

Interprovincial transmission in Canada

TEM 113

Net zero electricity system studies, Camden Court Hotel, Dublin

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Madeleine McPherson

Sustainable Energy System Integration and Transitions (SESIT) Group

Energy Modelling Hub

Institute for Integrated Energy Systems (IESVic), University of Victoria

Outline

Many studies show the benefits of inter-provincial transmission

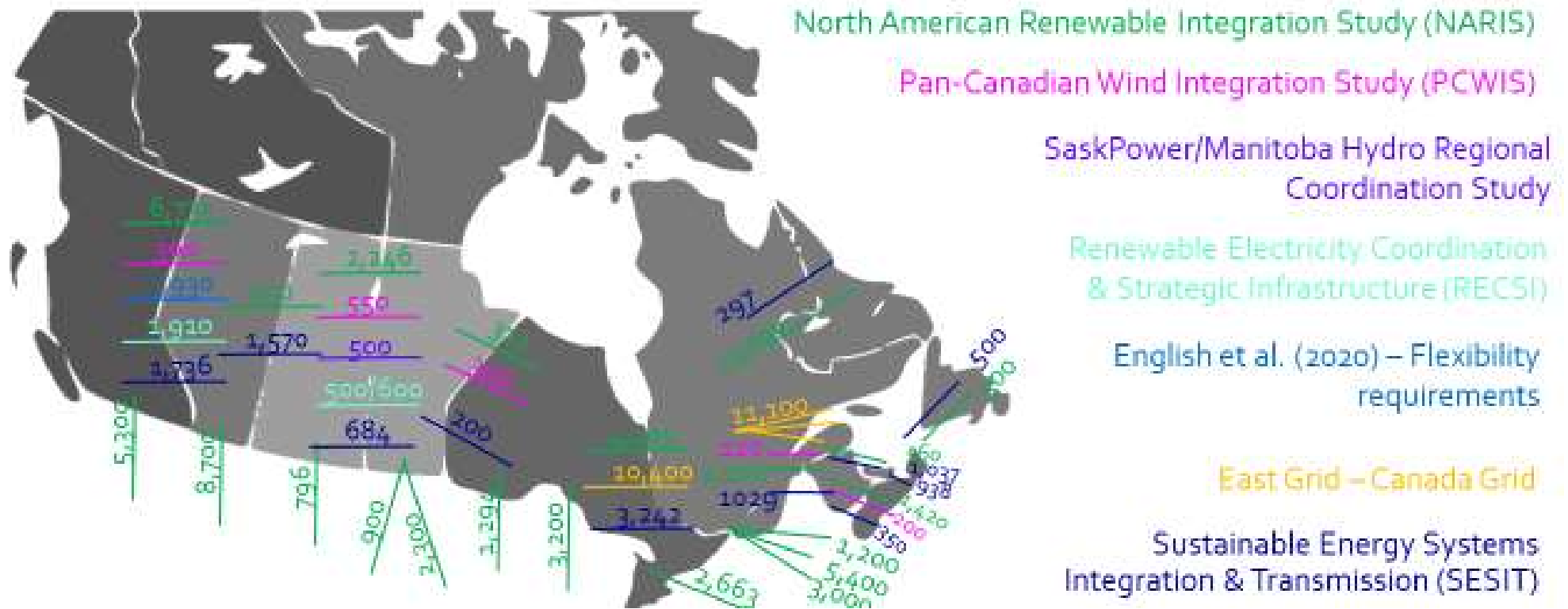
Benefits span several dimensions

And yet, transmission expansion is limited in Canada...
... why?

