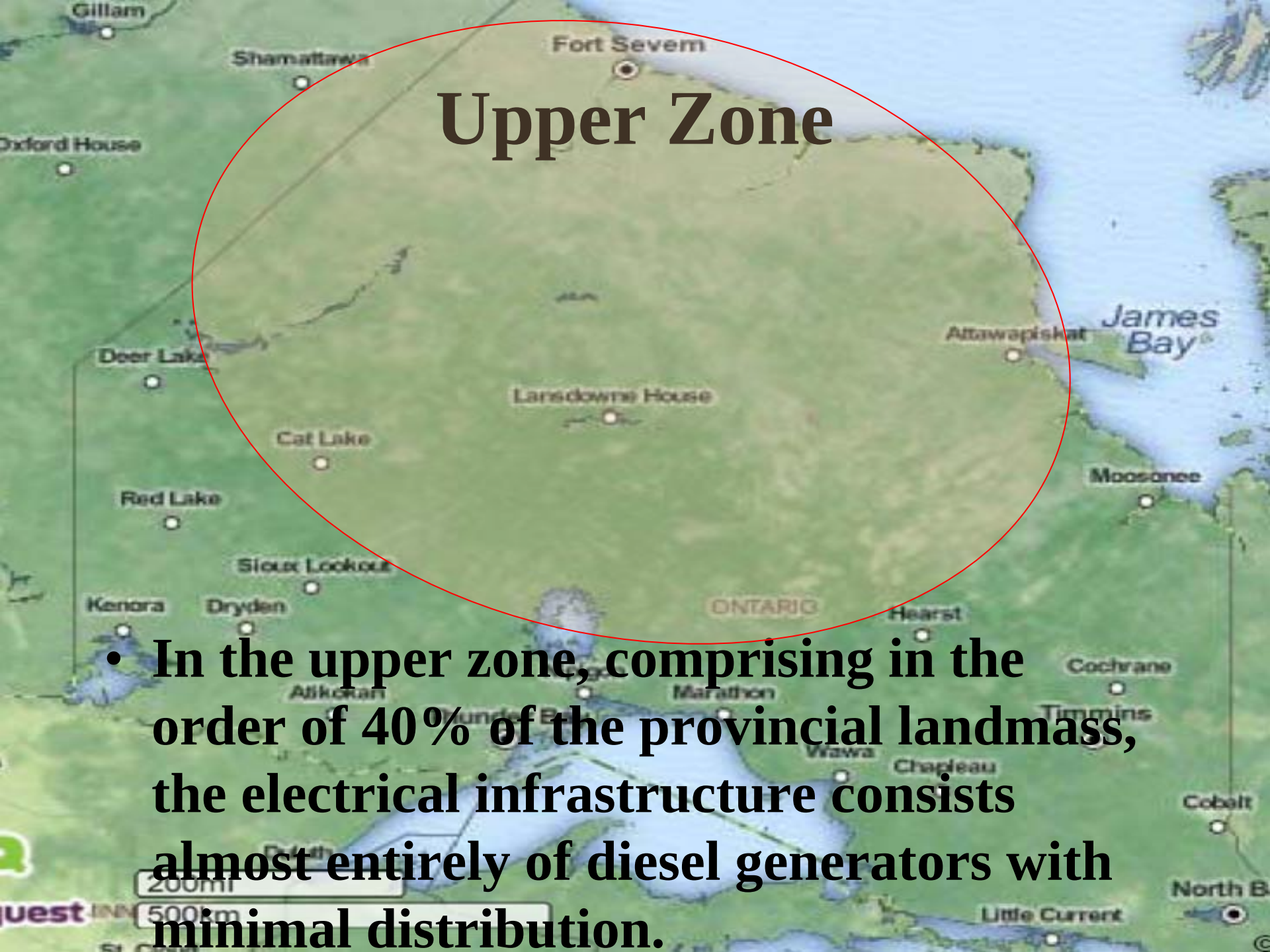
EB-2010-0002
Exhibit A
Tab 6
Schedule 1
Page 1 of 4

10 day outage July 2011

Many green lines are radial – no backup if the line goes down.



