ERCOT Reliability: Systematic Unpreparedness

Part 2: Should ERCOT's Winners Contribute a Share of their Winnings to the Victims?

Larry Kellerman and Robert McCullough

Houston residents waiting in line for water

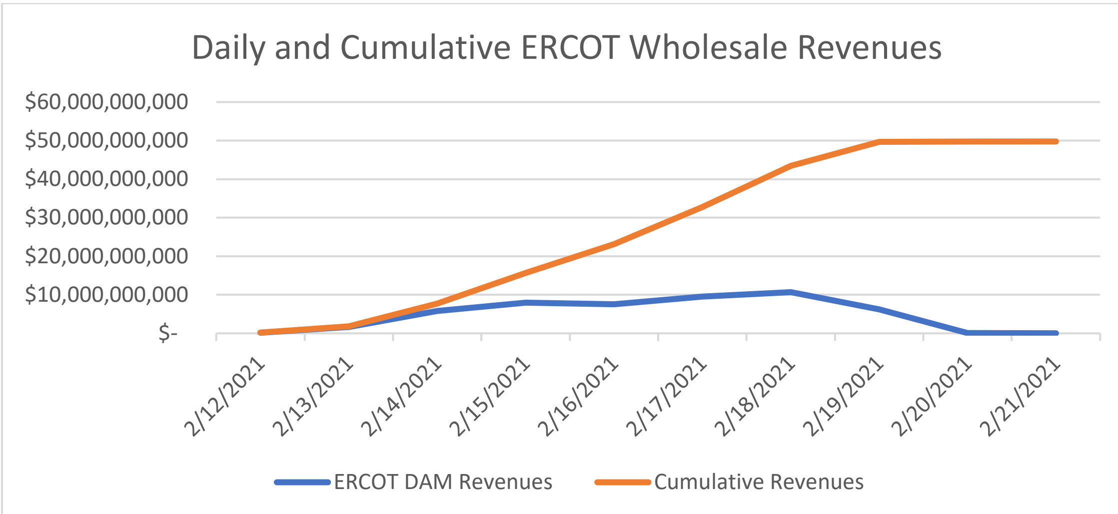
Last week, we published a brief white paper that pointed to a combination of regulatory abstinence and a region-specific lack of prudent capital investments in conventional, relatively modest cost weatherization assets, along with an artificially constructed market mechanism that rewards the occurrence of shortages rather than their durable resolution.

The ERCOT revenues were $50 billion last week. For a vertically integrated generator, the impact on ultimate consumers is mitigated by the fact that ERCOT's revenues would be paid back to the generator -- they are effectively purchasing their own energy. Their cost exposure would be limited to increased fuel costs over this period. Depending on the ultimate consumer's retail contract, the consumer might be paying a portion based on ERCOT wholesale prices, a fixed rate, or a rate reflecting fuel costs. The data on specific contracts is not readily available. For the two hundred retailers in the ERCOT wholesale market, some will be purchasing energy at the market rate. They will also have a portfolio of contracts with ultimate consumers. Depending on the terms and conditions of the contracts, their exposure of the $50 billion will be shared between the retailer and the consumer. For retailers who have hedged their wholesale purchases in the forward market at exchanges like the Chicago Mercantile Exchange (CME) and the Intercontinental Exchange (ICE), a significant amount of damage will be borne by third parties who gambled that their market expertise would protect them against events like last week.

In 2003/2004 when similar, though less catastrophic, events occurred that resulted in a number of retailers entering bankruptcy. This is likely in this case. Consumers with exposure to wholesale power costs or fuel costs may also have significant problems. Griddy customers, for example, may well have to choose between food, rent, and paying their Griddy bill.

Profits on the other hand will approximate $50 billion with some exceptions. Vertically integrated suppliers who cannot pass the wholesale prices on to consumers will not see a profit. Merchant generators who sell their generation on a spot basis will see a profit. Natural gas suppliers who sell their natural gas on a spot or indexed basis will also see a profit. Speculators who purchased electricity or gas for delivery during last week will also show a profit -- even those who only have financial settlements where no actual electricity or natural gas was delivered.

