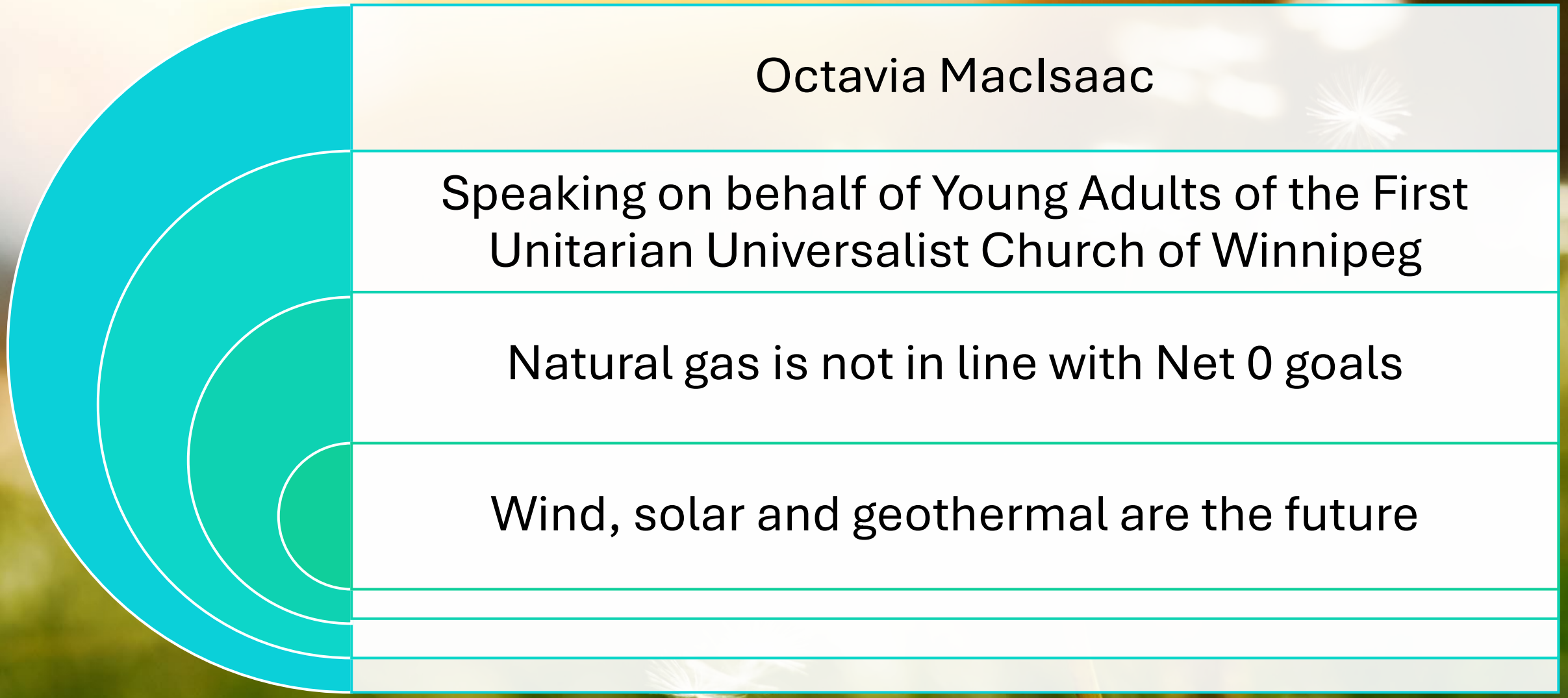
“The Future is Helpless and Hopeless”
– 12 year old daughter

