



December 19, 2025

From: Madeleine McPherson and Peter Fairley
To: Electrification Watchers
Re: IT'S LONG PAST TIME FOR A NATIONAL TRANSMISSION GRID

Manitoba joined an Ontario-led initiative to work towards a national electricity grid late last month, and called for all provinces and territories to sign on to their memorandum of understanding.

It's a welcome development given the enormous potential of stronger electricity connections between provinces to propel energy investment. As provinces build generation based on their own resources and needs, expanding interprovincial power links offers a true nation-building and cost-reducing opportunity that merits far more attention than the divisive bitumen pipeline proposal that dominated the energy agenda last month.

While transmission expressways run south, strongly plugging provincial grids into the regional power systems in the United States, the electrical equivalent of two-lane parkways interconnect the provinces. In reality, there is no Canadian power grid.

But here's the real rub: this country lacks all the mechanisms required to build one.

In fact, in Canada, we don't even think about the power grid at national scale. That makes us an outlier. Europe and Australia plan on a continental scale. Most planning in the United States occurs within regions spanning over a dozen states each.

Narrower thinking leaves our electricity systems more vulnerable to extreme weather, such as the storms that took down the Texas grid in 2021, and South Australia's in 2016. In both cases, weak interconnections were blamed. In Australia's case, the blackout spurred a new planning process to build bigger grids.

Lack of interconnections also makes our electricity bills higher. We're building more expensive generation because each province behaves like an island, rather than complementing its neighbours' natural endowments.

But we can develop a plan to change that. As laid out in a recent C.D. Howe Institute report, the keys are planning and governance. Canada needs a forum for provinces to co-ordinate planning on a regional or national level, and a process to help provinces work together to get projects built. This wouldn't replace provinces' authority – broader co-ordination can co-exist with provincial jurisdiction.

It's not that provinces can't connect on their own. That does happen when neighbouring provinces seize an opportunity of mutual benefit.

Recent examples include the Maritime Link between Newfoundland and Labrador and Nova Scotia – completed in 2016 – and the beefier connection New Brunswick and Nova Scotia are gearing up to start building next year.

But this ad-hoc process is slow, and lacks a sense of where each opportunity fits in the bigger picture. Given the pace at which energy systems are changing today, Canada needs a dedicated team that's using the best tools available to peer ahead and create a portfolio of projects to meet needs and opportunities of the system as a whole.

Recently, for the first time for a Canadian study, one of us applied the methodologies that are standard practice elsewhere, and looked at the full suite of benefits offered by a bigger grid – cutting operating costs and the price of building new generation to power Canada's future needs, sustaining grid reliability in a more extreme weather world, and cutting pollution.

When given free rein to find the lowest-cost pathway for our grid, the simulations tripled the electrical bandwidth between British Columbia and Alberta, and quintupled the capacity between Manitoba and Saskatchewan.

The variability of wind and solar power, and the opportunity to firm it up with British Columbia and Manitoba's abundant hydro drove the model to prescribe these links. By giving all western provinces access to hydro, each one could add better generation at lower cost. In our model, that yielded an estimated \$4 billion in net benefits by 2050.

The C.D. Howe paper lays out a blueprint for grid integration in Canada drawing on international best practices and detailed modelling of the power system.

We need new institutions: A Grid Planning Council to run national planning, following the lead of Australia and Europe; a Power Exchange to facilitate cross-border trades across the disparate provincial market structures; and a Grid Co-ordination Forum to harmonize regulations and foster innovation.

It's a no-brainer that provinces seeking to expand energy exports, lower costs, and meet climate goals should plan their power grids together. But making that happen will require a sharper national focus than offered in the 2025 budget.

Madeleine McPherson is associate professor at the University of Victoria, and Peter Fairley is an award-winning journalist who has covered global power systems for a quarter century. To send a comment or leave feedback, click [here](#).

The views expressed here are those of the authors. The C.D. Howe Institute does not take corporate positions on policy matters.

*A version of this Memo first **appeared** in The Hill Times.*