

Built for what's next: designing resilience into digital infrastructure

Canada

Country profile

Summary

Demand for artificial intelligence, abundant low-carbon energy and hyperscale investment are strengthening Canada's position as a leading destination for AI and cloud infrastructure.

Cyber security, grid capacity and climate resilience are the main operational challenges as AI infrastructure expands.

Resilience efforts are focused on cyber security, governance and operational continuity, supported by strong board-level oversight and resilience investment.

The next stage of resilience will depend on building stakeholder trust, diversifying infrastructure dependencies and preparing for multiple disruptions.

Key data

Scale

337
data centres¹

Capacity

3,130
MW²

Capacity growth

5%
annual IT-load growth
(estimated 2025–2030)³

Geographic hubs

Ontario and Quebec are Canada's main data centre markets, centred on Toronto and Montréal. Ontario accounted for about 36% of the national market in 2025, while Quebec held about 25% and was the fastest-growing province. Alberta is also attracting investment in AI infrastructure, including a 90MW data centre planned near Calgary.⁴



About this research

Built for what's next is an Economist Enterprise research programme, sponsored by global property insurer FM. It examines how risks across energy, people and technology often come together to disrupt digital infrastructure, and how organisations can best prepare to meet those shocks.

The research is based on:

- A global survey of 1,800 data centre stakeholders across the digital infrastructure value chain from 21 countries
- Interviews with global industry experts
- An expert panel discussion

Market overview

Growth trends

Canada's hyperscale data centre market is projected to grow from about C\$4bn (~US\$3bn) in 2025 to about C\$14bn by 2031, driven by AI investment, cloud adoption and investment by US hyperscalers. Access to relatively low-cost, low-carbon electricity in parts of the country, alongside proximity to the US, is strengthening Canada's attractiveness for data centre and AI infrastructure investment.

Ontario and Quebec remain established data centre hubs, while investment is also expanding into markets such as Alberta. Rising AI and data centre demand is increasing pressure on electricity systems, making access to sufficient grid capacity an increasingly important factor in where future capacity is developed.^{5,6,7,8}

Investment trends

Demand for AI-ready infrastructure and access to low-carbon energy in parts of Canada are attracting investment in new data centre capacity. Major projects include eStruxture's C\$750m CAL-3 facility in the Calgary region, a 90MW AI-ready development that is expanding hyperscale capacity beyond Canada's traditional data centre hubs.

Federal incentives and provincial energy programmes are supporting investment in data centre infrastructure, particularly in provinces with access to low-carbon power. Federal incentives totalling over C\$4bn are helping steer new capacity towards low-carbon provinces, while British Columbia offers rebates covering up to 75% of capital expenditure for solar-plus-storage projects.^{9,10,11}



Key regulatory developments

Canada does not have a dedicated federal licensing regime for data centres, while its federal private-sector privacy framework does not impose a general requirement for data to be stored in Canada. Provincial and sector-specific requirements can differ, however. Provincial policies on electricity allocation, grid connections, energy planning and land use play an important role in determining where new data centre capacity can be developed. As demand grows, differences in power availability and interconnection timelines across provinces are increasingly shaping development decisions.^{12,13}

Key risks

Economist Enterprise's survey found that data centre stakeholders in Canada perceive the following as the **greatest systemic risks facing the sector**:



93%
—
Cyber-attacks

Canada's expanding AI and cloud infrastructure is increasing exposure to sophisticated cyber threats. The average cost of a data breach reached approximately C\$7m in 2024. Organisations with tested backup and recovery systems and documented incident response plans recover more quickly and at lower cost, highlighting the importance of operational preparedness alongside cyber defences.¹⁴



85%
—
Grid capacity constraints

Rapid growth in AI infrastructure is increasing electricity demand across Canada's major data centre markets. While low-carbon power remains a competitive advantage, grid congestion in parts of Ontario and Quebec is increasingly becoming a constraint on future hyperscale expansion. This is encouraging investment in onsite generation and alternative power solutions.¹⁵



