







June 14, 2016

## An Open Letter to Mayor Mike Rawlings and Members of the Dallas City Council

We represent the Texas Independent Producers & Royalty Owners Association (TIPRO), the Texas Alliance of Energy Producers (The Alliance), the Texas Oil & Gas Association, and the Barnett Shale Energy Education Council. Our organizations include large and small members of the Texas oil and natural gas industry, as well as large and small mineral estates and trusts. We also serve as resources about oil and natural gas development in the Barnett Shale region of North Texas and all across the state.

We understand that the Dallas City Council will be considering a resolution during its meeting on June 15, 2016, which asks the Texas Commission on Environmental Quality (TCEQ) to revise its plan to reduce ozone levels in the Dallas-Fort Worth area by implementing "additional measures." One such measure is the "electrification of compressors" in the Barnett Shale, which the resolution claims would "help the region meet or exceed the current ozone standard."

We have serious concerns about this proposal, as it would impose significant costs without providing an equivalent level of air quality benefits. State data show that ozone levels are not driven primarily or even significantly by oil and natural gas activity in the Barnett Shale region. Additionally, a forced electrification of compressors is economically infeasible; not allowed under state law; and could actually increase ozone-forming emissions in the DFW area.

According to the latest proposed state implementation plan<sup>1</sup> (SIP) for ozone, the TCEQ estimates that emissions of nitrogen oxides (NOx) – the key ingredient in North Texas ozone – from all oil and natural gas activities will be 67% lower in 2017 than they were in 2006. In 2017, emissions from oil and natural gas development will only account for 10.2% of all NOx emissions in DFW. By comparison, mobile sources – such as cars, trucks, and airplanes – will represent more than two-thirds of all NOx emissions in DFW.

In other words, oil and natural gas activities in North Texas are not a major contributor to the region's ozone levels.

Several data sets bear this out:

<sup>&</sup>lt;sup>1</sup> "Proposed State Implementation Plan Revision," Texas Commission on Environmental Quality, November 20, 2015:

https://www.tceq.texas.gov/assets/public/implementation/air/sip/dfw/dfw\_ad\_sip\_2016/DFWAD\_15014SIP\_pro.pdf

- According to TCEQ, ozone levels in the Dallas-Fort Worth area have improved 21 percent over the last 15 years.<sup>2</sup> During that same period, the Barnett Shale went from producing just a few hundred million cubic feet per day to more than 4 billion cubic feet per day.<sup>3</sup> The data show that as North Texas natural gas development increased substantially, DFW ozone levels fell.
- One of the studies<sup>4</sup> used to support the resolution when it was being considered by the Dallas City Council's Committee on Quality of Life & Environment modeled a scenario in which NOx and volatile organic compounds (VOCs) were completely eliminated from compressors and other oil and natural gas sources in the Barnett Shale. The website housing the report, which was not peer-reviewed, claims the computer simulation showing a 100% reduction in NOx "had the largest, widest impact on ozone levels." The only way to achieve zero emissions is to stop all oil and natural gas activity, a proposal that would be devastating for the local economy, and a measure for which we do not believe the City Council is advocating. It also worth emphasizing that the study was funded by an environmental group called Downwinders at Risk, which has long been a critic of the Texas oil and natural gas industry.
- Curiously, however, the "largest, widest impact" of reducing NOx 100% from oil and natural gas sources would only reduce DFW ozone levels by about 1 part per billion (ppb). In 2015, the average ozone level in North Texas was 83 ppb.

Of course, even this computer simulated impact is based on the assumption that electrifying gas compressors in the Barnett Shale will meaningfully contribute to DFW ozone reductions. There is no credible evidence to support this.

