REPORT FOR ACTION

Insights on AI Infrastructure in the GTHA

Date: November 7, 2025
To: Board of Directors of the Toronto Atmospheric Fund
From: Vice President, Strategy and Partnerships

SUMMARY

TAF provided a grant to MaRS to explore what artificial intelligence (AI) infrastructure (i.e. data centres) build-out could look like in the Greater Toronto and Hamilton Area (GTHA) and more broadly in Ontario, and the policies and practices that can ensure that they are developed as innovatively and sustainably in order to maintain a robust electricity supply and meet its climate and broader economic objectives. MaRS and their partner Mantle Developments will present initial findings from stakeholder consultation and research.

RECOMMENDATIONS

The Vice President, Strategy and Partnerships recommends that the Board of Directors of the Toronto Atmospheric Fund receive the report for information.

FINANCIAL IMPACT

There is no financial impact resulting from the adoption of the recommendations in this report.

DECISION HISTORY

On November 21, 2024, the TAF Board approved a grant of $100,375 over 12 months (from the Toronto and Canada endowments only) to MaRS Discovery District to quantify the local and system-level impacts of data centre expansion in terms of power, energy, and emissions, and explore potential solutions to reduce those impacts both for new and existing facilities. https://secure.toronto.ca/council/agenda-item.do?item=2024.TA8.10

COMMENTS

The growing need and demand for data centres will challenge Toronto's and Canada's climate goals, especially given other local challenges around electrification and decarbonizing the built environment. According to CBRE, Toronto had 303.4 MW of total inventory and 87.0 MW under construction at the end of 2023. With the explosion of AI and requisite federal commitment to digital infrastructure investment, those numbers are set to skyrocket.

The next generation of AI-enabling digital infrastructure will need hundreds of MWs of 24x7 power per site. ISED recently announced $2 billion in investment to boost Canada's leadership in AI and access to compute power required for training and development. At the same time, in Ontario alone, the IESO already estimates a 5,000MW power shortfall in the 2030 - 2034 timeframe, only some of which will be covered by new emissions-free generation.

CONTACT

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SIGNATURE

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ATTACHMENTS

1. Presentation