Manitoba’s Energy future Our Choice

Octavia MacIsaac

Introduction



The Emissions Math

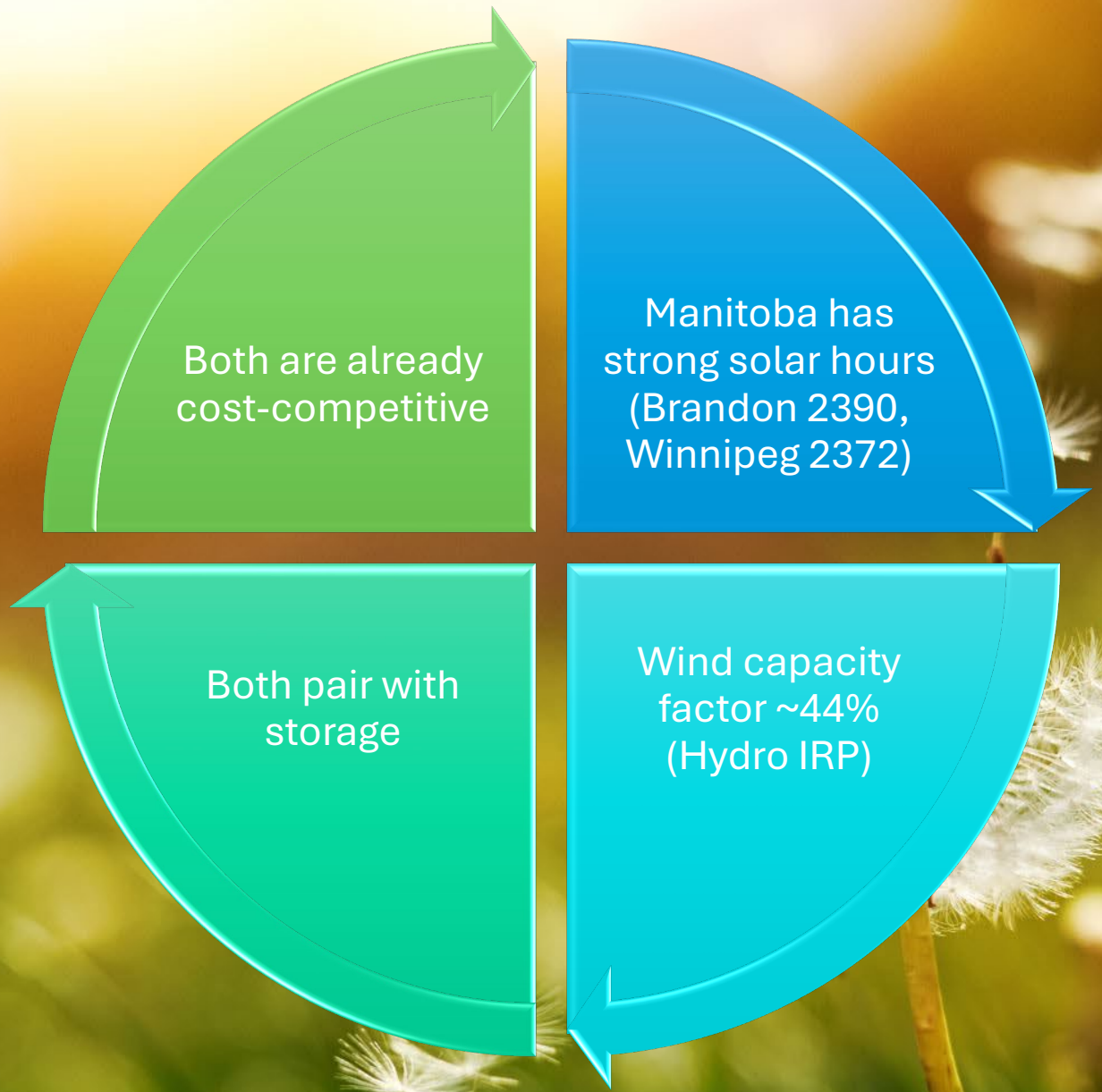
Federal rules require 95% carbon capture on new gas plants by 2035

