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Canada Must Embrace Adaptation to Climate Change and Extreme Weather Events

TRIECA Conference

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January 21, 2016

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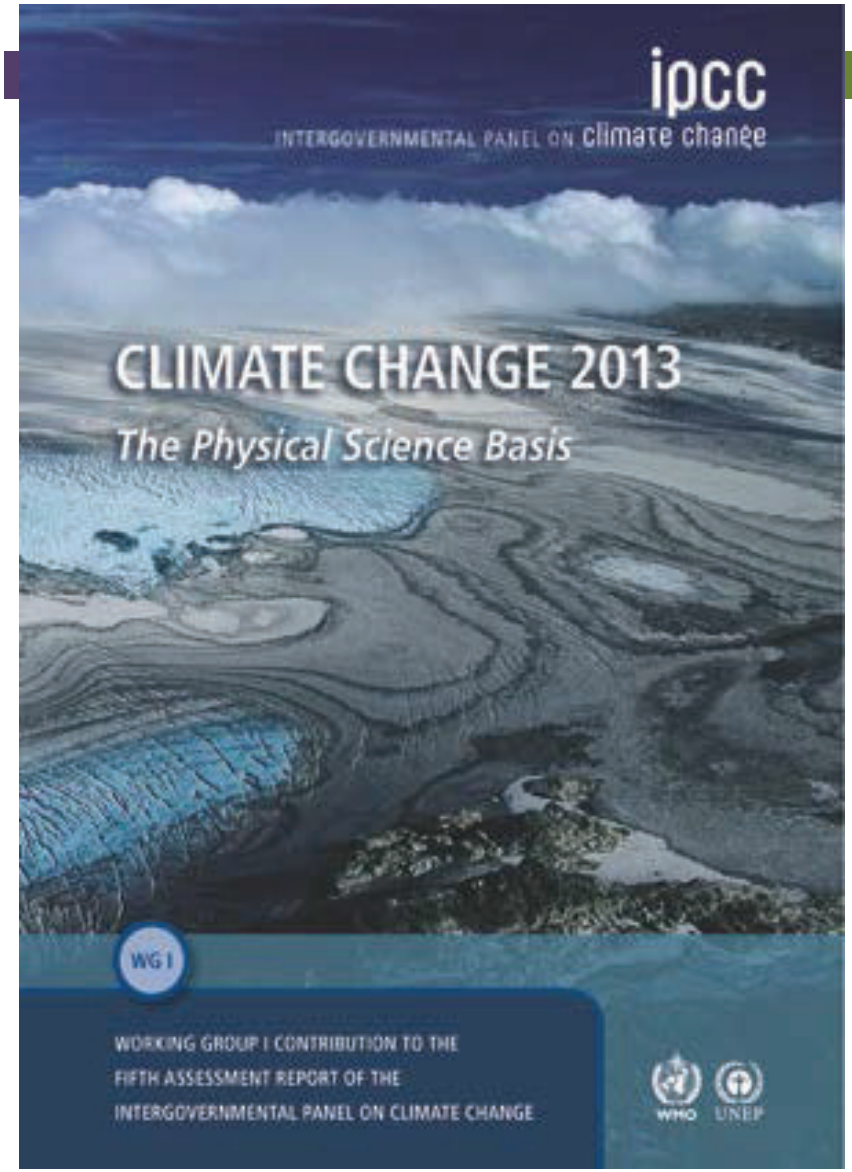
ON CLIMATE ADAPTATION

