

# The Socio-Economic Impact of Annual Capital Investments in Existing Ontario Waterpower Facilities

FINAL

MAY 18, 2021

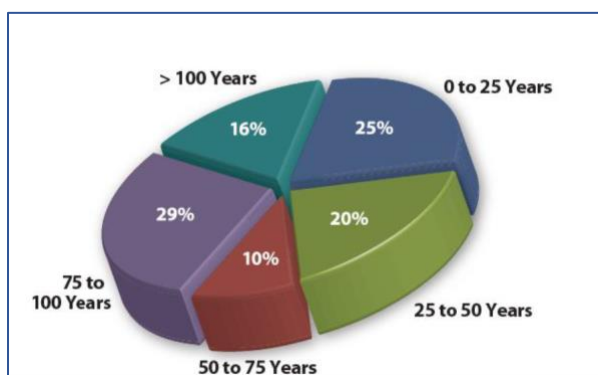


# 1. EXECUTIVE SUMMARY

Waterpower is Ontario’s most reliable renewable energy source and has been the backbone of the province’s electricity supply since the early 1900’s. Twenty-four percent of Ontario’s energy and capacity comes from this affordable, reliable, and sustainable energy source. (OWA 2021) Waterpower was a foundation of the province’s initial prosperity and, as evidenced in this report, continues to make a significant contribution to local, regional, and provincial economies.

Waterpower facilities are multigenerational assets. As illustrated in Figure 1, below, more than half of Ontario’s two hundred twenty-four (224) generating stations have been in service for over fifty (50) years and three dozen have been in continuous operation for more than a century (OWA 2021).

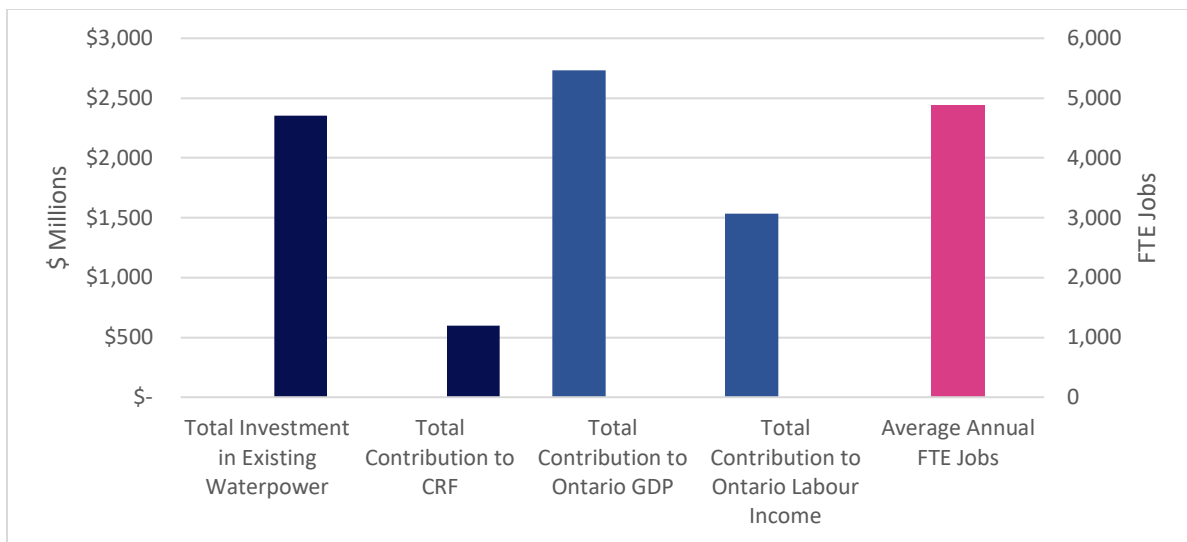
**Figure 1: Waterpower Facilities: Years in Production**



Source: OWA (2021)

OWA’s survey of power generating members forecast that investment in existing waterpower facilities over the next five years (2021-2025) will top **\$2.4 billion dollars** and contribution to the to the Consolidated Revenue Fund (CRF) will top **\$600 million dollars**. Economic modelling demonstrates that these investments are important part of the Province of Ontario’s economy (Figure 2).

