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STATE OF NEW MEXICO
ENVIRONMENTAL IMPROVEMENT BOARD

No. EIB 21-27(R)

IN THE MATTER OF PROPOSED NEW REGULATION, 20.2.50 NMAC - Oil and Gas Sector - Ozone Precursor Pollutants

TRANSCRIPT OF PROCEEDINGS

BE IT REMEMBERED that on the 22nd day of September, 2021, this matter came on for hearing before FELICIA ORTH, Hearing Officer, virtually through Cisco Webex Meetings video conferencing, commencing at 9:00 a.m.

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I N D E X

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E X H I B I T S

NOTE: No exhibits are attached physically to this transcript. They can be found online at www.env.nm.gov.opf/docketed-matters/

NMOGA EXHIBIT: ADMITTED

Exhibit 57 - Surrebuttal Testimony Slides of John R. Dunham 849

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HEARING OFFICER ORTH: Good morning. My name is Felicia Orth; I'm the Hearing Officer appointed by the Environmental Improvement Board to conduct a hearing in 21-27, the rulemaking related to ozone precursor.

We begin each morning with public comments, and I have three public commenters who reached out to the Board's Administrator, Pamela Jones, to indicate a desire to offer public comment. In the event you are on the platform and would like to offer comment and have not yet offered comment, please indicate in the Chat. The Chat is enabled for everyone, so please just reach out in the Chat and I'm happy to take your comment at this time or at any time throughout the hearing. We have public comment sessions every day at 9, 1 and 5.

Public comment is taken through audio, not video and is limited to five minutes. So Cynthia Black -- the three I have this morning and I'll call you in this order: Cynthia Black, Tom Williams and Nora Dunn. Ms. Black, I am unmuting you. Can you hear me?

MS. BLACK: Yes. Can you hear me?

HEARING OFFICER ORTH: Yes, you're coming through clearly. Thank you. If you would raise your right hand, please. Do you swear or affirm to tell the truth?

MS. BLACK: Yes, I do.

HEARING OFFICER ORTH: Thank you. I'm going to start your five minutes now.

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CYNTHIA BLACK,

having been first duly sworn or affirmed,

gave public comment as follows:

PUBLIC COMMENT BY CYNTHIA BLACK

MS. BLACK: Well, good morning. My name is Cynthia Black; I reside in Lincoln County. My background is in geology. I have two degrees in geology, a Bachelor of Science from the University of Aberdeen in Scotland and a Master of Science from Texas A & M in College Station. I have a 40-year career working in the oil and gas industry as a geophysicist and a geologist and I continue to consult.

Most of my life has been spent working for operators, ranging from Exxon Arco, Occidental and a host of small independents. I've worked in the Permian Basin, including Lea and Eddy County, as well as Texas, Oklahoma, California, Wyoming, Utah and elsewhere in the continental United States.

I've seen many cyclic changes in the industry throughout my career, most of those being huge changes in price due to a variety of reasons. The rest of this is -- is my just brief description of what I think is going on at a higher level.

The methane advisory panel was formed to address

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most proximally methane leaking and venting in the -- in the field from various sources in the oil and gas industry. Obviously, the -- the process that the methane advisory panel has taken is admirably collaborative. It also appears that its root purpose is to address climate change. And from this, I source Governor Grisham's Executive Order 2019-03, and the statements from the New Mexico Interagency Climate Change Task Force.

In the popular press and, you know, we can go to the Albuquerque Journal or other parts of the state and look at news articles; the primary goal is to reduce low-level ozone. And I stress low-level as opposed to high level, which is not at issue. This would be due -- due to the fact that in some parts of New Mexico, ozone levels are -- have reached within 95 percent of EPA imposed limits. So that -- that is an issue and it's particularly an issue in -- in metropol -- you know, larger population, metropolitan areas like Albuquerque and Las Cruces and places like that, where you have a concentration of sources; primarily, vehicles -- combustion gas vehicles.

So, to me, the question isn't, you know, whether or not, you know, climate change -- if manmade climate changes represents some kind of existential threat, but whether singling out small, independent oil and gas

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operators in New Mexico will have any effect on these broader issues. And that's why I really wanted to address this at that level. You know, with regard to climate change, I hardly want to go into any detail. I have a lot of background in this; I've done a lot of my own study. You know, I'm research oriented as well as technically oriented, which obviously combines.

But thanks to the media and other governmental bodies, climate change science is not well understood, but briefly -- okay, pollutions, such as smog, i.e., ozone -- low-level ozone is conflated with this climate change, and that's just inaccurate. And it's also wrong because it prevents us from tackling pollution in a constructive way. There are ways to address ozone, for example, and it also keeps us from adapting to changes in climate. And I certainly admit that there are -- a fraction of climate change can be manmade, particularly in a micro-climate sort of way, but it's also something we've been doing as a species throughout the human history. So, you know, just -- just briefly --

HEARING OFFICER ORTH: Ms. Black?

MS. BLACK: Am I done? Because I can be -- I'm about done, really.

HEARING OFFICER ORTH: All right.

MS. BLACK: I just want to -- thank you -- just

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stress that the methane advisory panel recommendations, as I understand them, are going to kill off many jobs and hurt small industry and the small oil and gas operation. The big operators can afford to comply with these regs, but I think it's better to let industry creatively solve these problems that they have, as they have been doing for many decades. And I've been witness to those changes in regulations. And I know what the industry is capable of doing. So thank you very much. I appreciate your time.

HEARING OFFICER ORTH: Thank you, Ms. Black.

All right. So let me see here. Tom Williams. Let me look for Mr. Williams on the attendee list. I don't see Mr. Williams in the attendee list. Let me move to Nora Dunn. I believe I did see Ms. Dunn. Oh, it's Norma Dunn, excuse me. Ms. Dunn, can you hear me?

MS. DUNN: Yes. Hi.

HEARING OFFICER ORTH: All right. Hello. If you would raise your right hand, please.

MS. DUNN: Okay. My husband is -- my husband, Sandy Dunn, is going to speak.

HEARING OFFICER ORTH: Oh, all right. That's fine. Mr. Dunn, if --

MR. DUNN: Yes, ma'am.

HEARING OFFICER ORTH: If you would raise your right hand, please. Do you swear or affirm to tell the

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truth?

MR. DUNN: Yes, I do.

HEARING OFFICER ORTH: Thank you. I can hear your voice clearly. Just make sure you keep your voice up and I'm going to start your five minutes now.

SANDY DUNN,

having been first duly sworn or affirmed,

gave public comment as follows:

PUBLIC COMMENT OF SANDY DUNN

MR. DUNN: Okay. Thank you for doing this and thank you for hearing us. We appreciate it. I'm going to be speaking from a layman's term. I believe the last speaker was very good at making points from her level of experience. My level of experience is personal. I've always been fond of alternative forms of transportation and power sources and I have electric bicycles and scooters and things likes that. And so my mind is open, of course, to alternative energy sources.

I wanted to speak a little bit about that because I have -- I spent a lot of years in California and a lot of -- a lot of time in the desert area around Palm Springs, California, where they have wind farms and things like that out there. And there were some observations I made about those alternative sources; one of them being that the actual wind farm's efficiency, which there are

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different ways of calculating it, the methods I learned was the output versus the cost, versus the environmental impact. And the wind farms are pretty low on their efficiency. I think the maximum efficiency achieved is 26 percent, versus -- versus oil or even coal-produced energy, which is almost 100 percent.

And what -- what was noted out there was there were certain environmental issues associated with wind farms, one of them being the actual reliability of the turbines themselves. They're very high maintenance, they require specific talents of people called windmill wranglers, who work way up high off the ground and work on these units because, we, in the local community, noticed that a lot of these windmills were spending a lot of downtime. And it was because of the basic unreliability of those units.

On top of that there were environmental concerns about the effect on -- on bird migration, and one of those windmills can take out an entire flight of birds. And it was a real concern for a lot of people in the local environmental movement. On top of that, the blades on those things, when they wear out, they generally crack or break. They have to take them off and replace them, there's nowhere they can -- there's no way they can recycle those materials. They're not recyclable. They

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certainly don't decompose, so now they have to have special areas where they bury these blades vertically, front to back in these really large holes. And so that's becoming a concern as wind farms are increasing in this country. We have an increased concern about what's going to happen to all of that old stuff.

And so, along with that, I was looking into solar energy, of course, for my home. And I was pretty alarmed to find out that -- I had always been told that solar panels were made essentially out of -- out of silicon, and that was the primary ingredient, but -- and it was an environmentally friendly process of producing them, which turns out isn't the truth.

The actual processing that's required for producing solar panels produces all kinds of caustic environmental dangerous materials. Silicon dust itself, that is produced when they cut the cells for the solar panels. It's called CURF. And it's -- and it's -- there's up to 50 percent waste in the production of solar panels. And that stuff is very toxic to workers and the environment itself. Silica gas, very explosive, can spontaneously combust. Silicon production, the production reactors are cleaned with something called sulfur hexafluoride, which is one of the most potent greenhouse gas per molecule stuff -- excuse me.

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HEARING OFFICER: Mr. Dunn, would you wrap up, please?

MR. DUNN: Oh, yes. Thank you. Easily what I'm saying is the alternatives to oil and gas, I don't really believe we're there yet. I support it for future use, but, currently, if we get really ambitious about replacing oil and gas production with these alternative methods, I think the cost in itself -- especially the cost to the consumer and the environment, we're just not quite ready yet. And that's really the point I wanted to make. I'm not anti-alternative energy. I really am in support of putting resource toward the development of these -- of these alternatives, but I don't think we're ready yet. And I hope I made my point without getting too confusing here. Thank you very much.

HEARING OFFICER ORTH: Thank you, Mr. Dunn.

MR. DUNN: All right. Have a good day.

HEARING OFFICER ORTH: Thank you. Let's see.

Mr. McCartney reached out through the Chat. Mr. McCartney, can you hear me?

MR. McCARTNEY: Yes, I can. Can you hear me?

HEARING OFFICER ORTH: Yes, your voice is coming through clearly. If you would, please, raise your right hand. Do you swear or affirm to tell the truth?

MR. McCARTNEY: Yes, I do.

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HEARING OFFICER ORTH: Thank you. I'm starting your five minutes now.

WARD McCARTNEY,

having been first duly sworn or affirmed,

gave public comment as follows:

PUBLIC COMMENT OF WARD McCARTNEY

MR. McCARTNEY: Yeah, thank you for considering my comments. I'd like to speak to the issue of methane gas pollution as the generalist, you know, the overall big picture. And the first thing is that the fossil fuel industry will and has bombarded us with how much it would cost the industry; billions of dollars to address this. Methane leaks and methane that is 86 times as potent a greenhouse gas as CO2.

What the fossil fuel fails to acknowledge is that Hurricane Ida cost 22 billion, destroying people's homes, property and lives. What the fossil fuel industry fails to acknowledge is the devastating forest fires in California, Oregon and Washington, et cetera, and the resulting smoke that we have all had to contend with the last several summers. And for a guy like me, who has late-onset asthma, those have not been fun summers.

In the 80s there were an average of three one-billion-dollar weather events a year. Last year there were 22. Those costs are borne by us, not the fossil fuel

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industry.

But the real issue is the UN report last week, which stated, "Even if all the worlds nations were to adhere to the climate fossil fuel reduction pledges, the world will still warm by 2.7 degrees centigrade, and that's 5 degrees Fahrenheit by 2100." This report means that we have to do way better at addressing climate change than we're even hoping to do now so that our kids and our grandkids have a hope for a future.

The methane leaks are a very doable fix that would be a huge step in the right direction. Please take that step. Thank you.

HEARING OFFICER ORTH: Thank you very much, Mr. McCartney.

I don't have anyone else reaching out through Chat to offer public comment, so we will -- again, the next opportunity for public comment is at 1 p.m. And 1 p.m. and 5 p.m. every subsequent day of this hearing. So thank you all very much.

Before we begin the testimony this morning, and this morning we'll be focusing on economic analysis, I do need to make sure that we have Ms. Fox with us. She was having so much trouble with the sign in this morning. Oh, wait.

MS. FOX: I figured it out. Yeah, thank you.

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Appreciate it.

HEARING OFFICER ORTH: Oh, terrific, Ms. Fox. Thank you.

All right. Is there anything else we should do before we leap into the testimony on economic analysis? No?

Counsel, if you would, please, check the panelist list. As I saw your witnesses join the attendee list, I did try to move them all over, but make sure that I -- make sure that I got them all, if you would, please. Let me know if there's someone else who should be -- should be a panelist.

So do I understand, Ms. Katz, we're going to begin this morning with Ms. Day?

MS. KATZ: Thank you, Madam Hearing Officer. Good morning, and members of the Board. That topic is NMOGA's topic and so the topic will begin with Mr. Dunham, I believe.

HEARING OFFICER ORTH: With Mr. Dunham. And then we're going to Powell, Day, Palmer and Lackner; is that correct?

MS. KATZ: Yes, that's correct.

HEARING OFFICER ORTH: All right. Thank you. Is this Mr. Dunham? Yes, I see Mr. Dunham on the screen.

MR. DUNHAM: I'm here.

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HEARING OFFICER ORTH: Good morning, Mr. Dunham. You're -- you're a little soft. I'd ask you to keep your voice up.

MR. DUNHAM: Okay.

HEARING OFFICER ORTH: And if you would please -- oh, that's better, yeah. If you would please raise your right hand. Do you swear or affirm to tell the truth?

MR. DUNHAM: Yes, I do.

HEARING OFFICER ORTH: Thank you very much. If you see this -- this lady on the screen in blue is our court reporter, we're making a transcript, which is the official record of this hearing. If you see her wave her hands, I'll be watching her as well, please stop until we figure out the audio issue. So thank you.

MR. DUNHAM: Okay. Thank you.

HEARING OFFICER ORTH: And it's Mr. Hiser. Good morning, Mr. Hiser.

MR. HISER: Good morning, Madam Hearing Officer.

JOHN R. DUNHAM,

having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION OF JOHN R. DUNHAM

BY MR. HISER:

Q. Good morning, Mr. Dunham. Could you please state your full name and spell it for the record, please?

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A. Yes, sir. My name is John R. Dunham, and my last name is D-U-N-H-A-M.

Q. And could you state your involvement in this proceeding?

A. I prepared a cost report for the New Mexico Oil and Gas Association, a cost of the regulation.

Q. And is the NMOGA Exhibit No. 34, which was previously admitted, an accurate copy of your resume?

A. Yes, sir.

Q. Could you explain your qualifications as to how they relate to your participation in the hearing today?

A. Yes, sir. I'm the managing partner of John Dunham and Associates, an economic research firm. I've been in business for about a little over 20 years. I've been an economist for 35 -- 36 years. We do economic and policy research for dozens and dozens of different industries, including the oil and gas and natural gas industry.

We prepared the economic impact -- the economic impact study of the Western oil and natural gas industry for the -- for the Western Energy Alliance. And we've also performed regulatory impact analysis for the six different regulations on oil and natural gas at the federal level. We've been a consultant to the Western Energy Alliance, to NMOGA, to the U.S. Oil and Gas

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Association, to Anadarko, to the New Mexico -- I'm sorry, the Idaho Retailers Association, the New Mexico Retailers Association, to name a number.

Q. Does NMOGA Exhibit A6 reflect your direct testimony previously filed in this matter?

A. Yes, sir, it does.

Q. And you don't need to make any changes to that exhibit; is that correct?

A. I don't believe so, no.

Q. Do you adopt Exhibit A6 as your direct testimony in this matter, as if you had given it during this hearing?

A. Yes, sir.

Q. Did you rely on the following exhibits in preparing your testimony: NMOGA Exhibit 35, the May 2020 OVWS estimates, NMOGA 36, the Western Oil and Natural Gas study -- Economic Impact Study from 2018?

A. Yes, sir.

Q. NMOGA 37, a Well Methodology Report?

A. Yes, I did.

Q. NMOGA 38, a Regulatory Impact Analysis of the Proposed Emissions Standard for New and Modified Sources in Oil and Gas Natural Sector -- Oil and Natural Gas Sector? Excuse me.

A. The EPA report, yes.

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Q. Yes. And then also NMOGA Exhibit 39, the New Mexico Crude Oil First Purchase Price from the U.S. Energy Information Administration?

A. Yes. Yes, sir.

Q. And NMOGA Exhibit 40, the FRED Graph Observations from the Federal Reserve Bank in St. Louis?

A. Yes, sir.

Q. Okay. Have you prepared a summary of your direct testimony for the Board this morning?

A. Yes, sir, I have.

Q. Can you please provide that summary to the Board?

A. Yeah. How do I --

Q. Yes, do you have some slides?

A. I do have some slides. I don't know how to...

MR. HISER: Madam Hearing Officer, can you enable the screen share for him?

Q. (BY MR. HISER) She is working on it. You should see a box with a little plus, I believe.

A. The screen share, a box with a little plus. I'm sorry, I don't see a box on mine. Oh, here it is. Yeah, got it. I'm sharing a slide now.

Q. All right. And can you make that bigger on the screen for everyone?

A. I'll just do that right now.

HEARING OFFICER ORTH: Excuse me for

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interrupting. Mr. Hiser, can you point us to where the slides were. Are those the slides that were sent last night or?

MR. HISER: So I think this is that slide. It may be -- we did circulate these.

Q. (BY MR. HISER) Mr. Dunham, are you using the ones circulated last night or is this an earlier version?

A. The one I sent last night. I apologize.

MR. HISER: You should have something in your email reflecting the final that was submitted.

HEARING OFFICER ORTH: So I trust Pam has forwarded those emails to the Board members.

Pam, if not, please do that now.

MS. KATZ: Madam Hearing Officer?

HEARING OFFICER ORTH: Yes. Ms. Katz?

MS. KATZ: Sorry, I thought you were done on that point about the presentation. I have a question -- a clarifying question after you're done with that. Sorry.

A. Is this being shared now?

Q. (BY MR. HISER) We have a gray screen now.

A. Oh, it's not sharing then.

MS. KATZ: Perhaps while Mr. Dunham is pulling that up I could ask Mr. Hiser, you identified several exhibits associated with Mr. Dunham's testimony. I don't see them identified in his actual direct or the testimony

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that was submitted.

MR. HISER: These are just exhibits that were -- he relied upon for some of the information seen in those -- in his report. We're not -- it's only -- we just listed them so people know where some of the information came from.

MS. KATZ: But he didn't actually identify them in the testimony so we would -- is that true? I -- I'm just trying to figure that out.

Q. (BY MR. HISER) Mr. Dunham, did you rely on these sources of information for part of the work that you did in this presentation?

A. Yes.

Q. Okay.

MR. HISER: Thank you, Ms. Katz.

Is this the correct exhibit?

So we have the correct exhibit, and I believe this is the one that was circulated to all parties, Madam Hearing Officer.

Q. (BY MR. HISER) So, with that, Mr. Dunham, if you could please proceed.

A. I apologize for the technical difficulty there. Thank you -- thank you for -- for letting me testify today. I am testifying on a report that I prepared for the New Mexico Oil and Gas Association in relation to the

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cost of the proposed ozone precursor rule.
My analysis showed that the rule would cost about 3.2 billion dollars for the New Mexico oil and natural gas industry. That would be -- that would be about 3.8 billion over five years on a net present value basis -- and the proportion of the 3.2 billion. It would mean a 15 percent loss in overall petroleum, oil and natural gas production, with 12.9 percent of the oil and 22.8 percent in the natural gas production.
And it also had an impact on the state's economy of about 674 billion dollars per year and would lead to a loss of about 3,200 jobs in the state, and the tax impact on the state of about almost 23 million dollars. And that doesn't -- that does not include the revenues from the oil and natural gas development itself.
Now, all models are based on assumptions. And the assumptions that I used in this model are listed on this slide. The number of oil and natural gas wells I understand, is in question. We derive that data from the OCD Well Statistics. And I believe that the natural gas well number is probably too high, from what I've seen in other testing. And that doesn't -- that will change the magnitude of the costs, but it doesn't really change the impact, because what matters are the costs per well. And as the number of wells go down, then the costs go down,

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they coincide, so that would not really change the actual impact dramatically, though it would change the magnitude of the number.
HEARING OFFICER ORTH: I'm sorry to interrupt, Mr. Dunham. Mr. Dunham, this is Felicia. Is there a way for you to bring your voice up? We can hear you, but it's a bit of a struggle.
COURT REPORTER: I would recommend -- excuse me, this is Theresa. I would recommend getting rid of the virtual background. And you're looking down all of the time so you're not coming across as well. Thank you.
MR. DUNHAM: If I hold the microphone here, does that help?
MR. HISER: Not too much.
THE WITNESS: Not too much, okay. I apologize for that. I will try to speak a little louder. Is that better?
HEARING OFFICER ORTH: It's a little better.
THE WITNESS: I'll do my best to speak as loud as I can.
MS. KATZ: Some witnesses yesterday who were using headphones had better luck when they didn't use the headphones and just used the microphone on the computer. I don't know if that's a possibility.
THE WITNESS: Unfortunately, I don't have a

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microphone on this computer. I'll do my best to speak as loud as I can, if this helps.
Q. (MR. HISER) Go ahead.
A. So the assumption is also -- are based on prices at the time I did the study. At that time the price for oil was $56.14 a barrel, and the price per natural gas was about $2,800 in cubic feet.
Our model does not account for the gas production or the value of methane produced from primary oil wells, and that would have some effect on the overall results.
The other assumptions that are used in the model are that the prices that I just provided were taken from March for oil, and from January for natural gas. Those have changed somewhat, and as prices change either up or down, it would have an effect on the overall impacts.
Wage rates we took from BLS wages for the State of New Mexico. The most up-to-date at the time we did this was in May of 2020. And for our net present value, we used the high yield bond rates, which are in the exhibits. Right now, interest rates are very, very low, so the net present value calculations don't change much depending on what interest rate is used.
And the most important data are operational costs per facility, per well. That, we received from the NM Oil and Gas Association. And that was based on a survey of

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operators in the state that they conducted. We use these to -- we took this data, we ran it through a modeling we developed in 2018 for the Western Energy Alliance. It's a -- it's a cost model for the oil and natural gas industry in New Mexico. We developed these models for each state that they represented. We updated the model to reflect the assumptions that I just discussed, and that modeling uses data from IMLAN, which is the input/output model of the United States.
At the time it was using the New Mexico 2016 tables, and we separated the costs into seven categories: Exploration, permitting, drilling, completion, production, pipeline transportation costs, and remediation. So each individual facility would have those costs outlined, and each individual well would have those costs. The revenue numbers are based on those oil and natural gas price numbers. They assume exponential decline in production with 80 percent occurring in the first four years, and then production trailing off for 20 years, until the -- until the well is depleted.
It calculates the average profit margin for the base case in the state for -- for oil and for natural gas. And then we can shock that system with price changes. And the price changes being the cost of the regulation, both administrative and operational and capital -- I should say

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administrative, operational and capital costs. And then the model rebalances by shutting down the most un -- wells that become unprofitable based on those changes. So it shuts down the least profitable, then the next least profitable, then the next least profitable, until the margins balance out.

