

Are Canada's Largest Cities Prepared for the Floods that Haven't Happened?



Mindfirst



Dr. Blair Feltmate

Head, Intact Centre on Climate Adaptation
University of Waterloo
bfeltmat@uwaterloo.ca

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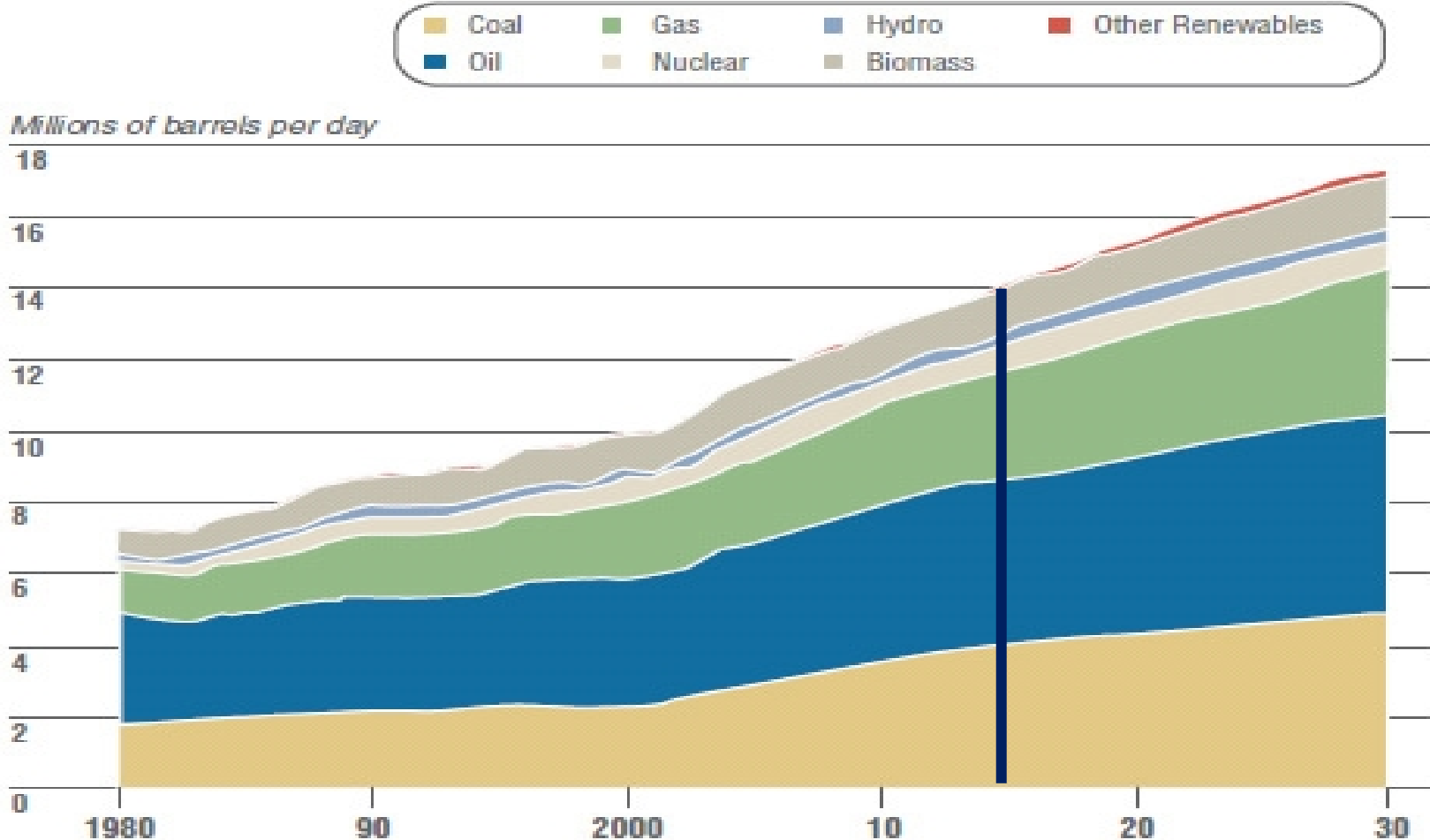
INTACT CENTRE
ON CLIMATE ADAPTATION

AGENDA

2

1. Climate change & extreme weather: human-induced and irreversible
2. State of flood preparedness of Canada's largest 15 cities
3. Conclusion