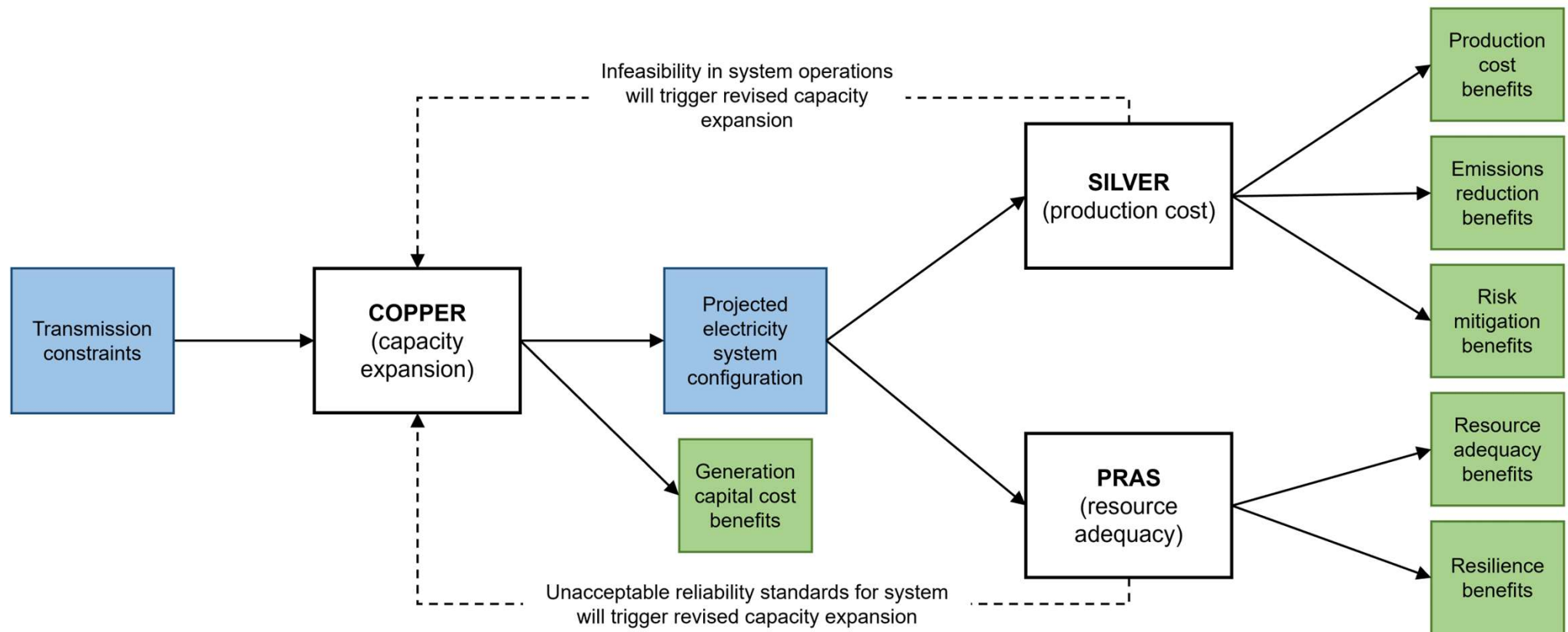
International case studies may provide some lessons

Moving forward...

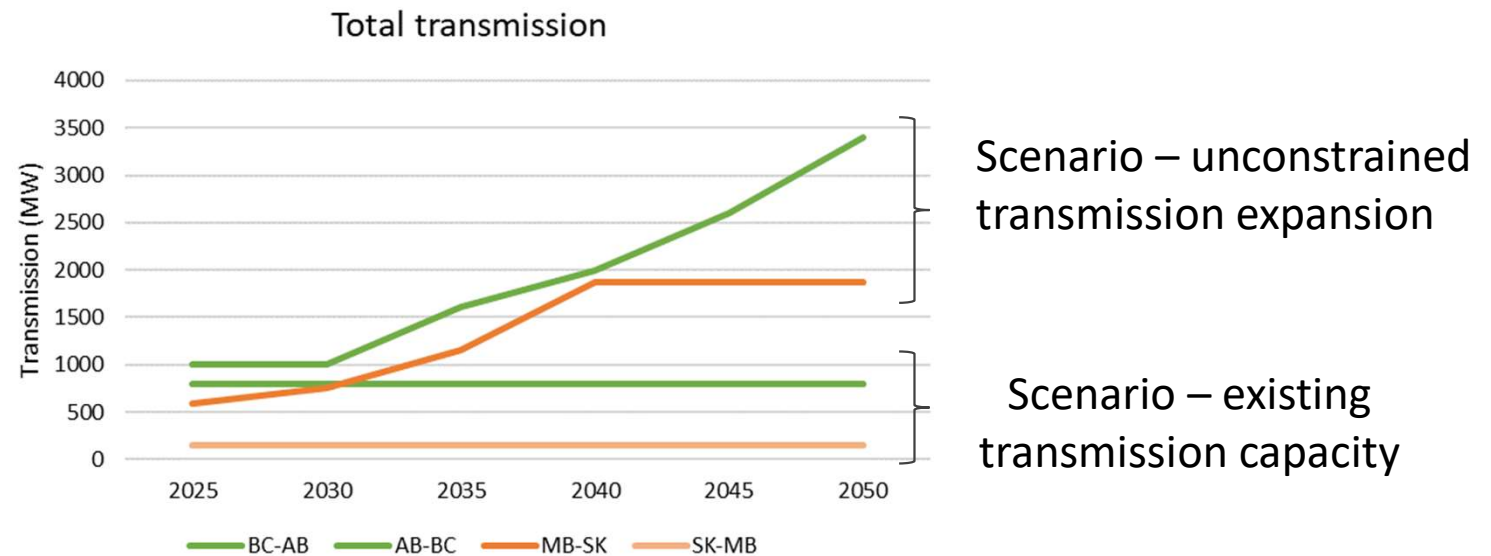
provincial transmission expansion projects ...