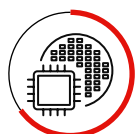
71%
—
Extreme weather or climate impact

Canada's cooler climate provides natural advantages for data centres, but rising climate volatility—including wildfires, extreme heat and severe winter storms—is increasing operational risks. These events are encouraging greater investment in climate-resilient infrastructure, advanced cooling technologies and business continuity planning.¹⁶



65%
—
Investment or insurance withdrawal

Canada continues to attract strong investment in AI and digital infrastructure. But growing hyperscale demand is exposing grid constraints in key markets. Limited firm capacity in the Greater Toronto Area and restrictions on new large-load connections in Quebec are increasing project risk and placing greater emphasis on power availability in investment decisions.¹⁷



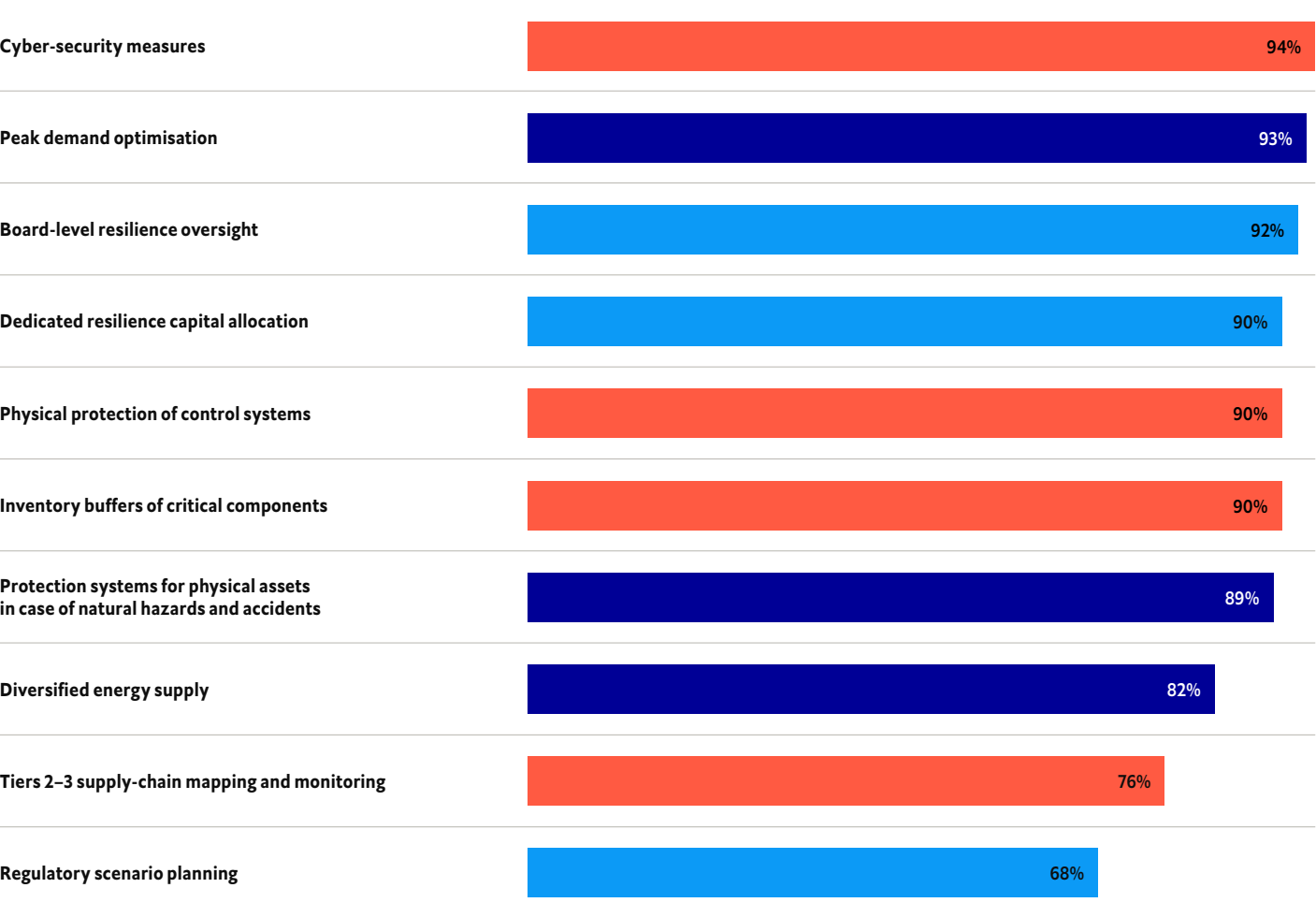
65%
—
Limited critical minerals, semiconductors or cloud vendors

