New Mexico Environment Department

Rebuttal Testimony
of
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NMOGA Economic Analysis

Impressions of John Dunham's analysis

- Not enough detail provided to allow real analysis of what he did or his conclusions
- Significantly overstates the number of wells affected as well as the costs of the proposed rule

Estimates of Direct Administrative and Operational Costs

- Mr. Dunham's estimate - $3.8 billion in 2020 dollars over a 5-year period
- ERG's estimate - $215 million/year. Over a period of 5 years, that cost would be no more than $1.1 billion

Affected Number of Wells

- ERG estimated that there are 47,937 producing wells in the seven counties that would be affected by Part 50
- Mr. Dunham estimates that there are 84,247 wells that will be affected by proposed Part 50
- Overstating the number of affected wells leads to an overestimation of compliance costs associated with proposed Part 50

Well site or well head?

- Most of the rule requirements and costs are applied at the level of the well site
- NMED's cost estimates assume two well heads per wellsite where relevant
- Mr. Dunham's cost estimates are applied at the well head
  - Significantly overestimates the total cost of the proposed rule

Estimating Unit and Total Compliance Costs

- Mr. Dunham's costs are based on a survey of ten unidentified companies from NMOGA's membership
- Mr. Dunham applies certain costs for certain types of controls or emission sources to each individual well, even though those types of emission sources are not located at each well or well site
- Likely leads to a substantial over-estimate of the total costs and an unreliable estimate of the economic impacts of the proposed rule

Estimating Unit and Total Compliance Costs (cont'd)

- Mr. Dunham's costs in Table 7 of his analysis do not align with ERG's estimates or EPA estimates used in rulemakings for similar source categories that require the same types of controls
- Examples:
  - Glycol Dehydrator Control Cost Comparison
  - Storage Tank Control Costs Comparison
  - Unassigned Control Costs Lacking Explanation
- Overall- Mr. Dunham's costs are not sufficiently documented and there is no indication of how most of them are related to the specific provisions of the proposed rule

Glycol Dehydrator Control Cost Comparison

- Mr. Dunham's cost estimate is about 200 times greater than ERG's.
- JDA capital cost estimate: $794 million
- ERG capital cost estimate: $4.6 million
- U.S. EPA <u>nationwide</u> rule: $670 million

Storage Tank Control Costs Comparison

- JDA capital cost estimate: $185 million
- ERG capital cost estimate: $69 million
- Without further information on the number of sources and the types of controls, we cannot evaluate the reason for the differences in costs.

Unassigned Control Costs

- Costs in Table 7 have already been estimated for VOC controls for:
  - Compressors,
  - Gas Well Liquid Unloading,
  - Glycol Dehydrators,
  - Hydrocarbon Liquid Transfers,
  - Pipeline Pig Launching And Receiving,
  - Pneumatic Controllers And Pumps, and
  - Storage Tanks
- Table 7 also includes costs for:
  - Open flares: $252 million,
  - Enclosed combustors and thermal oxidizers: $794 million
  - Vapor recovery units: $481 million
- Total additional first year cost: $1,530 million ($1.53 billion).
- It appears that Mr. Dunham's analysis is double counting the costs for nearly all of the VOC controls

Calculation of the Net Present Value of Costs

- Two questionable assumptions:
  - 5 Year time frame with no justification
    - More typical time frame would be between 10 and 20 years
  - Nearly 85% of costs of rule incurred by industry in the first year.
    - Investments in equipment are typically spread out by affected owners/operators
- Present value of costs is significantly lower than Mr. Dunham's estimate

Small Business Facilities

- Mr. Dunham fails to consider the lower compliance costs for qualifying small businesses, and therefore overestimates the economic impacts of the proposed rule

Estimated Job Losses

- Not enough detail regarding the analysis to evaluate its accuracy
  - Refers to a previous study used to quantify the economic impact of the Western Oil and Natural Gas industry on the economy of the United States
    - Applied to oil and gas operations in 13 states, not just New Mexico
- If Mr. Dunham estimated employment impacts using the compliance cost estimate as the key input, to the extent that he has overestimated compliance costs, employment impacts would be overstated as well

Environmental Defense Fund Rebuttal

- Mr. Dunham overestimates the number of wells
- The time period over which costs are incurred is misrepresented
- Industry compliance costs may be off-set by revenues received from captured gas
- Social costs (climate damages and environmental health effects) are not considered in Mr. Dunham's analysis
- The proposed rule could actually lead to job creation in the methane mitigation industry