

## The Honorable Diana DeGette (D-CO)

1. In your March 24, 2021 testimony before the Subcommittee, you stated that “[a]ny issues of frozen equipment or delays in process restoration could have been avoided had the production facilities not been shut down by power outages.” However, it has been reported by the Texas Tribune that at least several natural gas producers and operators experienced frozen equipment from the winter weather separate from the power outages, as suggested in their air emission event reports to the Texas Commission on Environmental Quality during the winter storm.
  - a. Has the Railroad Commission investigated, evaluated, or analyzed the extent to which wellhead or other production operations were affected by freezing equipment that was not primarily or directly related to any power outages? If so, please summarize any such results or findings.

No, we have not conducted an assessment for producing wells. We did perform a survey of injection well operators to gauge operational status. That survey indicated:

    - i. 191 responses
    - ii. 114 wells (60%) were non-operational
    - iii. 109 (82% of non-operational wells) were non-operational due to no power
    - iv. 9 (7% of non-operational wells) were non-operational due to frozen equipment
  - b. Did the Railroad Commission receive any complaints about frozen transmission infrastructure during February’s extreme winter event?

The Commission did not receive any reports of frozen natural gas transmission infrastructure during the extreme winter event.
2. According to reports from the *New York Times*, as power plants went offline and frozen pipelines were unable to transport natural gas, oil and gas producers burned off an estimated 1.6 billion cubic feet of natural gas in a single day, nearly a fivefold increase from before the event.
  - a. Does the Railroad Commission measure or track carbon dioxide and methane emissions from the flaring, venting or leakage of natural gas during extreme weather events? If so, what methodology or technology does the Railroad Commission use?

The RRC does not track emissions caused by weather-related events. Operators do identify the amount of natural gas that is vented or flared on their monthly production reports; the volumes reported as flared or vented are for natural gas and are not speciated to individual chemical constituents (i.e., methane, carbon dioxide, etc.).
  - b. During normal operations, what measures are being considered by the Railroad Commission to better incentivize the capture and usage of natural gas by operators, specifically oil producers, in Texas?

Over the last year RRC has revised its application process and systems to its flare/vent program. These revisions are allowing RRC to (1) apply greater scrutiny to individual applications for exceptions to flare gas under current rules, (2) gather more granular information to identify the root causes of the need to flare or vent, (3) provide a more efficient and accurate means of assessing compliance, and (4) provide incentives to operators to reduce flare/vent. For the last two years the Commission has seen a consistent downward trend in the amount of gas flared/vented in Texas. In January 2019, 5.42% of casinghead gas produced in Texas was flared or vented. By January 2020, before the pandemic, that number had declined to 3.00%; by January 2021, 1.35% of casinghead gas produced in Texas was flared or vented. When gas wells are included in the calculation with oil wells, more than 99% of all natural gas is used for beneficial purposes statewide.

- c. Does the Railroad Commission coordinate with science agencies (i.e., the National Oceanic and Atmospheric Administration) or other types of entities to better understand and mitigate flaring, venting, and leakage of natural gas in times of extreme weather events? If so, please explain.  
Not formally. EDF has briefed us on their flaring studies in the Permian, and we have had conversations with researchers at UT who are studying flaring (e.g., helping UT staff understand RRC's data so they can use it for their research purposes).

3. You have indicated that there was a lack of effective coordination and communication between the Railroad Commission and the Electric Reliability Council of Texas (ERCOT) regarding natural gas during winter weather events. For example, at a hearing before the Texas legislature you stated there was “a lack of communication from ERCOT” and that ERCOT “didn’t understand that they needed a continuous gas flow to be able to put gas into power plants.”<sup>1</sup> And in your March 24, 2021 testimony before the Subcommittee, you stated that the Railroad Commission had not been involved with ERCOT’s planning around natural gas during winter weather events.

