

ERO Posting 019-7336

(Closing September 8, 2023)

Ministry of Energy under the *Ontario Energy Board Act, 1998*

Supporting Critical Transmission Infrastructure in Northeast and Eastern Ontario

Projected Growth in Pickering

As stated in the Gatineau Corridor End-of-Life Study, the selection of the Cherrywood TS location as the origin of transmission reinforcement may include the following benefits:

- “Have the added benefit of improving the load meeting capability of the local area, namely northern Pickering and Whitby.”
- “If the proposed transmission reinforcement originates from Cherrywood TS in Pickering, the new transmission line may potentially benefit new load connections in the northern areas of Pickering, Whitby, and Oshawa around and north of highway 407 further into the future.”

The Region of Durham recently approved a new Official Plan, Envision Durham, that includes growth projections until 2051. The Region of Durham Official Plan has identified that Pickering and north Whitby will see urban boundary expansions and significant growth in the coming decades (See Figure 1 below).

The Region of Durham has also included specific growth projections for Pickering to assist in infrastructure planning. The following projections have been identified by the Region of Durham for the long-term planning of growth areas within Pickering:

- Pickering’s Urban Growth Centre, specifically along the Kingston Road Corridor, is anticipated to accommodate populations of 90,000 people by 2051 and 150,000 people by 2071;
- The Seaton Community is anticipated to have a population of 70,000 people by 2041;
- Northeast Pickering beginning development will include 50,000 people by 2051 and 66,000 people by 2061.
- The Government of Ontario recently approved legislation to allow development within the Cherrywood area of Pickering. The anticipated population of the Cherrywood area is 4,000 people by 2031, 44,000 people by 2051, and full build-out of 75,000 by 2066.

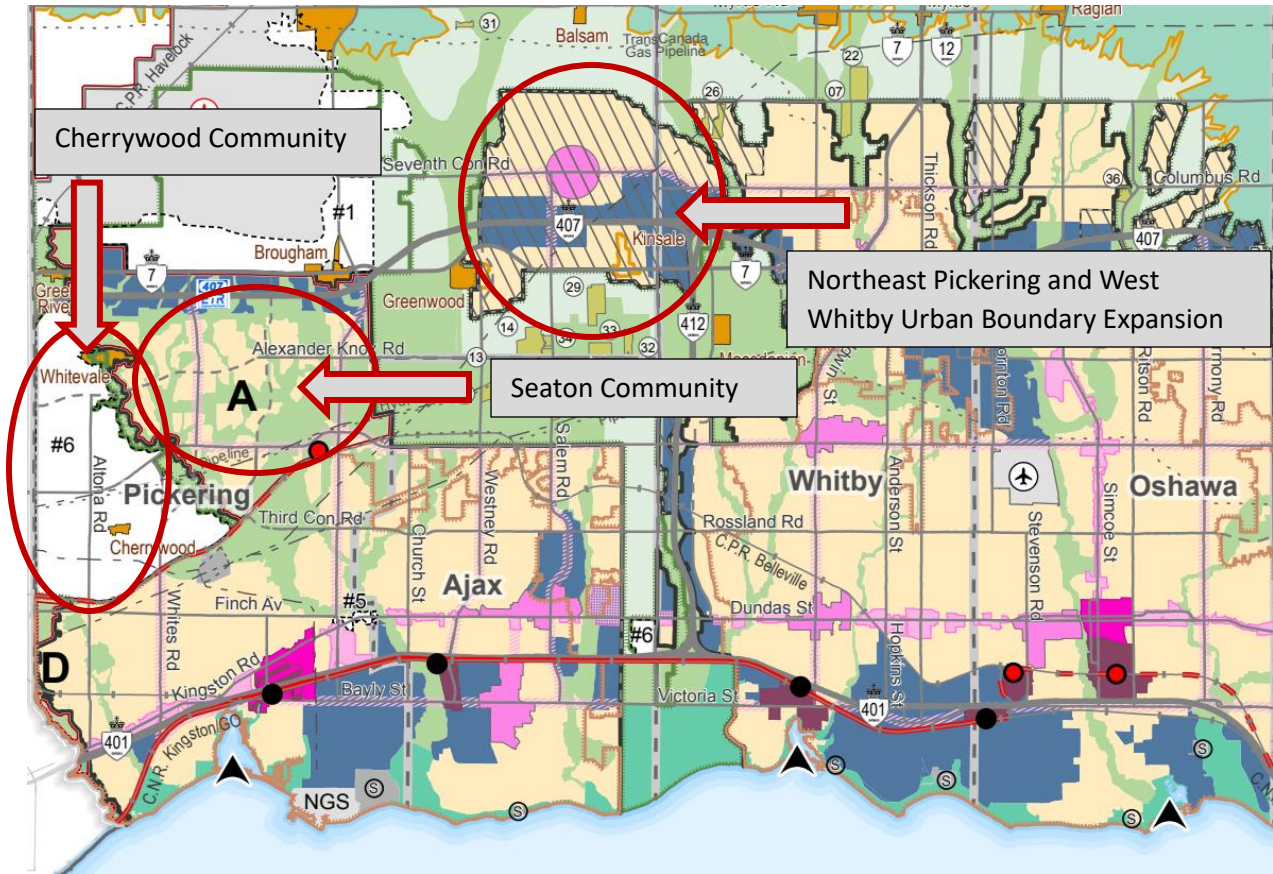


Figure 1: Region of Durham Official Plan Land Use Map

Electrification Initiatives and Technical Constraints

In addition to population projections outlined above, there are further initiatives and constraints that will result in a significant increase in the area’s electrical load. New development in Pickering will be subject to the City’s Integrated Sustainable Design Standards (ISDS), which took effect January 1, 2023. The ISDS imposes limits on Greenhouse Gas Emissions Intensity to encourage electrification of heating and requires Electric Vehicle Supply Equipment infrastructure to encourage electrification of personal and commercial vehicles. Much of the City’s corporate portfolio of buildings is also anticipated to undergo replacement or major refurbishment over the next 15 years, with a goal of full electrification of heating to be included in the 2024 update to the Corporate Energy Management Plan.

Adding to the challenges of increasing load capacity within Pickering is that the implementation of local Non-Wire Alternatives such as distribution-connected solar generation or battery energy storage systems is not possible due to existing transmission short circuit constraints on all circuits serving the Pickering area from both Cherrywood TS and Whitby TS.

Cost and Scope

The Gatineau Corridor End-of-Life Study identified transmission reinforcement from either Cherrywood TS or Clarington TS as being comparable in “cost, scope, and capability”. However, a new transmission line originating from Cherrywood TS was assumed to repurpose existing breaker positions at Cherrywood TS currently serving Pickering GS which was planned for retirement between 2024-2026. In the event of refurbishment of Pickering GS, repurposing of existing breakers may not be possible. Though this may have an impact on cost and scope of terminating transmission reinforcement at Cherrywood, Pickering believes the impact may be offset by avoidance of separate local load meeting capability upgrades.

Conclusion

Given the population projections, initiatives and constraints indicated above, Pickering believes the added benefit identified by IESO of improving the load meeting capability and new load connections in the local area, namely northern Pickering and Whitby, should be considered as a significant benefit of the Cherrywood TS location. Creating additional capacity in the system to ensure the development of housing, which the Ontario Government has emphasized as a priority, is not put on hold in Pickering, is a priority for the City.