Those -- those costs are then fed into our economic impact model of the -- of the oil and gas industry -- that we produced for the Western Energy Alliance in 2018. That was the last time that model was updated. It's based on data from the physical location and employment of all oil and natural gas operations in the -- in the states that we were -- we were using it for New Mexico.

And then, from those employment figures, the supplier, the wages, output, all of those -- all of those figuring are calculated, using again the 2016 tables for the 2016 structure of the industry. It shocked the baseline by the 15 percent -- percentage loss in revenue that the cost model calculated. And the revenue is directly, almost literally associated with jobs in New Mexico, because most of the jobs are not higher jobs, they're production jobs, and those jobs fall by about 15 percent. And the supplier and industry jobs are calculated based on changes in -- supplier jobs are based

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on changes in direct output because output is the sales that are used to purchase supplies for the -- for the industry.

And then, in these jobs which are the multiplier effect of the -- of the operations; the spending in the general economy by people working in the -- in the industry. Those jobs fall, based on the loss in direct supplier wages.

So that is -- that is the basis of the -- of the report. As the assumptions change, we can run different numbers, which we -- we have done. The most important values that go into the model are the price of oil and natural gas and the actual costs of the regulation.

The number of wells -- well, again, it changes, but the magnitude, it doesn't change the impact on any given facility. So if we used too many wells, that the -- the 3 billion dollar number we came up with is too high, but what's spent on the actual production is pretty close. That is my testimony. If anyone has any questions, I can go into more detail.

Q. Mr. Dunham, this is a type of economic model that you've prepared for a number of rulemaking proceedings across the United States; is that correct?

A. Dozens, yeah.

Q. And this would be pretty typical of what you

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would see for economic impact evaluation of a new rule?

A. This would be what -- what -- for an economic impact, it wouldn't be what you would see for a regulatory impact analysis, which would be generally conducted by the agency proposing the rule.

Q. Okay. Thank you.

A. At the federal level.

MR. HISER: I believe that's all of our direct questions, Madam Hearing Officer, so we would tender Mr. Dunham for any questions from the Board or other parties.

HEARING OFFICER ORTH: Thank you, Mr. Dunham and Mr. Hiser. Ms. Katz, do you have any questions of Mr. Dunham?

MS. KATZ: I do have some, Madam Hearing Officer.

CROSS-EXAMINATION OF JOHN R. DUNHAM

BY MS. KATZ:

Q. Thank you, Mr. Dunham. So I just want to make sure, so you had -- Mr. Hiser asked you about some exhibits. And I just want to make clear, you didn't actually reference those exhibits in your -- by exhibit number in your testimony, correct?

A. No, no. Those -- those aren't referenced in the report that I produced for the New Mexico Oil and Gas Association.

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Q. Okay. But the actual report doesn't identify those as exhibit numbers either?

A. I -- no, it does not.

Q. Okay. Thanks. I just wanted to clarify that.

And then, so you -- so you cite those sources, but did you -- you didn't provide any of the actual numbers from those sources in your testimony, correct?

A. In -- in -- in -- in this -- in this testimony today, or in the report itself? I'm sorry.

Q. In your report that is attached to your testimony.

A. The numbers from those sources are cited in my report.

Q. So -- so you cite -- you cite the specific numbers that you used to put together what you have in your tables? Did you provide that? I think you referenced a cost of some number relating to natural gas and I didn't see that in there.

A. The value -- the cost of natural gas, yeah, that's -- that's in one of the tables. It's the --

Q. Okay. Can you point that out to me?

A. -- it's the cost of the price.

Q. Can you just point that out to me?

HEARING OFFICER ORTH: Hold on, guys. We really need you to speak one at a time. So just please wait for

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each other.
A. Let me -- let me just pull that report up so I have it in front of me. Am I still sharing my screen?
Q. (BY MS. KATZ) Yes, you are.
A. I am? How do I stop sharing my screen? I'm sorry. This is....
Q. I believe the Hearing Officer has to do that.
A. Those -- those prices are in Table 3 of my report.
Q. Okay. Thank you. Thanks for pointing that out.
So you stated that your analysis relies on data from "actual" oil and natural gas companies that are part of NMOGA's membership. Did you provide any of that data to the Board and the other parties as exhibits to your testimony?
A. I -- I didn't, personally. That's -- that's NMOGA's data and it's -- I -- I -- I can only share data at the request of the clients. It's their data. I don't know if they provided it or not.
Q. Okay. So -- well, they did not provide it, I will say. And so, I guess, so we're just supposed to take your word for that, then?
A. Well, it is -- it is -- again, it's a survey. It comes from companies and it's outlined in Table 7.
Q. I understand. But so -- but we're just supposed

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to take your word for what was actually in that survey, and the information in that survey, and the companies and the data that they provided?
A. Yeah. I'm under oath and I will -- I will say right now, that that is the data from the survey. I didn't make up --
Q. All right. So were you paid by NMOGA for your -- to conduct that analysis?
A. Yes, I was.
Q. And are you being paid -- paid to testify?
A. Yes, I am.
Q. Okay. So you said that this data came from ten companies; is that correct?
A. Yes, ma'am.
Q. Do you know how many companies operate in the State of New Mexico?
A. Not off the top of my head. I did actually have a number, so it's a large number of companies.
Q. So you point to inadequacies in ERG's cost estimates. Are you aware of the data and testimony provided by NMED in support of those estimates?
A. I've seen that testimony.
Q. Would you agree that it is difficult to evaluate an analysis when you don't have access to the data that was used as the basis for that analysis?

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A. Well, I definitely agree with that.
Q. Okay. And did you hear the testimony of the Department's modeling expert, Ralph Morris, where he discussed how all of the data and inputs he used for his model, as well as the modeling files themselves that were provided for review by all of the stakeholders, the parties, and the public in this rulemaking?
A. I didn't hear him. This is the first testimony that I'm hearing from this ruling.
Q. Okay. And would you agree that it is difficult to analyze the results of a model when you do not have access to the underlying assumptions of that model or to the data used as inputs to that model?
A. It's very difficult. It's almost impossible to analyze a model when you don't have the data or you don't have at least access to the source of it.
Q. Would you agree that the other parties' experts have been able to testify about what they regard as problems with the New Mexico Environment Department's cost estimates and modeling, those put forward in this -- in this rulemaking, because they had access to all the data and the full explanations for where those estimates -- for all of those estimates in that modeling?
A. I don't understand the question.
Q. Sorry. Yeah, that was awkward.

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Would you agree that the other parties are -- have been able to identify what they view as problems with the Department's cost estimates and modeling precisely because they had access to all of the data and the explanations for those estimates in modeling?
A. Only based on what the -- what the testimony was that I was given to look at. I wasn't -- again, I wasn't on the call to hear anybody. At the time I did this study, there was no regulatory impact model that I could find that outlined the state's cost estimates.
MS. KATZ: Okay. Thank you, Mr. Dunham. I have no further questions at this time.
HEARING OFFICER ORTH: All right. Thank you.
Ms. Fox, do you have questions of Mr. Dunham?
MS. FOX: No questions. Thank you.
HEARING OFFICER ORTH: Thank you. Ms. Paranhos?
MS. PARANHOS: Thank you, Madam Hearing Officer. Yes, I just have one question.

CROSS-EXAMINATION OF JOHN R. DUNHAM

BY MS. PARANHOS:
Q. Mr. Dunham, can you just explain whether or not you applied the costs in your analysis at the well level or at the well site level?
A. At the well level, the individual hole in the ground.

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MS. PARANHOS: Thank you.
HEARING OFFICER ORTH: All right. Thank you.
Mr. Jaynes?
MR. JAYNES: No questions, Madam Hearing Officer.
HEARING OFFICER ORTH: All right. Thank you.
Do we have Ms. Devore? I don't believe so.
Mr. Nykiel or Mr. Timmons?
MR. NYKIEL: No questions. Thank you.
HEARING OFFICER ORTH: Thank you. That was Mr. Nykiel.
Mr. de Saillan?
MR. DE SAILLAN: Yes, I have a number of questions for this witness. Thank you, Madam Hearing Officer.

CROSS-EXAMINATION OF JOHN R. DUNHAM

BY MR. DE SAILLAN:

Q. Good afternoon, Mr. Dunham. My name is Charles de Saillan. (Unintelligible.) Okay?
HEARING OFFICER ORTH: Mr. De Saillan, you seem to have cut out.
THE WITNESS: Yes.
HEARING OFFICER ORTH: I'm wondering --
MR. DE SAILLAN: Can you hear me?
HEARING OFFICER ORTH: Well, yes. We may have to ask you to turn off your video if that continues.

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Q. (BY MR. DE SAILLAN) Can you hear me now?
A. Yes, that's better. Thank you.
Q. Okay. Thank you.
MR. DE SAILLAN: Thank you, Madam Hearing Officer.
Q. Good morning, Mr. Dunham.
A. Morning, sir.
Q. My name is Charles de Saillan and I'm an attorney with the New Mexico Environmental Law Center. And I appreciate your testimony. I want to start out by emphasizing that I'm having a rather hard time hearing you. So I would very much appreciate it if when you respond to my questions, you try to be as -- enunciate as well as you can and speak -- try to speak loudly.
A. I apologize for that, sir.
Q. It's no problem, it's just, you know, this is technology.
A. This is technology, exactly.
Q. And I'm not as young as I used to be, and there were some rock concerts in my youth so my hearing isn't what it once was.
But I want to start out by asking you a few questions about your report and what you're looking at in your report just to make sure I understand. Now, as I understand your report, you're looking at the additional

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costs that the oil and gas industry would incur to comply with the proposed regulations. Do I have that right?
A. Yes, sir.
Q. And your report also estimates the jobs that would be lost if the proposed regulations are adopted; is that -- do I have that right?
A. Yes, sir.
Q. And those are costs not so much to the industry, but to the larger economy?
A. The jobs are lost both to the industry and to the larger economy.
Q. Okay. And then, your report also looks at the tax revenue that would be lost to the state if the regulations are adopted; is that correct?
A. Yes, sir, though -- though, I do not include the taxes on oil and gas production itself, you know, the royalties.
Q. Right, right. But you do include the tax revenues that would be lost, correct?
A. Sure. Yes, I do.
Q. And those again, those are costs to the larger economy, correct?
A. Yes, sir.
Q. Okay. Now, Mr. Dunham, do you acknowledge that oil and natural gas production results in the emission of

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oxides of nitrogen and volatile organic compounds?
A. I'm not a chemist or an engineer, sir, but I would -- I would -- I would assume that the oil and natural gas production does lead to emissions.
Q. Okay. And then those -- those pollutants form ozone in the atmosphere; do you more or less recognize that?
A. I'm not a chemist, sir. I -- I don't know what -- how those pollutants function.
Q. Right, I understand. And I'm not asking for your -- your expertise as a chemist or chemistry. I'm just trying to lay a basic foundation about what this hearing is all about. And then, do you understand that these substances are pollutants that are harmful to human health?
A. Again, sir, I'm not a doctor, I don't know how pollutants or -- would affect human health. I'm an economist, I -- I work with economic data.
Q. Okay. Then you wouldn't dispute any of these facts?
A. I -- I -- I can't accept or dispute them. I'm not an expert in -- in atmospheric chemistry.
Q. Okay. Well, then, Mr. Dunham, would you agree -- let's assume that these facts are correct. Okay? Can we take them as a given?

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A. Yes, sir.
Q. Okay. Now, given what we just discussed, would you agree that the emission of these pollutants has costs to other sectors of the New Mexico economy, other than the oil and gas industry?
A. In general, pollutants of all types have what economists would call externalities. So if you're located -- maybe your house is located under an airport, you have externalities due to the sound and the emissions from airplanes, and that would be priced in, you know, the property value of your -- of your property. You would have a lower property value than one that would not be under an airport runway. So it would be the same sort of thing.
Q. Okay. And so I want to -- I'm going to get into externalities with you in a bit, but I just want to -- I just want to establish that there are costs to other sectors of New Mexico economy as a result of the release or the emissions of these pollutants. And when I say other sectors, I mean other than the oil and gas industry; is that correct?
A. If -- if -- if the statements that you made were true, again, I can't vouch for that, then that would lead to other -- other costs.
Q. Okay. Now, let's take a couple of examples. For

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example, the emission of harmful pollutants would result in increased medical bills, right?
A. It's possible.
Q. Okay. But your report doesn't include those costs, does it?
A. No, my report was to look at the costs of the regulation on the production of oil and natural gas.
Q. Right. And -- and emission of harmful pollutants could result in lost days of work due to illness; is that correct?
A. Again, that -- that is possible.
Q. Okay. But your report doesn't attempt to quantify those costs either, does it?
A. Again, it was my job to calculate costs of the regulation. It would be a -- it would be a regulatory impact analysis that would look at externalities and social costs, potential benefits, et cetera.
Q. Okay. And emission of harmful pollutants could result in higher mortality rates; is that also correct?
A. Again, based on what you've suggested as a given, if pollutants cause health problems that could result in various types of health problems, including possibly mortality, I would think. But, again, I'm not a physician, I don't have any expertise in this.
Q. Okay. But your report doesn't include those

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costs, does it?
A. No, that wasn't the -- that wasn't my -- my commission.
Q. Okay. Now, aside from those costs, the ones that I just asked you about, wouldn't you also agree that there are benefits in breathing clean air, that are very difficult to quantify in this sort of economic analysis?
A. In the type of analysis I perform?
Q. Yes.
A. Again, I didn't do a regulatory impact analysis. A regulatory impact analysis would take into account all of those social-type aspects.
Q. Right. Okay. So, Mr. Dunham, is it -- is it your understanding that oil and natural gas production also results in the emission of methane into the atmosphere?
A. Well, natural gas basically is methane, so it would be possible. Again, I'm not an engineer so I'm -- I'm not an expert in this.
Q. Okay. And do you acknowledge that methane is a potent greenhouse gas?
A. I have no idea on that.
MR. HISER: Madam Hearing Officer?
A. I'm not an environmental scientist.
HEARING OFFICER ORTH: Hold on. Hold on one

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second. I heard an objection of some kind.
MR. HISER: Yes, Madam Hearing Officer. This is Eric Hiser for NMOGA. Mr. Dunham has repeatedly stated that he conducted a cost analysis of the cost of this rule on the oil and gas industry, that he did not conduct a regulatory impact analysis looking at all of the other conceivable costs and benefits of the rule. We could go through and try to identify all of those, but I think the question has been asked and answered.
HEARING OFFICER ORTH: Mr. de Saillan?
MR. DE SAILLAN: Yes, Madam Hearing Officer. Mr. Dunham has gone into a fair amount of detail in estimating what he considers to be the costs of this proposed rule. And I think -- and I think that's -- that's legitimate information for the -- for the -- for this Board to hear. But on the same token, I think it's been entirely appropriate that the Board hear what his report does not include. And I am going into a little bit of detail on that, but not nearly as much detail as Mr. Dunham has gone into. And, again, I think that it's important for the Board to understand what is not in his report.
HEARING OFFICER ORTH: I understand that. Keep going, if you would. I think -- I think that's an appropriate line of inquiry. I'm sorry for interrupting

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you, Mr. Dunham.
MR. DE SAILLAN: Thank you, Madam Hearing Officer.
Q. (BY MR. DE SAILLAN) Now, if we could go on. I think your report states -- well, your report does state, and I'm going to quote at page 8 of your report, which is attached to your testimony -- attached to your written testimony. It says, "Based on the Western Energy model, if the costs outlined above are reflective of the entire industry in the State of New Mexico, the results would be devastating for the oil and natural gas sector of the economy." Do you recall that statement, Mr. Dunham?
A. I can look for the exact wording, but that would be -- that would be a true statement.
Q. Okay. Now, would you agree with me that if climate change caused by anthropogenic emissions of greenhouse gas into the atmosphere is left unchecked, the results would be devastating for the New Mexico economy as a whole?
A. I don't even understand the question, sir.
Q. Let me repeat it. Would you agree with me that if climate changes caused by the anthropogenic emissions of greenhouse gas into the atmosphere is left unchecked, the results would be devastating for the New Mexico economy?

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A. I can't even answer that question.
Q. Okay.
MR. HISER: Madam Hearing Officer, this is Eric Hiser again.
HEARING OFFICER ORTH: Yes, sir.
MR. HISER: I can appreciate your desire to let everything into the record as much as possible, but I do think we need to caution the Board about testimony by counsel as to the -- these costs, because none of these are in evidence yet.
HEARING OFFICER ORTH: Okay. No, I -- I take your point. And Mr. De Saillan is going to have to find a basis for the assumptions and -- the basis, again, for the assumptions in the questions he's posing. And I will be paying attention to that, but it's -- it's a long record, so I trust he's -- I trust he's going to be able to do that later, but thank you for -- thank you for reminding us.
Go ahead, Mr. De Saillan.
MR. DE SAILLAN: Thank you, Madam Hearing Officer.
Q. (BY MR. DE SAILLAN) Now, Mr. Dunham, you mentioned a minute ago the concept of externalities. I want to talk to you a little about that. The term refers to costs that are external to the price paid for goods or

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service, and are, thus, borne by other sectors of the economy or by the public at large. Is that accurate?
A. Roughly; they're the costs that are not associated with the market transaction.
Q. Right.
A. So the -- it would be both the production and the consumption of a good or service.
Q. Okay. And do you agree that environmental pollution is an example of an externality?
A. Environmental pollution or pollution of any type is generally considered in a regulatory impact analysis as -- pollution as an externality.
Q. Right, okay. And in fact, it's often used as a textbook example of an externality, isn't it?
A. It's used as -- it's a common issue which is an externality, yeah.
Q. Okay. And would you agree that installation of pollution control equipment is a means of internalizing external costs?
A. I'm -- I'm not an engineer, so I don't know how the pollution control equipment would work, but it would internalize external costs by -- you could -- you could actually say, internalize external costs by a number of means, including pricing or equipment or different systems.

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Q. Okay. So that would include installation of pollution control equipment?
A. Potentially. I'm not an engineer, so I don't know how pollution control equipment would affect actual pollution.
Q. But if the pollution control equipment reduces the emission of pollution, that would reduce the externality, right?
A. Potentially, yes.
Q. Okay. And that way the total costs of producing a good are more accurately reflected in the price paid to that good; is that right?
A. If externalities are reduced, then the market transaction is more reflective of the -- the overall supply and demand of costs and -- and, yeah, costs of a good or service.
Q. Okay. Now, Mr. Dunham, your report includes the costs to the industry of pollution control equipment that would be required under these regulations; is that correct?
A. Yes, sir.
Q. Okay. And your report states -- and this is at page 5, that "Under the proposed regulations there would be as many as 16 provisions that will require additional equipment to be installed and maintained." Do you recall

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that statement?
A. I'm looking for it now, but that -- that sounds -- yes, that's actually what it does say. You're correct.
Q. Okay. And could you tell us what some of that equipment would be?
A. It's outlined in Table 7 of my report; it's things like compressors, flares, paper recovery units, et cetera.
Q. Okay. And zero emission controllers, was that another one?
A. I do not know because I'd have to go back and look at the actual raw data and see if I combined that into something. It's not on my table.
Q. Okay. Okay. That's okay.
Now, that equipment will need to be manufactured; is that correct?
A. I would assume so, yes.
Q. And -- and the manufacturer of that equipment will create jobs; is that right?
A. The manufacturer of that equipment would create jobs.
Q. But your report doesn't include those additional jobs, does it?
A. My -- my report is not a report on the emission

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control industry. It's a report on the New Mexico oil and natural gas industry.
Q. Okay. And -- and the equipment will need to be installed; is that correct?
A. I would assume so.
Q. And that installation will create jobs, won't it?
A. That will also create costs because the installation of that equipment is part of it.
Q. Right, but my question is -- my question is whether it will create jobs?
A. Installing equipment?
Q. Yes.
A. Installing equipment would lead to jobs; whether or not it would create it, I don't know. I haven't examined that.
Q. Okay. And that equipment will need to be maintained as well, won't it?
A. I would assume so, but, again, I'm not an engineer. I don't know how the equipment works.
Q. I'm sorry?
A. I'm sorry. I'm just -- the technology is not great. I'm not an engineer, I don't know how the maintenance schedules for this type of equipment works, but I would assume that there would maintenance on any kind of equipment.

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Q. Okay. And that -- and that maintenance will create jobs?
A. It would -- it would create activity; whether or not it would create new jobs, again, I can't tell you because I haven't examined that.
Q. Okay. And the manufacturer and installation of the pollution control equipment will also create tax revenues; is that correct?
A. Potentially. Again, that equipment could be manufactured completely outside of New Mexico. I don't -- I didn't examine the pollution equipment industry in this state.
Q. Okay. But the installation would create tax revenues in New Mexico, correct?
A. Again, potentially. I don't know how that would -- how the structure of this reflects on New Mexico's tax revenue of the state.
Q. Okay. But your report doesn't consider those -- those savings, does it?
A. My report was to look at the cost of the New Mexico oil and gas industry, not on the pollution control industry.
Q. Yeah, okay.
Now, Mr. Dunham, I presume that you're familiar with cost/benefit analysis?