Last year, TCEQ "evaluated the use of electric motors to drive natural gas compressors," in response to claims from environmental groups that compressor electrification was "both technologically and economically feasible." Here was TCEQ's response:

"TCEQ staff concluded that the potential RACM [reasonably available control measure] strategy is **economically infeasible and cannot be implemented** by the compliance deadline." (emphasis added)

In addition, TCEQ noted that such a requirement is disallowed under state law:

<sup>&</sup>lt;sup>2</sup> "Texas Air Quality Continues to Improve," Texas Commission on Environmental Quality, April 2015: http://www.tceq.state.tx.us/publications/pd/020/2015/texas-air-quality-continues-to-improve

<sup>&</sup>lt;sup>3</sup> "Barnett Shale Information," Railroad Commission of Texas: http://www.rrc.state.tx.us/oil-gas/major-oil-gas-formations/barnett-shale-information/

<sup>&</sup>lt;sup>4</sup> "DFW Ozone Study: Oil and Gas Sources," Downwinders at Risk, October 2015: http://dfwozonestudy.org/oil-and-gas-sources/

<sup>&</sup>lt;sup>5</sup> "State Implementation Plan Revision Adoption," Texas Commission on Environmental Quality, May 15, 2015:

https://www.tceq.texas.gov/assets/public/implementation/air/sip/dfw/dfw\_ad\_sip\_2015/AD/Adoption/DFW AD\_13015SIP\_ado\_all.pdf

"According to Texas Health and Safety Code, §382.017(f)(3), unless required by federal law or regulation, the commission may not specify the type, design, method of installation, or type of construction of a manufacturing process or other kind of equipment. Therefore, the commission cannot require complete electrification of compressors or drilling rigs as the commenters suggest because that would be specifying the equipment type or design." (emphasis added)

In December of last year, TCEQ observed that an electrification strategy would not only be "economically infeasible," but may **actually increase NOx emissions in North**Texas:

"The proposed strategy requires replacing the engine with an electric motor. A motor controller is potentially also required. It may also be necessary to replace some compressors if a compatible electric motor is not available. Electric motors large enough to run larger compressors would need three phase electric service line upgrades at most, if not all, sites, some of which are far from electricity distribution lines. Depending on the electricity demands of the motor and local electricity transmission lines, a transformer may be necessary to adjust supply voltage. Increased electricity demand would require increased generation at existing EGUs with associated increases in NOX emissions. If sufficient EGU capacity is not available, several new baseload EGUs would need to be constructed, which cannot occur before the required compliance date. Even if all of these equipment hurdles are overcome, since the DFW area currently has low NOX emission specifications, the incremental NOX reduction would be reduced and the price per ton of NOX removed would be prohibitively large. Given these factors, the strategy is both economically infeasible and unable to be implemented quickly enough to advance attainment."6 (emphasis added)

A proposal to electrify gas compressors in the Barnett Shale is not only prohibitively expensive, but would also fail to yield any meaningful reduction in ozone levels.

Furthermore, we are concerned that this resolution was inspired by those with an agenda to strip Texas of its authority to regulate, and whose ultimate goal is to convince the U.S. Environmental Protection Agency to reject Texas' state implementation plan (SIP) and replace it with a federal implementation plan.

Downwinders at Risk, the group who funded the report upon which so much of this resolution relies, has written that the EPA is the "one regulatory entity that could, if it wanted, impose uniform emissions standards on all O&G facilities in the 10-county non-attainment area, including Denton, Johnson, Parker, Tarrant, and Wise counties."

https://www.tceq.texas.gov/assets/public/implementation/air/sip/dfw/dfw\_ad\_sip\_2016/DFW\_SIP\_Append ix\_G\_pro.pdf

<sup>&</sup>lt;sup>6</sup> "Appendix G: Reasonably Available Control Measures Analysis," Texas Commission on Environmental Quality, December 9, 2015:

Downwinders went on to say "we must give the EPA the political support it needs," citing specifically the resolution that the City Council will be considering.

We all support clean air and a strong economy, but achieving the former should not come at the expense of the latter. The increase in natural gas production and substantial drop in ozone in DFW over the past 15 years is proof that these are not mutually exclusive goals. Moreover, strategies to reduce air pollution need to be based on data that show real environmental benefits as a result of implementing those strategies.

Unfortunately, the resolution under consideration by the City Council could lead to economically harmful impacts without any tangible clean air benefits.

We wanted to share these facts before the City Council considers a resolution that will do nothing to address ozone, but will support environmental activists' campaign to give the U.S. EPA "political support" to control more of the Texas economy.

Sincerely,

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<sup>&</sup>lt;sup>7</sup> "Why a small variance could mean a big increase in DFW smog," Downwinders at Risk, May 18, 2016: http://www.downwindersatrisk.org/2016/05/exhibit-a-mansfield-gas-compressors-why-dfw-needs-an-epa-clean-air-plan/