AGENDA

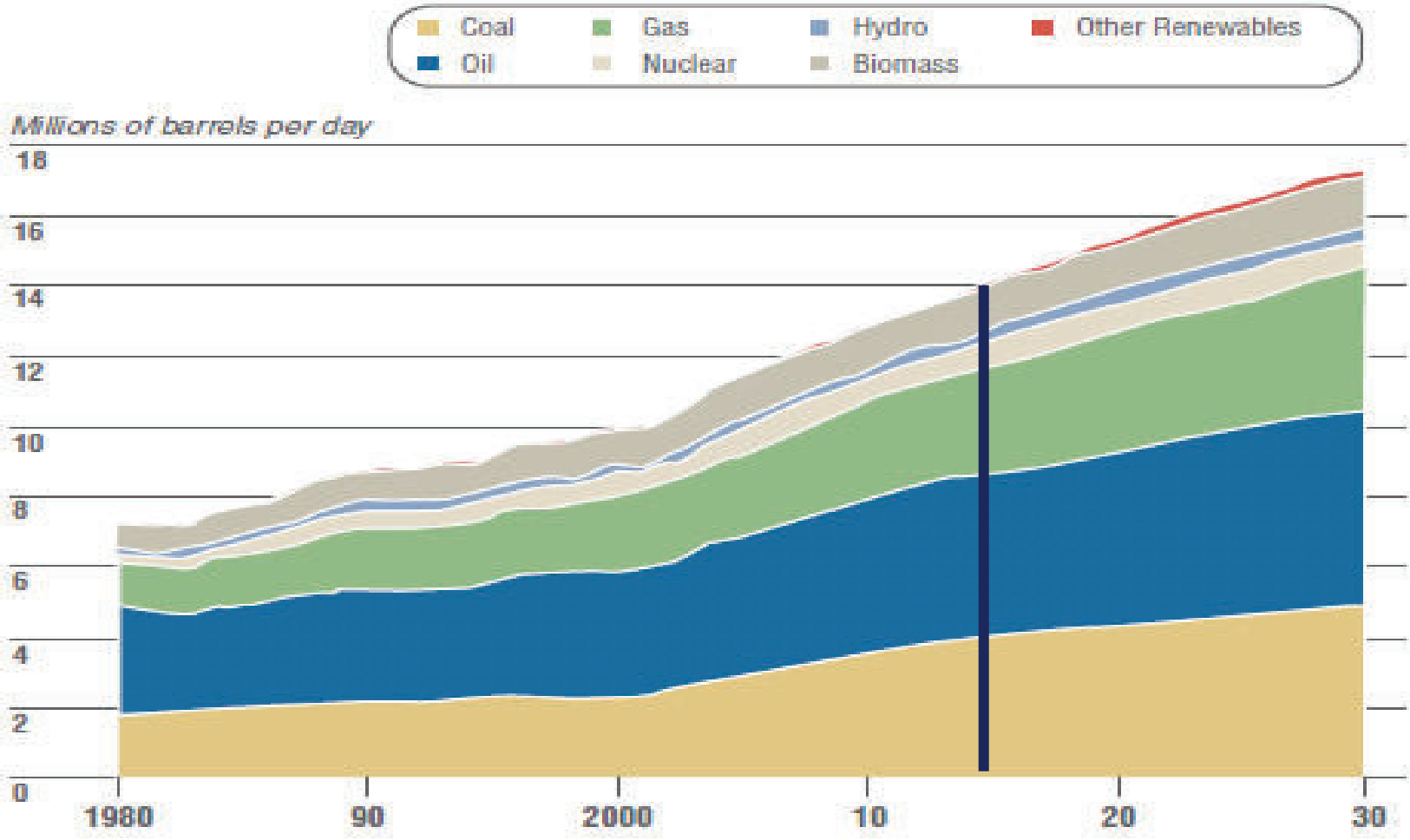
1. Climate change and extreme weather – the challenge is evolving
2. Costs of extreme weather to the P&C sector
3. Are Canadian municipalities prepared for climate change?
4. Intact Centre on Climate Adaptation – Key Areas of Focus
5. Conclusion

What Science tells Us About Climate Change



It is extremely likely that human influence has been the dominant cause of the observed warming since the mid-20th century (0.08 ºC/ decade for past 100 years)