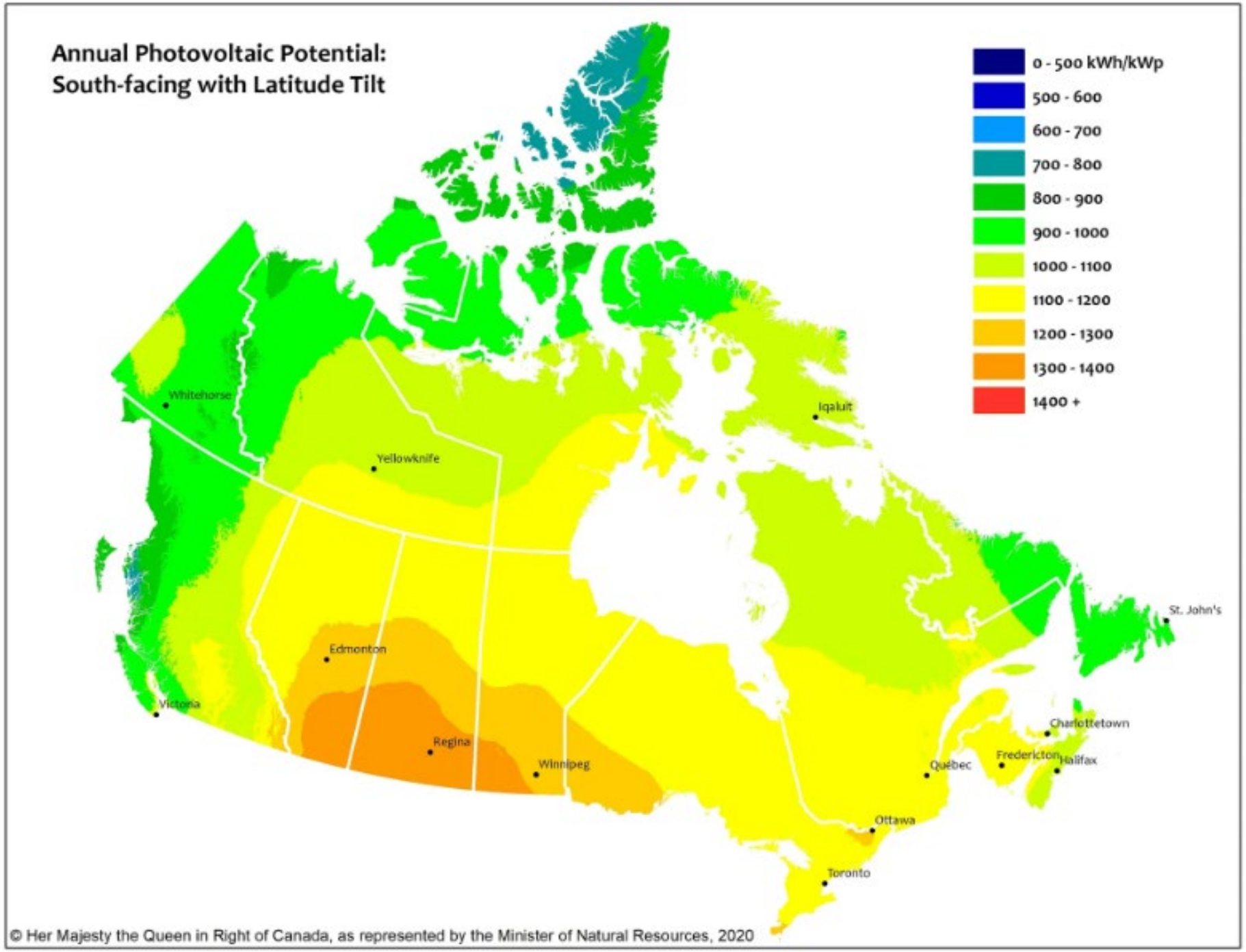
Manitoba Hydro has not committed to carbon capture

