



Wind, water and wires: evaluating joint wind and interconnector capacity expansions in hydro-rich regions

EPRG Working Paper 2207

Cambridge Working Paper in Economics 2212

David Newbery

Abstract

Countries or regions with a high share of storage hydro and good renewables resources may be able to interconnect to less well-endowed neighbours. To maximise joint benefits, coordinating interconnector and renewables investment is desirable. Suitable long-term contracts ensure that beneficiaries pay and jointly cover the highly dispersed costs and benefits. The article develops a simple model calibrated for Tasmania that demonstrates how this can be quantified and various counterfactuals tested. The key to the simplification is that the value of water is both stable over time and the key driver of outcomes. The economic attraction of proposed wind and interconnector investment depends sensitively on the value placed on CO₂ reductions.

Keywords Hydro-storage, wind, interconnectors, carbon benefits

JEL Classification D47, D61; F18; H23; Q25, Q42

Contact
Publication

dmgn@cam.ac.uk
February 2022