

Transmission Siting and Community Engagement

Suzanne Tegen

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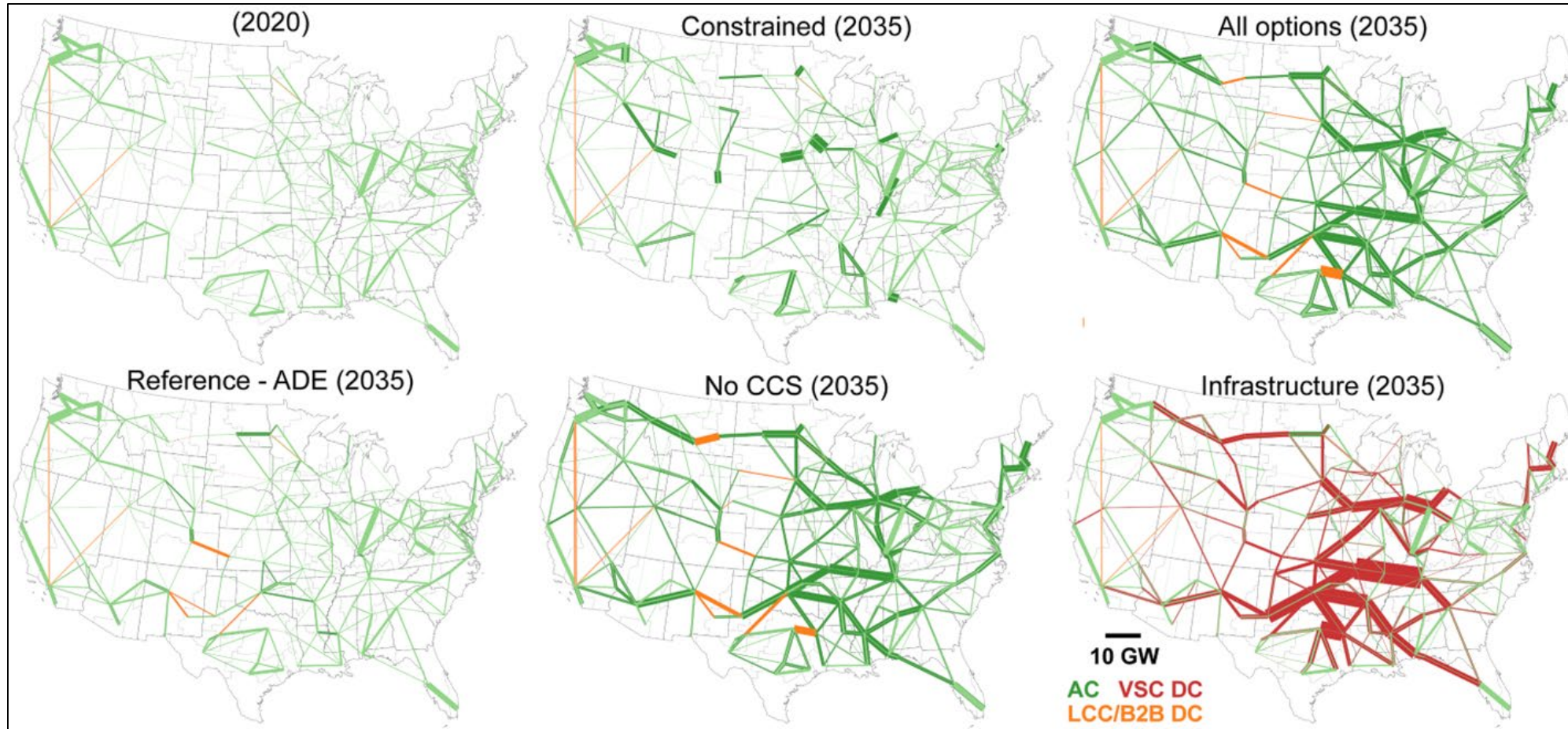


Solar and Wind Resources (NREL)



20% of US electric demand in Western Interconnect
6% of demand in ERCOT
72% of demand in Eastern Interconnect