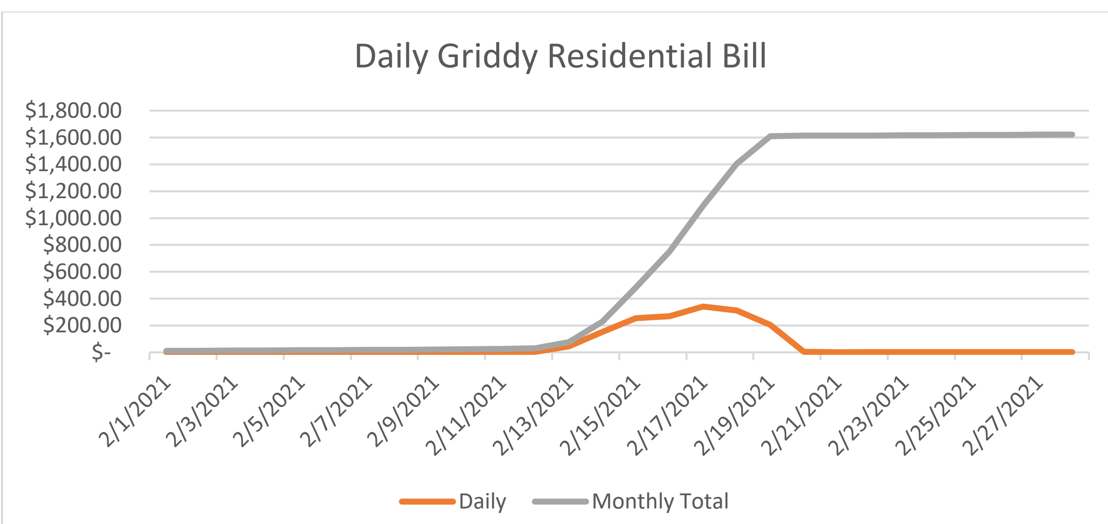
Given the level of concentration in the ERCOT market, it is possible that one market participant could theoretically record up to $10 billion dollars in profit from one week. However, since their portfolio of both commodity fuel and sales contracts is unknown at this time, this is simply an outside estimate.



Evidence of winners and losers are slowly emerging as a result of financial reports and the ERCOT payments schedule. Exelon has revealed losses of over $500 million in ERCOT to the press and in SEC filings. Griddy, failed to pay one day's ERCOT costs, but has subsequently submitted payment. ERCOT officials predict that other market participants will face similar pressures. This, in turn, creates a domino effect where payment delays affect downstream counterparties.

Determination of who are winners and who are losers is likely to require more data. ERCOT's markets are not transparent and much of the data is restricted for substantial periods. In previous ERCOT market failures, intervention of the courts was required to gain access to the underlying data.

It is possible to see the impact on an average Griddy customer during this period. Griddy offered a simple product. For $9.99 a month, the retail customer would be charged the going market rate at ERCOT. As the going market rate reached $9/kWh, the daily cost to the consumer surged into more than $300:



