

Interregional Transmission

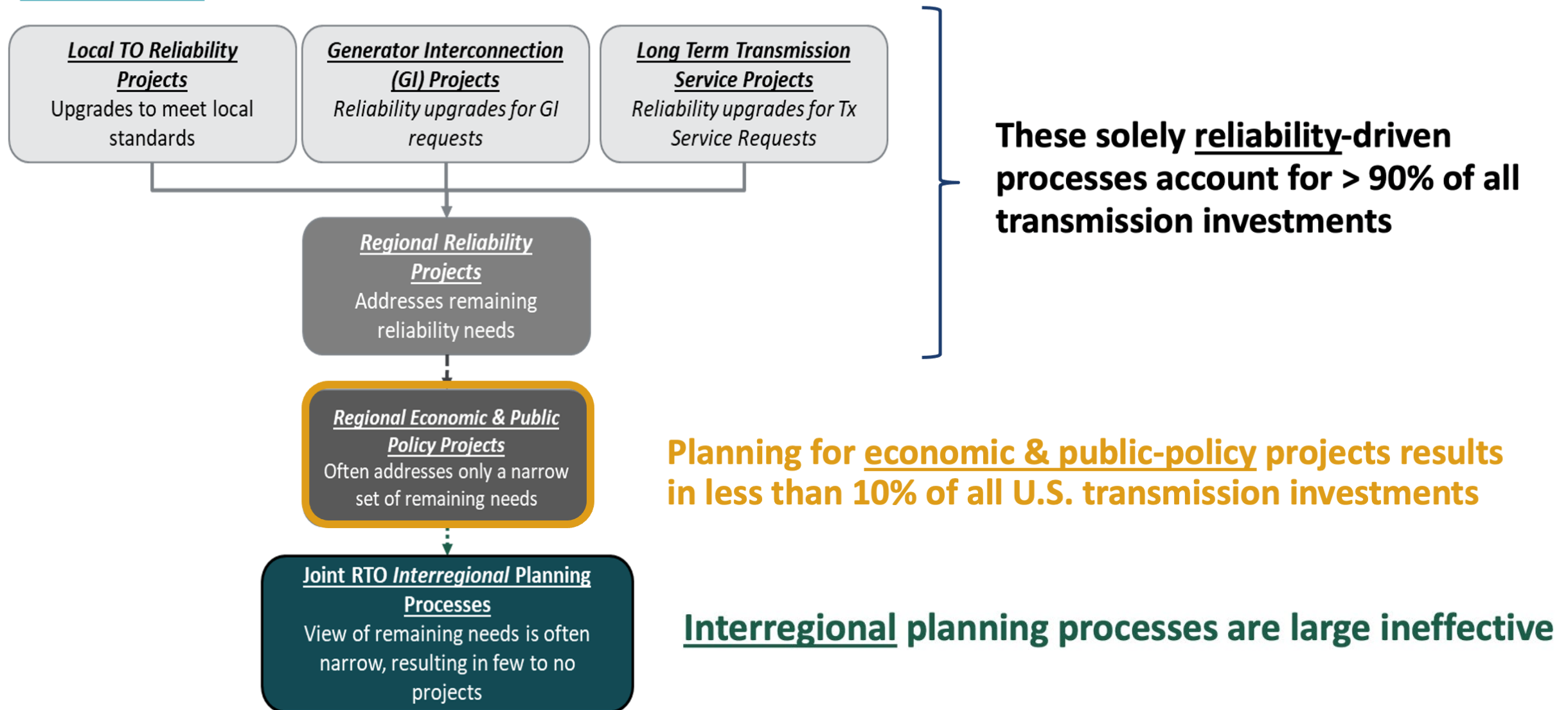
Debra Lew, Associate Director, ESIG

Spring Technical Workshop

March 28, 2023



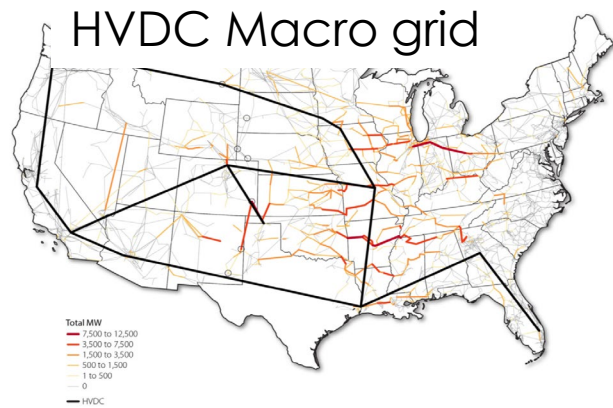
U.S. Transmission Needs are currently identified through ...



