



VCE® Modeling Finds Expanding Transmission Across the Eastern US Facilitates a Least-Cost Transition to a Low Emission, High Job and Low Consumer Costs Electricity Sector

The highest benefits for the Eastern United States are when the electricity sector is decarbonized almost entirely by 2050. Storage, transmission, wind and solar work together to produce 6 million new jobs and reduces the average electricity bill by over \$300 per year.

Boulder, CO, October 28th, 2020 – A new study (Consumer, Employment, and Environmental Benefits of Electricity Transmission Expansion in the Eastern United States) released by the Americans for a Clean Energy Grid (ACEG), Grid Strategies and VCE®, finds that by enabling more transmission across the Eastern US, there could be an almost entirely decarbonized electricity sector that employs 6 million more Americans and saves over \$100 billion by 2050. Further, the average electricity bill would be reduced by over \$300 per year.

The modeling, prepared by Vibrant Clean Energy LLC, finds that the Eastern US can be supported reliably with over 80% wind and solar generation. These low-emission, low-cost electricity generators are supported by both storage and transmission. The transmission allows for geographic diversity, while the storage provides the temporal diversity. Together, the storage and transmission provide much of the back-up for the wind and solar needed because of their variability.

According to Dr Christopher Clack, CEO of VCE®, “Transmission infrastructure is essential for the future of the Eastern US electricity system. To unlock a lower cost, more reliable, more efficient system more spending needs to flow to transmission; this, in turn, will unleash strong GDP growth, higher employment and cleaner air and water for all. This study confirms that for relatively little investment, transmission can dramatically change the future of electricity in the Eastern US for the better.”

The modeling used nationally recognized economic inputs as well as bespoke inputs from the National Renewable Energy Laboratory¹. The study utilized the VCE® WIS:dom®-P optimization software to evolve the Eastern US from 2020 through 2050. It combines production cost and capacity expansion to ensure power is supplied everywhere for every 5-minute interval without fail.

About Vibrant Clean Energy: A nationally recognized energy grid modeling firm based in Boulder, Colorado. VCE® creates computer optimization software to study pathways for energy systems futures. It also performs studies using WIS:dom® to provide expertise in new arenas of electrification, decarbonization and variable resources. The mission of VCE® is to help facilitate universal, sustainable, and cheap energy for everyone. To learn more about VCE®, please visit vibrantcleanenergy.com.

Media Contact: Sarah McKee (DOO Vibrant Clean Energy LLC), sarah@vibrantcleanenergy.com

This press release can be downloaded:

<https://www.vibrantcleanenergy.com/wp-content/uploads/2020/10/EIC-Transmission-Decarb-PressRelease.pdf>

The study report can be downloaded:

<https://www.vibrantcleanenergy.com/wp-content/uploads/2020/10/EIC-Transmission-Decarb.pdf>

The WIS:dom®-P model output spreadsheets can be downloaded:

<https://www.vibrantcleanenergy.com/wp-content/uploads/2020/10/EIC-Transmission-Decarb-Spreadsheets.zip>

¹ NREL ATB 2019: <https://atb.nrel.gov/electricity/2019/>