Manitoba has pledged to phase out gas-fired power by 2035

Gas plants built today risk becoming stranded assets

Solar and Wind




Annual Photovoltaic Potential:
South-facing with Latitude Tilt
0 - 500 kWh/kWp
500 - 600
600 - 700
700 - 800
800 - 900
900 - 1000
1000 - 1100
1100 - 1200
1200 - 1300
1300 - 1400
1400 +
Whitehorse
Yellowknife
Iqaluit
Edmonton
Victoria
Regina
Winnipeg
St. John's
Charlottetown
Fredericton
Halifax
Québec
Ottawa
Toronto
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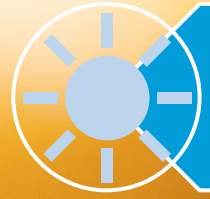
Cost Comparison

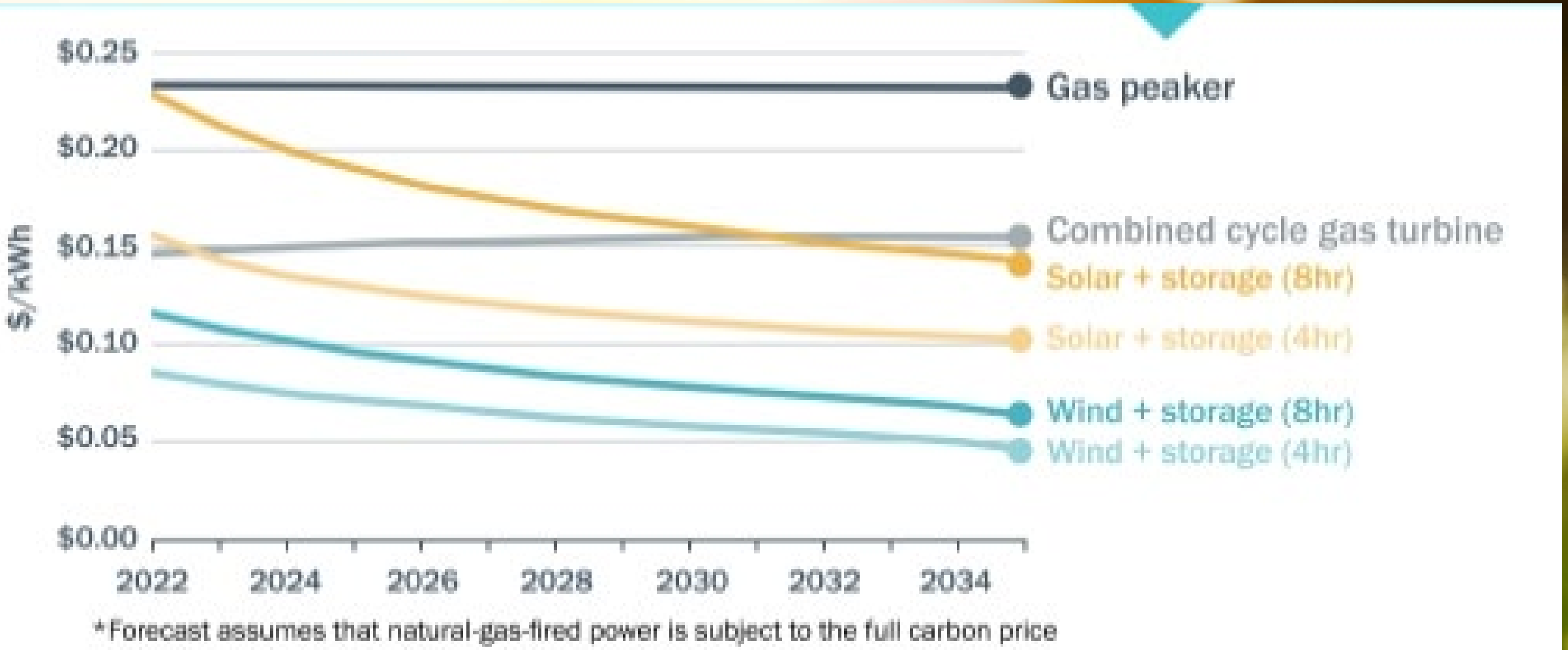


No Manitoba cost study exists

Wind ~40% cheaper by 2030

Storage-paired renewables beat gas

$3B approval without the analysis



