



ONTARIO POWER AUTHORITY

July 2008



Windsor-Essex Electrical Service Needs and Solutions

OPA's Role

- Provides expertise with respect to System Planning, Supply Development, Conservation and Market Evolution
- Prepares a long-term integrated power system plan (IPSP) for Ontario
- Identifies need and recommends preferred solution(s) to Hydro One for transmission facilities
- Participates in Hydro One's stakeholder engagement and approvals processes for individual projects

Hydro One's Role

- Implements Transmission & Distribution Solutions
- Obtains Ontario Energy Board (OEB) Leave to Construct (Section 92) Approval
- Obtains Ministry Of Environment (MOE) Approval under *Environmental Assessment (EA) Act*
- Conducts public and stakeholder consultation
- Designs and constructs new facilities once approved

Windsor-Essex Area



Needs in Windsor-Essex

- Inadequate transformer and line capacity to supply growing load in East Essex
- Reliability of supply to the entire Windsor-Essex area is below standard for a load of its size
- Inadequate transmission capacity for delivering generation from the west part of Windsor to the transmission grid (i.e. congestion)

Integrated Solution for W-E

Conservation

- Targeted conservation for reducing the demand in the area
- Target of 15 MW by 2010
- Programs & procurements implemented by the OPA and supported by LDCs and others

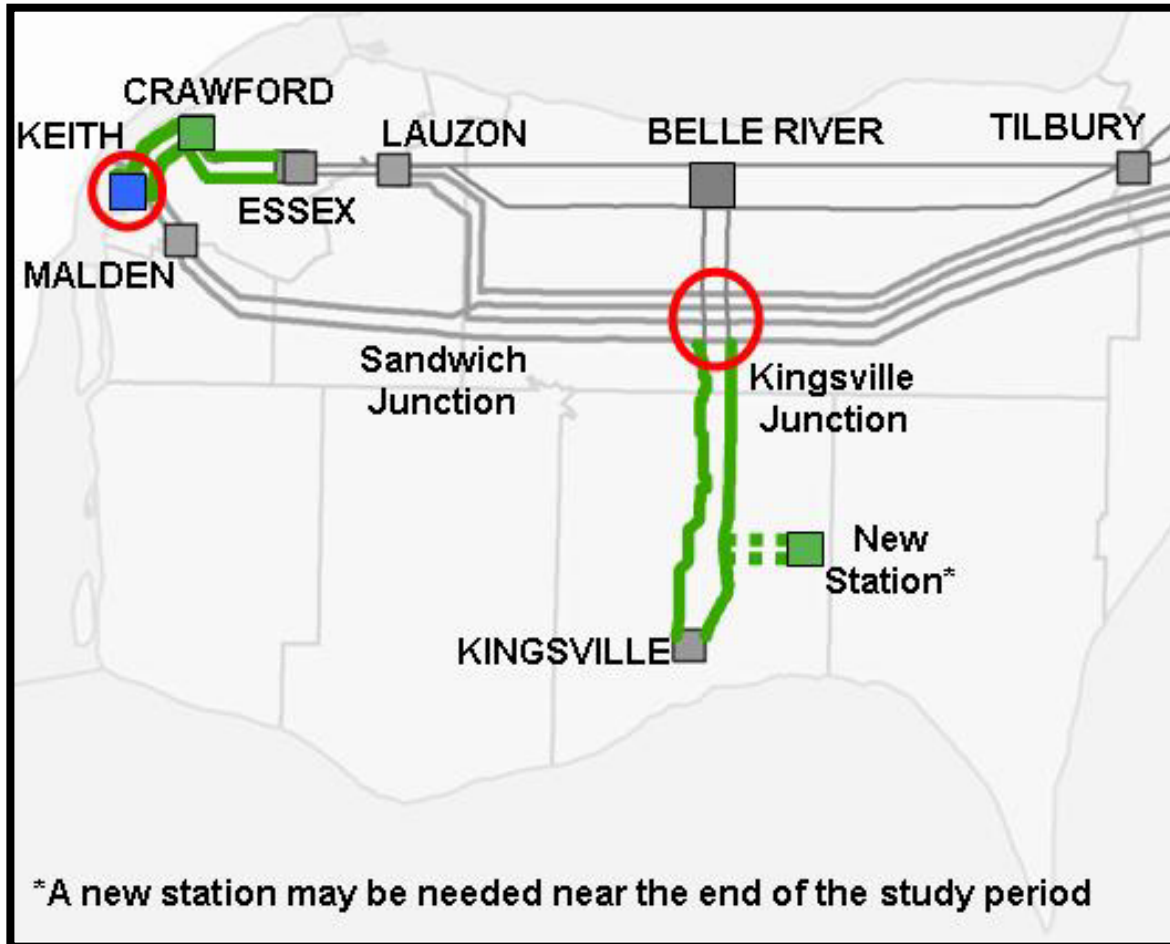
Generation

- Will factor in local generation if and when it occurs from the various provincial-wide procurements
- Programs and procurements implemented by the OPA

