
ENERGY ROADBLOCK: INSUFFICIENT ELECTRICAL GRID INFRASTRUCTURE

Overview

Renfrew County faces significant challenges due to aging and insufficient electrical grid infrastructure. The grid system was designed decades ago for lower population densities and modest industrial demand. The current grid is operating near or at capacity in many areas, with limited ability to support any new or expanded development.

Background

- **Current Infrastructure is Outdated:** Renfrew County's electrical grid was designed decades ago and is now operating at or near capacity, limiting new development.
- **Growth is Being Stalled:** Businesses and investors cite grid limitations as a top barrier to expansion in advanced manufacturing, agriculture and forestry.
 - *"(The) rural electrical capacity issue is a really important issue for farmers. It is hard for farmers to control the prices they receive, whether they are grain farmers, dairy farmers or market gardeners. A critically important strategy is for farmers to be able to lower their cost of production. We have applied to build more solar generating capacity on our other properties, since we have 4 different farm addresses. But we have been refused and the reason is lack of capacity in the electrical grid. It is really important to have on-farm generation of electricity since in our case, Freezers for beef and greenhouse heating and lighting and cold room refrigeration are all electrical costs related to our business. Plus, heat pumps are now the most efficient way to heat your home or just about any insulated building, but electricity is the main energy source."*
~ Marshall Buchanan, Farmer, Ottawa Valley Farm to Fork
- **Lost Opportunities:** Clean-tech, agri-tech, and bio-based manufacturing projects are bypassing Renfrew County due to insufficient grid capacity. These limitations are influencing site selection decisions, resulting in immediate lost investment opportunities as proponents pivot to jurisdictions with available capacity.
 - *"(In working) with Pikwakanagan (First Nation) and their lack of access to 3 phase power – this has limited their capacity to do any industrial development in (their) community."*
~ Jarret Brown, Business Development Manager, Sullivan Construction.

- **Impact on Forestry & Biomass Projects:** Innovative biomass initiatives and combined heat-and-power projects cannot supply surplus electricity to the grid because of capacity constraints. Several larger wood processing facilities are pursuing innovative biomass project investments using low-end material (pulpwood) and sawmill residues and are ready to proceed but cannot interconnect due to transmission and distribution capacity constraints:
 - Roseburg Forest Products (Pembroke MDF) is pursuing development of a Biomass Cogeneration investment alongside a new Heat Plant to mitigate the impact of rising electricity costs, which have contributed to increased production costs negatively impacting market competitiveness. **Total projected investment: \$148 million**
 - Golden Lake Power LP (Ben Hokum & Son Limited & CEM Engineering) is pursuing development of a Biomass Cogeneration facility. **Total projected investment: \$65 million**
 - Harvest Bioindustrial Group is pursuing the development of a bio-refinery located at Lavern Heideman & Sons sawmill.
- **Urgent Need for Action:** Upgrading grid infrastructure will unlock rural development, job creation, and support Ontario's clean energy and climate goals.
- **Agricultural Sector is Constrained:** Streamline connection approvals for ≤ 50 kW farm systems and standardize technical requirements or fast-track queue for biogas and solar projects.
- **Substations at Full Capacity:** Key substations (Beachburg DS, Cobden TS) are maxed out, preventing even small-scale renewable projects.
- **Missed RNG Opportunities:** Natural gas lines stop in Beachburg, leaving nearby producers unable to connect and contribute RNG to Ontario's energy supply. Expanding RNG infrastructure in targeted rural areas complements electrification by reducing pressure on constrained electrical capacity while capturing emissions reductions from agricultural and forestry residues. There is significant interest in Renewable Natural Gas (RNG) development as a complementary option to on-farm biogas systems, however, limited natural gas lines leaves producers unable to connect.
 - *"We would love to take part in future Contract submissions to IESO for Solar and Biogas. At this time updates on the system are necessary in the Cobden-Eganville-Beachburg area and also enlarged connection to the transmission system is necessary. Without we are at a standstill. We need updates on our electrical and natural gas systems, even small '10KW systems' are now limited in our area."*

~ Paul Klaesi, FEPRO Farms, Cobden
- **Environmental & Economic Benefits:** RNG supports Ontario's methane reduction and ESG targets.
- **Call for System Extensions:** Expanding natural gas infrastructure directly enables agri-energy diversification, including on-farm biogas, aligning with provincial energy priorities.

Request for Support

Renfrew County is not facing a future capacity problem. We are facing a current economic development constraint. Major forestry, biomass, agricultural and manufacturing investments are already being delayed or redirected because the electrical system lacks sufficient transmission and distribution capacity. These projects align directly with Ontario's objectives for economic growth, energy security, job creation, and domestic supply chain resilience, yet they cannot proceed without fundamental grid upgrades.

We need your support in these areas:

- Accelerate Hydro One transmission and distribution planning for identified constraint zones, particularly in the Cobden–Eganville–Beachburg corridor.
- Direct IESO and Local Distribution Companies (LCDs) to publish a near-term capacity roadmap for the region indicating what is constrained, what is planned and timelines.
- Support targeted natural gas extension feasibility versus blanket expansion, for industrial nodes and agri-clusters.
- Enable interconnection pathways for small-scale RNG and biogas injection where pipelines exist or could be extended.

Conclusion

Ontario's challenge is no longer attracting economic opportunities. It is ensuring the infrastructure exists to connect them. In Renfrew County, the projects are ready, the private capital is available, and the jobs are waiting. From nuclear innovation centred around Deep River and Chalk River, to biomass generation opportunities emerging from the Ottawa Valley's forest sector, to industrial, agricultural, and manufacturing investments across the region, proponents are prepared to invest and grow.

The common constraint is not ambition, market demand, or project readiness. It is access to the transmission and distribution infrastructure needed to power that growth. Strategic investment in grid capacity would unlock hundreds of millions of dollars in private-sector investment, strengthen Ontario's energy security, support rural and Indigenous economic development, advance clean energy objectives, and create high-quality jobs in communities that are ready to deliver.

Renfrew County is prepared to play a meaningful role in Ontario's economic and energy future. We are asking the Province to ensure the infrastructure is in place so that opportunity is not lost simply because it cannot connect to the grid.