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A. Yes, sir, I am.
Q. And could you explain to the Board what cost/benefit analysis is in economic terms?
A. Cost/benefit analysis is really a business -- a business concept. It's an examination of the -- of the various costs going into a -- we would say a production function, but into an activity. In this case, say, drilling of oil or natural gas. And the benefits would be the resultant revenues that one would make from that, in that well. So if your costs are higher than your benefits, then you don't drill that well, which is kind of what our model is based on.
Q. Now, your report, as I understand it, and I think as you've testified is more a cost analysis or a cost impact analysis, rather than a cost/benefit analysis; is that correct?
A. That is correct, sir.
Q. But your firm -- your firm does do cost/benefit analysis, right?
A. Yes, it does.
Q. And indeed, your firm's brochure states that cost-benefit analysis is one of the services that it provides; is that correct?
A. Yes, sir.
Q. And have you, personally, prepared cost/benefit

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analyses?
A. Very many of them.
Q. Okay. And so, I'd like to ask you, why was it you decided to conduct a cost analysis here rather than a cost/benefit analysis?
A. I didn't decide what type of analysis to conduct. I'm a -- I'm a consultant. I received a commission and I performed that analysis.
Q. Okay. Thank you.
And then a couple of questions about your model. You referenced a Western Energy Alliance modeling in your report; is that correct?
A. Yes, sir.
Q. And could you tell us what Western Energy Alliance is?
A. Western Energy Alliance is a trade association representing the oil and natural gas industry in -- I'm going to get this wrong, I'm sorry; I think it's 12 or 13 states.
Q. Okay. And most of the figures that you show in your report are the products of that model?
A. Some of the figures are; the economic impact figures are.
Q. Okay. Now, is that model itself in the record in this proceeding?

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A. The citation to the model is in my report.
Q. But is the model itself in the record?
A. The entire model, no, it's not owned by anybody involved in this proceeding, I don't believe.
MR. DE SAILLAN: Okay. Mr. Dunham, thank you for your patience with me here today. I have no further questions.
THE WITNESS: Thank you, sir. I'm sorry about the volume.
HEARING OFFICER ORTH: Thank you, Mr. de Saillan.
Mr. Rose, do you have questions of Mr. Dunham?
MR. ROSE: I do not.
HEARING OFFICER ORTH: Thank you. Mr. Janoe?
MR. JANOE: I do not.
HEARING OFFICER ORTH: Thank you. Mr. Butzier?
MR. BUTZIER: No. Thank you, Madam Hearing Officer.
HEARING OFFICER ORTH: Thank you. Ms. Gutierrez?
MS. GUTIERREZ: No questions. Thank you.
HEARING OFFICER ORTH: Thank you. Let's see. Do we have Mr. Neumann or Mr. Colclasure?
MR. COLCLASURE: This is Mr. Colclasure, we have no questions. Thank you.
HEARING OFFICER ORTH: Thank you. And Ms. Witherspoon?

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MS. WITHERSPOON: No questions. Thank you.
HEARING OFFICER ORTH: Thank you. We're going to turn now to the Board for their questions. While I'm doing that, if you are an attendee on this platform and you would have a question, please reach out through the Chat.
So let's start with Madam Chair, do you have questions of Mr. Dunham?
CHAIRPERSON SUINA: Thank you, Madam Hearing Officer. Yes, I do have a few question of our witness, Mr. Dunham.

EXAMINATION BY THE BOARD OF JOHN R. DUNHAM

CHAIRPERSON SUINA: First of all, good morning, Mr. Dunham. Thank you for your presentation and all of the information that you've provided us this morning as well as your written testimony and report. Appreciate your time and also patience. This is a lot of information to try to weed through and look back at the basis of the assumptions and the model itself.
I just have a couple of clarifying questions in my mind, just so that I'm clear on how the model was put together. And, again, some of the initial assumptions. So based on your presentation slides this morning, you said the model was developed for Western Energy Alliance in 2018. And that was really just the structure or how

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the model was created; is that -- is that correct?
MR. DUNHAM: The structure of the model and also the baseline economic impact figures were from 2018 in that model.
CHAIRPERSON SUINA: Okay. So the baseline economic data is from 2018, then; is that what you're saying?
MR. DUNHAM: The job data, the wage data, yes, that is from there.
CHAIRPERSON SUINA: Okay. And -- and in your report in the tables, so back to like the job data and so forth; in some of the tables, for example, Table 12, it refers back to an update to the economic impact --
Oh, Madam Hearing Officer, I just want to make sure, it's okay to refer to the report -- to his report; is that -- is that?
HEARING OFFICER ORTH: Yes, I think it's okay.
CHAIRPERSON SUINA: Okay. I just want to make sure.
So in Table 12 of your report, we're looking at a comparison of economic impacts from 2020 to 2021. But that economic analysis was done based upon updated job data or 2018 job data?
MR. DUNHAM: No, everything is based on 2018 job data.

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CHAIRPERSON SUINA: Oh, okay. Including that update on the tables?
MR. DUNHAM: Yes, ma'am.
CHAIRPERSON SUINA: Okay. All right. Well, I appreciate that clarification.
And is that the same assumption for the other tables in your report, like Table 10, 11 and Table 9?
MR. DUNHAM: Give me one second. Table 9, yes.
CHAIRPERSON SUINA: Okay.
MR. DUNHAM: Table 10 and Table 11 are data that we -- that we gathered based upon the -- the wording of the rule when we did this analysis a year ago, and when we did this analysis this time. And -- and some different pricing data, things like that; it's not the -- it's not job data, no.
CHAIRPERSON SUINA: Okay. So you're saying in some of these tables there were updates on the base assumptions of jobs and some prices; is that what you're saying?
MR. DUNHAM: Not jobs, but on some prices, and that is all in Table -- let me just look through this myself -- Table 3.
CHAIRPERSON SUINA: Can you repeat that table number? Sorry, I didn't hear it.
MR. DUNHAM: Sorry, Table number 3.

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CHAIRPERSON SUINA: Three, okay. Okay. I appreciate that. And so in Table number 3, you're saying the updated price data that was referenced in Table number 3 -- and I think in your slides earlier, it -- is that the data that was based upon the operational cost -- some of the data based upon the operational costs from the survey of the ten companies?
MR. DUNHAM: No, ma'am. This is data based on -- on information from the U.S. Department of Energy and based on information that -- that we interpreted from -- from the State of New Mexico, though I've been told that I interpreted the natural gas wells incorrectly.
CHAIRPERSON SUINA: Okay. So that interpreted data from New Mexico, you're saying -- can you repeat that last part again? Sorry, it was kind of mumbled.
MR. DUNHAM: Yeah, the number of actual wells -- the number of actual facilities is from -- is from the State of New Mexico, but, again, I've been told I interpreted the number of gas wells in particular incorrectly.
CHAIRPERSON SUINA: Okay. And can you explain a little bit more of how that interpretation, was it an overestimate or an underestimate?
MR. DUNHAM: It's an overestimate.
CHAIRPERSON SUINA: An overestimate, okay. Thank

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you for that, Mr. Dunham. Again, sorry, I'm trying to walk through all of this data and where all of it's coming from and base assumptions. I appreciate your patience with me.
So I understand that in your report, I think it was in Table -- sorry, I'm scrolling through here really quickly. Oh, yes, it was in -- on page 8 and page 9 in your report. Some of the changes that you referenced from the prior analysis, and you examined the two regulations, one going through the OCC and then one going through EIB. And so, in your -- in your subsequent tables, does that already take into consideration the rules that were passed under OCC?
MR. DUNHAM: The -- the earlier analysis was looking at those rules, as well as an earlier version, I believe, of this rule.
CHAIRPERSON SUINA: Okay. And then the 2021 results that are in Tables 10 and 11 and 12, are those -- does that include the -- your analysis about the impact with the OCC rules?
MR. DUNHAM: No, it does not. No, that's just looking at this rule.
CHAIRPERSON SUINA: Okay. It's just looking at the EIB rule?
MR. DUNHAM: Correct.

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CHAIRPERSON SUINA: Okay. Thank you for that clarification. Again, I apologize for all of these questions.
MR. DUNHAM: Not at all.
CHAIRPERSON SUINA: And -- and so in one of the other statements in your report is that the estimated administrative costs of the rule has risen based not only on the higher wages in New Mexico, but because the proposed rule imposes more administrative requirements. And I just wanted to, again, take note, is that administrative cost, the assumption, based upon job data from 2018 or 2021?
MR. DUNHAM: No, the administrative cost assumptions are based on a similar rule that had been proposed by the U.S. EPA. And I'm going to get the date wrong, I think it was 2016. And we took those and applied the current New Mexico -- those hours and applied the current New Mexico wage rates to -- and the -- and the number of regulations. So the hours per administrative task, times the number of administrative tasks, times an average wage.
CHAIRPERSON SUINA: Okay. Well, thank you for that. And then in Table 11, it talks about the operational and the administrative costs, and it compares the 2020 model to -- or numbers to the 2021. And I see a

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percentage change of administrative costs of 28.9 percent? And then --

MR. DUNHAM: Yeah, that's it.

CHAIRPERSON SUINA: Sorry about that. And then an operational cost of negative 2.5 percent. And so, could you explain a little bit more of why -- or explain, one, maybe the easy one is why the operational costs went down?

MR. DUNHAM: Yeah, the operational costs went down based on the number of wells that we were looking at, as well as the -- as well the -- (unintelligible)

HEARING OFFICER ORTH: Mr. Dunham? Mr. Dunham? Mr. Dunham, I'm sorry, we cannot hear you. Would you -- when you were leaning forward it was better.

MR. DUNHAM: Oh, okay. Is this better? Is this better?

HEARING OFFICER ORTH: Yes, it is.

MR. DUNHAM: Okay. I really apologize for the technology. I'll get new headphones.

The operational costs changed -- it's a small change that's based on the number of wells that we were looking at, changed and some of -- I believe some of the pricing changed a little bit.

CHAIRPERSON SUINA: Okay. Thank you so much. And so then the administrative costs that went up 28.9

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percent; you're saying that was based on more the labor hours and the increase in wages; is that -- is that accurate?

MR. DUNHAM: Both. It's both.

CHAIRPERSON SUINA: Both, okay. All right. And -- and so I know you have another -- so I'm going through the tables here; Table 12, so you have the 2021 comparison with the 2020 analysis. And, again, I'm just wanting to make sure I have it clear in my head. So this 2020 analysis was based upon the previously proposed rule -- rule that was back in last year, basically, the previous version?

MR. DUNHAM: Yeah, but it was the previous version in -- in -- in conjunction with the other rule.

CHAIRPERSON SUINA: Okay. And then -- and then so, therefore, the 2021 version, is that comparing the passing of the other -- the OCC rule and the EIB rule or just the EIB?

MR. DUNHAM: That's just the EIB rule.

CHAIRPERSON SUINA: Okay. So it doesn't include both, whereas the 2021 did include both?

MR. DUNHAM: The 2021 is a separated -- is what we separated out as this rule from that rule. Again, it was -- it's a very different analysis.

CHAIRPERSON SUINA: Okay. Okay. I just want to

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make sure I understand what the tables are comparing. And so the 2020 table does include both and the 2021 doesn't include both?

MR. DUNHAM: The 2020 includes a -- it includes just this case of the rule in conjunction with both, but we ran the models together so it kind of doesn't really work out that way.

CHAIRPERSON SUINA: Okay. Madam Hearing Officer, I think that's all I have for right now. And I may have a little bit more questions depending on what the other Board members ask. Thank you so much.

HEARING OFFICER ORTH: Thank you, Madam Chair.

Vice-Chair, Trujillo-Davis, do you have questions of Mr. Dunham?

Oh, we can't hear you. You're unmuted on my platform, but there may be a setting on your computer. And now your screen is frozen. How about we turn off your video?

Okay. Vice-Chair Trujillo-Davis seems to have frozen in time. Give her just a moment. All right. This may take more than a moment. Ms. Trujillo-Davis, if you can hear me, it may help for you to leave the platform and come back in. That worked for another panelist this morning.

Member Cates, do you have questions of

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Mr. Dunham?

BOARD MEMBER CATES: Yeah. Can you hear me okay? Everything working?

HEARING OFFICER ORTH: I can.

BOARD MEMBER CATES: Yeah, Mr. Dunham, so a couple of quick ones just to follow up on what -- on what Mr. -- and I'm sure I'm butchering his name and I just have to get a document in front of me before I -- to follow up on what Mr. De Saillan was saying. So around the notion of the job effects. So if we look at this rule as essentially an enlarged sort of -- something that would trigger a large sort of private sector infrastructure project through the tightening of a leaky system, then it seems to me it would create a whole variety of jobs that would include like, I don't know, welding pneumatic controller skilled sorts of adjustments. And generally it would in some ways actually be a plus to the economy, in terms of job creation around infrastructure improvements.

And as a point of clarification, I wanted to make sure that you didn't go there in your report; is that right?

MR. DUNHAM: No, I didn't. However, that's something that the economists call the broken window fallacy. So those kinds of jobs would be created. It's the same thing as if you break windows, you create jobs

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for wages. But it doesn't -- yeah, it doesn't have an overall effect because you're taking away jobs from somebody else.

BOARD MEMBER CATES: So it would be your contention that this rule is not in any way a job creator; is that correct? Is that -- is that your point of view?

MR. DUNHAM: It wouldn't generally be a job creator, no.

BOARD MEMBER CATES: And so another question I had.

MR. DUNHAM: I'm sorry, I meant a net job creator on that.

BOARD MEMBER CATES: I'm sorry, say again.

MR. DUNHAM: A net job creator. It would create certain jobs, but it would take away other jobs.

BOARD MEMBER CATES: And you don't know what the -- do you have a feeling for what the net effect would be?

MR. DUNHAM: No, sir, I wasn't -- I wasn't asked to look at that.

BOARD MEMBER CATES: Is that -- I'm sorry. Is that a no?

MR. DUNHAM: It's a -- it's a no.

BOARD MEMBER CATES: You don't have a feeling. So you don't have a feel for what the net job impact would

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be from this rule. Okay. So -- so one of the other things you mentioned was that -- that this is going to cost the industry a certain -- a huge amount of money. I think you said something on the range of 30 billion dollars and that's based on your assessment of information from ten different companies. Do I have that about right?

MR. DUNHAM: I believe it was 3 billion dollars that it works out from the cost information.

BOARD MEMBER CATES: Okay. Well, that's a big difference, but 3 billion dollars is still a lot of money.

Did you happen to calculate that number in terms of what's -- you know, what is that in terms of the percentage effect on the bottom line of the industry? Is it 10 percent?

MR. DUNHAM: I don't know that off the top of my head. I could -- I could calculate that if you would like, and I could send you something. I don't have that off the top of my head.

BOARD MEMBER CATES: I just wondered like, so it's a raw number that's hard to put into context, without knowing like what is the exact -- you know, what is that in terms of the percentage of the bottom line of the industry. And then, I wanted to tie that to -- so you -- you did your numbers based on 2018 prices for, say, West Texas Intermediate Crude and Henry Hub prices, right?

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MR. DUNHAM: No, the model is based on current prices in New Mexico for both oil -- (unintelligible.)

BOARD MEMBER CATES: Wait. And so that was -- was that in 2018?

MR. DUNHAM: No, the --

HEARING OFFICER ORTH: Hold on. I'm sorry. I'm sorry to interrupt. Theresa, where did you lose them?

COURT REPORTER: Okay. In the last answer, it was, "No, the model is based on current prices in New Mexico for both," and then I did not hear you.

MR. DUNHAM: I'm sorry, ma'am. Oil and natural gas.

BOARD MEMBER CATES: And that was in 2018, right?

MR. DUNHAM: No, sir, that was current prices. That was current at the time I did the model.

BOARD MEMBER CATES: And so, okay. You said current prices at the time you did the model. When -- what was the time frame when you did the model?

MR. DUNHAM: I believe I have the -- the prices were from, I believe -- I can look back in my testimony, I think March and January for the oil, March -- and January for natural gas.

BOARD MEMBER CATES: Yeah.

MR. DUNHAM: Of this year.

BOARD MEMBER CATES: So I was just wondering, so

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the price of natural gas today is $5, I think, which is roughly double what it was at the time that you did your study. West Texas Intermediate today is $75, which is up considerably from that time. And so my question is, with -- would these higher prices mitigate the numbers? Would it change the numbers, in terms of the net impact on the oil industry? That is, would they change the numbers in your report? Would the higher prices affect the bottom line of the changes that are being proposed?

MR. DUNHAM: Higher prices would affect the bottom line; not necessarily Henry Hub or WTI stock prices, but the wellhead prices in New Mexico, which are up since we did the report.

BOARD MEMBER CATES: Yeah, okay. That's all I have. I appreciate you testifying today and thank you.

HEARING OFFICER ORTH: Thank you, Member Cates. Let's return to Vice-Chair Trujillo-Davis. I'm glad you were able to get back on.

Oh, no, I'm sorry, we can't hear you. You're unmuted on the platform.

VICE-CHAIR TRUJILLO-DAVIS: Can you hear me okay now?

HEARING OFFICER ORTH: It's very low, very low.

VICE-CHAIR TRUJILLO-DAVIS: Okay. I'll take the next turn.

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HEARING OFFICER ORTH: Okay. Let's see. Let's go to Member Bitzer.
BOARD MEMBER BITZER: Can you hear me okay?
HEARING OFFICER ORTH: Yes, very clearly.
BOARD MEMBER BITZER: I've got the fantasy speaker going here that I can move closer to my head and farther away when we have somebody who is very soft.
Real quick, first of all, why -- why didn't you look at the royalties loss component? Is that an involved analysis or just outside the scope of your work?
MR. DUNHAM: It was outside of the scope of my work.
BOARD MEMBER BITZER: Any rough estimate off the top of your head, what those might be?
MR. DUNHAM: No, sir, I don't have that.
BOARD MEMBER BITZER: You do this for a living, you've done it for a long time. You've got great credentials. I'm wondering if you have sort of a ballpark in mind for what -- because I imagine these figures -- your -- your data is or your results are subject to ebb and flow based on the price of a barrel of oil, for example, or a cubic yard of natural gas. But what would -- let's stick with oil for a minute here. What would a -- what would a $10 increase or a $10 decrease -- a $10 delta do to -- to these figures? How substantially

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would they change?
MR. DUNHAM: The figures would -- the figures would definitely change based on the -- on the change in the price. It really depends on -- the model itself is not linear, so I'd have to actually run it through the model to see. But you can -- you can definitely, as prices go up, it's going to have a -- it's going to have a positive effect on the industry. I mean, I'd say a negative effect on our impact.
BOARD MEMBER BITZER: So if the prices --
MR. DUNHAM: Meaning that is less.
BOARD MEMBER BITZER: Yeah. If the price were to go up, it could offset some of your projected losses then?
MR. DUNHAM: Correct, and if it was to go down it would be the opposite.
BOARD MEMBER BITZER: And your analysis is static? It assumes the -- the price at, $55 a barrel?
MR. DUNHAM: Yeah, about 56.
BOARD MEMBER BITZER: Okay. So $56 a barrel. But no guesstimate if it went to $65 dollars a barrel, how much the negative impact would be reduced?
MR. DUNHAM: I -- I honestly can't give you that, you know, and be anywhere accurate, because it's not a linear model.
BOARD MEMBER BITZER: Right. Yeah, I know the

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state does an analysis -- the state budget people have an analysis for it by the dollar, I think, with regards to the price of oil. But I imagine it's not -- it's not linear either, but they've figured it out for the full range over the years, or they tried to anyway.
That's all I have. Thank you.
HEARING OFFICER ORTH: All right. Thank you, Member Bitzer.
Vice-Chair Trujillo-Davis, I understand we may be able to hear you now.
VICE-CHAIR TRUJILLO-DAVIS: Can you hear me now?
HEARING OFFICER ORTH: Terrific. Thank you very much. Okay. Go ahead, please.
VICE-CHAIR TRUJILLO-DAVIS: Great. Thank you. I apologize for that. I just had a couple of clarifying questions, Mr. Dunham. You mentioned that the data that you used for your report, you gathered from a survey of NMOGA members; is that correct?
MR. DUNHAM: It came from a survey of NMOGA. Yes, it came from a survey of NMOGA members.
VICE-CHAIR TRUJILLO-DAVIS: And can you give us some insight to what that survey -- what kind of questions that survey asked?
MR. DUNHAM: I don't have that in front of me. It was -- it was a cost survey of various components. But

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I don't --
VICE-CHAIR TRUJILLO-DAVIS: Okay. And --
MR. DUNHAM: -- that was from NMOGA. You'd have to ask them for that.
VICE-CHAIR TRUJILLO-DAVIS: Okay. And I don't know if this is an appropriate time, Madam Hearing Officer, you can direct me if I'm wrong. But I'd like to ask questions about Exhibit 38, which is the NMED economic analysis and just where that data source came from. Was it from a survey as well?
HEARING OFFICER ORTH: So, first, you have to establish that that is information that Mr. Dunham would have, and then you can ask the question.
So, Mr. Dunham, do you know whether there was a survey involved there?
MR. DUNHAM: No, ma'am, I do not.
HEARING OFFICER ORTH: Okay. I'm sorry Vice-Chair, then it's not appropriate to question him further about that point.
VICE-CHAIR TRUJILLO-DAVIS: All right. That's okay. Are we going to speak to anybody later in the hearing? I checked the Excel spreadsheet, but I didn't see where it was mentioned that we would be talking about Exhibit 38.
HEARING OFFICER ORTH: So I trust that Ms. Katz,

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who has three witnesses on economic analysis, will be addressing it, but let's double-check. Ms. Katz?

MS. KATZ: Thank you, Madam Hearing Officer. So we do have three witnesses to put on in rebuttal for Mr. Dunham's testimony. And I know you were mentioning NMED Exhibit 38 and that's the Pennsylvania General Permit 5A. Is that what you're asking about?

VICE-CHAIR TRUJILLO-DAVIS: Maybe I may have the wrong exhibit number. I was looking at the NMED's cost analysis, but we can come back to that when we do your update, and you have your rebuttal witnesses. That's okay. I just wanted to understand where the data was coming from, so...

MS. KATZ: Yes, and they will -- those -- and our data is provided in each section of the rule. So that might be -- but, yes, you can ask our witnesses when we get to them.

VICE-CHAIR TRUJILLO-DAVIS: Okay. Thank you.

So back to Mr. Dunham, your data came from a survey from NMOGA members. And the loss to -- that you estimated, was that total loss to the company or just loss to the company in New Mexico?

MR. DUNHAM: The job losses or the costs?

VICE-CHAIR TRUJILLO-DAVIS: Actually, both would be really insightful.

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MR. DUNHAM: Actually, both are New Mexico, yeah.

VICE-CHAIR TRUJILLO-DAVIS: They're just for New Mexico?

MR. DUNHAM: It's all just for New Mexico. They're specific to New Mexico loss.