World Energy Supply



Source: International Energy Agency

Canada's Climate Change Challenge: Catastrophic Insurable Losses

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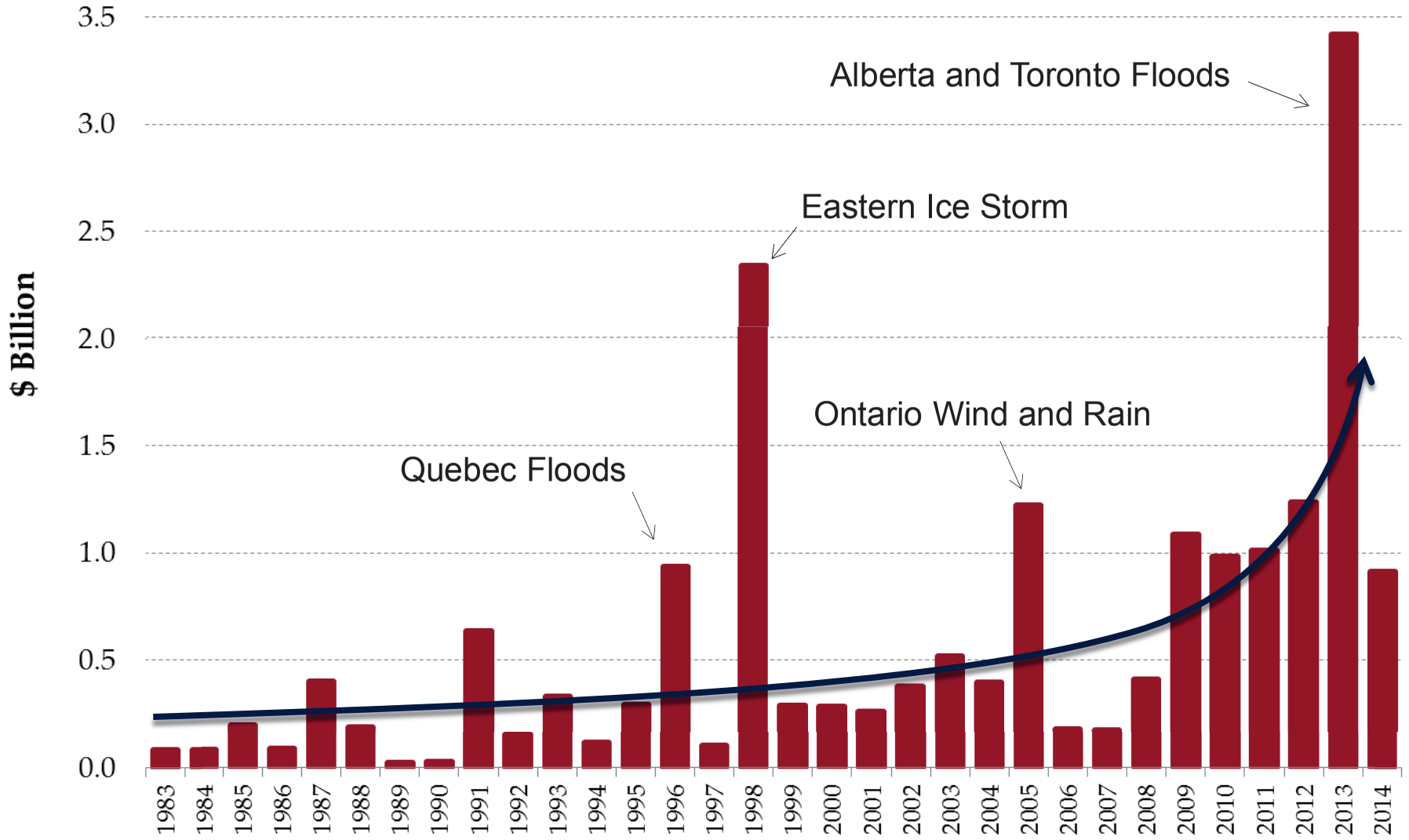

Courtesy: Insurance Bureau of Canada

FLOOD PREPAREDNESS OF CANADA'S LARGEST 15 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

- Identify areas of strength, and outstanding challenge, to further facilitate flood preparedness of cities

Factors Examined

Factors Examined

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

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Sample Survey Question – Electricity Supply