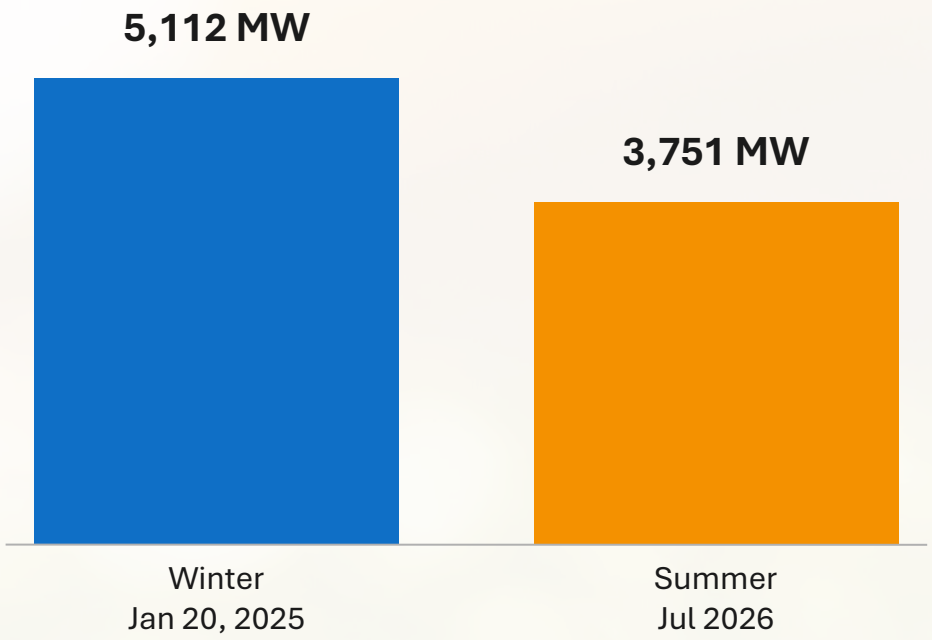
https://cleanenergycanada.org/report/a-renewables-powerhouse/

Reliability Isn’t Settled

- Hydro’s case rests on firm winter capacity
- “Firm capacity” depends on modelling choices
- Manitoba’s reservoirs already firm wind
- Storage and geothermal remain untested at scale

Winter Peak Demand vs. Wind's Firm Capacity

Manitoba peaks in winter



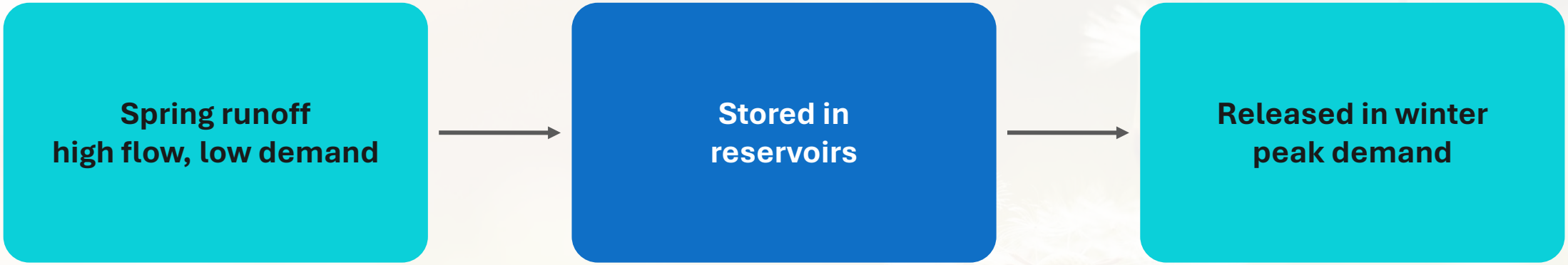
Record system peaks — CBC News, Manitoba Hydro

Wind's capacity credit

Per 100 MW of installed wind — average annual capacity factor: 44% (Manitoba Hydro 2023 IRP)

Hydro Provides the Firming

Manitoba's reservoirs already shift power across seasons — no new gas is needed to firm wind.