VICE-CHAIR TRUJILLO-DAVIS: Okay. Great. That's all I wanted to clarify. Thank you very much.

HEARING OFFICER ORTH: Thank you, Vice-Chair. Member Duval? I believe you have been with us, but having trouble with your video. Happy to have you question Mr. Dunham using only your sound. Can you hear me? Member Duval? So I can see that you're unmuted on the platform, but I'm not hearing you.

So Member Duval is messaging that he's on and he can hear me. I'm sorry, Member Duval, we can't hear a thing. Member Duval, you've been unmuted. I can see that there's a green microphone next to your name. But now he's saying he has no questions, so thank you very much, Member Duval.

Let's move to Member Garcia.

BOARD MEMBER GARCIA: Thank you, Madam Hearing Officer. I do have a couple of questions.

Thank you, Mr. Dunham, for your testimony. The benefit of being the last person is a lot of people already asked some of the questions that I had. But along

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the lines of the question that I think Member Trujillo-Davis already asked is, you said that ten companies were surveyed and you don't know what the questions were that they were asked; is that correct?

MR. DUNHAM: No, I do not know.

BOARD MEMBER GARCIA: So you're just looking at their answers for your analysis? I'm confused about that. If you don't know what they were asked, what -- what information do you have for your analysis?

MR. DUNHAM: I have per well costs for various components of the rule, the various equipment and operation components from ten different companies.

BOARD MEMBER GARCIA: Okay. Do you know if the companies that were surveyed, were they a sprinkling of small companies and large companies? Do you know anything about the size of these companies that were surveyed?

MR. DUNHAM: You would have to ask the NMOGA about the survey. Again, I was given the results to work with.

BOARD MEMBER GARCIA: Okay. Thank you. Then, I thought it was interesting when I think it was Mr. De Saillan asked about a cost/benefit analysis. That -- that definitely would be very interesting to see. Could I ask you, sir, if -- if you had done a cost/benefit analysis, what kinds of benefits would be considered if you were to

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do a cost/benefit analysis? And I'm not asking you for a hypothetical about how it would come out. I'm just -- I'm just curious about what kind of benefits might be considered in a cost/benefit analysis for this type of industry?

MR. DUNHAM: I can give you just sort of an example of a cost/benefit analysis. I write the annual cost/benefit analysis for the Port Authority in New York and New Jersey, for example. And in that case we would look at benefits of a -- of something like this, we would look at benefits to noise, to wildlife, to various types of pollution. Those -- those are probably the largest; I mean you can -- you can stretch a cost/benefit analysis to a lot of -- a lot of kinds of things, but it starts getting to be more mucky as you get out. And -- but -- but in this case, the geography matters as well. If you have noise happening, where you're in the middle of the desert and there's nobody there, it has a lot less value than if you have noise in an urban area. All of those things matter. Time; time is a thing that you look at a lot, creating time. You know, those -- those kinds of things.

BOARD MEMBER GARCIA: Okay. And I'm wondering if you would consider would there be a benefit to the industry for some of the equipment that they may have to

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buy that would reduce leakage? Would that be considered a benefit of any kind? I understand the equipment is expensive, but would -- did you in this study or -- or perhaps in a cost/benefit analysis, would you look at the benefit to the company of the equipment that would -- that would reduce leakage?

MR. DUNHAM: The equipment would show up on the cost side of the ledger. A reduction in leakage would show up on the benefit side of the ledger, either as a pollution-type of effect or potentially as a benefit to the company. Again, I would have to really scope out that type of analysis with an engineer.

Like with an airport analysis, I'm -- I'm not a pilot, you would -- you would talk to the runway engineers, the engineers that are working on the runway, the engineers that, you know, work with aircraft, you know, that's where you get your information. I'm an economist, I'm not an oil and gas driller, but those are the kinds of things you would look at, yes.

BOARD MEMBER GARCIA: Okay. That's all my questions. Thank you very much, sir.

MR. DUNHAM: Thank you, ma'am.

HEARING OFFICER ORTH: Thank you, Member Garcia.

Member Honker, do you have questions of Mr. Dunham?

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BOARD MEMBER HONKER: I do. I have a few. So good morning, Mr. Dunham.

MR. DUNHAM: Good morning.

BOARD MEMBER HONKER: And thanks for your testimony. I'd like to return to the -- the kind of net impact issue that Member Cates raised and Member Garcia just mentioned. Earlier, you referred to the benefits from the company spending all of this money for compliance as benefits to the pollution control industry. But it seems to me that these increased administrative costs, the additional monitoring and observations that are required, some of that work the companies may choose to do themselves and -- and might well do. So, wouldn't you think, rather than just grouping this as a pollution control industry benefit, the company -- other employees in the companies themselves would -- would get some additional work or even jobs created in order to meet those aspects of these requirements?

MR. DUNHAM: Yes, but, again, that's what we call a "broken window fallacy." If it's a cost that's not -- if it's a cost that's not aggregate to the economy, it's not really an economic benefit. But if I -- if I go to your home and I break all of the glass, right, then you have to hire a glazier to put new glass in, then that glazier gets work, but that's not a benefit because it

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costs you to do that and you could have spent that money elsewhere in the economy. So that's -- that's -- you have to take that into account.

BOARD MEMBER HONKER: And, likewise, with suppliers, you calculate -- you have numbers of jobs lost to suppliers, but wouldn't some of these suppliers be, as Member Garcia mentioned, supplying the types of valves and seals and fittings that -- that would be necessary in order to upgrade equipment?

MR. DUNHAM: Some of this -- some of those companies would be the suppliers of that type of equipment, I would think.

BOARD MEMBER HONKER: So -- so I guess my question is, so the direct jobs and the supplier jobs, there would be some degree of positive impact from -- from meeting these requirements that would reduce those numbers to a net number that would be lower than what you have; is that correct?

MR. DUNHAM: I think as -- as I said, if you're doing a regulatory impact analysis, you would want to look at all of those kinds of effects. This was an analysis of the cost of the regulation on the industry.

BOARD MEMBER HONKER: Okay. A couple other questions. I would assume if you're a producer and you're capturing more hydrocarbon because you've put additional

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controls on, there would be some economic benefit of being able to produce that hydrocarbon. Did you look at any plus side from that in terms of your analysis?

MR. DUNHAM: Not my analysis, no, it didn't look at that.

BOARD MEMBER HONKER: And then finally -- and I'm probably really getting into the weeds here, but it seems like some of these costs, you've lumped all of these costs as -- as costs to the ozone precursor rule, but it seems like some of these costs would -- would be incurred to actually improve compliance with current rules that are on the books, either by NMED or by the Energy and Minerals Department. And would there -- well, I assume you didn't -- you didn't do any differentiation of the new rules versus improved compliance with old rules in your analysis?

MR. DUNHAM: No, sir. Most -- most analyses are done "ceteris omnibus," with all things being equal, unless you -- you know, you're specifically bringing in something like that.

BOARD MEMBER HONKER: Okay. All right. Thank you very much. No other questions.

HEARING OFFICER ORTH: Thank you, Member Honker.

Madam Chair, I understand you have a few more questions.

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CHAIRPERSON SUINA: Thank you, Madam Hearing Officer.

And thank you again, Mr. Dunham, for answering all our questions. Like I said earlier, there is a lot of information and data in models, and model assumptions that you have presented to us. And with that said, I know that we've talked a little bit -- and Legal Counsel Katz also mentioned this. Is there a way of looking at your model and having similar, if not the same inputs that would -- that maybe NMED would assume, whether we're talking about cost per barrel or the wage -- average wage assumptions that are in your report? Is that -- is that possible?

MR. DUNHAM: Of course. All models are based on assumptions and we can always change the assumptions that are relied on.

CHAIRPERSON SUINA: Okay. Okay. And as Member Trujillo-Davis said, I do have just a procedural; so as we get the NMED model, would there be the opportunity to also hear Mr. Dunham's input or responses? Or how -- how will that -- that we could ask Mr. Dunham after the NMED's presentation of their economic model? Is that possible?

MS. KATZ: Would you like me to answer that, Madam Hearing Officer?

HEARING OFFICER ORTH: Oh, please, Ms. Katz.

MS. KATZ: Thank you. Madam Chair, so I

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apologize for the confusion. The model that I was talking about was the model -- the photochemical modeling that Mr. Morris did. And my -- I was just simply trying to make the point that for the modeling that we used, you know, for that, we provided all of the data and assumptions. We did not do our own economic modeling. We provided, you know, cost estimates and emissions reductions estimates, and that's detailed extensively throughout the testimony and on the spreadsheets that are listed as exhibits.

So you'll be able to talk to our witnesses that are testifying to all of the provisions of the rules about those cost estimates, so that -- we do not have a model -- an economic model.

CHAIRPERSON SUINA: Okay. Thank you for that clarification, Ms. Katz. I appreciate that.

With that said, I just have a couple other questions here of Mr. Dunham. So in your report, you have mentioned that there was a minimum of 35 new administrative requirements that would need to be adhered to. And I think this goes to Member Honker's question. So would these be in addition -- administrative requirements in addition to the requirements that are already on -- on the books?

MR. DUNHAM: These were changes that were

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outlined in the -- in the text of the rule.

CHAIRPERSON SUINA: Okay. So was there -- I guess, stemming from Member Honker's question, so there was not an analysis done to account for the administrative requirements in order to be compliant with the current administrative -- the current laws on the books; is that correct?

MR. DUNHAM: No, ma'am, I didn't calculate the entire New Mexico rules that were already on the books. I just looked to see where the -- where the rule stated that a new report or a new database or a new -- some kind of a administrative function would need to be performed.

CHAIRPERSON SUINA: Okay. Thank you for that, Mr. Dunham. I appreciate your time again and being on the hotseat for so many hours. Thank you so much.

MR. DUNHAM: Thank you so much, ma'am.

HEARING OFFICER ORTH: Thank you, Madam Chair. Unless there are other questions from Board members, I will return to Mr. Hiser and ask if there will be any follow-up or redirect.

MR. HISER: Just a couple of questions, Madam Hearing Officer.

REDIRECT EXAMINATION OF JOHN R. DUNHAM

BY MR. HISER:

Q. Mr. Dunham, in your line of business doing

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economic analysis, is it normal to use anonymized cost data?

A. Oh, yes, often.

Q. And is the reason for that because individual company cost data is very proprietary, and would reveal potentially, competitively disadvantageous information if it was disclosed about the specific company?

A. Yes, sir, it's extremely difficult to get individual company data.

Q. And so it's often that you'll have an association or whatever, send data to a third party, to combine that data and then provide it in an anonymous format to you for analysis?

A. Yes, sir, we do that all the time for associations.

Q. Okay. Is one of the differences to Ms. Katz's point between, say, her emissions model that Mr. Morris presented -- which I know you didn't hear, but the model that you did, is there a difference in the legal protections available to emissions data and proprietary company financial data?

A. I'm sorry, sir. I'm not a lawyer, I have no idea what the legal representations are.

Q. That's fair.

A. When I do work, I sign non -- you know,

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confidentiality agreements, so --
Q. That's fair.
A. -- I can't get the data available without permission.
Q. Okay. Thank you very much.
With respect to Chair Suina's questions -- and I must say, it must be gratifying to you to have a Board member have reviewed your report in such detail. Now, then, just to be clear, the base model assumptions you're using date from 2018, correct?
A. The base -- the base model structure comes from 2018. The job numbers come from 2018. The other assumptions that I outlined in the PowerPoint today are all from the time I did that report.
Q. Right. And so things like the wage system and the price of oil and gas was from the dates in 2021 that you referenced, both in your report and in your testimony in response to Member Cates, correct?
A. Correct, sir.
Q. Okay. And will you lay out some more updated information about your model with the correction on the gas well count that you believe may be more appropriate in your surrebuttal testimony?
A. Yes, sir, I did -- I did some -- some.
Q. And so we'll be hearing that in a little bit?

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A. Yes, sir.
Q. Okay. Thank you. I guess that's all the questions that I have. Thank you, Mr. Dunham.
A. Thank you, sir.
HEARING OFFICER ORTH: All right. Thank you, Mr. Dunham. Thank you, Mr. Hiser. We do need to take a break at this point. Let's come back --
MR. DUNHAM: Yes, ma'am.
HEARING OFFICER ORTH: Let's come back at 11:15. Thank you.
(Recess taken from 10:57 to 11:15 a.m.)
VICE-CHAIR TRUJILLO-DAVIS: Excuse me, Madam Hearing Officer?
HEARING OFFICER ORTH: Yes.
VICE-CHAIR TRUJILLO-DAVIS: Can you hear me?
HEARING OFFICER ORTH: Yes, I can.
VICE-CHAIR TRUJILLO-DAVIS: Okay. Great. I just wanted to let you know that I used the "other audio" option when I had trouble calling in, so if anybody else has issues, that helped out and it just allowed me to call from a phone and have better sound.
HEARING OFFICER ORTH: So "other audio?"
VICE-CHAIR TRUJILLO-DAVIS: Yeah, if you look down here by the "leave event," there's another button there that has three little dots. It says "more options."

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HEARING OFFICER ORTH: Yes.
VICE-CHAIR TRUJILLO-DAVIS: And it says "switch audio." And if you click on that it gives you a phone number to call, where you click switch.
HEARING OFFICER ORTH: That's excellent information. Thank you, Vice-Chair. And I hope that that's helpful to Member Duval. Thank you.
All right. We are back after a break, and I had a request from one of the counsel to discuss the schedule for this afternoon. Ms. Katz, I believe we turn now to your three witnesses?
MS. KATZ: Yes, Madam Hearing Officer.
HEARING OFFICER ORTH: Okay. And after that? I'm sorry, let me pull the spreadsheet back into my hands. And then EDF has Witness Lackner.
MS. PARANHOS: Yes. Thank you, Madam Hearing Officer, we have Witness Lackner on the economic analysis. We also have a Dr. Tammy Thompson, who was unable to testify yesterday, on the ozone modeling.
HEARING OFFICER ORTH: Yes. So I guess I'm unclear then on your question.
MS. PARANHOS: I'm just -- I guess I'm trying to understand when we would fit Dr. Tammy Thompson in, if it would be today after the -- after the economic discussion and before we get to definitions.

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MS. KATZ: Madam Hearing Officer, may I ask, again I'm concerned that Ms. Day is going -- we're going -- we could run very close or after 3 p.m., and she really needs to not testify after 3 p.m. So if we could maybe get through the small business facilities, and then have Ms. Thompson do her modeling rebuttal, that would be best, if we could do that.
MS. PARANHOS: That's absolutely fine, that was the clarification I was looking for. Thank you.
HEARING OFFICER ORTH: All right. Thank you very much, Ms. Paranhos and Ms. Katz. Is there anything else we need to talk about, Board members, before we go to the Department's economic rebuttal? No?
And Ms. Day, I see you on the screen. Thank you for joining us. Let's try your sound, please.
MS. DAY: Hello.
MS. KATZ: Madam Hearing Officer, can I also make clear, though, that it's actually Mr. Powell who will be going first on this topic.
HEARING OFFICER ORTH: That's fine. I just wanted to -- since we hadn't seen Ms. Day before and I didn't see Mr. Powell on the screen, I was just checking her sound.
MS. KATZ: Yes, thank you.
MR. ROSE: Before you get there, Madam Hearing

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Officer, if I might? Did we complete Mr. Hiser's examination of Mr. Dunham? I thought his testimony was limited to his direct and rebuttal, but not surrebuttal. So I didn't know if his surrebuttal, if there is going to be any, whether -- when that's going to happen in sort of the schedule we just discussed.

HEARING OFFICER ORTH: All right. I might have clarified that. My assumption was that the surrebuttal would come after the Department's rebuttal, but if Mr. Hiser feels differently, I'm happy to talk about it.

MR. HISER: Madam Hearing Officer, Mr. Hiser's thoughts are exactly the same as yours. It would be after the Department and Ms. Lackner's response.

HEARING OFFICER ORTH: Thank you very much.

MR. ROSE: Thank you, Madam Hearing Officer.

HEARING OFFICER ORTH: All right. So thank you, Mr. Rose. Mr. Powell, let's try your sound.

MR. POWELL: Good morning. Can you hear me okay?

HEARING OFFICER ORTH: Oh, that's terrific. Thank you. We've just had a lot of sound gremlins the last two days. So thank you for that.

And Ms. Day, while you're on screen, just let's try your sound.

MS. DAY: Can you hear me now?

HEARING OFFICER ORTH: Oh, yes, and it's very

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clear. Thank you so much. All right. Let's begin with Mr. Powell. Mr. Powell, I think we have the standard spelling on your first and last name. Would you raise your right hand. Do you swear or affirm to tell the truth?

MR. POWELL: I do.

HEARING OFFICER ORTH: Thank you very much. Go ahead, Ms. Katz. Oh, and remember to mention the exhibits.

MS. KATZ: Yes. Thank you, Madam Hearing Officer. For the Board, Mr. Powell's exhibit -- his testimony appears at NMED Rebuttal Exhibit 17. Okay.

BRANDON POWELL,

having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION OF BRANDON POWELL

BY MS. KATZ:

Q. Mr. Powell, will you please state your full name for the record?

A. Brandon Powell.

Q. And Mr. Powell, where are you employed?

A. The Oil Conservation Division of New Mexico Energy, Minerals and Natural Resources Department.

Q. And we'll be referring to the -- that Oil Conservation Division as "OCD." How long have you worked

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for OCD, Mr. Powell?

A. Over 15 years.

Q. And what is your current job title?

A. My current title is the Engineering Bureau Chief.

Q. And what are your job duties?

A. I am responsible for the oversight and management of the Engineering Bureau, which includes the Administrative, Permitting and Underground Injection Control, and then also oversee the inspection program.

Q. Great. Can you please summarize your relevant professional qualifications for the Board?

A. For this, the relevant qualifications is my time with the OCD. I participated in multiple environmental and engineering-related rulemakings before the New Mexico Oil Conservation Commission, which commonly is referred to as the NM OCC, including the recent proceedings on the OCD waste rule. I also regularly use the databases maintained by the OCD, that contains the statistics on oil and gas and natural gas wells.

Q. And a copy of your resume has been provided as NMED Rebuttal Exhibit 18?

A. That is correct.

Q. And have you submitted prefiled rebuttal testimony in this proceeding?

A. Yes, I have.

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Q. And your full, written rebuttal testimony appears as NMED Rebuttal Exhibit 17, correct?

A. That is correct.

Q. Do you have any changes to your written testimony?

A. I do not.

Q. And do you adopt your written testimony here today?

A. Yes.

Q. And you reviewed Mr. Dunham's economic analysis that we just heard about from Mr. Dunham, correct?

A. That is correct.

Q. And your testimony responds to some of the numbers and data presented by Mr. Dunham in his analysis?

A. Yes, I do.

Q. As the basis for his analysis, Mr. Dunham determined that 81,975 wells would be affected by the Department's proposed rule. Can you summarize for the Board your review and conclusions regarding that number?

A. I certainly can. So I'll go through the numbers that we pulled from our system -- or I pulled from our system. In the written testimony, there's two numbers that I provide. I provide a permitted total and then I provide an active total; that's important.

The permitting total is total of all permitted

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wells that may or may not be drilled yet. The active total, which I'm going to focus on more in my discussion today, is how many wells are actually drilled, completed, and producing and listed as active wells. That's not to say new wells can't come on, but at the time I pulled it, that's how many wells were in active status.

So, for oil wells when I pulled the numbers, we had 26,808 active oil wells. In Mr. Dunham's exhibit, he had 33,293, so that's a difference of roughly just under 6,500 wells.

For gas wells, we have 26,530 active wells; Mr. Dunham, in his testimony, had 50,954 wells. That's a difference of 24,424. So in total, we have 53,338 active wells for oil and gas; where Mr. Dunham, in his exhibit, had 84,247. That's a difference of just a hair -- a little over 30,000 wells.

So based on that 30,000 wells, our well count is approximately a 37 percent reduction from what Mr. Dunham used in his exhibit.

Q. Thank you, Mr. Powell.

Can you discuss your testimony regarding the production values that were assigned by Mr. Dunham for low production wells in his analysis?

A. Certainly. So his production values for his low production wells, I believe in his exhibit, had the

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quantity as being 1 to 15 barrels of oil equivalent per day. This aligns to what we typically use in New Mexico as a stripper well. Our stripper wells are defined as that's anything less than 10 barrels a day of oil or 60 MCF a day of natural gas.

We have roughly 14,858 gas stripper wells in the state and 15,163 oil stripper wells in the state. That's a total of just over 30,000 stripper wells in the state. This number is significantly lower than Mr. Dunham's in his exhibit. He had -- between oil and gas combined, he had 59,000 low production wells or just over 59,000 low production wells, which is -- the 59,000 low production wells is actually roughly 6,000 wells over what we have as total wells in the entire state for oil and gas.

Q. Thank you for that, Mr. Powell.

Can you summarize your evaluation of Mr. Dunham's analysis with respect to the assumptions he made about the prevalence of certain types of equipment at all wells?

A. Certainly. So those assumptions specifically were in Mr. Dunham's Table 7. Looking at his equipment in those assumptions and then back-calculating to get to the number of wells used, it appears for that table he is assigning equipment costs on multiple lines, far more multiple lines for every well in that category, or at least most wells in that category.

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Based on my experiencing, that's not common operating practice, as not all wells are configured the same. An example of this is for most natural gas wells in New Mexico, it's not common to have an individual flare stack on each natural gas well. As natural gas is the targeted commodity and most are shut in if there's an issue, not flared.

Back-calculating appears the study assigned flare stacks to roughly 49,000 natural gas wells. As described previously, we only have 26,000 active natural gas wells, which that's a direct reduction of almost 46 percent of the wells total based on count alone, and then not even looking at the actual equipment itself. Because natural gas wells don't have a lot of standalone flares, that would reduce those costs substantially just on the flare step.

Continuing the assumptions for oil wells, there are numerous oil wells that don't have individual flares, or wells that do flare, there's a portion of those wells that are pumped to a central facility or tank battery, or there may be one flare associated with multiple wells. That could be, for example, 10 wells get pumped to a tank battery, where all the fluids are handled, and that's where that flare stack would be located.

Again, to kind of reiterate, not all locations

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are created the same, in the same scenario. This applies to also enclosed combustion devices, VRUs -- that's vapor recovery units, in the exhibit; compressors, because they're not all required at all locations based on pressures, flow rates, all of that.