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

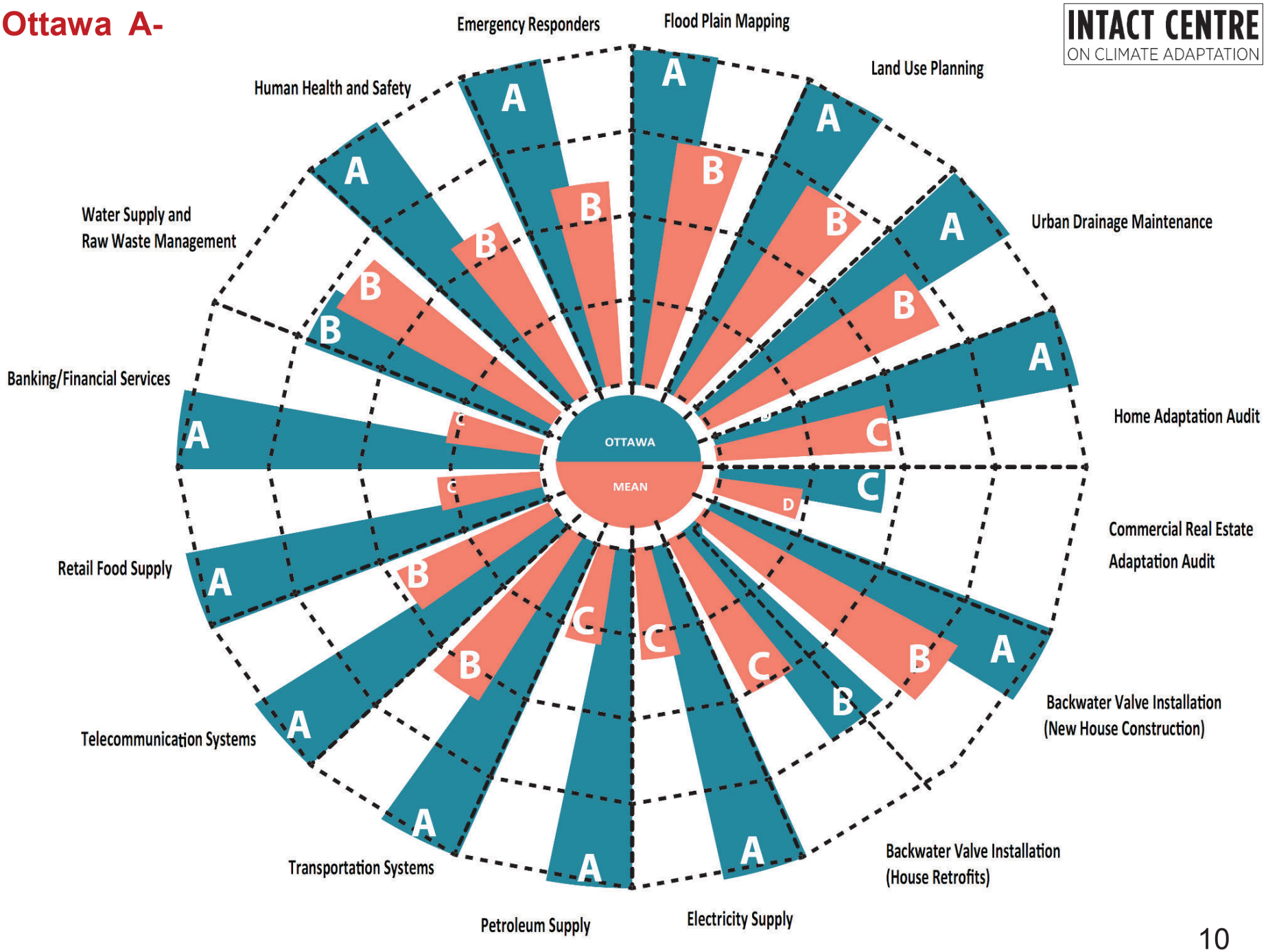
B.Relative to electricity generation, transmission and distribution, our city has identified flood-related vulnerabilities and adaptation practices have been instituted

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

Ottawa A-


Emergency Responders
Flood Plain Mapping
Land Use Planning
Urban Drainage Maintenance
Home Adaptation Audit
Commercial Real Estate
Adaptation Audit
Backwater Valve Installation
(New House Construction)
Backwater Valve Installation
(House Retrofits)
Electricity Supply
Petroleum Supply
Transportation Systems
Telecommunication Systems
Retail Food Supply
Banking/Financial Services
Water Supply and
Raw Waste Management
Human Health and Safety
OTTAWA
MEAN

