EVERYTHING'S BIGGER IN TEXAS: EVALUATING THE SUCCESS AND OUTLOOK OF THE COMPETITIVE RENEWABLE ENERGY ZONE LEGISLATION IN TEXAS

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ABSTRACT

Aging grid infrastructure and the inability to find a pathway for new infrastructure development is crippling the rising renewable energy market. As our economy moves towards supplying a larger portion of electricity generation with renewable resources, the need for updates to our national grid are more pronounced than ever. Our current grid and regulatory regime were designed for power generation located near load centers. Renewable resources vary dramatically based on geographic location and require investment in long distance transmission to deliver the lowest-cost resource to the load centers. There is a direct conflict between? the development timeline for transmission and that for generation. Generation development only requires a few years, while transmission can drag on for a decade. The state of Texas, with a directive from their legislature, sought to create a solution to this mismatch. The legislation that followed created the Competitive Renewable Energy Zones (CREZ) and transformed Texas into a global leader in wind energy production.

This paper examines the roles of various factors during the CREZ legislation in Texas and the possibility of replicating this process, in its entirety or in part, at the national level. Using the 'STEP' (Social, Technological, Economic, and Political) analysis, data was collected to compare the role each of the four distinct factors played in the success of CREZ. Texas is a unique case study, being outside the jurisdiction of FERC and the FPA, allowing it to implement progressive and timely legislation. If renewable generation is to become a significant portion of the electric generating mix, the United States must learn from Texas.

This paper focuses on several key factors found to have paved the way for the success of the CREZ process. These factors are the legislative directive given to the PUCT that allowed for significant resources to be directed at creating a solution in a cost and time efficient manner, the unique cost-allocation scheme, and the competitive nature of the ERCOT market. Given this information, it appears as though an overhaul of federal transmission siting is needed, something that more closely resembles the process for natural gas pipelines. The generation of electricity is undergoing a fundamental shift, and our legislative and regulatory regimes must adapt accordingly.

Outside the scope of this paper, the author calls for further analyses of a potential expansion of the CREZ lines to accommodate for growing solar resources coming online in the Texas market.

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