So, in summary, based on the base numbers to create that Table 7, which are the basis for the monetary numbers, the table doesn't appear to reflect true well applications in New Mexico. And because of that, it would likely significantly change the cost per well that is summarized at the bottom of that table, because only a portion of the wells would have a portion of those pieces of equipment.

MS. KATZ: Thank you, Mr. Powell. I have no more questions for Mr. Powell.

HEARING OFFICER ORTH: All right. Thank you, Ms. Katz.

Ms. Fox, do you have questions of Mr. Powell?

MS. FOX: No, I don't, Madam Hearing Officer. Mr. Powell, thank you for your testimony.

HEARING OFFICER ORTH: Okay. Thank you. Ms. Paranhos?

MS. PARANHOS: No questions. Thank you, Mr. Powell, for your testimony.

HEARING OFFICER ORTH: Thank you. Mr. Jaynes?

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MR. JAYNES: No questions, Madam Hearing Officer.
HEARING OFFICER ORTH: Thank you. Ms. Devore?
Mr. Nykiel?
MR. NYKIEL: No questions. Thank you.
HEARING OFFICER ORTH: Thank you. Mr. de Saillan?
MR. DE SAILLAN: No questions. Thank you. I also wanted to thank the witness for his testimony.
MR. POWELL: Thank you.
HEARING OFFICER ORTH: Thank you. Mr. Hiser?
MR. HISER: Madam Hearing Officer, I do have a couple of questions. Thank you.

CROSS-EXAMINATION OF BRANDON POWELL

BY MR. HISER:

Q. So, Mr. Powell, if I turn your attention to -- have you seen Table 7 in Mr. Dunham's report? Was that what you were just discussing?
A. Yes, I have.
Q. If you look at the cost there, for example, for example in Table 7 in Mr. Dunham's report, you see an entry for compressors. And can you -- what's the cost given per oil well for that?
A. It shows $55.
Q. Is $55 reflective of the cost of actually purchasing and installing a compressor at a site?

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A. I have no idea. I don't know the cost of installing equipment.
Q. But does that seem sort of low for a piece of equipment the size of a compressor?
A. I have no idea because there's operated owned -- operator-owned compressors and then there's leased-owned compressors. If an operator owns it, that might be low; I don't know. If it's a lease, that might be -- I don't know the cost of installation.
Q. So you don't know from looking at this table whether the costs are apportioned to the well for whatever services may have been provided to that well site, versus saying that each of these things are present at a well?
A. I don't see where the table makes that assumption of how the cost is broken down.
Q. Perfect. Thank you. No further questions.
HEARING OFFICER ORTH: Thank you, Mr. Hiser.
Mr. Rose, do you have questions of Mr. Powell?
MR. ROSE: No questions, Madam Hearing Officer.
HEARING OFFICER ORTH: Thank you. Mr. Janoe?
MR. JANOE: No questions.
HEARING OFFICER ORTH: Mr. Butzier?
MR. BUTZIER: No questions. Thank you.
HEARING OFFICER ORTH: Ms. Gutierrez?
MS. GUTIERREZ: No questions. Thank you.

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HEARING OFFICER ORTH: Mr. Colclasure?
MR. COLCLASURE: No questions. Thank you.
HEARING OFFICER ORTH: And Ms. Witherspoon?
MS. WITHERSPOON: No questions. Thank you.
HEARING OFFICER ORTH: Thank you. I'm going to turn to the Board for their questions. While I'm doing that, if you are an attendee rather than a panelist on this platform and you have a question of the witness, please reach out in the Chat. The Chat is enabled for everyone.
Madam Chair, do you have question of Mr. Powell?
CHAIRPERSON SUINA: Yes. Thank you, Madam Hearing Officer.

EXAMINATION OF BRANDON POWELL BY THE BOARD

CHAIRPERSON SUINA: Can you hear me okay? Okay. Yes, Mr. Powell, I just had one, maybe two questions. So the information you presented this morning in your testimony, is that data readily available, say, on the -- on the NMED's website or on OCD's website?
MR. POWELL: Yes, Madam Hearing Officer, all of that data is readily available on the New Mexico Oil Conservation Division's website using the search functions in the website itself. And it's publicly available to all.
CHAIRPERSON SUINA: Okay. All right. Actually,

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that's the only question I have. Thank you.
HEARING OFFICER ORTH: Thank you. Vice-Chair Trujillo-Davis?
I can't hear you.
VICE-CHAIR TRUJILLO-DAVIS: I'm sorry, I couldn't find my mute button. I do not have any questions. Thank you, Mr. Powell.
MR. POWELL: Thank you.
HEARING OFFICER ORTH: Thank you. Member Cates?
BOARD MEMBER CATES: No questions here. Thank you.
HEARING OFFICER ORTH: Thank you. Member Bitzer?
BOARD MEMBER BITZER: No questions. Thank you.
HEARING OFFICER ORTH: Thank you. Member Duval? He can hear us and he is saying in the Chat, "No questions." Member Garcia?
BOARD MEMBER GARCIA: Yes. Thank you, Madam Hearing Officer. I have one question for Mr. Powell. Thank you for your testimony. And I just find it curious that there would be such a discrepancy with the number of actual active wells. I do know that that information is readily available on the website -- the OCD website. And I would think OCD would be the entity with the expertise and the number of active wells, et cetera.
Can you -- or is there any other source of

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information that -- where somebody wants to know how many active wells are in New Mexico, is there any other source out there where somehow this information is not accurate to some people? I just don't understand that.

MR. POWELL: I am not aware of other sources. I don't know where the numbers were pulled up from for the analysis. The only other scenario I can potentially think of is they pulled active formations or completions in New Mexico. That might build up to that many, but one well could be completed in multiple formations or have multiple completions per well. And my only thought is maybe they pulled active completions in the state.

BOARD MEMBER GARCIA: Okay. And the numbers you're giving are the -- are the 2018 numbers that they relied on for their analysis; is that right? Wasn't it 2018?

MR. POWELL: The numbers that I talked about that they gave, that was in their exhibit. The numbers I pulled, I believe I pulled last month in prep for my rebuttal testimony.

BOARD MEMBER GARCIA: Okay. So we're talking about two different time periods for the number of active wells then?

MR. POWELL: If -- if they didn't pull the number -- well count until 2018, it might be two different

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numbers, but it still wouldn't affect it that greatly. Our well count has actually gone up since 2018, not down.

HEARING OFFICER ORTH: Is that it, Member Garcia?

BOARD MEMBER GARCIA: (Nodding head.)

HEARING OFFICER ORTH: All right. Member Honker?

BOARD MEMBER HONKER: Thanks for your testimony, Mr. Powell. I have no questions.

HEARING OFFICER ORTH: All right. Thank you.

Ms. Katz, did any of that questioning raise a need for redirect for you?

MS. KATZ: Just a few questions, Madam Hearing Officer.

REDIRECT EXAMINATION OF BRANDON POWELL

BY MS. KATZ:

Q. Mr. Powell, did Mr. Dunham in his analysis state that he got his information regarding the number of wells from the OCD website?

A. In his statement this morning he said that part of that was from the OCD website.

Q. Okay. And I believe in his -- in his testimony or his -- his actual report, he states that the data was taken from -- from the OCD's website.

Did he say what searches he used to come up with that number on the OCD website?

A. I don't believe so, no.

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Q. Were you able to recreate his numbers?

A. I didn't try to recreate his numbers. I tried to run my own numbers to get the accurate numbers.

Q. Okay. Did you -- did you try to see where his numbers may have -- where he might have been getting his numbers?

A. I did not.

MS. KATZ: Okay. Thank you. That's all I have.

HEARING OFFICER ORTH: All right. Thank you, Ms. Katz. If there's nothing further, we'll excuse Mr. Powell for the moment. Thank you very much, Mr. Powell.

MR. POWELL: Thank you, Madam Hearing Officer.

HEARING OFFICER ORTH: Are we turning now to Ms. Day?

MS. KATZ: Yes, Madam Hearing Officer. The Department calls Susan Day and Brian Palmer.

HEARING OFFICER ORTH: All right. Thank you. Susan Day is the standard spelling. Ms. Day, if you would please raise your right hand. Do you swear or affirm to tell the truth?

MS. DAY: Yes, I do.

HEARING OFFICER ORTH: Thank you. And let's see. Mr. Palmer, also standard spelling on first and last name. I see your right hand is raised. Do you swear or affirm

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to tell the truth?

MR. PALMER: I do.

HEARING OFFICER: Thank you very much. Ms. Katz?

SUSAN DAY and BRIAN PALMER,

having been first duly sworn or affirmed, were examined and testified as follows:

MS. KATZ: Okay.

HEARING OFFICER ORTH: Which of the exhibit?

MS. KATZ: Yes. Thank you for keeping up, reminding me. That's very helpful, actually. This testimony is provided in NMED Rebuttal Exhibit 19.

DIRECT EXAMINATION OF SUSAN DAY

BY MS. KATZ:

Q. Ms. Day, I'll start with you. Will you please state your full name for the record?

A. Susan Day.

Q. And where are you employed, Ms. Day?

A. I'm employed at the Eastern Research Group.

Q. And we'll be referring to Eastern Research Group as "ERG" here. How long have you worked for ERG?

A. I've worked for ERG approximately four years, with an additional 29 years in the environmental consulting industry.

Q. And what is your current job title?

A. Senior economist.

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Q. And can you describe your educational and professional qualifications?
A. Yes. I hold a B.A. in Economics from Colby College, and an MS in Resource Economics from the University of Rhode Island. And I am an economist and project manager with 34 years of experience conducting and managing economic regulatory and data analyses that support environmental regulations under federal environmental statutes.
Q. And a copy of your resume has been provided as NMED Exhibit 103, correct?
A. Yes, correct.
Q. Have you submitted prefiled rebuttal testimony regarding the economic analysis submitted by NMOGA in its direct testimony in this proceeding?
A. Yes, I have.
Q. And your full, written rebuttal testimony is marked as NMED Rebuttal Exhibit 19?
A. Yes, it is.
Q. Do you have any changes to your rebuttal testimony?
A. No, I do not.
Q. And do you adopt that testimony here today?
A. Yes, I do.
DIRECT EXAMINATION OF BRIAN PALMER

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BY MS. KATZ:
Q. Okay. Turning to Mr. Palmer. Mr. Palmer, will you please state your full name for the record?
A. It's Brian Palmer.
Q. And where are you employed?
A. I am also employed with Eastern Research Group. Just a little background; Eastern Research Group is a privately-owned company with about 400 employees. We focus primarily on government and state consulting. We generally do not do any private industry work, so we try to maintain a -- keep ourselves free of conflicts of interest.
Q. Thank you for that. How long have you worked for ERG, Mr. Palmer?
A. Just over 25 years. Prior to that I worked for five years for Radiant International.
Q. And what is your current job title?
A. I am a senior environmental scientist.
Q. And can you describe your educational and professional qualifications?
A. Yes. I have a Bachelor of Science degree in Biology from Bates College and a Master of Arts from the Ecology Curriculum at the University of North Carolina at Chapel Hill. I have 30 years of experience supporting the federal and state governments in developing air quality regulations, including the background research, identification of control technologies, estimating of cost and environmental impacts and preparing all of the documentation needed to support proposed and final regulations.

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Q. Thank you. And a copy of your resume has been provided as NMED Exhibit 33, correct?
A. Yes.
Q. And have you submitted prefiled rebuttal testimony regarding the NMOGA economic analysis in this proceeding?
A. Yes.
Q. And your full, written rebuttal testimony is marked as NMED Rebuttal Exhibit 19?
A. Yes.
Q. Do you have any changes to your testimony?
A. No.
Q. And do you adopt that testimony here today?
A. Yes.
MS. KATZ: Okay. So I believe we're presenting a PowerPoint. So is that Mr. Palmer who's going to be presenting that?
MR. PALMER: Oh, I'm sorry. I thought Ms. Kuehn was going to be driving that.
HEARING OFFICER ORTH: Ms. Kuehn.

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MS. KATZ: Oh. Sorry.
MR. PALMER: Do you want Ms. Kuehn to drive that or am I driving that?
MS. KATZ: Whoever we picked there, but they just need to be given -- there we go. Oh.
MR. PALMER: There we are. Thank you.
MS. KATZ: I saw it for a minute and then it went away.
MS. KUEHN: Okay. Let me try again.
BOARD MEMBER HONKER: Can you put it in presenting mode?
MS. KUEHN: It's showing in presenting mode.
MS. KATZ: There it is. Okay. It takes a minute.
All right. Ms. Day, can you summarize your impressions of the microeconomic model that John Dunham -- Mr. Dunham claims to have used to estimate the costs and impacts of proposed Part 50?
MS. DAY: Yes. My impression of Mr. Dunham's analysis is that NMOGA has not provided enough detail in terms of underlying data, assumptions and Excel spreadsheets or code to allow a real analysis of what he did or his conclusions.
But I would say that it's clear that Mr. Dunham's analysis significantly overstates the number of wells

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affected by the proposed rule, as well as the costs of the proposed rule. But without the ability to review the model in detail, including how the universe of affected entities and unit compliance costs were generated, I believe that the Board should reject Mr. Dunham's conclusions and not give any weight to the estimated costs and impacts certified by Mr. Dunham in that analysis.

MS. KATZ: Thank you. Ms. Day, do you agree with the estimates of direct administrative and operational costs estimated by Mr. Dunham?

MS. DAY: No. Mr. Dunham estimates the direct administrative and operational costs of the rule to be a minimum of 3.8 billion dollars in 2020 dollars over a five-year period. He also states that the bulk of these costs will occur in the first year or two.

By comparison, the ERG estimate of the total annual costs is 338 million per year, and over a five-year period, that cost would be no more than 1.7 billion dollars, or about one-half of what Mr. Dunham estimated.

And I'd also like to just point out that NMED has been very transparent regarding the development of these cost estimates. And the spreadsheets underlying the estimates were posted for evaluation by stakeholders and the public. And the direct testimony submitted by NMED contains in-depth explanations of where the data came

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from, what the assumptions were, and how the proposed rule requirements were developed based on those stated assumptions.

MS. KATZ: Thank you. Next slide, please.

MS. KUEHN: I apologize, it appears to be frozen.

MS. KATZ: Okay.

MS. KUEHN: There we go.

MS. KATZ: Okay. Turning to Mr. Palmer. What did you determine were the number of wells that would be affected by the proposed rule, and how did you come up with that number?

MR. PALMER: ERG estimated that there would be about 48,000 producing wells in the seven counties that would be affected by the proposed Part 50. We obtained our data for this cost estimate from the Oil and Conservation Division, OCD, of the New Mexico Energy, Minerals and Natural Resources Department.

My rebuttal testimony that I submitted earlier, detailed how we determined the number. As you just heard from Brandon Powell, the Bureau Chief of OCD's engineering bureau, his testimony exhibited as NMED Rebuttal Exhibit 17, confirmed that our estimate of the number of affected wells is correct.

MS. KATZ: And Mr. Palmer, what is your impression of Mr. Dunham's estimate of the number of the

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affected wells?

MR. PALMER: Mr. Dunham estimates that there are 84,247 wells that will be affected by proposed Part 50, which is nearly two times the number of wells that NMED and ERG determined would be affected by the rule. While he references the OCD well statistics from January 28th, 2021, on the OCD website, he provides no explanation of the search he did on the OCD website.

Again, Mr. Powell has confirmed that the well count Mr. Dunham used in his analysis is incorrect and significantly overstated.

MS. KATZ: Thank you. Ms. Day, does it matter that Mr. Dunham's and NMED's affected well estimates do not agree?

MS. DAY: Yes, it does. The number of wells is a foundational data point underpinning the entire economic analysis. Overstating the number of affected wells leads to an overestimation of compliance costs associated with proposed Part 50.

MS. KATZ: So can you move to the next slide, please?

MS. KUEHN: I apologize. It's -- for some reason there's a significant delay.

MS. KATZ: That's fine. We'll wait.

Mr. Palmer, are the costs in the proposed rule

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incurred at the level of the well site or the wellhead?

MR. PALMER: The rule requirements and costs are generally applied at the level of what I'll refer to as the well site, not at the wellhead. The well site includes more equipment, such as storage tanks, separators, et cetera, than just the actual wellhead.

For efficiency, that equipment will be shared among multiple wells associated with that site; therefore, pollution control costs should be estimated generally at the level of the well site and not at the wellhead.

MS. KATZ: And Mr. Palmer, does Mr. Dunham's analysis correctly attribute costs to the well site or the wellhead?

MR. PALMER: In his Table 7 of his analysis, Mr. Dunham appears to apply his costs at the level of the well, rather than at the well site. Because he is applying the costs to the number of wells, rather than to the number of estimated well sites, he may be overestimating the costs by several times, depending on how many wells were associated with the well site.

However, because Mr. Dunham provided no supporting documentation of these costs, it is not possible to accurately determine how this factor affects the overall cost estimates.

MS. KATZ: Thank you. Mr. Palmer, how does

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Mr. Dunham estimate the units and total compliance costs associated with the proposed rule?

MR. PALMER: We don't have any documentation of how he developed those costs. Mr. Dunham asserts that his analysis relies on a survey of ten companies from NMOGA's membership to develop estimates of equipment and operational costs to comply with the proposed Part 50, but Mr. Dunham provides neither a copy of the survey instrument, the questionnaire, nor does he provide any responses or raw data submitted by the companies that he has -- that were purportedly surveyed.

Without this information, it is impossible to assess the accuracy or variability of his results, how the data were reduced to the values used in his analysis, particularly in Table 7 of his report, or how they relate to ERG's cost estimates that we detailed in our spreadsheets that have been provided to the public since early June.

Even if the data were declared confidential by the respondents to the survey, there are methods to aggregate the data from multiple respondents to conceal confidential information.

MS. KATZ: Thank you. And can you describe how other -- Mr. Palmer, how other regulatory programs with which you have worked, have protected confidential and

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proprietary data?

MR. PALMER: Yes. As developing air quality regulations over the past 30 years we've often had to deal with proprietary information from industry surveys, et cetera. One area I've been working with the last few years is the greenhouse gas reporting program, and that program is collecting very, very detailed production data from numerous facilities; some of it is extremely sensitive.

They are able to make quite a bit of that information public on EPA's website, and they go through various steps of aggregating the data in order to conceal proprietary information or sensitive information for particular industries. So, for example, aggregate the data; if they only have a few reporters for a particular data item, they will just report a total and they won't report the number of reporters so that you couldn't figure out what the average is. You know, case in point, if there's only three reporters in a particularly specialized industry, so they'll -- they won't report even an average because, you know, one of those could figure out what the other two are doing.

So there are -- there are a lot of ways to -- to protect confidential information by aggregating sensitive data. But more importantly, too, is that the

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questionnaires that those facilities are filling out, that is totally public information and is available so nobody -- so people know exactly what data are being collected.

MS. KATZ: Thank you, Mr. Palmer. And this is for your -- you're referring to the greenhouse gas reporting program at the federal level so you're talking about --

MR. PALMER: Yes.

MS. KATZ: -- national -- nationwide data collection?

MR. PALMER: Yes.

MS. KATZ: And Mr. Palmer, do you have any other concerns regarding how the costs were applied in Mr. Dunham's analysis?

MR. PALMER: Yes. Another issue is that 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. And I think this reflects the testimony you just heard from Mr. Powell as well.

While it is true that Mr. Dunham presents these as average costs per well, this approach likely leads to a substantial overestimate of the total costs that will, in turn, lead to an unreliable estimate of the economic

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impacts of the proposed rule.

MS. KATZ: Thank you. Can we go to the next slide?

MR. PALMER: We're on this slide.

MS. KATZ: Oh, sorry. Do we need to go back?

MR. PALMER: No, we're fine.

MS. KATZ: Okay.

MR. PALMER: We're fine, but I will just continue my testimony here.

MS. KATZ: Sorry, I thought we were on another question. Go ahead, Mr. Palmer.

MR. PALMER: Mr. Dunham's costs in Table 7 of his report did not align with ERG's cost estimates that we have made public. And -- and what I'd like to just talk about are a few examples that we have. So we compared his cost estimates to what we've been able to estimate and then also looked at some cost estimates that were prepared by the EPA -- the federal EPA for a nationwide rule for a similar source category or emission source type.

And I'd just like to take the next three slides, I believe, to just go over those examples. But what it is -- okay, we'll go to that one next. So the first example is with glycol dehydrators. And in Table 7 of Mr. Dunham's report, he estimated a capital cost for glycol dehydrators of 794 million dollars in New Mexico.

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When we did our estimate for glycol dehydrators, we came up with a capital cost estimate of about 4.6 million dollars for controls at existing glycol dehydrators. And this is based on the New Mexico Environment Department's equipment data that comes out of their permitting -- permitting database. And so these are all of the glycol dehydrators that are in their Permian database.

We estimated what the cost of a control device would be, and that is documented in our equipment spreadsheets. Just for comparison, the federal EPA has two rules for the oil and gas industry that focus on glycol dehydrators. And one of them is a major source rule and the other is an area source rule. And when the federal EPA initially developed the major source rule, they also in the proposal, included the area sources.

So major sources are those that are emitting greater than 25 tons per year of a single half or 10 tons -- excuse me -- 10 tons per year of a single hazardous air pollutant, or 25 tons per year of a total. So they estimated that capital costs nationwide for all glycol dehydrators in their rule, and based on that information the nationwide rule cost estimate would be 670 million dollars. So that's actually less than JDA's cost estimate for New Mexico alone.

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The next example is for storage tanks. The JDA. capital cost estimate was 185 million dollars; ERG's capital cost estimate was 69 million dollars. And this, I just want to point out, this cost estimate is based on our latest costs for the draft rule that was submitted on September 6th, so this is slightly different. It's a slightly lower cost because we raised the applicability threshold.

So our number is about a third of the JDA analysis, and without further information on the number of sources or the types of controls, it's very hard for us to evaluate the reason for this -- for the difference in costs.

The final comment or slide I'd like to cover is in Table 7 of Mr. Dunham's analysis, he has -- I believe there's about ten rows of information. And there's estimated VOC control costs for very specific pieces of equipment: compressors, gas well liquid unloading, glycol dehydrators, hydrocarbon liquid transfers, pipeline pigging, launching and receiving, pneumatic controllers and pumps, and finally storage tanks. So these are all VOC emissions sources and they all have a particular type of control applied. But he also includes costs for open flares, of 252 million dollars, enclosed combusters and thermal oxidizers of 794 million dollars, and vapor

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recovery units of 481 million dollars. So the total additional first year of cost for those three control items is 1.5 billion dollars.