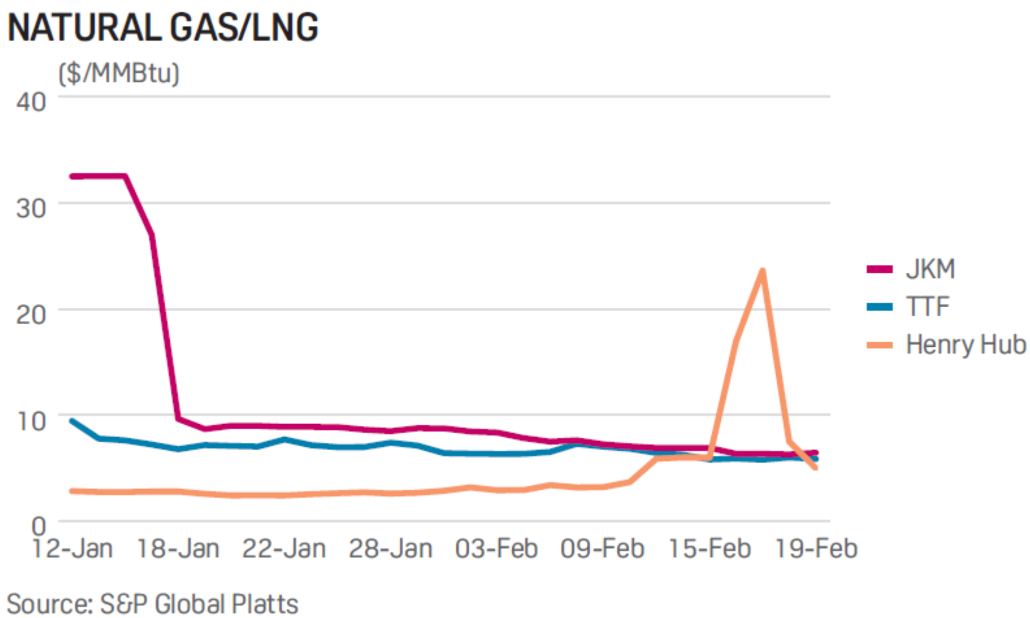
In February, the average Griddy customer may be expected to pay $1,600 for electricity. This would be a shock to the average household – exceeding the planned stimulus check from the Biden administration.

To make things worse, Texas does not have a state income tax. None of the windfall will appear in the coffers of Texas governments who will be spending scarce dollars to care for hungry and homeless victims.

Windfalls and damages were not restricted to Texas, however.

Yesterday, FERC announced that they were opening an investigation into last week's events.

The most logical scenario for FERC's attention is Henry Hub:



In the archetype of market manipulation across multiple trading hubs, Enron filed false schedules in California in 1999 to allow profit taking in transactions in neighboring states. The gambit was called "Silver Peak" and failed to be discovered within California since the California ISO does not consider implications outside its footprint.

Henry Hub, the pricing point for natural gas prices across North America is the continent's largest market. Forward trades on ICE or CME that hedged Henry Hub during the winter storm were spectacularly profitable. Unfortunately, Henry Hub forward trades are not public, since the CFTC does not require public reporting forward markets -- even though physical trades are public at FERC.

If a trader was in position to accentuate a natural gas shortage in Texas, this would be a "perfect crime" since the rule that "what happens in Texas stays in Texas" would be outside the jurisdiction of Texas authorities since the forward trade is in Louisiana and underlying Texas physical data would not be available to FERC and the CFTC.

Thus, profits from the Texas rolling blackouts might well extend beyond Texas.

The purpose of this brief follow-on paper is to suggest, for thoughtful policy consideration by the people of Texas, a one-time economic proposition to help provide funding for a modicum of relief to the segments of Texas society who have suffered most from the recent blackouts. The purpose of our proposal is neither to place blame nor to be punitive to those market participants who, in fact, should be rewarded because they were up and running under conditions where their less prepared, less capable or sometimes just less fortunate industry peers were unable to deliver. In particular, we have heard a number of examples from our Texas industry associates of true heroism on the part of energy employees who voluntarily spent countless hours in the open, exposed extremities of thermal and renewable power plants, transmission and distribution substations and critical circuits and fuel compression stations. These heroes went far beyond the call of duty to protect the system's mission-critical assets as our first line of defense against what, without their dedication, could have been a materially worse outcome than was experienced.

The owners of the assets that were able to remain online and provide service to Texas deserve to be rewarded. In light of the value that was distributed to market participants in less than a week of service, and in light of the pain and suffering both socially and economically that has been endured by the State's populace, we believe that society as a whole deserves a cut of the windfall profits.

Let's put some context around this $50 billion in wholesale market value cleared for a one-week timeframe. Remember, this was a week during which significant rolling blackouts caused by generation forced outages resulted in a volume of megawatt-hours, and thus the economic value of power cleared through ERCOT, being significantly lower than what it would have been under normal operating conditions. $50 billion is slightly more than either the total volume of power cleared by ERCOT in all of 2020. And all of 2019. And all of 2018. All of those three years, added together in terms of total market value of power cleared was under $50 billion in total. The participants in the ERCOT power market cleared a market value of energy in one societally devastating week than they did in the prior 3 years.