Canada's AI ambitions depend on continued access to advanced semiconductors and global technology supply chains. Competition for AI chips and critical electrical equipment could affect deployment timelines, reinforcing the importance of strategic technology partnerships, diversified supply chains and resilient procurement strategies.^{18,19}

Resilience measures

Top 10 resilience measures adopted by data centre stakeholders in Canada

■ Energy and environment ■ Governance and human capital ■ Technology and supply-chain digital infrastructure



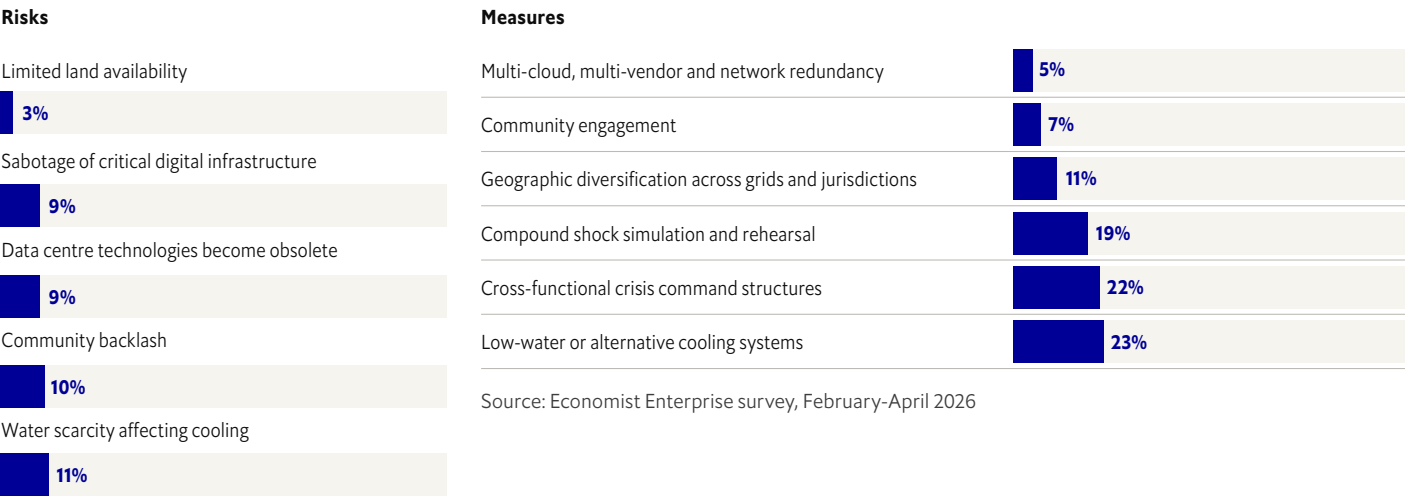
Source: Economist Enterprise survey, February–April 2026

Key takeaway

In Canada, resilience efforts focus on cyber security, governance and operational continuity to support the rapid expansion of AI and cloud infrastructure. Strong adoption of cyber-security measures, board-level oversight and dedicated resilience investment reflects a strategic approach to managing operational risks. Energy resilience and supply-chain preparedness are also well established. Lower adoption of regulatory scenario planning suggests an opportunity to strengthen preparedness for longer-term policy, climate and infrastructure uncertainties.