However, it is not clear from the table, where you would use those controls because he already has separate controls for the other items listed there: compressors, gas well liquid, unloading, et cetera. So it's not clear how those costs fit together, and it appears that there's the potential for double-counting of the costs for those VOC controls.

I'd like to go to the next slide. So just before I let Susan talk about this slide, so my overall professional opinion is that the costs presented in Mr. Dunham's analysis are not sufficiently documented. And there is no indication of how most of them are related to this specific provisions of the proposed rule, or the detailed and documented cost estimates provided by NMED to the stakeholders.

In some cases, Mr. Dunham's cost estimates are orders of magnitude higher than NMED's estimates, and as well as comparable estimates in federal regulatory actions for similar sources. Again, in my professional opinion, I think the Board should give no weight to the economic impact analysis because it contains no credible documentation of the numbers that are the critical input

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to that analysis.

MS. KATZ: Thank you, Mr. Palmer.

Ms. Day, turning back to you, does Mr. Dunham's analysis consider the reduced regulatory requirements proposed for small business facilities as defined in the proposed rule?

MS. DAY: No, it does not. And by failing to take into account the lower compliance costs for qualifying small businesses, Mr. Dunham overestimates the economic impacts of the proposed rule.

MS. KATZ: And can we move to the next slide, please? Are we on the wrong slide here?

MS. KUEHN: I think this is the correct slide.

MS. KATZ: Ms. Day, what is your response to Mr. Dunham's estimated job losses due to the proposed rule? I think we're behind here.

MS. DAY: Yeah, so we need to --

MS. KATZ: Oh, sorry I'm -- I skipped some things.

MS. KUEHN: Do you want to go back to this?

MS. KATZ: Yes. Sorry.

HEARING OFFICER ORTH: One at a time, please.

MS. KATZ: Ms. Day, I apologize. Let's go back to the question that aligns with this slide.

Ms. Day, what is your response to Mr. Dunham's

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net present value calculations of the costs associated with Part 50?

MS. DAY: Mr. Dunham makes two assumptions in his net present value calculation that I don't agree with. First, he assumes a five-year time frame, but he didn't provide justification for that time frame.

A more typical time frame routinely used in federal air quality rulemaking would be between 10 and 20 years, and assumes to be 15 for purposes of analysis, based on the useful life of the add-on control equipment and equipment modifications required under Part 50.

And second, he assumes that nearly 85 percent of the costs of the rule will be incurred by industry in the first year. So given that investments in equipment are typically spread out by affected owners, operators, a more realistic assumption would be that the cost of the regulation can be spread out more evenly over the 15-year useful-life time frame.

Under this scenario, the present value of costs would be significantly lower than Mr. Dunham has estimated.

MS. KATZ: Thank you. And now here we go.

Ms. Day, what is your response to Mr. Dunham's estimated job losses due to the proposed rule?

MS. DAY: Mr. Dunham doesn't provide enough

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detail regarding his analysis for me to be able to evaluate the accuracy of his estimates of job losses in the oil and gas industry or in supporting industries. He refers to a previous study of his where he used the IMLAN model to quantify the economic impacts of the western oil and natural gas industry on the economy in the United States.

And as I explained in my written rebuttal testimony, that analysis applied to oil and gas operations in 13 states, not just New Mexico. In his analysis of the potential impacts associated with Part 50, Mr. Dunham does not clarify whether he used New Mexico multipliers, or multipliers that represent the 13 Western states to consider economic impacts. And I'll just explain that multiplier refers to the ratio between an induced economic impact and a direct impact. And that's, you know, a little more detail is that induced impacts occur when workers involved in direct and indirect activities spend their wages in the local economy.

So it would be appropriate to use multipliers specific to New Mexico; however, Mr. Dunham does not provide the information I would need to determine whether or not that's what he did.

He also does some modeling outside of the IMLAN model, and again doesn't provide enough information on the

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structure of this modeling for me to evaluate the accuracy of his estimates of job losses in the oil and gas industry or supporting industries.

Most importantly, if Mr. Dunham estimated employment impacts using the compliance cost estimate as the key input, and it's hard to know if that's what he did because he doesn't say, to the extent that compliance costs are overestimated, employment impacts would be overstated as well.

MS. KATZ: Thank you, Ms. Day.

And can you discuss your impression of the rebuttal testimony submitted by the other parties regarding Mr. Dunham's economic analysis?

MS. DAY: Yes. The testimony of Maureen Lackner from the Environmental Defense Fund, or EDF, supports several of the points that I've made in my testimony, and also highlights some limitations of Mr. Dunham's analysis.

First, Ms. Lackner's testimony supports our observation that Mr. Dunham has overestimated the well counts and that this leads to a significant overestimate of total costs, even when his own unit cost estimates are used.

Second, Ms. Lackner agrees that the time period over which costs are incurred is misrepresented in Mr. Dunham's analysis. Mr. Dunham assumes that the vast

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majority of costs will be incurred in the first year. In addition to the explanation I provided regarding industry typically financing costs over the useful life of equipment, Ms. Lackner explains that NMED allows operators up to seven years to phase-in control requirements.

Third, Ms. Lackner's testimony points out that industry compliance costs may be offset by revenues received from captured gas. She indicates that this figure could be as high as 300 million per year. And then this is a cost savings that is not accounted for in Mr. Dunham's analysis.

Fourth, Ms. Lackner explains that social costs are not considered in Mr. Dunham's analysis. And while I can't comment on EDF's dollar estimate, I agree that avoiding the social costs, for example, climate damages, environmental and health effects of oil and gas operations would be a benefit of the rule that can be quantified and monetized at least to some extent.

Fifth and finally, Ms. Lackner is in agreement that Mr. Dunham's analysis input/output model has limitations and that Mr. Dunham neither explains the assumptions of his model, nor tests the strengths of these assumptions. She also raises the idea of listing supporting research that the proposed rule could lead to job creation in the methane mitigation industry.

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MS. KATZ: Thank you, Ms. Day and Mr. Palmer. I have no further questions.

HEARING OFFICER ORTH: All right. Thank you, Ms. Katz.

Madam Chair, we do need to take something of a lunch break before the 1:00 public comment period. I can certainly see if the first few parties have brief questioning to get us closer to 12:30, but we're not going to be able to get through cross-examination before -- before we need to break for lunch. Is your preference to break now?

CHAIRPERSON SUINA: Yes, Madam Hearing Officer, that would be my preference, just because there's been a lot of information and I don't want to break up her cross-examination or the gentleman's cross-examination.

HEARING OFFICER ORTH: All right. Thank you, all. We are on break until 1. At 1:00, I'll begin with just a few public commenters and then we'll return to the questioning of Ms. Day and Mr. Palmer. Thank you, all.

(Recess taken from 12:12 p.m. to 12:57 p.m.)

HEARING OFFICER ORTH: Let's come back from the break, please. We've reached the 1:00 public comment period. And the folks I have who reached out by email to request an opportunity to offer comments were Adrienne Sandoval, Juan Garcia, Robert Lewis, Kathy Miller, Marilyn

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O'Boyle, Tom Williams, and I believe I have another one who reached out on Chat, Katherine or Kathleen Moseley.

If you did not reach out by email and I did not just call your name, that's fine. I will issue a general invitation to anyone on the platform. If I did not call your name, please reach out by Chat, and if you have any troubles with the Chat function, please reach out to Pamela Jones at (505) 660-4305.

Public comment, like all testimony in the Board hearings, is taken under oath and is limited to five minutes. So let me find Ms. Sandoval. I am not seeing Ms. Sandoval at the moment. Let me move to Mr. Garcia.

And by the way, if -- if anyone who signed up isn't here, I'm happy to take their comments at another time. They need only let me know that they are on the platform. Mr. Garcia, I am unmuting you.

MR. GARCIA: Thank you.

HEARING OFFICER ORTH: Can you hear me?

MR. GARCIA: Yes, I can.

HEARING OFFICER ORTH: Oh, good. And your voice is loud and clear, but I'm hearing some feedback of some kind.

MR. GARCIA: I can't hear the feedback. Can you hear me okay?

HEARING OFFICER ORTH: Okay. So if you will

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please raise your right hand. And do you swear or affirm to tell the truth?

MR. GARCIA: Yes.

HEARING OFFICER ORTH: All right. I'm going to start your five minutes right now.

JUAN GARCIA,

having been first duly sworn or affirmed,

gave public comment as follows:

PUBLIC COMMENT BY JUAN GARCIA

MR. GARCIA: Yes. My name is Juan Garcia, and the reason why I'm calling is because the oil and petroleum industry impacts us favorably because of our utilization of our various vehicles that we use to drive in and go to work. Okay? So we have a -- we work in a small business, and we try to do -- yes, I would say we have to go to different locations to help out with yard cleaning, shrubs, trees, and those kind of things. So the high price of gas petroleum is, obviously, impacting us today because it's -- we can't charge that much for the work that we do, yet we have to pay for the gas and use the fuel, which is -- which is where we are mostly impacted. That's pretty much it.

HEARING OFFICER ORTH: Thank you very much, Mr. Garcia.

MR. GARCIA: Thank you.

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HEARING OFFICER ORTH: Let's see. Now I will move to -- sorry, I have to switch between screens here. Robert Lewis. Let me see if Mr. Lewis is on the platform. Let's see. I don't see a Robert Lewis. Let me see if maybe he came in as Bob. No, I don't see him under either of those names.

Kathy Miller. Let's see if I see a Kathy Miller. No. Marilyn O'Boyle, I did see Marilyn O'Boyle. All right. Ms. O'Boyle, I am unmuting you. Can you hear me?

MS. O'BOYLE: Yes, I can.

HEARING OFFICER ORTH: Terrific. Would you raise your right hand, please. Do you swear or affirm to tell the truth?

MS. O'BOYLE: Yes.

HEARING OFFICER ORTH: Thank you very much. I'm going to start your five minutes right now.

MARILYN O'BOYLE,

having been first duly sworn or affirmed,

gave public comment as follows:

PUBLIC COMMENT BY MARILYN O'BOYLE

MS. O'BOYLE: Okay. I actually think it's about two minutes, but that's fine. Okay. I'm happy to address the members of the Environmental Improvement Board. My name is Marilyn O'Boyle and I'm a member of First Unitarian Church of Albuquerque. And I'm the Chair of our

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environmental committee. I have five grown children and nine grandchildren, some of them living close by, some in other states.

I am very concerned about methane pollution in our state. We all need to work together to correct the huge problem of global climate change. Ozone and methane from wells in our state contribute to this problem. New Mexico is home to some of the worst methane pollution in the country. Oil and gas operators release 1.1 million metric tons of methane through venting, flaring and leaks. Methane is a powerful greenhouse gas that is 84 times more potent than carbon dioxide in the short-term.

Our children are disproportionately impacted by pollution from oil and gas operations, including ozone forming toxins that worsen respiratory diseases and trigger asthma attacks. One of my grandchildren has asthma. Ozone or smog can also worsen emphysema and cause heart disease.

These wells have a terrible and immediate effect on the health and well-being of people living close by. There are some federal bills in the works, but we need to support and strengthen our local bills to protect families living close by and also to protect the air and health of everyone long-term. This is a moral and ethical issue, and we can no longer delay our responses.

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New Mexico's -- New Mexicans are already experiencing severe impacts of climate change, harming our health, air, land, water and economy. Sciences, NASA, the Department of Defense all agree that climate change is a threat to our kids' future and we can no longer ignore the increasingly strange and severe weather.

As the IPCC report emphasized, this really is code red for the planet. I support strong methane rules and thank the Environmental Improvement Board for this hearing.

HEARING OFFICER ORTH: Thank you very much, Ms. O'Boyle.

And, Theresa, Marilyn is the standard spelling. O'Boyle is O'B-O-Y-L-E.

Let me move to Mr. Williams in the event he's here. No. Let me see if perhaps Ms. Sandoval has joined us. This takes a moment to scroll through names. No. And let's see. I believe it was Ms. Moseley was the other one. Yes, Kathleen Moseley.

Ms. Moseley, I am unmuting you. Can you hear me?

MS. MOSELEY: Yes. Can you hear me?

HEARING OFFICER: Very, very clearly. Thank you. Would you spell your last name?

MS. MOSELEY: Yes. My last name is Moseley: M-as-in-Mark, O-S-as-in-Sam, E-L-E-Y.

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HEARING OFFICER ORTH: A lot of videos cut out there for a moment. I'm sorry. Ms. Moseley did you speak?

MS. MOSELEY: Yes.

HEARING OFFICER ORTH: Okay.

MS. MOSELEY: It's M-O-S-E-L-E-Y.

HEARING OFFICER ORTH: Thank you very much. Would you raise your right hand? Do you swear or affirm to tell the truth?

MS. MOSELEY: I do.

HEARING OFFICER ORTH: Thank you very much. I'm going to start your five minutes now.

KATHLEEN MOSELEY,

having been first duly sworn or affirmed, gave public comment as follows:

PUBLIC COMMENT OF KATHLEEN MOSELEY

MS. MOSELEY: Thank you. I'm a registered nurse and have worked in asthma education in our state, around the state for about 13 years. In 2018, I'm aware that the American Thoracic Association quoted a cost of asthma to our whole country as 80 billion dollars annually, including medical expenses, missed work, school, deaths, and that was from a CDC report called "The economic burden of asthma in the U.S. from 2008 to 2013," and based on a survey of people with asthma.

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And our own asthma program has looked at the number of ED visits and hospitalizations. And I know for the report I have here at home on hand, about 7,700 ED visits on the average were calculated to be done in 2010 to '12, and about 1,800 hospitalizations per year.

And I'm very curious, listening to the economic modeling about how these costs are figured into the various economic models. And I do know, I'm aware that ozone has increased the number of ED visits from work that was done at UNM in our own state. So I'm wondering how they're looking at weighing those costs, especially as the previous person said, New Mexico releases a large amount of methane, which impacts beyond our state. So that's my question.

HEARING OFFICER ORTH: All right. Thank you, Ms. Moseley. For the moment, it will remain a question hanging in the air. And we'll see if any of the parties would like to address that. And thank you for your comment.

MS. MOSELEY: Thank you.

HEARING OFFICER ORTH: I'm sorry, I'm looking at too many screens. I do not have anyone else reaching out through the Chat who indicated a desire to offer public comment at this 1:00 session. I am happy to accept public comment at every other 9:00, 1:00 and 5:00 public comment

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session. (Inaudible.)
COURT REPORTER: Madam Hearing Officer, we can't hear you.
SUINA CHAIRPERSON: Ms. DuBois, I'm Chatting with her. Oh, there she is.
HEARING OFFICER ORTH: I'm sorry, Madam Chair. This is now the second time in the last few minutes this has happened. It's just everyone's video except mine blanks out, and I'm not sure what's happening.
CHAIRPERSON SUINA: Yes, Madam Hearing Officer, I think we can see everybody and I don't know if it's your connection.
HEARING OFFICER ORTH: Okay. Thank you for that. I'm not -- I will say I'm not getting the, you know, the little box that pops up that says your bandwidth is low or anything, but it's entirely possible. So let me just mention, as the last resort, if in fact it's my connection that is bad and the event comes to a stop, I'm very sorry about the inconvenience, but I would do my best to get right back on the platform, and would encourage all of you to do the same. And we won't start until we know that we have the folks we need. So I'm not sure what's happening there.
All right. Let's return to the technical case.
Ms. Katz, we need Ms. Day and Mr. Palmer for

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their questioning.
MS. KATZ: Yes, Madam Hearing Officer. I see Mr. Palmer. There they are.
HEARING OFFICER ORTH: All right. And let me turn first to Ms. Fox. Ms. Fox, do you have questions of this panel?
MS. FOX: No, Madam Hearing Officer. Thank you.
HEARING OFFICER ORTH: Thank you. Ms. Paranhos?
MS. PARANHOS: Sorry, I couldn't find my mute button, but no questions. Thank you.
HEARING OFFICER ORTH: Thank you. Mr. Jaynes?
MR. JAYNES: No questions, Madam Hearing Officer.
HEARING OFFICER ORTH: Thank you. Ms. Devore? May not be on. Mr. Nykiel?
MR. NYKIEL: No questions. Thank you.
HEARING OFFICER ORTH: Thank you. Mr. de Saillan?
MR. DE SAILLAN: No questions. Thank you. I want to thank both of these witnesses for their testimony.
HEARING OFFICER ORTH: Thank you. Mr. Hiser?
MR. HISER: I do have a few questions, Madam Hearing Officer.
HEARING OFFICER ORTH: All right. Go ahead.
CROSS-EXAMINATION OF BRIAN PALMER AND SUSAN DAY
BY MR. HISER:

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MR. HISER: So I think I'll start with Mr. Palmer for the first couple of questions, and then move to Ms. Day. So I guess I'll ask this because Ms. Katz asked this of our expert. Mr. Palmer, you are a consultant; is that correct?
MR. PALMER: That is correct.
MR. HISER: And you're being paid to provide this testimony for NMED?
MR. PALMER: That is correct.
MR. HISER: Now, you said that most of the work that you have done as an employee of ERG has been working to support government rulemaking; is that correct?
MR. PALMER: That is.
MR. HISER: Okay. And are there differences between how the government might collect information to come up with cost studies, versus how the private sector might have to do it?
MR. PALMER: I believe there would be.
MR. HISER: Okay. And so, do you sometimes receive governmental requests for information that are transferred to you in order for you to conduct the analysis that you might do in support of a regulatory analysis?
MR. PALMER: Yes.
MR. HISER: And you also -- do you also undertake

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literature surveys of information that's in the published literature to determine costs of certain things like control technologies or control techniques?
MR. PALMER: Yes.
MR. HISER: And are those often based on anonymized surveys of private information?
MR. PALMER: It depends on the source.
MR. HISER: Okay. When you were preparing the costs that you used sort of as a reference point for your critique of Mr. Dunham's costs in Table 7, and you looked at the compressor costs in his table, which reports to be $55 dollars, is that actually the cost of a compressor change to make the changes required by this rule?
MR. PALMER: No, not at all.
MR. HISER: And so, that was just the -- go ahead, I'm sorry, I didn't mean to talk over you.
MR. PALMER: I think the average cost of a -- average cost per compressor would be quite a bit more than $55.
MR. HISER: So that's probably, at some level, a cost that's just been taken and then divided on a per well count, apparently?
MR. PALMER: That's my understanding of Table 7.
MR. HISER: Okay. And, similarly, if we were to look at the costs of retrofitting, say, an engine, you

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would expect that to be more than the $1,336 that's shown here?

MR. PALMER: That's correct.

MR. HISER: One last question for you, I think. You talked about when you did the ERG work for the costs that were done in the Department's place, that you looked at the permit database the Department had for the number of facilities; is that correct?

MR. PALMER: Yes. Those data were downloaded from the Department's database by Department staff and then transferred to -- well, they were -- they were transferred to us. They were shared with us. Those are the same data that are in the spreadsheets that the Department has posted since, I believe, the beginning of June.

MR. HISER: Uh-huh. And can you tell me, Mr. Palmer, whether that's just the permit database or does that include the Notice of Intent database as well?

MR. PALMER: It does include facilities that are marked as NOIs or Notice of Intent.

MR. HISER: Great. Thank you. I guess that completes my questions for you.

I've got a couple questions for Ms. Day if she's with us as well. All right. I'm not seeing you, but -- ah, there you are.

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Good afternoon, Ms. Day. Thank you for joining us. In page two of your testimony in Rebuttal Exhibit 19, did you agree that even your analysis tended to show an estimated cost potentially as high as about 1.7 billion dollars over five years at the bottom of that page?

MS. DAY: I believe I did, yes.

MR. HISER: Okay. And I believe in the demonstrative exhibit that accompanied you, it showed a 1.2. Was that probably just a clerical error?

MS. DAY: I am not aware of that.

MR. HISER: You may not -- yeah, you may not have been able to see it because sometimes if you're presenting, you don't get to see what's on the screen. Okay. But the 1.7 is the number that you are testifying to today, correct?

MS. DAY: Let -- let me just clarify that the 1.7 was the five-year cost assuming our -- the ERG estimate of, I believe, it was 338 million per year.

MR. HISER: I believe that's what you said, yes. Okay. Thank you.

And then, Ms. Day, in evaluating the accuracy -- yes.

MR. PALMER: I'm sorry.

MR. HISER: Yes.

MR. PALMER: I can address that question as well,

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actually. I'm sorry, Ms. Day is actually on travel and in England and has been out of the country since the end of last week. So I -- the difference there is that the costs in the slide that I -- that I helped prepare, reflect updated costs to reflect changes in the version of the rule that was filed on September 6th. And in particular, there was a big reduction in the cost for engines and turbines, the smaller reduction costs for storage vessels and a very, very small change in cost for heaters. The big difference was in the engines and turbines cost.

And so there was a slight discrepancy between my preparation of the slides and the testimony, so I -- those updated costs, I believe, will be submitted as exhibits when we do get to those sections. So, just to hopefully avoid a lengthy conversation here.

MR. HISER: Okay. Well, thank you for that clarification. Yes, thank you, Mr. Palmer, for that clarification.

When you did that recalculation of the cost, Mr. Palmer, did you reconsider the administrative costs of the addition of, for example, the annual compliance certification on the administrative side, or did you just look at the capital costs side?

MR. PALMER: These are the capital and annual -- annual operation and maintenance costs is usually what we

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consider, and in very -- in a lot of those, the cost inputs that we use which very often come from preexisting documents, such as the EPA cost analyses, there's very often a line item for administrative and management costs, so -- but we did not include a separate line item for the compliance certifications for this rule.

MR. HISER: Okay. So it's sort of a partial update to reflect changes in the rule; is that a fair characterization?

MR. PALMER: I think, yes, it's -- its focus -- it's been equipment-focused, let's say that.

MR. HISER: Thank you, that's very helpful.

And then either Mr. Palmer or Ms. Day, because I'm not sure which of you would be better here to answer this, have you looked at any changes in equipment and installation costs that have occurred in the most recent period, say 2020 through 2021, or are most of your costs based on costs that were developed prior to that period, and then inflated to this period?