Transmission & Distribution

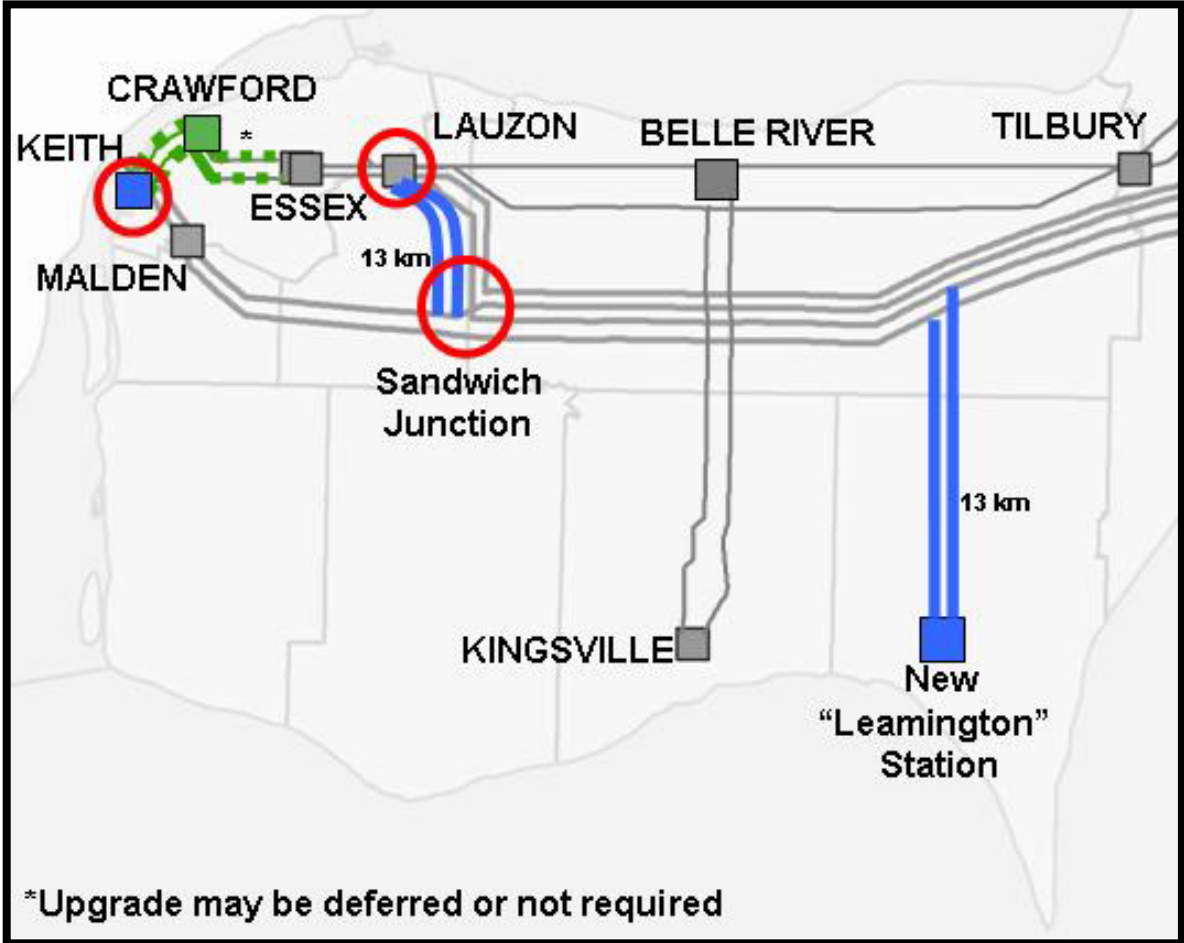
- Two options being considered
- Implemented by Hydro One

Transmission Alternative #1



Cost: ~\$120 Million

Transmission Alternative #2



Cost: ~\$100 - \$115 Million

Alternative Comparison

- The preferred transmission option for the integrated plan is based on the latest information and results of the stakeholder and LDC consultation that was carried out
- The OPA applies six planning criteria when comparing the two alternatives for reinforcing Windsor-Essex:
 - Reliability (both meet criteria)
 - Feasibility (both are feasible)
 - Flexibility (similar)
 - Cost (Alt #2 is \$9M to \$20M lower in cost)
 - Societal acceptance (Alt #2 preferred based on feedback from public consultation)
 - Environmental assessment (similar based on Hydro One's initial assessment)
- Based on the above criteria, the preferred alternative is Alternative #2

Questions ?