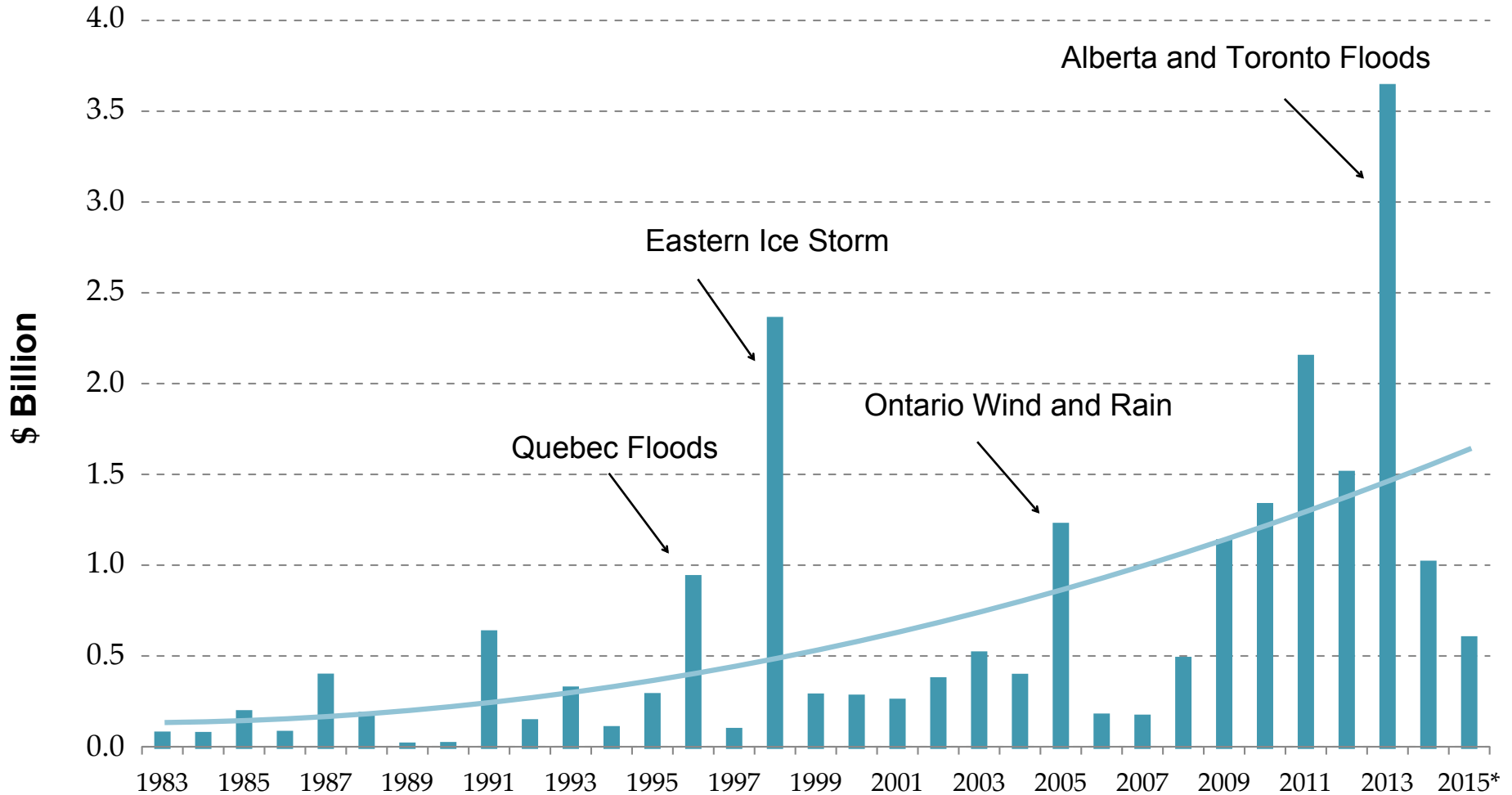
World Energy Supply



Source: International Energy Agency

Escalating Catastrophic Insurable Losses

5



FLOOD PREPAREDNESS OF CANADA'S LARGEST FIFTEEN CITIES

Purpose

- To assess the preparedness of fifteen major Canadian cities to limit potential flood damage relative to current (2015) and anticipated future (2030) high intensity and duration precipitation events

Factors Examined: Fifteen Canadian Cities

6

1. Flood Plain Mapping
2. Land Use Planning
3. Urban Drainage Maintenance
4. Home Adaptation Audit
5. Commercial Real Estate Adaptation Audit
6. Backwater Valve Installation (new house)
7. Backwater Valve Installation (house retrofits)
8. Electricity Supply
9. Petroleum Supply
10. Transportation Systems
11. Telecommunication Systems
12. Retail Food Supply
13. Banking/Financial Services
14. Water Supply and Raw Waste Management
15. Human Health & Safety
16. Emergency Responders

Survey Question – Electricity Supply

▪ Large Canadian Cities

7

To what level has your city factored flood mitigation into maintaining the continuity of electricity supply (generation, transmission, distribution)?