MR. PALMER: I can respond to that one. The costs are -- what we've been using is the chemical engineering -- chemical engineering plant cost index to -- I don't want to say the word "inflate"; to update the costs from when they were originally developed, to -- in our case, we used 2019, given when we started this

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project, which was 2020.
We do recognize, of course, that the last couple of years have been a little extraordinary, in terms of the availability of raw materials, et cetera. So we have not attempted at this point to update those costs to reflect the unusual circumstances of our current situation, if that's what you're implying, sir.
MR. HISER: Thank you, Mr. Palmer. You saved me having to ask the question. Appreciate that.
Ms. Day, on page 14 of your rebuttal testimony, you stated that, "Given that investments in equipment are typically spread out by affected owners and operators, a more realistic assumption would be that the cost of regulation can be spread out more evenly over the 15-year useful life time frame."
Do you recollect making that statement in your testimony? This is on page 14.
MS. DAY: Yes, I do.
MR. HISER: Does the NMED proposal, with the exception of engines and turbines and pneumatics provide 15 years to comply with any provision?
MS. DAY: I don't think I can answer that question.
MR. HISER: Okay. So you're not aware of the time frame for implementation, set forth in the proposal

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in any detail?
MS. DAY: Not in -- not specifically.
MR. HISER: Okay. So how would we know that industry could spread its time over that length of time?
MS. DAY: Industry has the ability to -- to obtain financing and -- and spread that financing out. It is my understanding that that can be separate from the time frame of the rule itself.
MR. HISER: And do you have any studies or documentation about the prevalence of that practice or how much of this would be expensed or the additional costs that would be incurred by trying to finance in that way?
MS. DAY: The -- the U.S. Environmental Protection Agency, when they do studies of the -- when they issue regulations and they do regulatory impact analyses, typically, use this assumption when they are estimating the costs to the affected industry and they are annualizing those costs. This is the time frame that they typically use.
MR. HISER: And so, Ms. Day, your position here is based not on anything other than your understanding of EPA practice?
MS. DAY: I would say that that is an important part of what informs that thought process on my part.
MR. HISER: And -- okay. I guess I'm not sure

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what that means; that the EPA practice is what's informing your thought process, or what is informing your thought process?
MS. DAY: The standard analytical structure that's used in a regulatory impact analysis by the federal government by EPA.
MR. HISER: Okay. And are you aware, if I may represent this, that that EPA standard process, it requires us to treat all capitals having no cost?
MS. DAY: I am not aware of that.
MR. HISER: Okay. Does that influence, perhaps, your thoughts about this?
MS. DAY: I -- I don't think I could comment on that at this time.
MR. HISER: Okay. Thank you.
And then, Ms. Day, in criticizing Mr. Dunham's job impact analysis, did you offer an alternative job loss analysis in your testimony?
MS. DAY: I was not asked to provide that.
MR. HISER: So you were just asked to provide a critique of Mr. Dunham's analysis? And not to do --
MS. DAY: I was asked to review -- I was asked to review his analysis.
MR. HISER: Okay. I believe that's all my questions, Madam Hearing Officer.

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Thank you, Mr. Palmer, Ms. Day. You were both very helpful.
HEARING OFFICER ORTH: Thank you, Mr. Hiser.
Mr. Rose, do you have questions of this panel?
MR. ROSE: I do not, Madam Hearing Officer.
HEARING OFFICER ORTH: Thank you. Mr. Janoe?
MR. JANOE: No questions, Madam Hearing Officer.
HEARING OFFICER ORTH: Thank you. Mr. Butzier?
MS. SHEEHAN: Madam Hearing Officer, this is Christina Sheehan, the GCA -- the GCA has no questions. Thank you.
HEARING OFFICER ORTH: Thank you, Ms. Sheehan.
Ms. Gutierrez?
MS. GUTIERREZ: No questions. Thank you.
HEARING OFFICER ORTH: Thank you.
Mr. Colclasure?
MR. COLCLASURE: No questions, Madam Hearing Officer.
HEARING OFFICER ORTH: Thank you. And Ms. Witherspoon? She's not here.
Let's move then to the Board members for their questions. While I'm doing that, please, if you are on the platform and you are not a panelists, you can indicate that you have a question by reaching out through the Chat.
Madam Chair, do you have questions of the panel?

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CHAIRPERSON SUINA: Good afternoon, Madam Hearing Officer. Yes, I have a couple of questions.

EXAMINATION BY THE BOARD OF SUSAN DAY AND BRIAN PALMER

CHAIRPERSON SUINA: Let me scroll my pages here. Just so that I'm clear, I think it's follow-up to Mr. Hiser's question. And this would be for either Mr. Palmer or Ms. Day. So you were only asked by NMED to review Mr. Dunham's analysis and -- is that correct?

MS. DAY: Are you referring to all of the work conducted by ERG?

CHAIRPERSON SUINA: Yes.

MS. DAY: In total, I can tell you that I also analyzed, prepared and -- sorry, obtained and prepared some data that are used in the small business definition, and brought -- and provided feedback on Mr. Dunham's analysis.

And Mr. Palmer can explain all of the ways that he's involved.

CHAIRPERSON SUINA: That would be great. Thank you. Mr. Palmer?

MR. PALMER: I was -- among many other things I was asked to review Mr. Dunham's economic impact analysis.

CHAIRPERSON SUINA: Thank you for that. And I think my follow-up question is, so was a separate -- just so I'm not confused; was there a separate analysis done

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based upon, I would say, some of the numbers that you were -- you know, some of the, I guess, readily-available data and numbers?

MR. PALMER: So, for each of -- each part of the rule that addressed a different emission source type, so, for example, engines and turbines, dehydrators, storage tanks, et cetera, I guess there's, you know, 15 different sections of the rule that are specific to a certain type of equipment, we estimated both cost and emission reductions, because an important variable that I think people will talk about is the cost per ton of VOC or NOx reduced. And so, that's -- that is what we calculated. And then we also did attempt to estimate a total annual cost for the rule going forward.

CHAIRPERSON SUINA: Thank you for that, Mr. Palmer. And in that estimation, I just want to make sure I'm clear. In one of the slides that was presented, Mr. Dunham's estimate was 3.8 billion, and then ERG, as you said, there was a difference in what Ms. Day was referencing, but in today's slide you estimated 215 million per year?

MR. PALMER: That is correct.

CHAIRPERSON SUINA: Over five years and that would be no more than 1.1 billion; is that correct?

MR. PALMER: Correct, yes.

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CHAIRPERSON SUINA: And that's -- thank you so much, Mr. Palmer. And that cost, is that cost industry cost or is that cost to the State of New Mexico? In terms of that?

MR. PALMER: That is -- that is the expected -- the 215 million dollars is the expected annual cost to the industry in terms of the annualized capital costs of either retrofitting equipment or buying control devices and then also an annual estimate of operation and maintenance costs.

CHAIRPERSON SUINA: Is there included in that cost, just so I'm clear, is that additional -- you know, in Mr. Dunham's analysis looking at additional administrative costs related to some of the reporting requirements that are proposed?

MR. PALMER: There's not a -- we did not do a separate cost; however, very often within those cost estimates that we begin with there is very often a line item for administrative and management costs.

Excuse me, I'm just going to shut this other door.

CHAIRPERSON SUINA: Were you going to add more, Mr. Palmer?

MR. PALMER: No. There's -- no, as I said, the cost estimates that we start with, you know, which very

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often come from the federal -- a federal regulatory project, for example, they often include a line item for administrative and management costs within those cost estimates.

CHAIRPERSON SUINA: Thank you, Mr. Dunham. [sic] And so, I think it was referenced that earlier in the verbal testimony before lunch, he had shared that you work -- ERG works with other governments, in terms of other regulations and rules and cost analysis related to those other regulations and rules. Could you share with us how many states you've provided an analysis for?

MR. PALMER: That's a -- can you restate the question? I'm not sure what your question is.

CHAIRPERSON SUINA: Yeah. I apologize, Mr. Palmer. I'm just wondering how many states, and if you can't give a specific number, is it less than ten or more than ten?

MR. PALMER: I have worked on -- in the last 30 years, I have worked on regulatory projects probably covering somewhere between 15 and 20 different source categories. As a company, we've been supporting the federal EPA's Clean Air Act regulatory development for 40 years.

We've supported the EPA in developing emissions standards for more source categories than I could count.

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I mean, I've personally worked on secondary lead smelting, municipal waste combustion, fiberglass boat manufacturing, oil and gas, numerous surface coating categories. Controls as a part of enforcement actions for automobile shredders.

So, yeah, I'm not sure what -- whether you're asking for the breadth of our experience or whether we've done oil and gas cost estimates for other states.

CHAIRPERSON SUINA: Yes. It's the oil and gas costs.

MR. PALMER: No, I don't think we have.

CHAIRPERSON SUINA: Okay. Okay. That's what I wanted to know.

MR. PALMER: And I have not, personally.

CHAIRPERSON SUINA: Okay. What about you, Ms. Day?

MS. DAY: Sorry about that. I have not worked on oil and gas estimates for other states.

CHAIRPERSON SUINA: Okay. Thank you so much for that. I appreciate your time and both of your testimony. And thank you so much, Madam Hearing Officer, those are the questions I have for now.

HEARING OFFICER ORTH: Thank you very much. Vice-Chair Trujillo-Davis, do you have questions of this panel?

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VICE-CHAIR TRUJILLO-DAVIS: Yes. I only have a couple, they're just clarifications. I apologize, Mr. Palmer, I was curious in your scope from NMED, did you receive any instructions to do a job impact analysis or a cost impact analysis to the state as far as lost revenue or lost jobs?

MR. PALMER: We were not.

VICE-CHAIR TRUJILLO-DAVIS: Okay. So I guess my next question is probably for Ms. Katz. Does that information exist in one of the exhibits somewhere that we could look at or reference?

MS. KATZ: Member Trujillo-Davis, the only information -- the information that was provided by the Department is all in the cost estimates, and that was the information that the Department provided consistent with the requirements of the statute.

VICE-CHAIR TRUJILLO-DAVIS: Okay. So just to be clear, there's no impact for jobs and no impact to the state?

MS. KATZ: Correct. There was no -- there was no full -- there was no -- yeah, that type of -- we did not have that type of economic analysis. We -- we simply provided the costs and emissions reductions estimates.

VICE-CHAIR TRUJILLO-DAVIS: Okay. Thank you very much for that. I may have some more questions later, but

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I'm done for now. Thank you.

HEARING OFFICER ORTH: All right. Thank you. Member Cates?

BOARD MEMBER CATES: Yeah. Chair Suina and Member Trujillo-Davis kind of brought up some stuff I was wondering about and it's been covered. But, generally, then, Mr. Palmer and Ms. Day, so -- so my question is -- it goes to your critique of the study presented by the gentleman this morning, whose name I'm forgetting, I'm sorry. But your direction to us, if I understand you, was to not take it -- not take it seriously, not take it too seriously -- some of the estimates and the numbers that we saw in that testimony; is that a fair characterization?

MR. PALMER: Yes, that's what I stated in my testimony this morning.

BOARD MEMBER CATES: Would it be kind of going too far to say that the report and the testimony we heard this morning is just perhaps a piece of alarmist fiction? Would you go that far?

MR. PALMER: I would not say that. I would just say that it's not -- it was not well documented where the costs came from and how the analysis was created.

BOARD MEMBER CATES: So it's thin, it's pretty lightweight stuff; is that fair to say?

I suppose I'm putting words in your mouth, but

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I'm just trying to really get down to the, you know, the grit of it.

MR. PALMER: I cannot answer beyond the information that we had to evaluate.

BOARD MEMBER CATES: Okay. Yeah, that's all I have. Thank you, sir.

HEARING OFFICER ORTH: Thank you. Member Bitzer?

BOARD MEMBER BITZER: A couple of things. When I heard clarification about the 1.7 billion dollar figure over five years, versus the 1.1, and then because originally in the verbal testimony I heard 1.7, but I saw 1.1, and that reconciled, it seemed to me, with the annual, the 200-some million versus the 300 million. We're -- we're settling on the 1.1 billion now or the 1.7 billion?

MR. PALMER: We estimate that the cost over five years would be 1.1 billion.

BOARD MEMBER BITZER: Okay. So, yeah, I misunderstood the explanation about who had done what. When you said she was at -- Ms. Day was in England, I thought maybe we had a pounds to dollars conversion or something going on there. And I was like, well, that would make it even worse because the pound is still above the dollar I think, so...

For New Mexico specifically -- if you happen to

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know -- I guess the discrepancy between the two reports is larger, in terms of the number of wells in the natural gas realm than it is in the oil realm. It was like two -- are the -- is a well a well a well, or is one type of well typically a larger economic footprint than the other? Is a natural gas well a bigger deal than an oil well, or is an oil well a bigger deal than a natural gas well in New Mexico, do you suppose?

MR. PALMER: I don't believe I could answer that question for you.

MS. DAY: And I don't believe I could either.

BOARD MEMBER BITZER: Industry may at some later point may have an answer for me on that, or a suggestion. I thought I read that into their -- into earlier testimony and data about -- because it seems to me there was a big discrepancy in the natural gas well count and not so big in the oil count. If oil wells are minor compared to natural gas wells, then that would just exacerbate the gap, and vice versa. Anyway, that's all I have.

HEARING OFFICER ORTH: Thank you. Member Garcia?

BOARD MEMBER GARCIA: Yes, Madam Hearing Officer. Yes, thank you. So let's see. Mr. Palmer, I do have a question -- for either one of you, I guess. You did make the statement that the Board should give no weight to Dunham's estimates. That's a pretty strong

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statement, and I understand part of it is because they overstated the number of wells, et cetera. You identified some of the misleading numbers that they were using and then you also noted that there were a lot of assumptions you just don't know about because they didn't give any detail about the model, the assumptions in the model, the input data for the model, et cetera.

So if you had that information and you understood better how he came up with those numbers, would it be possible that you could accept some of the information that he provided?

MR. PALMER: I think that would be -- that would be fair, yes.

BOARD MEMBER GARCIA: Okay. So -- so let me ask you again, when you say the Board should give no weight to Mr. Dunham's estimates, you mean absolutely nothing in his report should we pay attention to, it's all garbage?

MR. PALMER: There -- there were no data provided except the cost numbers in Table 7 and no explanation of where those data came from and how they were generated, how they relate to the cost estimates that have already been provided from the Department, and then the model that extrapolates from those cost data to those employment figures that he has and the change in tax revenue.

So there's no -- there's no linkage between those

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to explain to the Board, and so we don't know if those -- I -- I can't -- I mean, just based on the inputs that are in Table 7, which don't line up with ERG's cost estimates on individual items or the total, and then I'm not an economic modeler, but there is no connection, there's no clear path or mechanism between those costs in Table 7, to the economic impacts that he puts out in table -- which table was it -- in Tables 11 or 12. So I mean that's -- that's all I can say is that there's -- given the uncertainty in the inputs for Table 7, we don't know whether you could -- what to do with the outputs that are in the later tables. That's all I can say.

BOARD MEMBER GARCIA: Okay. Thank you. That's all my questions. Thank you.

HEARING OFFICER ORTH: Thank you, Member Garcia. Member Honker?

MEMBER HONKER: Yeah, just -- just one question, for Mr. Palmer, I believe. When you were talking about having done your recent recalculation of costs based on the most recent edits to the proposed rule that NMED did, it seemed like when you were questioned about materials costs, I think from the NMOGA counsel, I believe you said your materials costs were based on 2019 data. Was -- do I recall that correctly?

MR. PALMER: Thank you for the question. What I

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did was, our costs inputs -- our costs methodologies were often taken from previously completed EPA cost estimates. And then, and those were done in earlier years, and then we started this project in 2020 and we scaled those numbers up from those earlier years to 2019, using the Chemical Engineering Plant Cost Index. And then the comment was about the supply-side issues that we're having right now related to the pandemic, I believe, and so we did not attempt to correct those. I think that would be an interesting, but difficult analysis. Things are changing quickly.

BOARD MEMBER HONKER: Well, I can see where it would be difficult to project that out over years, not knowing what the market is going to do, but it does sound like if they're -- it sounds like there's a potential that your 1.1 billion number is on the low side, if indeed, supply costs and even labor costs have gone up over the last couple of years; is that a fair statement?

MR. PALMER: Yeah, I think so, but I think also to take into account that many parts of the rule have pretty fairly extended compliance timelines, and so it's not -- it's not like the rule will be final in 2022 and everybody needs to be in compliance with everything at the end of 2023. There are extended compliance timelines here and so -- so, who knows where things will be in another

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two or three years, let's say.
So the engines have -- is a big issue, obviously, that has an extended compliance timeline; the pneumatics, that has an extended compliance timeline. Some other parts of the rule have extended compliance timelines as well, so that just recognizing that you can't do everything at once. It's not like you can switch a -- you know, flip a switch and everybody goes from one thing to another, and that there are supply chain issues, there's technical expertise issues.
So that can be taken into account in trying to estimate the total costs, which is I think another thing about the -- I'm sorry, it goes back to the question of how -- what sort of time frame are you looking at, and that those costs are spread out over time and not happening all at once. So by, you know, New Year's Eve 2023, everybody has to be in compliance, that's not the case at all.
BOARD MEMBER HONKER: Understood. Thank you, Mr. Palmer. That's -- those are the only questions I have.
HEARING OFFICER ORTH: Thank you, Member Honker. I have a question from the -- from the Chat from Antoinette Reyes and then we'll go back to Madam Chair. And I'm sorry, because of the platform, Mr. Palmer, it's

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not -- not possible for me to have asked the question when -- when she was typing it in. But it was an earlier question, it might have been during Member Garcia's question, it might have been relevant then.
"Is it helpful to think about the fact that natural gas wells are more common in the San Juan Basin, whereas more oil wells are more common in the Permian Basin? Is that helpful to any of your discussion here"?
MR. PALMER: It's something that we're certainly aware of, and in some cases we estimated costs separately for the San Juan versus the Permian; for example, for the pneumatics. There are separate cost estimates for Permian versus San Juan, so we're -- (unintelligible.)
HEARING OFFICER ORTH: Okay. Thank you. Would you repeat that last bit?
MR. PALMER: I'm sorry. We're aware of those differences.
HEARING OFFICER ORTH: Okay. Thank you.
And now Madam Chair, if you would.
CHAIRPERSON SUINA: Thank you, Madam Hearing Officer. I have just a few more questions. So back to the slides that were presented earlier, slide number 3 Mr. Dunham's estimate, and I apologize if we've already addressed this or if you've already addressed this, but we're looking at 3.8 billion in 2020 dollars over a

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five-year period -- period. In the -- in -- in your, I guess, comments regarding Mr. Dunham's estimate of that five-year period, you had mentioned that you wanted to take it out over greater than a five-year period of time. And were you looking at 15, I think, is what was said earlier; is that correct?
MS. DAY: Yes, it was.
MR. PALMER: Do you want me to handle this, Susan?
MS. DAY: Yes, go ahead.
MR. PALMER: Okay. In estimating costs in our federal regulatory programs, usually they use a 10- to 15-year time land -- timeline because the equipment is usually quite durable, so the equipment will last 10 to 15, 20 years. And so you usually analyze those costs over a reasonable economic life of the equipment. So you're not -- you're not assuming that you -- that's the standard practice for estimating equipment costs.
And Susan is an economist and she can explain probably better the rationale for that, but it is standard procedure to estimate costs over the lifetime of the equipment, which is usually 10 to 20 years. And you can sort of think about this a little bit in your own personal life, in that, you know, very few people buy a car with cash, for example, and that you're usually financing it,

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so...
But Susan can address that, the economics behind that maybe a little better than I can, but that's just the standard practice for estimating costs in federal regulatory programs.
CHAIRPERSON SUINA: Ms. Day, do you have anything to add to Mr. Palmer?
MS. DAY: Actually, in general, I think that what -- the way that Brian just explained that is appropriate. It's a -- the point is that the equipment has a certain life, and in this case, that, we believe that's, you know, 10 to 20 years, with an average of 15 years. And so, to -- to appropriately reflect the cost that industry will incur on an annual basis -- an annualized basis, you would calculate that value over a longer time frame than five years. You'd calculate it over more like 15 years.
CHAIRPERSON SUINA: And thank you for that. So in this slide it says that it was ERG's estimate at 215 million per year over a period of five years, so if you extend that period more than five years, would that mean more cost, or would it be just the 1.1 billion annualized over 15 years?
MS. DAY: Brian, the -- the 215 is per year?
MR. PALMER: Correct.

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MS. DAY: And so the 1.1 is the annualized total of over five years, and that was -- that estimate was developed to compare to Mr. Dunham's five-year period?

MR. PALMER: That's -- that is correct, yes. Right. So that is not the total -- that's not the total capital costs of all the -- all of the rule, but that is the annualized cost over five years.

CHAIRPERSON SUINA: Okay. So with the ERG model, it would be more because you were looking at 15 years, or -- or no?

MR. PALMER: It depends on what you're -- on what -- hmm.

CHAIRPERSON SUINA: And I apologize, I'm just trying to get my head around, so I can compare apples to apples or oranges to oranges.

MR. PALMER: Yes, exactly right.

CHAIRPERSON SUINA: That's my only intent in asking.

MR. PALMER: Yeah, and that's what -- and that was our intent was that, you know, we -- because we were presented with Mr. Dunham's cost estimate over five years, we provided our cost estimate over five years. And, yeah, so that's -- we were trying to present a five-year cost estimate for the rule.

CHAIRPERSON SUINA: Okay. Okay. That

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clarification is helpful. And I think in Mr. Dunham's report -- and I'm trying to find it here, trying to scroll through here -- there was a sentence saying the 3.8 billion cost would be -- I think 3.2 billion would be realized within the first year, I think is what it said. I'm trying to find that -- that sentence here.

Do you recall that in the report?

MS. DAY: Yes.

CHAIRPERSON SUINA: Can you explain what your thoughts are regarding that sentence and having, you know, the 3.8 billion, but then noting in his statement that there's 3.2 billion that would be realized within the first year?

MS. DAY: I'm not sure I understand your question.

CHAIRPERSON SUINA: Maybe I should frame it this way: Do you have an opinion over that -- with that statement, that 3.2 billion would be the cost to industry the very first year?