Flood Plain Mapping Scores for Fifteen Cities

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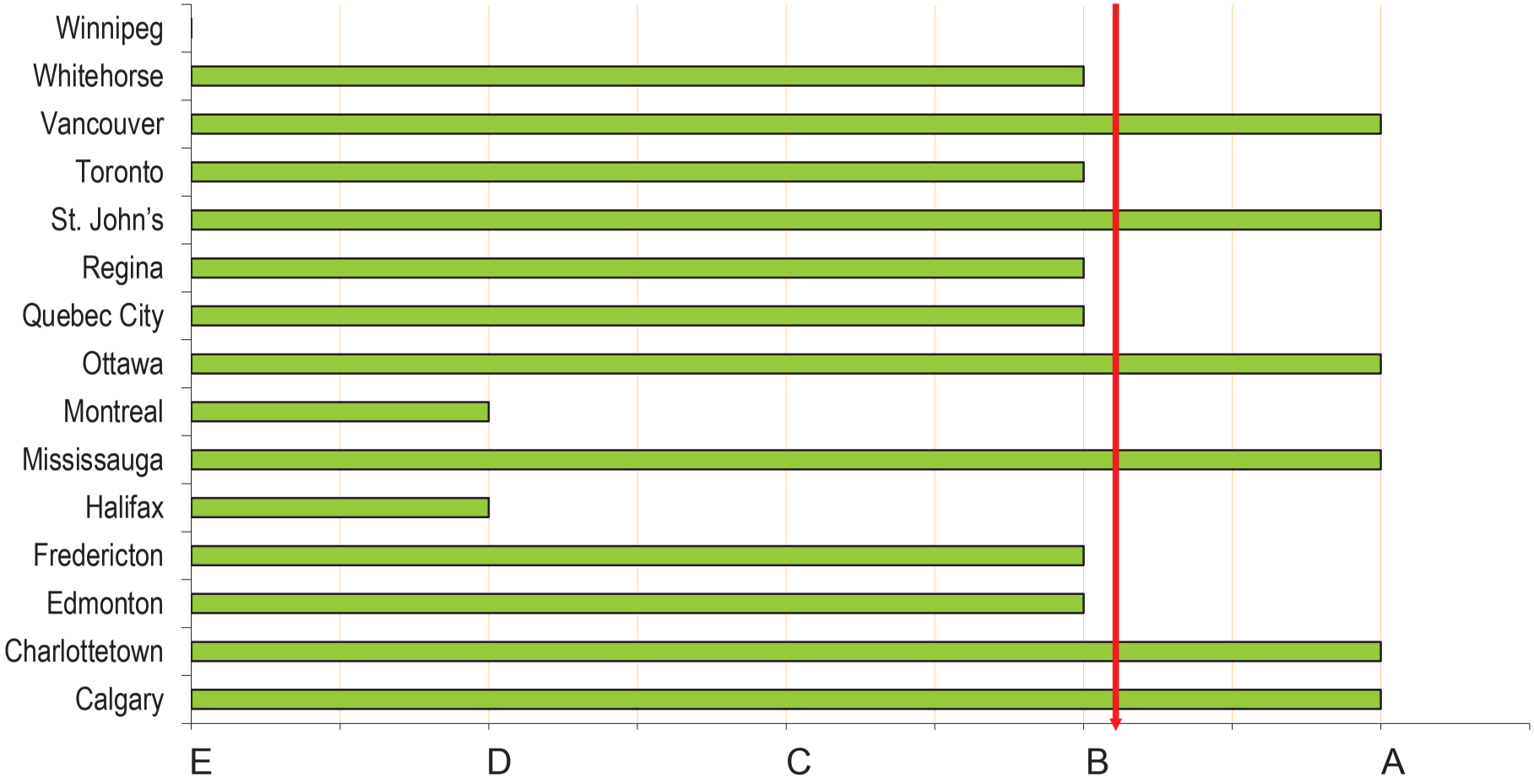