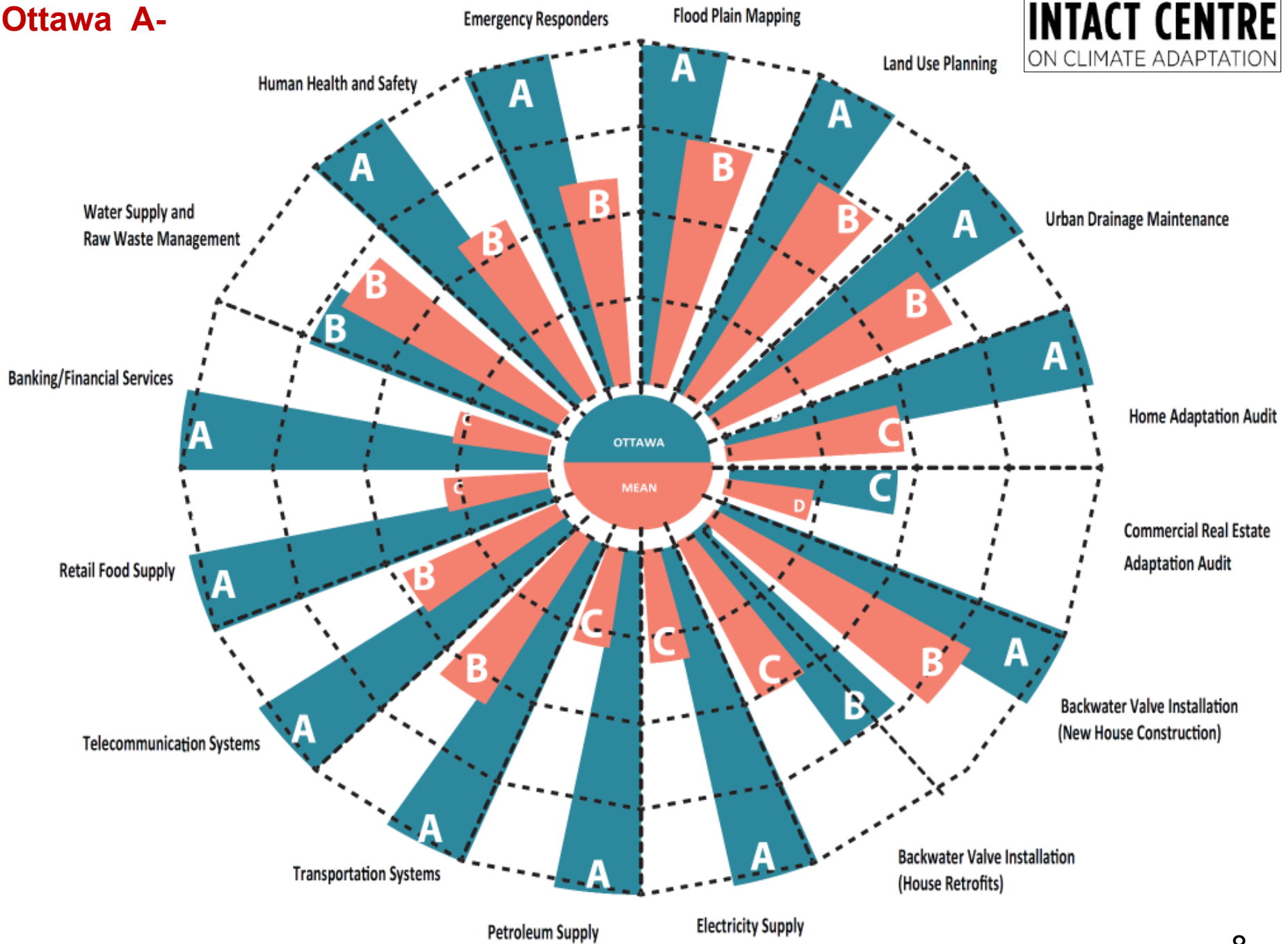
A. Relative to electricity generation, transmission and distribution, our city has identified flood-related vulnerabilities, budgeted for and instituted adaptation practices, and maintains a system of continuous improvement