**Figure 2: Summary Impacts of Investments in Existing Waterpower and Contributions to the CRF**

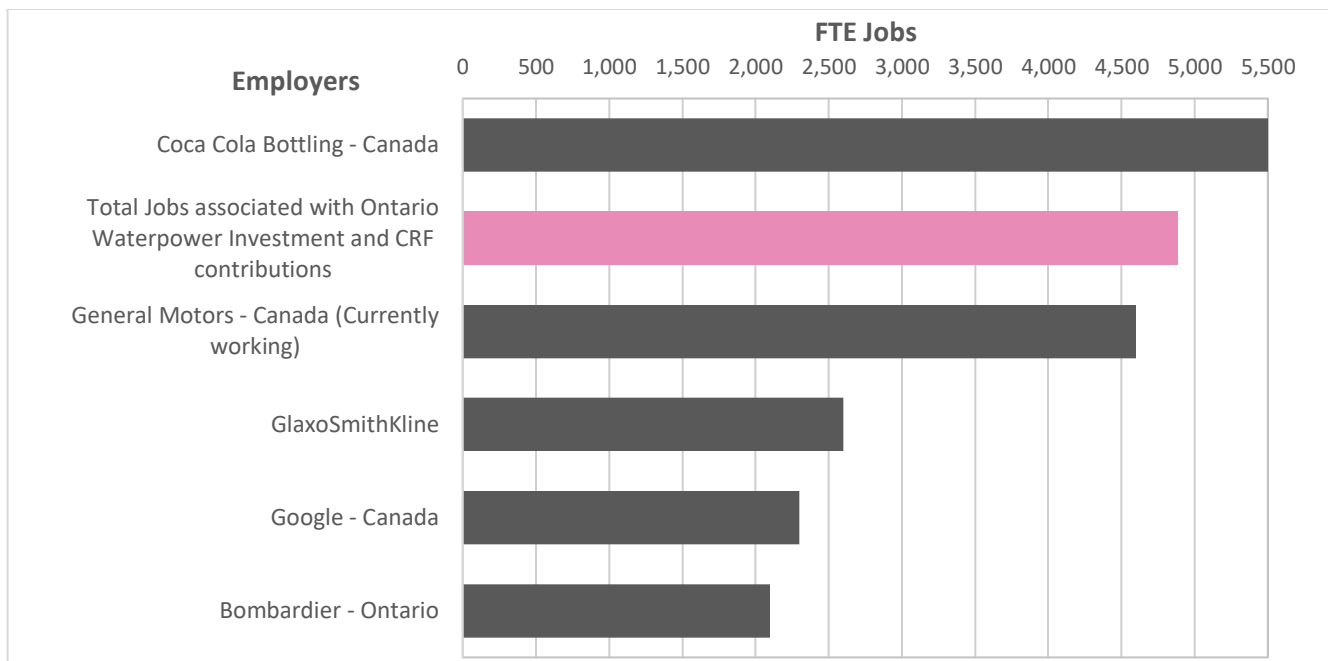


Source: Avaanz (2021)

- Average of 4,882 annual FTE jobs
- \$2.7 billion dollars contribution to Ontario’s GDP
- \$1.5 billion dollars contribution to Ontario workers’ wages and benefits

Waterpower generators expenditures and contributions are associated with more annual employment than General Motors has direct employees working (Figure 3). Put simply, investment in and royalties from every **2MW of waterpower in the province creates one high value skilled job.**

**Figure 3: Comparison of Jobs Associated with Waterpower to Direct Employment by Large Employers**



Source Avaanz 2021, CBC 2020, GM 2020, Forbes 2021

Fundamental to realizing this economic contribution will be the confidence of owners and investors in the long-term future of these assets. While there are no safety or engineering barriers to sustaining these facilities for decades to come, provincial policy direction, particularly as it applies to the electricity sector, can have a significant positive and adverse effect on capital investment decisions. As Ontario renews its electricity market structure, designs its resource acquisition and re-acquisition framework, and prepares to improve the approach to Long Term Energy Planning, **it is imperative that the investment signals and time horizons for these multi-generational assets be recognized and incorporated** (OWA 2021).

Finally, while this report does not include a broader socioeconomic analysis of “non-market” contributions of Ontario’s waterpower facilities, their existence should be acknowledged. Through the management of water levels and flows, either directly or in conjunction with other infrastructure owners (e.g. Ministry of Natural Resources and Forestry), waterpower assets provide public safety, recreation and environmental benefits. Accounting for these outcomes would only increase the positive impact to local, regional and provincial economies. This is exemplified by the French River Dams Socio-Economic Impact Study (PWGSC 2010) which forecast the value of the reduction in flooding at \$67 million associated with the operations of the French River Dams.