- **In the upper zone, comprising in the order of 40% of the provincial landmass, the electrical infrastructure consists almost entirely of diesel generators with minimal distribution.**

- **The growth of the majority of the communities is restricted by the limitations in the current generating capacity thereby limiting the opportunity for the residents to improve their own economic conditions.**

Distinguishing Features of Northwestern Ontario

- The electricity infrastructure in the City of Thunder Bay in the southern zone is capable of supplying single, very large load, industrial plants (200 to 300 MW) requiring a consistently high level of dynamic harmony. (A paper mill or a chromium processor requires in the order of 20 to 30 times the MVA of an automotive assembly plant.)
- The vast majority of the grid power generation throughout the Northwest Region is hydraulic, meaning a generation cost in the range of 2 cents per kWh. No other region, except possibly the Northeast, has a comparable level of economic renewable generation.

Distinguishing Features of Northwestern Ontario

- All of these features support the Board staff's preferred hybrid approach. The Northwest is a natural "region".

Regional Needs Assessment

- NOACC and NOMA urge the Board to consider revision of the regulatory framework to emphasize a “needs assessment” approach as a fundamental tool in regional planning.
  - A) Premiss: A Regulatory Framework that will:
    - 1) protect the interests of consumers, and
    - 2) facilitate System Reliability in all Regions
  - B) Regional Needs Assessment
  - C) What’s Not Happening

A) Premiss: A Regulatory Framework that will:

- 1. Protect the Interests of Consumers
  - Ontario Energy Board Act S.1:
  - **“**(1) The Board, in carrying out its responsibilities under this or any other Act in relation to electricity, shall be guided by the following objectives:
    - “1. To protect the interests of consumers with respect to prices and the adequacy, reliability and quality of electricity service.

A) Premiss: A Regulatory Framework that will:

- 2. Facilitate System Reliability in all Regions
  - Integrated Power Systems Plan “Issues List”:
    - “34. Does the IPSP meet its obligation to provide adequate electricity system reliability in all regions of Ontario.”
  - NOACC and NOMA ask the Board to revise the TSC and DSC to ensure they facilitate “adequate electricity system reliability for all regions of Ontario”

B) Regional Needs Assessment

- NOACC and NOMA ask that transparent, comprehensive and ongoing needs assessment be required as an integral part, start to finish, in the regulatory framework for Regional Planning.

Ontario's Long-Term Energy Plan

Building Our Clean Energy Future

Ontario

B) Regional Needs Assessment

- Needs Analysis that is User-Centered
- Regional planning for a RRFE will not achieve either the goal of:
    - an improved regulatory framework ;or
    - “adequate electricity system reliability” for a region

  unless and until that planning starts &ends with the consumers.

  Only an accurate, transparent and comprehensive:
    - gathering of data as to what the present and future consumers themselves indicate they reasonably require, and
    - an ongoing assessment of the resulting planning initiatives against the needs assessments,

will achieve the desired goals

The needs assessment planning requires listening to rather than talking at the consumer

B) Regional Needs Assessment

- Unless the regulatory framework applicable in the region is based on:
  - an analysis of, and
  - measured against,

  the needs of the actual and potential electricity consumers in a region there will be no way of assessing whether or not the consumer needs are actually being met.

C) What's Not Happening

- No requirement for inquiry into the expectations, needs and uses the consumer has for supply of electricity in:
  - Transmission Systems Code ("TSC"); Distribution Systems Code ("DSC"); "Conditions of Service" Example
- Actual use of the term "consumer" demonstrates that the concept behind the use of the term is a requirement analysis: what the transmitter or distributor must provide for the consumer, or what process the consumer must undertake to enter a complaint.
- No provision in Regulatory Framework for "transparent, comprehensive information gathering as to what the consumer present and future needs.
- There is only an offering of what the electrical system, as it exists at present, can accommodate.

C) What's Not Happening

- The closest the existing system gets to a needs assessment is the stakeholder conference, such as the one today.
- But that is, at best, at the middle of the planning process and is a process that
  - invites complaints or observations from those interested in, and
  - given the funding limitations, prepared to finance the making them.
  - It is not a transparent and comprehensive investigation into the needs of the consumer.
- Absence of any consumer based needs analysis even pervades the Board's own administration of its mandate.

