Gradyhillhouse. (2021, March 23). What really happened during the texas power grid outage? Retrieved March 27, 2021, from <https://www.youtube.com/watch?v=08mwXICY4JM&t=143s>

Practical Engineering gives an in-depth explanation of the Texas Power Grid structure and unstable frequency shifts which cause blackouts in this YouTube video. This is a very informative video which gives us a nuts and bolts understanding of the Texas power outage and the systems surrounding Texas power generation. He goes on to outline the facts on the February 2021 blackouts. Even though the power generators were preparing for bad weather a week in advance, disastrous 7-day blackouts still came. Texas hit an all-time-high power demand of 70,000 kW. Hillhouse lays out details on Texas generation entities and how hundreds of problems added up to contribute to the event. The lack of backup resources caused ERCOT to “shed load” as the frequency fell below 59.4 hertz which is the threshold of power generation stability. ERCOT scrambled to prevent a complete collapse and a black start event. The price model of wholesale electric generators is discussed in detail concerning supply and demand effect on price.

Grady Hillhouse is the author and founder of Practical Engineering a website dedicated to explaining how things work. Hillhouse is a professional civil engineer, and educational video producer in San Antonio, Texas.