Manitoba Hydro 2023 Integrated Resource Plan, Appendix 2

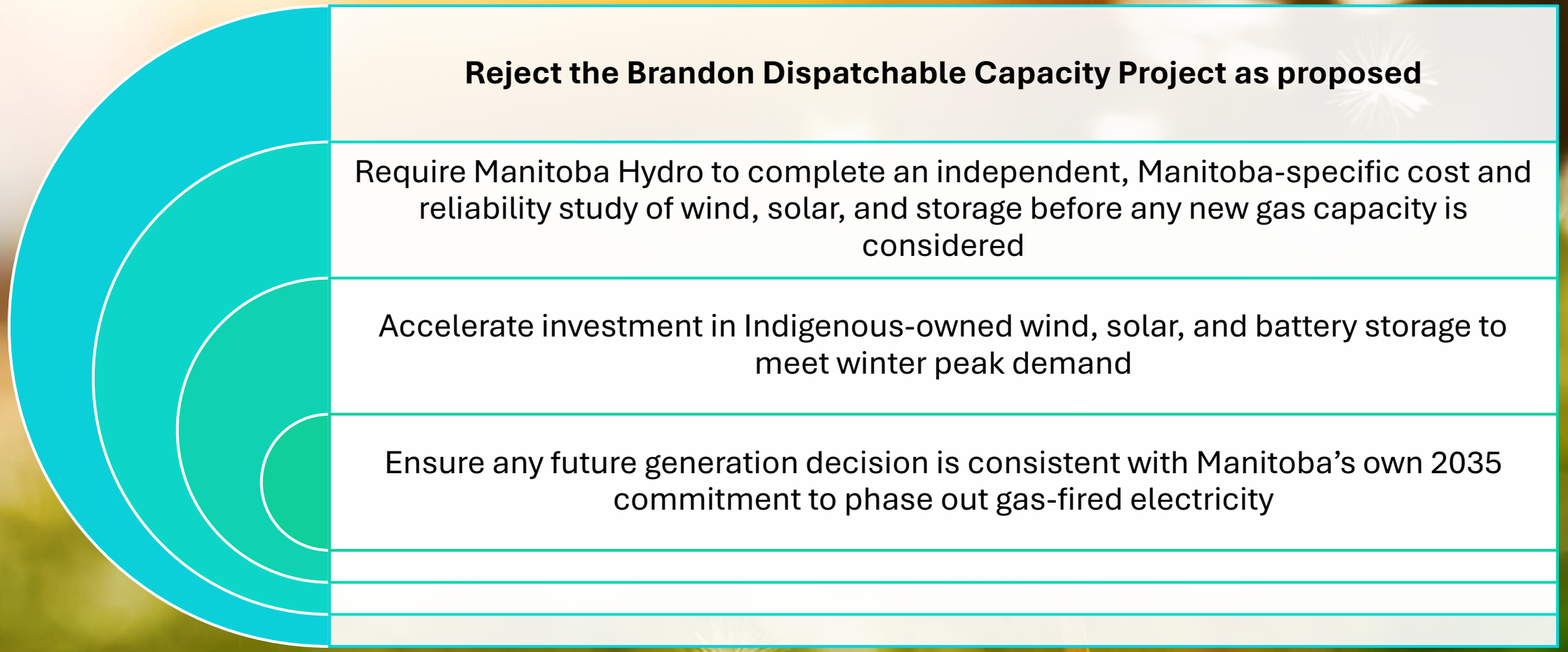
“Storage reservoirs allow water to be stored during low-demand seasons and used later during higher-demand seasons.” — Manitoba Hydro 2023 IRP

Choice

We can build an out of date system, out of fear.

We can trust the science and show a sustainable way forward.

Our Recommendations



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