B. Relative to electricity generation, transmission and distribution, our city has identified flood-related vulnerabilities and adaptation practices have been instituted

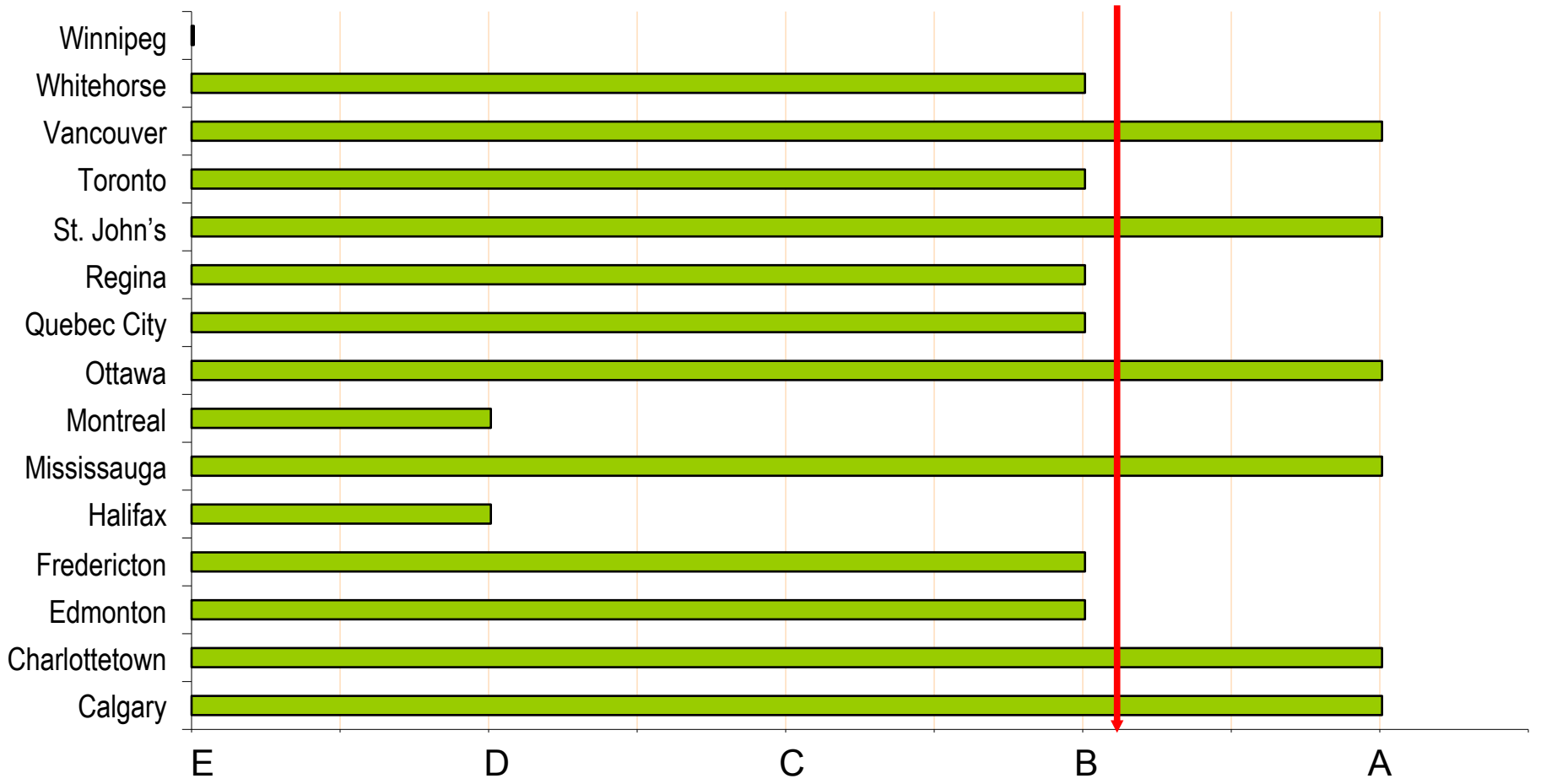
C. Relative to electricity generation, transmission and distribution, our city has identified and budgeted for flood-related vulnerabilities