The Energy Transition Requires New Clean Energy Generation – and Transmission

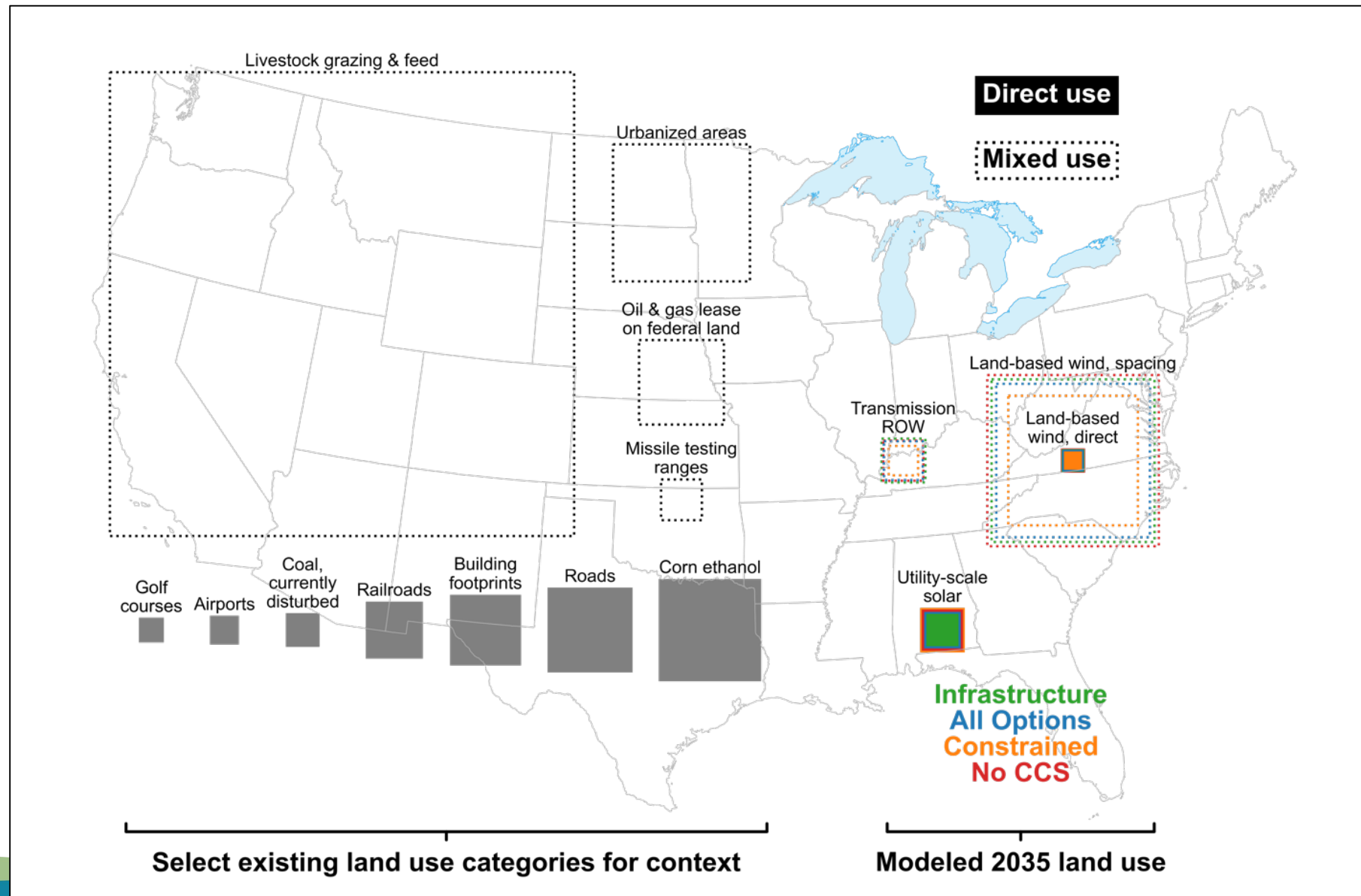


NREL Report: *Examining Supply-Side Options to Achieve 100% Clean Electricity by 2035*

Lead authors: P. Denholm, P. Brown, W. Cole, T. Mai, B. Sergi

Supporting Authors: M. Brown, P. Jadun, J. Ho, J. Mayernik, C. McMillan, R. Sreenath

Most of the impacted land area can be shared with other uses. Compare impacts with other land uses (NREL)




As we get closer to people, and other considerations, siting gets more challenging.



Involving Impacted Communities in Siting

- Require community involvement and a public outreach plan. Inclusion is intentional. Build trust.
- Have a neutral party (university, community college, someone trusted) provide information (need, cost, benefits) and plans so the community members feel included. How can you tell if this worked?
- Invite community comments and listen, early on (pre-scoping). Allow participants to have a say in routing or alternatives.
- Minimize impacts to assets communities value. Map their assets first; then do the routing.
- Community benefits help (electricity, broadband, payments, etc.).
- Utilize new state and federal funding (regional, rural, planning, etc.).

Sources: Mountain States Transmission Intertie (2012), Knudsen (2015), Ciupuliga and Cuppen (2013)



References compiled by Lisa Dilling

Mountain States Transmission Intertie project. 2012. www.MSTIreviewproject.org (collaboration between Craighead Institute, Headwaters Economics, Sonoran Institute, Western Environmental Law Center, Future West, and counties in Montana)

van de Grift, E., & Cuppen, E. (2022). Beyond the public in controversies: A systematic review on social opposition and renewable energy actors. *Energy Research & Social Science*, 91, 102749.

Tong Koecklin, M., Fitwi, D. Z., DeCarolus, J. F., & Curtis, J. A. (2020). *Renewable electricity generation and transmission network developments in light of public opposition: Insights from Ireland* (No. 653). ESRI Working Paper.

Mueller, C. E. (2020). Why do residents participate in high-voltage transmission line planning procedures? Findings from two power grid expansion regions in Germany. *Energy Policy*, 145, 111779.

Susskind, L., Chun, J., Gant, A., Hodgkins, C., Cohen, J., & Lohmar, S. (2022). Sources of opposition to renewable energy projects in the United States. *Energy Policy*, 165, 112922.

Koelman, M., Hartmann, T., & Spit, T. J. (2022). It's not all about the money—landowner motivation and high voltage grid development. *Journal of Environmental Policy & Planning*, 1-14.

Sovacool, B. K., Hess, D. J., Cantoni, R., Lee, D., Brisbois, M. C., Walnum, H. J., ... & Goel, S. (2022). Conflicted transitions: Exploring the actors, tactics, and outcomes of social opposition against energy infrastructure. *Global environmental change*, 73, 102473.
<https://www.sciencedirect.com/science/article/pii/S0959378022000115>

Cotton, M., & Devine-Wright, P. (2010). NIMBYism and community consultation in electricity transmission network planning. *Renewable energy and the public: From NIMBY to participation*, 115. Earthscan.

Thank You

Suzanne Tegen

Suzanne.tegen@colostate.edu