Expansion – multi-benefit analysis of transmission expansion



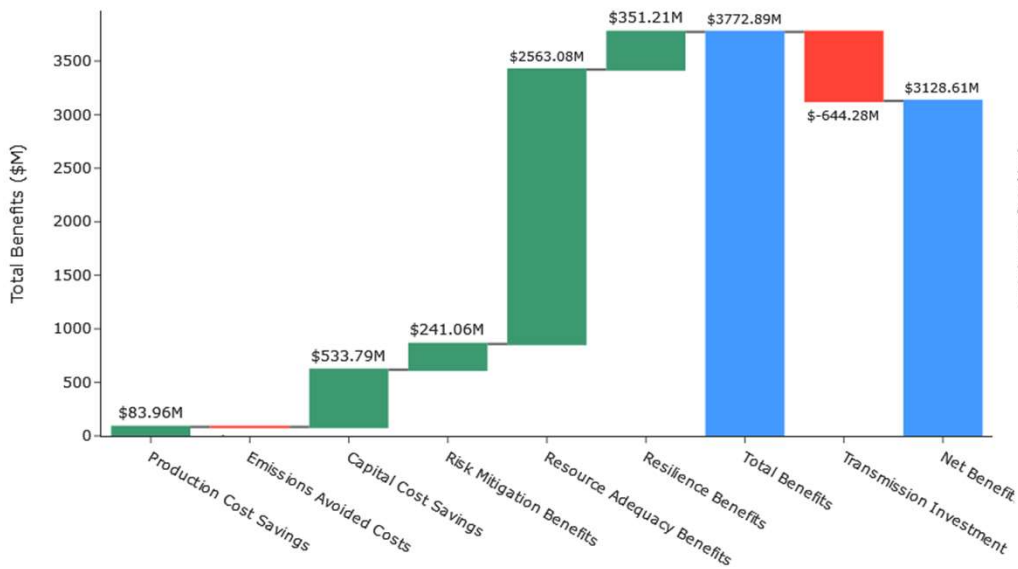
Transmission expansion BC-AB & SK-MB



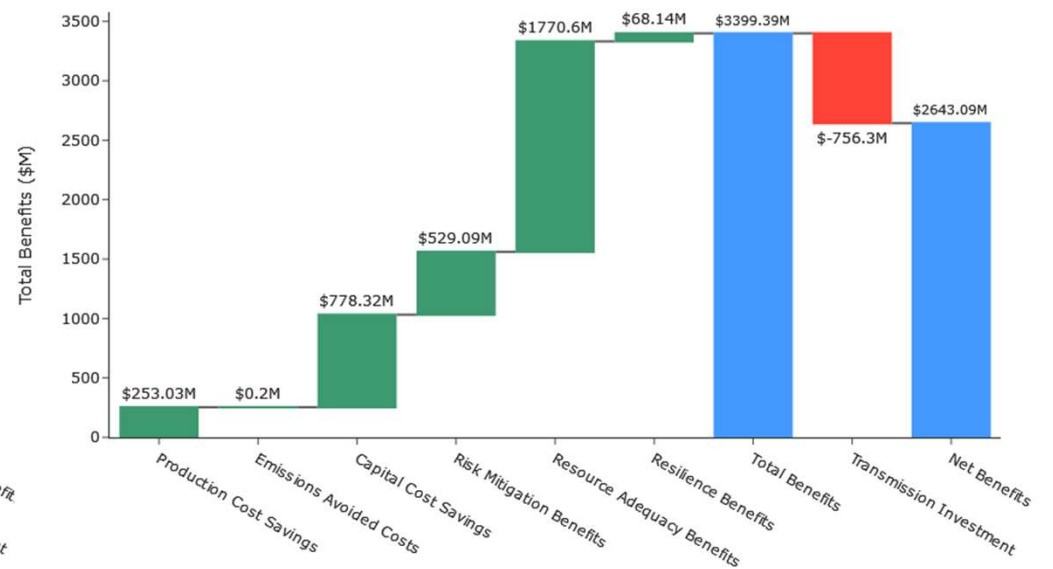
Transmission corridor	Expanded transmission capacity (MW)	Transmission investment (M\$)
BC-AB	2,395	\$644
MB-SK	1,472	\$756

Multi-benefit stacking

BC – AB Transmission Expansion



MB – SK Transmission Expansion



... any yet procurement is limited for a variety of reasons

Provincial jurisdiction over energy

- > revenues flow to provincial government
- > regulatory and market structure mismatch between provinces
- > economic barriers – can't access new customers in neighboring provinces
- > political barriers – local jobs; provincial rivalries; local accountability; provincial champions
 - federal action is seen as threatening independence and powers

Lack of leadership on power sector planning, including now decarbonization

- > lack of innovative culture within the regulators across Canada
- > lack of centralized discourse – lack of venue for a cohesive dialogue
 - >>> allow vested interests to dominate the conversation & maintain the status quo

Local concerns -NIMBY

Future work

- Embarking on a study - multi-country analysis
 - Planning – degree of centralization
 - Building – process (competitive tendering; do regulations favour incumbents)
 - Operation – access; competitiveness
 - Renumeration – market design; standardized rate of return
- Tease out lessons learned from structures that exist internationally that might be applicable to the Canadian context



Thank you

mmcpherson@uvic.ca