Renewable energy scenario for Saskatchewan

This snapshot is based on “The renewable energy landscape in Canada: a spatial analysis,” Renewable & Sustainable Energy Reviews (2016), doi:10.1016/j.rser.2016.11.061. Our project assembles all sources of energy use into familiar household categories, and it identifies feasible sites for renewable energy generation across Canada. Contact: C. Barrington-Leigh, McGill University

As shown in below, Saskatchewan also has a high per-capita energy use, currently, but with strong wind resources and the possibility of extensive solar farming, its potential renewable portfolio greatly exceeds the demand. This may represent a significant opportunity to export energy to its relatively needy neighbour, Alberta. Once again, it is important to note that, if such export demand exists, there may be even more feasible solar farming than we have allocated.

The stack on the left shows the sum of all energy currently consumed, as both electricity and combustion, in Saskatchewan. On the right is a breakdown of available renewable energy resources.

For maps, methods, sources, and more detailed discussion, see our full paper. We do not carry out an economic analysis, but our criteria for generation siting relate also to economic feasibility. Overall, our analysis shows that all but two provinces in Canada have sufficient renewable energy potential to meet the entire current energy demand.