C) What's Not Happening

- Invitation to enter into this very consultation. Board's letter of April 1, 2011:
  - "The Board is initiating a consultation aimed at promoting the cost-effective development of electricity infrastructure through coordinated planning on a regional basis *between licensed distributors and transmitters*. The consultation will be "conducted in stages, with a view to developing a policy framework for regional planning that will likely be implemented through appropriate amendments to the TSC and the DSC. There will be links to the consultations on the renewed regulatory framework and smart grid implementation.

C) What's Not Happening

- Invitation to enter into this very consultation. Board's letter of April 1, 2011:
  - "*Ontario's electricity sector has long recognized the value of regional planning – where transmission and distribution facilities are planned jointly by the transmitter and one or more distributors.*
- "The TSC governs transmitters in relation to, among other things, planning and cost responsibility for new assets. The framework as set out in the TSC:
  - *Treats a distributor as a transmission "customer" who, in the normal course, would pay for connection-related upgrades to a transmission system that are triggered by the distributor (including as a result of the connection of renewable energy generation facilities to the distributor's distribution system);*

C) What's Not Happening

- Where is the part about the transmitters, distributors, and other interested parties, as part of a required and transparent process, even in a consultation such as this, having to demonstrate that a needs assessment of the electricity consumers has been an integral part of the development of the presentations?
- How else will the Board ascertain whether what is said today meets the needs of the nine million consumers in the province?
- IF there is to be regional planning, along with the designation of the Northwest as a distinct region, the planning needs to take place from the bottom up, not the top down.

Social Imperatives Unique to the Northwest Region

- Former Board Chair Emeritus Howard I. Wetston, Q.C Speech at Osgoode Law School April 7, 2010 pointed out that the energy sector is no longer confined to issues internal to the sector but is addressing the "tough discussions" of "social imperatives" that are "important to the public":
  - "For many years, it has become clear that energy is increasingly a means to address other needs. Then as today, the tough discussions are not internal to the sector, such as market design. The issues that are important to the public and that are affected by energy regulators are largely **not just about energy**, **but also** about the environment and **other social imperatives**."

Social Imperatives Unique to the Northwest Region

- Energy infrastructure in northwestern Ontario must be seen as both a **basic right** and an **economic driver**. These are the two social imperatives for the region.
- NOACC and NOMA would expect a needs base analysis for planning purposes in to disclose two priority issues.
  - Replacement of diesel generation in the upper zone of the Northwest Region has been an urgent need for some considerable time,
  - Adequacy, reliability and quality of electricity service is seen as a basic utility, crucial to encouragement of economic development throughout the Northwest Region

Needs Based Cost Allocation Example: Enabler Cost Responsibility

- Enabler-line cost allocation amendments could open up similar flexibility in other cost allocations.
- The enabler-line cost allocations set aside the strict interpretation of the "cost causality" principle in allocation of transmission line costs.
- NOACC and NOMA:
  - In the transmission and green generation side of the business, where capacity of the new transmission line exceeds the collective needs of the green generators creating the need for the new asset the carrying cost of the unused capacity no longer rests with the customers causing the asset to be built but instead rests with the transmitter, to be passed on, presumably, to a broader spectrum of rate payers.
- Without relying on the "otherwise planned" provision of section 6.3.6 of the TSC, the enabler-line cost allocation creates something akin the postage stamp concept. The user pays for the proportion of the cost attributable to the users' own requirements.

Needs Based Cost Allocation Example: Enabler Cost Responsibility

- As a planning concept there is no inherent inconsistency in applying it to distribution assets. As former Board Chair Emeritus Howard I. Wetston, Q.C. stated on March 29, 2010:
  - "We have already established the ground rules to transition the distribution system into a low voltage transmission system that can accommodate green energy. We also need to integrate functional components like smart grid, reliability, changes in load, non-renewable generation, and conservation and demand management into the planning process to drive efficient outcomes.
- **What would regional planning to accommodate these other imperatives look like**?
- **If we were to transition to a regional planning approach, would a regional, postage stamp distribution rate naturally evolve from it? "**

Renewed Regulatory Framework for Electricity

- NOACC and NOMA look forward to both regional planning and a DSC and a TSC that require consumer needs base assessment and consumer centered planning.

Thank You

John Cyr – Weiler, Maloney, Nelson

Counsel for NOMA and NOACC