D. Relative to electricity generation, transmission and distribution, our city has identified flood-related vulnerabilities

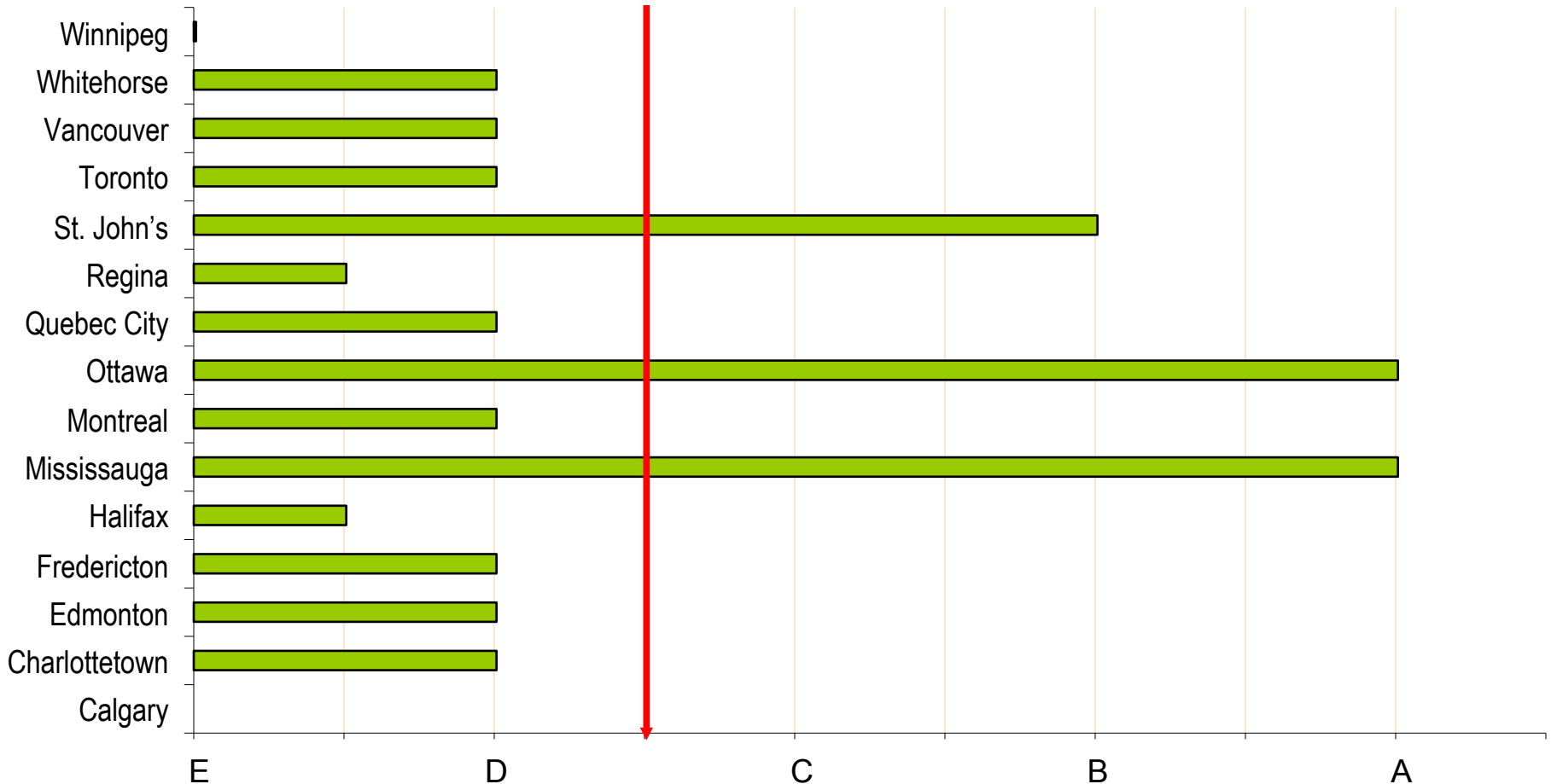
E. Our city has not engaged efforts to identify the vulnerability of electricity supply to flooding



Flood Plain Mapping Scores for Fifteen Cities



Electricity Supply, Distribution Scores for Fifteen Cities



CONCLUSION

11

1. Climate change & extreme weather events will get worse
2. We need adaptation NOW
3. Cities need to assume leadership on the flood file that goes beyond “direct line reports”