Priority actions

Least-adopted resilience measures and underestimated risks among data centre stakeholders



Source: Economist Enterprise survey, February-April 2026

Build community engagement

Community backlash is selected as a major resilience risk by relatively few Canadian stakeholders (10%). Yet expanding AI infrastructure is increasing competition for land, electricity and water in several provinces. Community engagement is adopted by just 7% of stakeholders, presenting an opportunity to strengthen resilience through earlier engagement and greater transparency.

Key actions:

- 1
- Establish joint planning forums between operators, utilities, communities, municipalities and investors.
- 2
- Publish transparent information on projected energy, water and economic impacts.
- 3
- Integrate community engagement into site selection and expansion decisions.
- 4
- Include permitting and community-related risks in resilience and scenario-testing exercises.

Diversify critical infrastructure and service dependencies

Few respondents identify limited land availability (3%) or water scarcity affecting cooling (11%) as major systemic risks. Yet Canada is already facing grid congestion and growing climate pressures, making diversification increasingly important. Only 11% of stakeholders have diversified across grids and jurisdictions, while just 5% use multi-cloud, multi-vendor or network redundancy. As demand for AI grows, reducing dependence on individual power systems, cloud providers and technology suppliers will strengthen resilience across the digital infrastructure ecosystem.

Key actions:

- 1
- Compare locations using firm grid capacity, wildfire, flood and heat exposure, water availability, connectivity and planning readiness.
- 2
- Co-ordinate infrastructure planning across provinces and electricity systems.
- 3
- Map whether geographically separate facilities share common grid, connectivity or other critical infrastructure dependencies.
- 4
- Test site and grid loss and incorporate recovery findings into continuity and investment plans.
- 5
- Apply consistent engineering and operating standards across sites.

Improve preparedness for compound disruptions

Compound-shock simulation is adopted by only 19% of stakeholders, while cross-functional crisis command structures are adopted by just 22%. Cyber attacks, extreme weather, grid disruptions and supply-chain failures are increasingly interconnected, requiring co-ordinated preparedness across the ecosystem.

Key actions:

1

Map dependencies across power, cooling, telecommunications and critical supplies.

2

Conduct joint exercises combining cyber incidents, grid failure, extreme weather and cooling-system disruption.

3

Define cross-functional crisis roles and escalation procedures across operators, utilities and public authorities.

4

Use exercise findings to strengthen preventive maintenance, critical spares, recovery plans, staff preparedness and capital decisions.

Conclusion

Canadian data centre operators have built strong foundations in cyber security, governance and operational resilience. The next stage of resilience will depend on adapting to climate risks, diversifying infrastructure dependencies and strengthening preparedness for interconnected disruptions.

