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September 16, 2020

New Mexico Environment Department
Attn: Elizabeth Bisbey-Kuehn
1190 St. Francis Dr.
Santa Fe, NM 87505

RE: 20.2.50 Proposed Oil and Natural Gas Regulation for Ozone Precursors Rule

Dear Ms. Bisbey-Kuehn:

FuelCell Energy, Inc. ("FCE") appreciates the opportunity to comment on the draft rules for venting and flaring of natural gas by the New Mexico Environment Department ("NMED"). We would like to thank the staff of the NMED for their work to draft thoughtful regulations that will reduce emissions and improve air quality across New Mexico. FCE is submitting these comments to provide insight into how stationary fuel cell technology could greatly assist the State of New Mexico in meeting its important emissions reductions goals.

I. INTRODUCTION

With more than 10 million megawatt hours of clean electricity produced, FuelCell Energy is a global leader in delivering environmentally responsible distributed power solutions through our proprietary carbonate fuel cell platforms. Our stationary fuel cells provide affordable, clean, and 24-hour onsite energy to a broad range of customers including utility companies, municipalities, universities, hospitals, government entities and industrial and commercial enterprises. Our fuel cell platform is a clean, efficient alternative to traditional combustion-based power generation. Because FCE fuel cells use non-combustion technology, we achieve far higher efficiency than traditional on-site combustion generation without criteria air emissions like NOx, SOx and particulates that contribute to smog formation, acid rain and long-term negative health outcomes in neighboring communities.

FCE offers utility-scale distributed generation, on-site power generation and combined heat and power, with the differentiating ability to do so utilizing multiple sources of fuel including natural gas, renewable biogas from anaerobic digesters, wastewater treatment facilities, and landfills. FCE can efficiently convert waste products like biomethane or flare gases into clean electricity without harmful emissions. One of our platforms produces hydrogen in addition to electricity and heat, and can be fueled with the same range of commercial and waste gases.

II. COMMENTS

FCE would like to respond specifically to item #2 of the request from NMED for input related to "Examples of technologies or regulatory programs utilizing non-combustion emission control technologies, like fuel cells, as a means of reducing or eliminating emissions for

inclusion in Section 20.2.50.15 NMAC."[1]

FCE fuel cells cleanly and efficiently convert chemical energy from hydrogen-rich fuels into electrical power and high quality heat via an electrochemical process. When a suitable fuel, such as natural gas or flare gas enters the fuel cell stack, it reacts electrochemically with oxygen to produce electric current, heat, and water. Our fuel cells have the ability to continuously generate electricity as long as fuel is supplied. With a reliable supply of flare gas, our fuel cells could easily provide baseload power onsite to facilities or export power to the grid. We have multiple installations at wastewater treatment plants where we have been able to reduce or completely eliminate flaring operations through the use of waste gas to generate clean electricity. The oil industry has newer technology choices to use other than diesel or gas powered generators for local electricity supply from waste gas. With a sufficient gas capture system, FCE fuel cells could provide constant reliable power to on site operations and reduce natural gas emissions and leaks for long-term field operations. In addition to avoided local emissions, the power produced by on site fuel cells is substantially cleaner than grid power, resulting in avoided CO_2 and criteria pollutants beyond the avoided flare emissions.

FCE recommends the NMED include a standard streamlined process by which non-combustion technologies can be tested, rated, and certified for use. Certifying technologies through a uniform process creates clarity in understanding the emissions reduction potential of each technology, making more accurate the emissions reporting that will be required under these regulations. Regulators and industry alike will have a clear picture of what applications each technology has and what benefits can be derived from each. Additionally, once a technology has been certified, regulators will not have to test and approve each unit on a case-by-case basis, expediting deployment and working to reduce emissions faster. For years, California and Connecticut have used expedited processes like this to evaluate and deploy clean technology for greenhouse gas reduction and air pollution elimination with measurable success.

We recommend that the NMED include a set of criteria and carbon emissions standards for non-combustion technologies in addition to the emissions standards for engines and turbines. These standards should include ultra-low thresholds for NOx, VOC, and PM emissions and provide a preference for non-combustion technologies as a solution for flare gas reduction.

To advance that preference for cleaner technologies, the state and the NMED should consider including incentives in its methane rule for the use of non-combustion technology that meet these new standards. The state may wish to consider incentivizing technology in an order that maximizes incentives for the lowest criteria emissions technology first followed by overall greenhouse gas emissions reductions. In addition, added benefits that could be incentivized and captured from non-combustion technologies include the production of hydrogen for vehicle fueling, pipeline decarbonization, or other applications. FCE would recommend that the state not allow criteria air emissions reduction requirements to be offset using added benefits or efficiencies from combustion technology. The state may also wish to encourage the creation of distribution incentives for increased reliability where needed. The collection of waste gas at a wide scale could be used to generate electricity for oil wells or sold back to the broader New

[1] "NMED Ozone Precursor Rule for Oil and Natural Gas Sector" July 20, 2020. P.1.

Mexico electric grid using a feed-in tariff that values the lowest emissions. The NMED should consider how an incentive structure could create additional environmental and economic value over and above meeting the required emissions reductions requirements.

III. CONCLUSION

FCE appreciates the chance to offer feedback on this draft rule to the NMED We applaud the work of the State of New Mexico to engage in a robust deliberative process to promulgate regulations that will reduce methane flaring and venting across the oil and gas industry. In addition to being the right policy decision for the environment, these regulations can offer a pathway for emitters to capture and put to productive use the gas that otherwise would have been burned incompletely or lost to the atmosphere from venting.

We are excited to work with the NMED and the State of New Mexico as these regulations progress to bring New Mexico the benefits of clean energy generated by our fuel cells.

Respectfully submitted,

/s/

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