Electricity Supply, Distribution of Scores for Fifteen Cities

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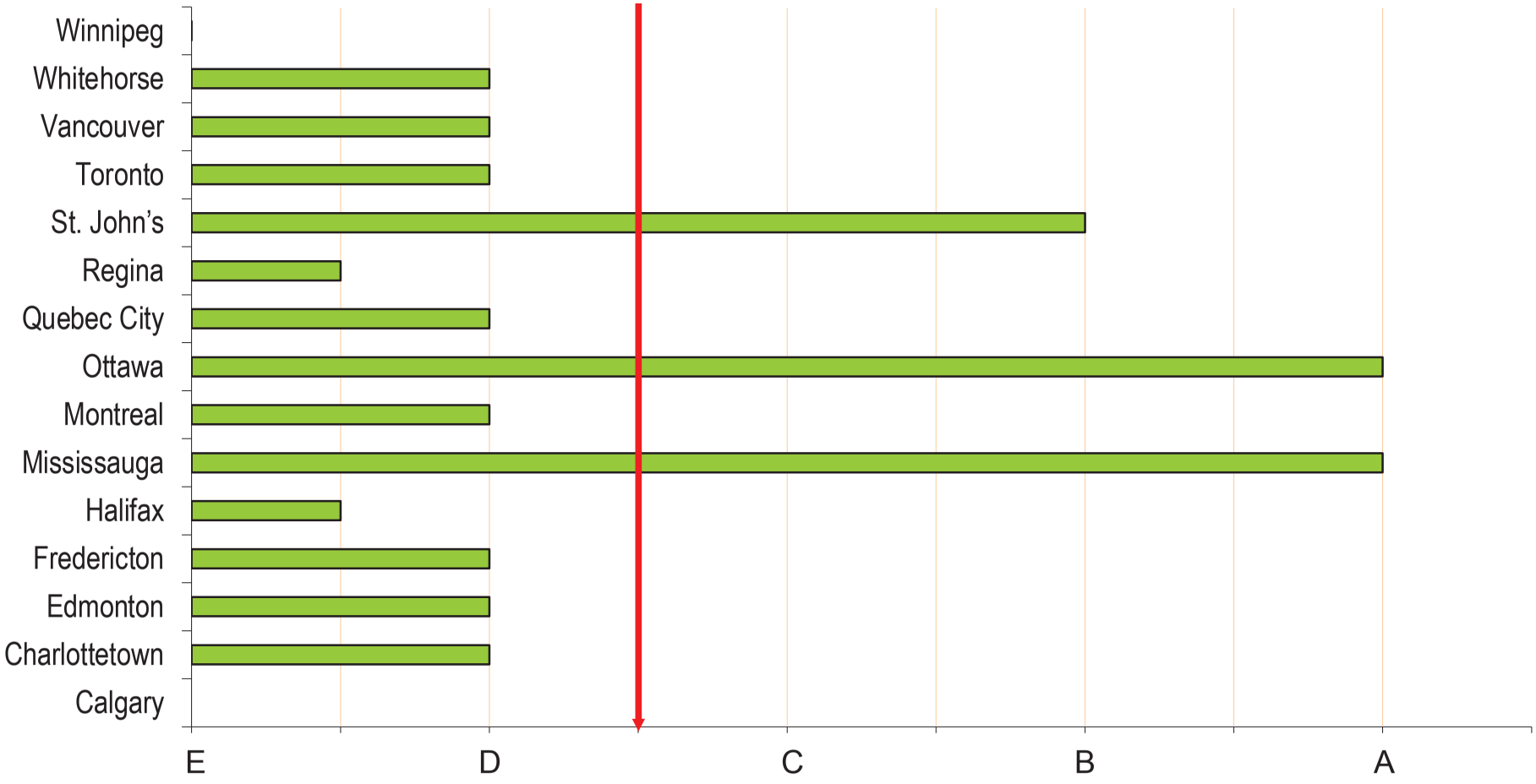

ICCA

- Home Adaptation Assessment Program (HAAP)
- Natural Infrastructure Adaptation Program (NIAP)
- Corporate-specific Adaptation Program (CSAP)

CONCLUSION

- Not adapting is not an option
- We must avoid “management by disaster” scenarios
- The costs of not acting far exceed those of acting
- Every day we don’t build adaptation into infrastructure is a day we don’t have
- Adaptation applied to infrastructure will only be available for the next few years, and then “fixing” the extreme weather challenge will not be possible