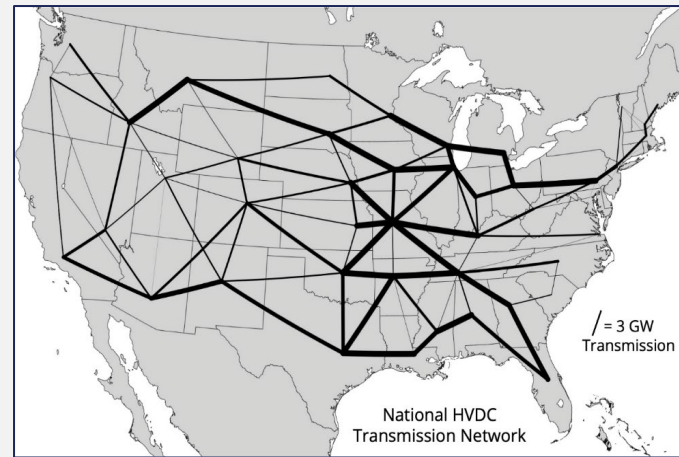
Need for large-scale interregional transmission to meet an affordable, reliable, clean future



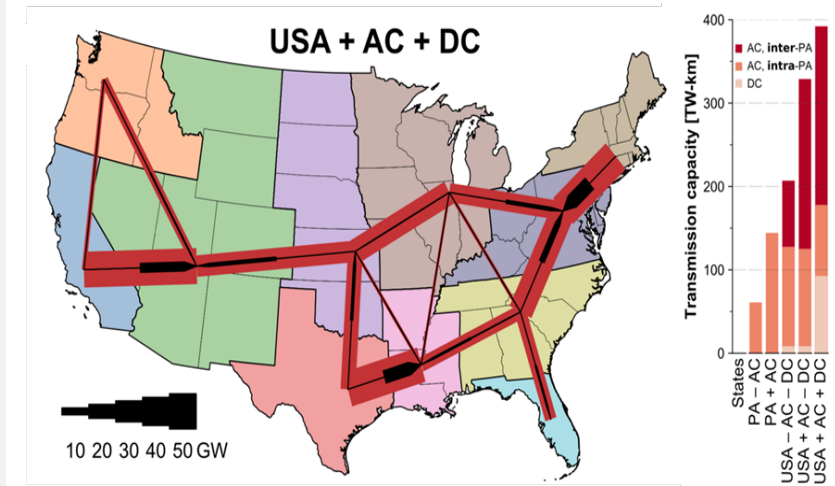
NREL Interconnection Seams Study



Vibrant Clean Energy ZeroByFifty

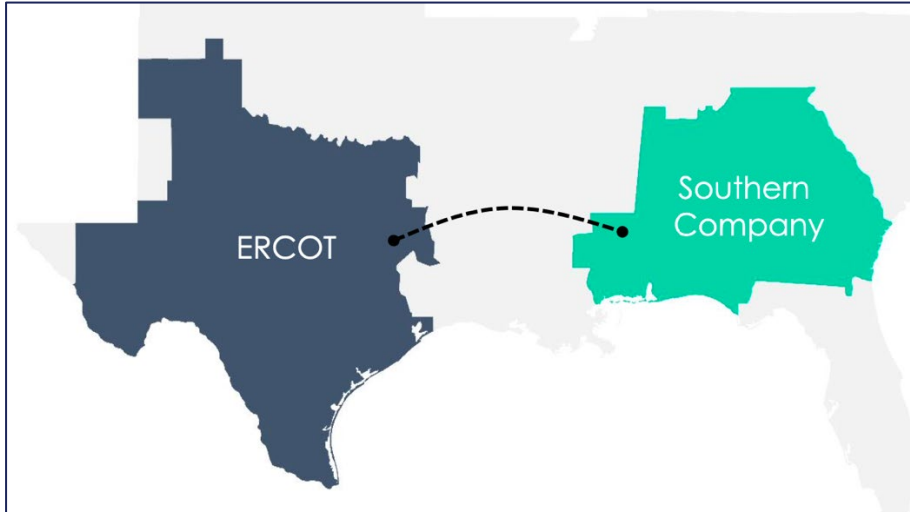


Brown & Botterud, MIT



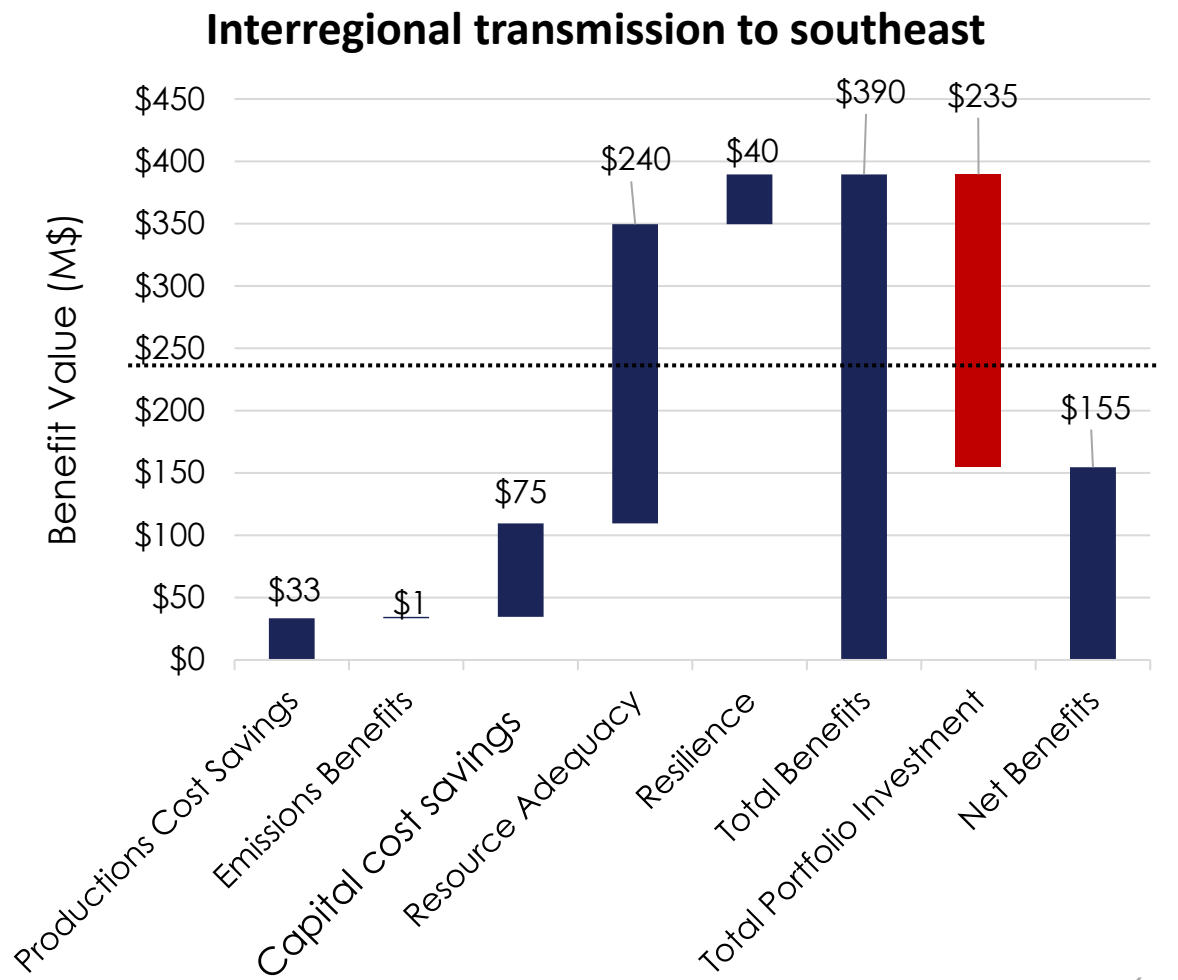
Figuroa Acevedo, et al, *Design and Valuation of High-Capacity HVDC Macrogrid Transmission for the Continental US*, IEEE Transactions on Power Systems, Vol 36, no 4, July 2021; VCE, see *Lew, et al, Transmission Planning for 100% Clean Electricity*, IEEE PES Magazine, Nov/Dec 2021; Brown and Botterud, "The Value of Inter-Regional Coordination and Transmission in Decarbonizing the US Electricity System," Joule 5, 1-20, Jan 20, 2021

Inter-regional transmission may provide different benefits from regional transmission