It is highly unclear at this moment how much of that $50 billion in market clearing prices reflects profit margin, and even less clear into whose pockets that profit margin has landed. Many if not most of the generators who were operating had likely hedged their generation output via tolls, heat rate call options or other risk mitigating hedging instruments, passing along the potential upside not to themselves, but to trade floors, commodity hedge funds or other third parties. Those trade floors and hedge counterparties could have offloaded or risk-managed their positions via insurance products and derivatives, or via knock-on hedging products to retail energy providers operating in the ERCOT retail marketplace. And some generators using natural gas could have, in turn, been reliant on the spot market for natural gas commodity, whose prices also spiked during the week that was, resulting in unusually high revenues for certain fuel providers. And to make the sleuth work even more complicated, the largest generators within ERCOT, who are Vistra, NRG and Calpine, also own Retail Energy Providers within the state, and used at minimum a large fraction of their own wholesale generation to self-supply their retail customers who are supplied under fixed priced retail contracts.

So, it's complicated and the $50 billion in market clearing prices does not translate into nearly that much "profit margin" when all of the interconnecting economic pieces of the puzzle are taken into consideration. But what is clear is that certain market participants undoubtedly and in aggregate were able to generate multiple billions, at minimum, of windfall profits during the ERCOT week of desperation. And where there are windfalls, it is within an appropriate public policy discourse to consider a windfall profits tax.

According to Investopedia, a windfall profits tax is defined as follows:

> *A windfall tax is a tax levied by governments against certain industries when economic conditions allow those industries to experience above-average profits. Windfall taxes are primarily levied on companies in the targeted industry that have benefited the most from the economic windfall, most often commodity-based businesses.*

We have an industry, in the broadest sense of the term inclusive not only of the owners of physical generation assets but also commodity trade floors, hedge funds, fuel suppliers and owners of fuel and power logistics/transmission assets, that has experienced temporary, well above-average profits. This is an industry, in the limited geography of ERCOT and for the limited duration of one week of pure hell that its residents have experienced, where a windfall profits tax could reasonably apply.

The Investopedia definition further identifies the classic use for such a tax:

> *The purpose is to redistribute excess profits in one area for the greater social good; however, this can be a contentious ideal.*

If there were ever a time or place calling out for the need for economic help in the name of a greater social good, the time is now and the place is Texas, or specifically those parts of Texas unfortunate enough to be within the ERCOT footprint during a week they will long remember. A realistic amount of embedded real profit out of the $50 billion in that week's energy clearing prices could approach $10 billion, and with a realistic windfall profits tax of say 25% could generate $2.5 billion of revenue that would be needed and welcome by the less fortunate residents of Texas most in need of a helping hand to pay for heat, repair the storm's damage and recover some of their lost income.

And yes, referring the Investopedia statement that such a tax represents a contentious ideal, the ideal being espoused and the political discourse around it will be contentious, to say the least. We are arguing, as people who grew up in the electric power industry and have spent our careers embracing and striving for positive change in the industry we know and love, not for any given outcome associated with a windfall profits tax, but only for that discourse to take place.

The venue for that discourse is rightfully within the Lone Star State, and the decision around it should be made not only in the marble-lined corridors of political power in Austin, but in Houston, Dallas, San Antonio and every big city and small town that has suffered through a level of energy distress that should have never taken place in the nation's most energy-rich, energy-intelligent state. It is an idea at very minimum worth serious dialogue – a one-off idea to address what we all hope to be the last of these recurring winter one-off events in ERCOT.

This article represents solely the views of the authors and does not reflect the views of any other person or entity.

Larry Kellerman is Managing Director of I Squared Capital.

Robert McCullough is principal of McCullough Research in Portland, Ore., and advises governments, utilities and Aboriginal groups from California to Quebec on energy issues

Photo attribution: Jason Fochtman/Staff photographer for The Conroe Courier, an edition of The Houston Chronicle