



MEMORANDUM

To: Matt Welch, State Director - Conservative Texans for Energy Innovation
From: Joshua Rhodes, PhD - IdeaSmiths LLC
Date: March 23, 2023
Re: Update on wholesale market cost savings attributable to Texas renewables

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This memo serves to provide an update to a [recent report](#) entitled “The Impact of Renewables in ERCOT” published by IdeaSmiths in October of 2022. The report quantified the impact of renewables in ERCOT on wholesale clearing prices and avoided fuel costs, water use, and emissions by comparing how the market would have performed with and without wind and solar from 2010 to August 2022.

While the report is currently being updated in its entirety, this memo provides a snapshot of the wholesale market savings associated with renewables in ERCOT from 2010 to 2022. Figure 1 shows an updated version of the same figure from the earlier report, and contains full data for all of 2022.

Annual wholesale electricity cost reductions from renewables in ERCOT

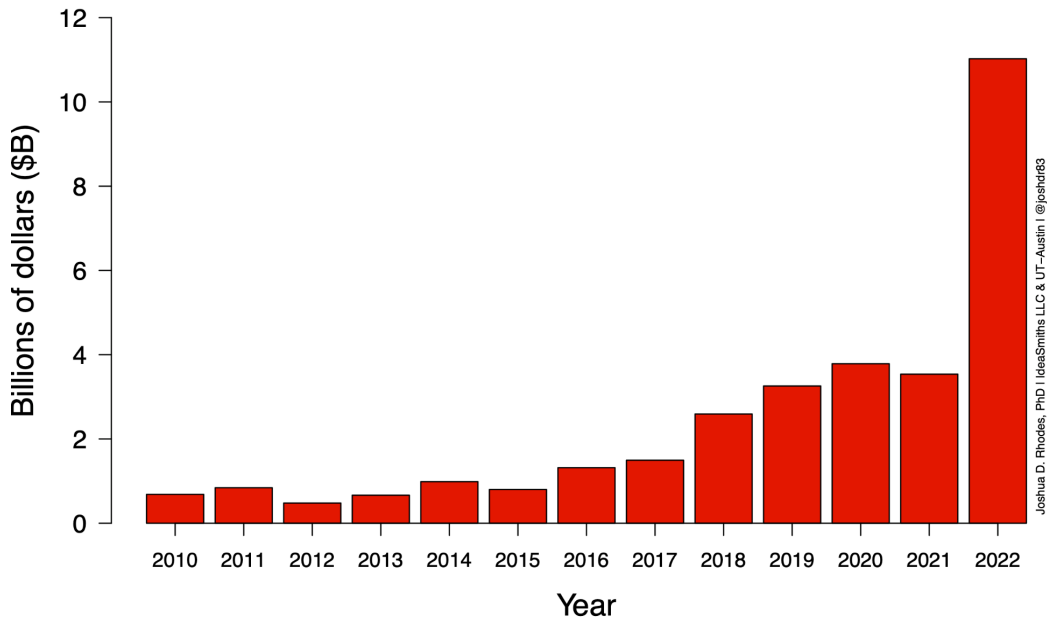


Figure 1: The estimated total annual reduction in ERCOT wholesale market costs due to wind and solar was approximately 1 to 11 billion dollars. Savings in 2022 are much higher than in previous years due to both historically higher natural gas and coal fuel costs as well as more renewables on the system.

The analysis indicates that the widespread adoption of renewables reduced wholesale electricity costs by about \$31.5 billion between 2010 and 2022, saving consumers significantly from what they might otherwise have had to pay. Due to high fuel prices and growth, about one-third of those savings were realized in 2022 as renewables reduced ERCOT wholesale electricity market costs by just over \$11B (\$920m per month).