- a. Why did the Railroad Commission not take steps to proactively coordinate with ERCOT on winter weather planning?  
The Railroad Commission has primary regulatory jurisdiction over oil and natural gas production, pipelines, natural gas utilities, alternative fuels such as propane, and coal and uranium mining activity. The Railroad Commission does not have regulatory jurisdiction over electricity. ERCOT is regulated by the Public Utility Commission (PUC). PUC first contacted the Railroad Commission on February 11 and requested assistance in natural gas curtailment. The Railroad Commission issued an emergency curtailment order the next day on Friday before the storm.

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<sup>1</sup> *At Texas Capitol Hearing, Oncor CEO Explains Whose Lights Stayed On & Why Outages Lasted Longer Than Intended*, CBSN Dallas-Fort Worth (Feb. 26, 2021).

- b. Following the extreme winter weather event of 2021, what steps, if any, has the Railroad Commission taken to improve communication and coordination with ERCOT, particularly during extreme weather events?

The Railroad Commission had distributed ERCOT's critical load designation application to operators and encouraged them to submit the application following the prescribed process of direct communication with their respective electric service provider. Additionally, the agency has worked with the legislature to provide solutions to the communication gaps with ERCOT by formalizing the Texas Energy Reliability Council and updating the agency's emergency natural gas curtailment order to reflect current needs.

**The Honorable Michael C. Burgess, M.D. (R-TX)**

1. What caused the natural gas supply to constrict during the week of February 15, 2021?  
Based on reporting from EIA, ERCOT, and natural gas producers, natural gas supply constricted due to decreased production. Production decreased for a variety of reasons but is largely attributed to electricity cuts at production facilities. Without adequate electricity supply, production facilities like well heads, gathering lines, and compressors were unable to function properly.
2. Does the Railroad Commission require oil and gas critical infrastructure to maintain backup power systems?  
Not expressly. Operators are required by RRC rules to maintain operational safety (health, hazard, environment), and backup power systems may be a part the system an individual operator uses to achieve that requirements for safety purposes. Other options may include safely shutting-in the equipment.
3. Prior to the blackouts in Texas, did the Railroad Commission provide direction to oil and gas facilities regarding how to register as critical infrastructure with electric grid operators?  
Current Commission staff and Commissioners were unaware of ERCOT's critical infrastructure application. Additionally, the ERCOT application form did not include field services as applicable designees. Critical load designations are an electricity regulation process over which the RRC does not have jurisdiction to authorize designations. Operators apply for designation with their respective electricity providers. Once Railroad Commission staff was made aware of the application, the Commission distributed the form to operators within its jurisdiction for review and submission to their respective ESPs.
4. How did this constricted supply impact the volatility of natural gas prices in Texas during the same time frame?  
The Commission does not regulate the price of natural gas, but it is the agency's understanding that the combination of decreased supply and increased demand during

the cold weather event resulted in an increase in the price of natural gas throughout the state.

5. How have the blackouts in Texas impacted the oil and natural gas markets in Texas, the United States, and around the world?

In Texas, oil and natural gas prices are set in an open market. Supply and demand factors are responsible for fluctuations in market prices. During Winter Storm Uri, extreme demand caused an increase in energy prices. While the Railroad Commission does not regulate the price of energy in the open market, we did observe increased prices in Texas. We can not speak to national and international markets.

6. How can natural gas infrastructure be made more resilient in Texas and around the country?

The Railroad Commission has provided four specific recommendations to the Texas Legislature to address the issues that arose from Winter Storm Uri. They include:

- a. Formalize the Texas Energy Reliability Council –Strengthening this ad-hoc group through statute would allow these key stakeholders to improve communication and ensure emergency preparedness.
- b. Convene an administrative hearing to consider and update curtailment priorities – The current curtailment priorities for natural gas transport and sale were established in 1972, and an updated order is timely.
- c. Ensure that critical oil and gas infrastructure is appropriately registered with ERCOT and electric utilities – Coordinating with ERCOT and electricity providers to ensure priority status is granted to these critical energy producing facilities is crucial to preventing power outages in the future.
- d. Require natural gas-fired electric generators to secure firm gas transportation capacity and adequate natural gas supply – Thorough examination of these contracting procedures is key to understanding the limitations experienced by these power plants. The state should explore all additional storage options and contracting methods for these facilities.