References

- 1 Morson Edge. Can Canada's data centre boom make it a global powerhouse? May 2026.
Available at: <https://morson-edge.com/news/can-canadas-data-centre-boom-make-it-a-global-powerhouse/>
- 2 Mordor Intelligence. Canada Data Center Market Size & Share Analysis - Growth Trends And Forecast (2026 - 2031). January 2026.
Available at: <https://www.mordorintelligence.com/industry-reports/canada-data-center-market>
- 3 Mordor Intelligence. Canada Data Center Market Size & Share Analysis - Growth Trends And Forecast (2026 - 2031). January 2026.
Available at: <https://www.mordorintelligence.com/industry-reports/canada-data-center-market>
- 4 Mordor Intelligence. Canada Data Center Market Size & Share Analysis - Growth Trends And Forecast (2026 - 2031). January 2026.
Available at: <https://www.mordorintelligence.com/industry-reports/canada-data-center-market>
- 5 Mordor Intelligence. Canada Hyperscale Data Center Market Size & Share Analysis - Growth Trends and Forecast (2026 - 2031):
<https://www.mordorintelligence.com/industry-reports/canada-hyperscale-data-center-market>
- 6 DC Market Insights. Canada Data Center Infrastructure Market. Accessed August 2026.
Available from: <https://www.dcmarketinsights.com/report/canada-data-center-infrastructure-market>
- 7 Encore. Data Centres in Canada: 2026 Map and Full List. June 2026. Available from: <https://encoradvisors.com/data-centres-canada/>
- 8 US-dollar figures have been converted into Canadian dollars at an exchange rate of US\$1 = C\$1.4018, as at August 2nd 2026.
Converted figures are rounded.
- 9 Financial Post. Canada Data Center Market Investment Analysis Report 2025-2030: \$12.27 Bn Growth Opportunities in IT, Electrical, Mechanical Infrastructure, General Construction, and Tier Standards - ResearchAndMarkets.com. April 2025. Available from: <https://financialpost.com/pmn/business-wire-news-releases-pmn/canada-data-center-market-investment-analysis-report-2025-2030-12-27-bn-growth-opportunities-in-it-electrical-mechanical-infrastructure-general-construction-and-tier-standards-researchandmarke>
- 10 Encore. Data Centres in Canada: 2026 Map and Full List. June 2026. Available from: <https://encoradvisors.com/data-centres-canada/>
- 11 US-dollar figures have been converted into Canadian dollars at an exchange rate of US\$1 = C\$1.4018, as at August 2nd 2026. Converted figures are rounded.
- 12 Mordor Intelligence. Canada Hyperscale Data Center Market Size & Share Analysis - Growth Trends & Forecast. March 2026.
Available from: <https://www.mordorintelligence.com/industry-reports/canada-hyperscale-data-center-market>
- 13 Mordor Intelligence. Canada Data Center Market Size & Share Analysis - Growth Trends And Forecast (2026 - 2031). January 2026.
Available from: <https://www.mordorintelligence.com/industry-reports/canada-data-center-power-market>
- 14 Cyber Unit. Cybersecurity Canada Report 2026: The State of Canadian SMB Cyber Risk. May 2026.
Available from: <https://cyberunit.com/insights/cybersecurity-canada-report-2026/>
- 15 Cleanbridge. Global Data Center Market Report. 2025.
Available from: <https://www.cleanbridge.co/wp-content/uploads/CleanBridge-Global-Data-Center-Market-Report-2025.pdf>
- 16 Maclean's. The Farmers Who Fought A Data Center - And Won. May 2026. Available from:
<https://www.canada.ca/en/services/environment/weather/climatechange/climate-plan/national-adaptation-strategy/action-plan.html#toc6>
- 17 CBRE. Power Surge: Energizing Canada's Data Centre Expansion. February 2026.
Available from: <https://www.cbre.ca/insights/articles/energizing-canadas-data-centre-expansion>
- 18 Mordor Intelligence. Canada Data Center Market Size & Share Analysis - Growth Trends And Forecast (2026 - 2031). January 2026. Available from:
<https://www.mordorintelligence.com/industry-reports/canada-data-center-power-market>
- 19 Government of Canada. Government of Canada provides early decision on Mihta Askiy Data Center Project in Alberta. April 2026. Available from:
<https://www.canada.ca/en/innovation-science-economic-development/news/2026/06/canada-and-germany-strengthen-industrial-partnership-to-build-resilient-semiconductor-supply-chains.html>

About FM

This research programme is sponsored by FM, one of the world's largest commercial property insurers, and is dedicated to helping organisations build resilience and protect long-term business value. Drawing on nearly two centuries of engineering expertise, scientific research and loss-prevention experience, FM helps clients better understand and manage the risks that affect critical operations and infrastructure.

FM Intellium brings together research, engineering insight and resilience intelligence to help organisations evaluate, strengthen and benchmark resilience across the digital infrastructure ecosystem. By providing a clearer view of resilience vulnerabilities, system interdependencies and emerging risks, FM Intellium supports better business, investment and policy decisions in an increasingly complex digital environment.