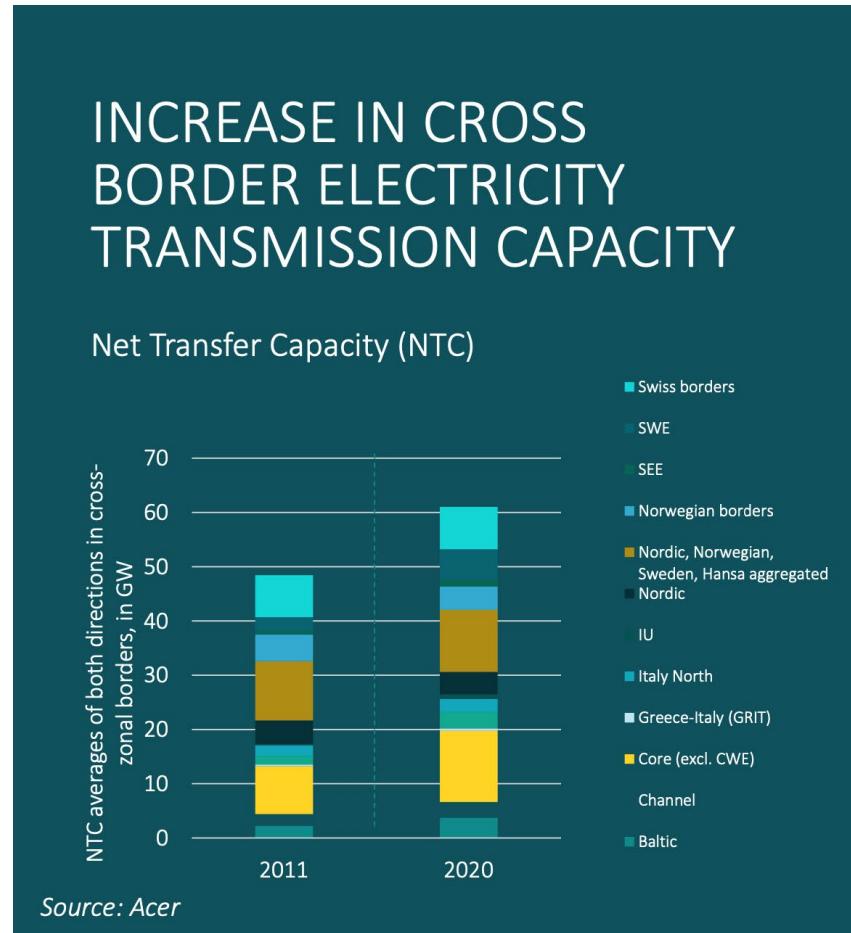
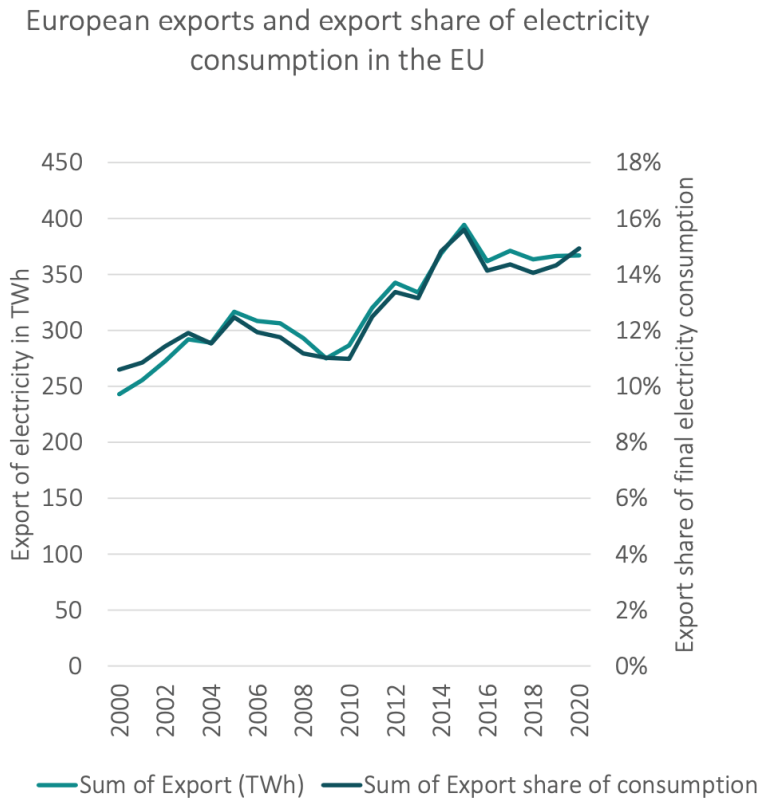


This 2 GW line improves resource adequacy similar to building 4 GW of new natural gas capacity!*

***Note that you would need some bilateral or market mechanism to monetize this benefit**



Meanwhile Europe has recognized the need and is building interregional transmission



ENERGINET

European Capacity Calculation Regions