MS. DAY: Yes, and I think that's what I was -- that's a part of what my testimony was trying to get at, and also when I pointed out that Ms. Lackner from EDF, was talking about the fact that there's a phase-in. And Mr. Palmer also brought this up, that you don't have to -- that industry will not have to incur all of the costs --

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they won't have to do everything in the first year, and so it doesn't seem correct to assume that the vast majority of the costs will be incurred in that first year, when they have -- industry has both the ability to phase-in their compliance activities, and they have the ability to finance what they're doing over a longer time frame.

CHAIRPERSON SUINA: Thank you, Ms. Day. I appreciate that explanation.

Madam Hearing Officer, those are all my questions.

HEARING OFFICER ORTH: All right. Thank you, Madam Chair. Before we release the panel, Mr. Janoe has changed his mind and would like to ask some questions.

Mr. Janoe, can you join us? There you are.

MR. JANOE: I am here, Madam Hearing Officer. Thank you. These are directed to Mr. Palmer.

CROSS-EXAMINATION OF BRIAN PALMER

BY MR. JANOE:

Q. Mr. Palmer, you previously testified that you have not provided testimony in connection with any oil and gas rulemakings before, correct?

A. (Nodding head.)

Q. Okay. And you have no other experience in the oil and gas field, do you, sir?

A. I worked on the greenhouse gas reporting program,

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so Part W.

Q. Okay. But you have no experience in retrofitting oilfield sites, do you, sir?

A. No, I am not an engineer.

Q. Okay. No experience on emission control requirement, as opposed to say the greenhouse gas reporting in the oilfield?

A. What is your question exactly?

Q. Sure. I just want to make sure, sir, you mentioned that you had worked on the greenhouse gas reporting rules in connection with the oil and gas industry. I just want to make sure you haven't worked on any prior work in which there were actual emission controls being proposed in the oil and gas industry.

A. No, this is my first rule.

Q. Got it. And so you did not independently study how long it will take industry to come into compliance with these rules, did you?

A. That was not -- that was not a question we were directed to ask; however, I'd like to point out that the rule does include extended compliance timelines for --

Q. Okay. But understanding that there are timelines in the rules, sir, you have no opinion on how long it will actually take for industry to meet those timelines, do you, sir?

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A. I will note that in their testimony in rebuttal, that industry did recommend changes to the rule specifically related to timelines, and that the rule, to the best of my knowledge, has incorporated those timelines in many cases.

Q. Okay. Mr. Palmer, my question was a little simpler than that. You don't have an opinion on how long it will actually take to retrofit these sites, do you, sir?

A. No, I don't have an opinion on that.

Q. Are there any ten-year compliance deadlines in the rule package, as it's presented right now?

A. I don't believe there are.

Q. Okay. Are there any 15-year timelines, sir?

A. No.

Q. How about 20-year timelines?

A. No.

MR. JANOE: Thank you. No further questions.

HEARING OFFICER ORTH: All right. Thank you, Mr. Janoe.

Ms. Katz, does any of the questioning raise any other need to do some redirect?

MS. KATZ: Yes, Madam Hearing Officer. I have a few questions.

HEARING OFFICER ORTH: I'm sorry. I'm sorry to

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interrupt, Ms. Katz. Vice-Chair Trujillo-Davis has just popped up in the Chat. Vice-Chair, there you are.

VICE-CHAIR TRUJILLO-DAVIS: Yes, thank you. Mr. Palmer, I just wanted to follow up on a couple of questions from a previous -- from previous questions. With your time with the annualized costs, and you extended it over 15 years, and there was another -- it was mentioned several times about that maybe you will be able to secure financing to spread that out. Wouldn't that increase the estimated costs that was put into the report?

MR. PALMER: The -- when we annualize the costs, we include an interest rate so they are -- that does account for financing.

VICE-CHAIR TRUJILLO-DAVIS: Okay. So was that -- and I'm sorry, I can't remember the exact number. It was 1.-something billion. Help me out here.

MR. PALMER: 1.1 billion.

VICE-CHAIR TRUJILLO-DAVIS: Yes. Thank you. 1.1 billion?

MR. PALMER: That was over five years.

VICE-CHAIR TRUJILLO-DAVIS: That's over five years, okay.

MR. PALMER: No, that's the -- I'm sorry. It's 215 million is the annualized cost. That, over the first five years, 5.5 times 215 million is 1.1 billion.

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VICE-CHAIR TRUJILLO-DAVIS: Okay. All right. Thank you for clearing that up for me. I appreciate that.

MR. PALMER: Okay.

HEARING OFFICER ORTH: Okay. Thank you. Ms. Katz, we're back to you.

MS. KATZ: Thank you, Madam Hearing Officer.

REDIRECT EXAMINATION OF BRIAN PALMER

BY MS. KATZ:

Q. Mr. Palmer, you were not the only person from ERG that worked on this rulemaking; is that correct?

A. That is correct.

Q. And you had other colleagues from ERG who worked extensively on this -- this regulation --

A. That is correct.

Q. -- this cost system?

A. Yes.

Q. And can you -- can you discuss their background, if any of them have background in oil and -- regulatory efforts for the oil and gas industry, emissions controls, and the -- the various types of areas that were identified by Mr. Janoe just a moment ago?

A. Yes. Some of the staff members that have been working on this project developing controlling cost estimates, have specialized experience in developing emissions inventories for oil and gas and also on both the

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upstream side, and for Alaska, Texas, TCEQ.

We've also -- they've also been working on developing EPA training in the oil and gas industry. Also working on the North Slope for the Bureau of Ocean Energy Management offshore and onshore, developing the federal implementation plan for Indian Country in oil and gas. Worked for Alaska Department of Environmental Conservation on permitting in oil and gas, worked on the city of Fort Worth study. Other folks who also have worked on Subpart W as well. So as an institution organization, we do have experience in the oil and gas industry as well.

Q. Thank you, Mr. Palmer. And I -- I will provide resumes of other members of the ERG team. I will provide exhibits for those.

Let me see. And you alluded to this, but Mr. Janoe was asking you about the timelines for compliance and whether you had any basis for those. Would you agree that -- that the Department has adopted many of the proposals from industry, including Oxy, on those types of provisions?

A. Yes, that's correct.

Q. And would you -- would it be safe to assume that industry proposing those would believe that they were valid, and had the experience to -- to validate those that they were proposing?

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A. Yes.
Q. Okay. You stated that you relied on EPA's estimates as the basis for the cost estimates for this rule; is that correct?
A. Yes, that is true for many of them.
Q. And do those EPA estimates include administrative costs, such as recordkeeping?
A. Very often it's a line item.
Q. So if owners and operators -- and Mr. Hiser asked you about whether you evaluated additional administrative costs from the annual compliance certification proposal.
A. Uh-huh.
Q. If owners and operators comply with the recordkeeping requirements that are proposed in the rule, would you expect additional resources to be needed to conduct the annual compliance certifications?
A. If they're performing the recordkeeping and reporting the recordkeeping that's required by the rule, then the compliance certification should be very, very minimal as an extra effort.
Q. Thank you. Would the -- and there was some issues about looking at the five years versus the 15 years. Is the total capital cost the same whether you're looking at five years or 15 years?
A. It's the same, yes.

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MS. KATZ: Okay. Thank you. That's all I have.
HEARING OFFICER ORTH: All right. Thank you very much, Ms. Katz. If there's no reason not to excuse the panel --
MR. HISER: Sorry, Madam Chair -- Madam Hearing Officer, there is reason not to excuse the witness.
HEARING OFFICER ORTH: Who is this?
MR. HISER: This is Eric Hiser, counsel for NMOGA.
HEARING OFFICER ORTH: Yes.
MR. HISER: The last -- I -- I must take exception to the last question and answer by Mr. Palmer, because I think it's misleading and I think that we should ask him to clarify exactly what he meant by it.
HEARING OFFICER ORTH: Okay. All right. Mr. Palmer, do you have a clarification? We can't hear you.

RECROSS-EXAMINATION OF BRIAN PALMER

BY MR. HISER:

Q. I'd be happy to explain to what my concern is about that, if it would be helpful.
A. Yes, could you please?
HEARING OFFICER ORTH: Please go ahead, Mr. Hiser.
Q. (BY MR. HISER) So the question that was asked by

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Ms. Katz was, is the total compliance costs of the rule the same as the five-year annualized cost.
MS. KATZ: That is not what I asked.
A. No.
Q. (BY MR. HISER) Okay. Then what was the question, because maybe I misheard it.
MS. KATZ: The total capital costs.
Q. (BY MR. HISER) So, Mr. Palmer, do you agree that the total capital cost is recaptured in the first five years of the 15-year period that it appears you and Ms. Day used?
A. I'm sorry. Can you please restate that?
Q. Do you believe --
A. Just repeat it.
Q. Do you believe that the total capital cost is recaptured in the five years of the 15-year period that you and Ms. Day say you used?
A. What do you mean by "recaptured"?
Q. I believe -- and maybe Ms. Katz can clarify -- that she was asking whether the total capital cost had been incurred and paid for in those first five years.
A. No. She asked, is the total capital cost the same whether it's spread out over five years or whether it's spread out over 15 years.
Q. Oh, okay.

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A. The capital cost would be the same; you might have a separate financing cost, but the capital cost is the capital cost.
Q. But you've not ever said what you think the total capital cost is over the 15-year period?
A. I have not presented that, no, and I am not prepared to present that right now.
MR. HISER: I don't have any additional questions, Madam Hearing Officer.
HEARING OFFICER ORTH: All right. Thank you, Mr. Hiser.
Oh, Member Garcia, you have another question?

EXAMINATION OF BRIAN PALMER BY THE BOARD

BOARD MEMBER GARCIA: Yes. Thank you, Madam Hearing Officer. One more question for Mr. Palmer that came to mind is I -- I would anticipate that there's always going to be discrepancies between industry cost estimates and regulatory entity's cost estimates, that's just the way it is.
Because you have so much experience in working with rulemaking with EPA, for instance, are there efforts to reconcile the differences that there are with industry, in terms of how you look at the costs and they're so different. Could you talk about that a little bit?
MR. PALMER: Let's see. I can talk about that a

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little bit, yes. The EPA cost estimation that is used in regulatory development, the EPA cost manual generally recognizes that their estimates are within plus or minus 20 or 30 percent. Those methods are based on information that they collect from industry and they are updated periodically over time.

So EPA, for example, just updated their cost methodology for thermal oxidizers. And it goes through -- it's almost a regulatory development process, where they propose a methodology and take public comments on it, so that's what we rely on mostly. And so there is a discrepancy between industry and regulatory agencies very often.

And for example, the EPA is always trying to update their methodology. So that's all I can -- I think I can say about that.

BOARD MEMBER GARCIA: That's helpful. Thank you, sir. That's all I have. Thank you, Madam Hearing Officer.

HEARING OFFICER ORTH: Thank you, Member Garcia. Is there any reason not to excuse the panel at this point, Ms. Katz? No problem?

MS. KATZ: No, though they will stick around for the surrebuttal.

HEARING OFFICER ORTH: I'm sorry, I didn't mean

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to excuse them entirely. All right. Thank you very much, Mr. Palmer and Ms. Day. We'll get back to you as soon as we can.

MR. PALMER: Thank you.

HEARING OFFICER ORTH: Are we hearing now from Witness Lackner? Is that where we're going?

MS. KATZ: (Nodding head.)

HEARING OFFICER ORTH: Okay. Ms. Paranhos, I see you on screen. And can we get -- did I make Ms. Lackner -- I think I did, a panelist, right?

MS. PARANHOS: I don't see her at the moment. I know she's been following this.

HEARING OFFICER ORTH: Tell me the first name. I'm sorry, that's how they alphabetize this.

MS. PARANHOS: Sure. It's Maureen.

HEARING OFFICER ORTH: Maureen, yes.

MS. PARANHOS: She said she's on mute.

HEARING OFFICER ORTH: Okay. I'll make her a panelist again.

MS. PARANHOS: Okay, great.

MS. LACKNER: Can you hear me?

HEARING OFFICER ORTH: Yes, and we can see you.

MS. LACKNER: Great.

HEARING OFFICER ORTH: Thank you.

MS. PARANHOS: Thank you so much.

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MAUREEN LACKNER,

having been called, was examined and testified as follows:

DIRECT EXAMINATION OF MAUREEN LACKNER

BY MS. PARANHOS:

Q. Maureen, if you could please state your full name?

A. Maureen Lackner.

Q. And where are you employed?

A. I am an economic and policy manager in the Office of the Chief Economist at Environmental Defense Fund.

Q. What is your educational background?

A. I earned a Master's in Public Policy from the Gerald R. Ford School of Public Policy at the University of Michigan in 2017.

Q. Thank you. And can you please give us an overview of your work experience?

A. Sure. For the past four years I have provided analysis on climate and environmental issues with the special focus on methane emissions from the oil and gas sector. My work on this issue includes economic analyses on proposed regulations and policy design, as well as modeling to track global policy ambitions and abatement opportunities.

Q. And is EDF's Exhibit FFF an accurate copy of your

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CV?

A. Yes.

Q. And did you submit rebuttal testimony on behalf of the EDF on this matter?

A. Correct.

Q. And is EDF Exhibit EEE an accurate version of your rebuttal testimony?

A. Yes, it is.

Q. Do you have any corrections to your rebuttal testimony?

A. No.

Q. And are EDF Exhibits GGG, III and HHH exhibits you will be discussing today?

A. Yes.

Q. Thank you.

Ms. Lackner, can you please summarize the opinions in your testimony?

A. Yes. First, the memo prepared by John Dunham for the New Mexico Oil and Gas Association, the JDA analysis, makes several assumptions that lead to an overestimate of the additional operational costs imposed by the rules.

Second, as has already been discussed today, the memo omits social costs imposed by the industry. EDF's conservative estimate of the social costs from methane emissions related to New Mexico's oil and gas production

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amounts to roughly 1.6 billion dollars. EDF also estimates volatile organic compounds emitted from oil and gas facilities was 337,500 metric tons in 2019. Exposure to these emissions are associated with health damages.

Third, the memo does not adequately explain assumptions. I believe Ms. Day and Mr. Palmer also noted this in their testimony. It also does not test the strength of the assumptions in any kind of sensitivity analysis used in the model. The lack of transparency in the model calls into question the accuracy and reliability of its conclusions.

Q. Thank you, Ms. Lackner.

And can you please discuss the assumptions made in the Dunham memo that led to an overestimate of the additional operational costs imposed by the proposed rules?

A. Yes, happy to. Most of these have already been covered, but happy to -- happy to go through my review. So as I stated in my rebuttal testimony, there are at least three assumptions that are not correct and lead to an overestimate of compliance costs imposed by the draft NMED rules. First, the analysis assumes that close to 82,000 wells will be impacted by the rule. But in contrast, EDF estimates the NMED proposal would require only a little over 49,000 wells to install controls. Our

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estimate is based on the 54,000 active wells with production in 2019. And I believe this is pretty close to the estimate that Mr. Powell submitted earlier today.

In addition to limiting our count to active wells, the lower number also reflects that not all counties are covered by the rule, and about 4,500 wells within these impacted counties would be exempt from many of the control requirements in the rules pursuant to the small business exemption.

Assuming the added administrative and operational costs per oil and gas well listed in the JDA analysis are correct, decreasing just the number of wells -- of oil and gas wells covered by the rules resulted in an adjusted cost to the industry of about 1.8 billion in the first year. This is 43 percent lower than the figure reported in the JDA analysis.

Again, as has been noted several times, this estimate may also be incorrect. The cost data are not documented and -- and we've already covered this, the costs are based on undisclosed result from just ten companies.

A second assumption that we believe incorrectly increases the overall costs, is that operators will invest in every requirement under the rule within the first year. Ms. Day and Mr. Palmer also noted this in their testimony.

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However, this is not the case, as several components of the rule allow for delayed compliance.

The main 2021 draft rule that was the subject of the JDA analysis allowed for delayed implementation of a number of provisions. Specifically, the main proposal allowed operators up to seven years, so until January 1st of 2029 to phase-in control requirements for existing natural gas-fired spark ignition engines; two years from the effective date of the rule to phase-in requirements for existing compressors; two years from the effective date of the rule to control existing glycol dehydrators; one year to control existing heaters; one year to phase-in requirements for new and existing hydrocarbon liquid transfers; three years to control existing pneumatic pumps; three years to control exiting storage tanks with the potential to emit between 2 and 10 tons per year of volatile organic compounds; one year to control existing storage tanks with a potential to emit of greater than 10 tons per year of volatile organic compounds, and a phase-in of over eight years to retrofit existing pneumatic controllers.

So, in other words, operators do have flexibility in a number of these points in terms of how they invest over a period of years.

Finally, the analysis does not factor in the

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additional revenues producers could realize from captured gas. EDF estimates that New Mexico producers waste about 300 million dollars worth of natural gas per year. This is based on an assumption of $4 per thousand cubic feet of natural gas, and that natural gas is 80 percent methane. And EDF estimates that oil and gas facilities were responsible for over 1 million metric tons of methane emissions in 2019. Investment in equipment that reduces these emissions could result in meaningful savings to industry.

Q. Thank you, Ms. Lackner.

And can you explain what the social costs imposed by pollution emitted from oil and gas operations are?

A. Yes. Happy to. Social costs include climate damages from greenhouse gas emissions, such as CO2 when oil and gas are combusted, and climate damages from methane emissions that occur throughout the oil and gas supply chain. And so, again, using a conservative estimate of methane climate damages, the social cost from methane emissions related to New Mexico oil and gas production, amounts to roughly 1.6 billion dollars.

I'll also note that social costs don't -- are not just limited to climate damages. Social costs also include costs to the people of New Mexico who would be exposed to unhealthy air as a result of oil and gas

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activities. And the analysis should account for local environmental damages incurred in New Mexico through degraded air quality and related health impacts associated with VOC emissions.

EDF -- again I'll note that EDF estimates these emissions were over 300,000 metric tons in 2019.

Q. Thank you. Did the Dunham memo account for climate damages and local environmental damages caused by pollution emitted by oil and gas operations?

A. No, it did not.

Q. Thank you. And do you have any other concerns with the model used by Mr. Dunham?

A. Yes. As I indicated in my rebuttal testimony, the Dunham report estimates the indirect and induced economic impacts of the rule based on a model developed for Western Energy Alliance. The study does not adequately explain its underlying assumptions or test the strength of these assumptions in a sensitivity -- any kind of sensitivity analysis.

One assumption that appears to be in place is that the rule will not create any jobs; however, this is likely incorrect. Research prepared by data research on behalf of EDF finds that methane mitigation -- the methane mitigations industry is a young, but fast growing source of high quality jobs across the country. These companies

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anticipate hiring more employees if additional methane regulations are put in place at the state or federal level.

And based on this research report and my opinion, the Dunham report overestimates job losses that could stem from the implementation of the NMED rules.

Q. Thank you, Ms. Lackner.

And did you review the rebuttal testimony submitted by Ms. Day and Mr. Palmer?

A. Yes.

Q. And do you agree with the opinions provided by Ms. Day and Mr. Palmer with respect to the weight that this Board should give the Dunham analysis?

A. Yes, I agree and also urge the Board to give the Dunham report no weight.

Q. Thank you very much for your testimony, Ms. Lackner. I have no further questions.

HEARING OFFICER ORTH: Thank you, Ms. Paranhos.

Ms. Katz, do you have questions of Ms. Lackner?

MS. KATZ: No questions.

HEARING OFFICER ORTH: Thank you, Ms. Fox?

MS. FOX: Just a couple, Madam Hearing Officer.

CROSS-EXAMINATION OF MAUREEN LACKNER

BY MS. FOX:

Q. Good afternoon, Ms. Lackner. My name is Tannis

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Fox and I represent a number of groups here today at the proceeding. I just have a few questions for you. From -- from your testimony, I take it, that you have reviewed Brandon Piles -- Powell's rebuttal testimony provided on behalf of NMED in Rebuttal Exhibit 17; is that correct?

A. Yes, that's correct.

Q. Can you summarize what Mr. Powell said about the number of wells in New Mexico that will be subject to NMED's rule?

A. Yes. Mr. Powell states that there are currently about 53,000 active wells in -- active oil and gas wells in the state; 26,800 of these are active oil wells and about 26,500 are active gas wells. These figures are based on the Oil Conservation Division's own records.

Q. Approximately, how many of those wells would be subject to the EIB rule passed in this proceeding?

A. My understanding is that those -- the rule would impact most of those active wells.

Q. And how does Mr. Powell's estimate compare with the number of wells estimated in the Dunham report, that would be impacted by the EIB's rule?

A. Yeah, the Dunham report states that the total number of impacted wells about 82,000, so this is quite a bit lower.

Q. And so, what kind of impact would OCD's -- would

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using OCD's estimate of well count have on the Dunham report, if the OCD well count were used?

A. As I -- as I stated in my testimony, simply decreasing the total well count will decrease the aggregate cost to the industry.

Q. Thank you. That's all I have.

HEARING OFFICER ORTH: Thank you. Mr. Jaynes, do you have any questions of Ms. Lackner?

MR. JAYNES: No questions at this time, Madam Hearing Officer.

HEARING OFFICER ORTH: Thank you. Lisa Devore may not be with us. Mr. Nykiel?

MR. NYKIEL: No questions. Thank you.

HEARING OFFICER ORTH: Thank you. Mr. de Saillan?

MR. DE SAILLAN: No questions. Thank you and thank the witness for her testimony.

HEARING OFFICER ORTH: Thank you. Mr. Hiser?

MR. HISER: Madam Hearing Officer, I would have a few -- just, I think, two questions for Ms. Lackner.

CROSS-EXAMINATION OF MAUREEN LACKNER

BY MR. HISER:

Q. Ms. Lackner, my name is Eric Hiser; I represent the New Mexico Oil and Gas Association. Appreciate your testimony. You made a discussion in your testimony about

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the fact that the rule currently provides a number of compliance time frames, generally ranging from two to three years, with longer time frames, I think, for pneumatics and engines and turbines.

Don't all of those extended compliance time frames come from the 9/7 or 9/16 draft of the rule; whereas, Mr. Dunham's report was based on the May rule, which did not have those time frames?

A. No, I believe they did come from the May -- the May draft. I -- I checked that.

Q. You did. All right.

And do you agree that regardless of whether we pay for it over a one-year, five-year, or fifteen-year time frame, that, ultimately, the costs of the rule has to be paid for, it's just a matter of perhaps of some discount rate?

A. Well, so, starting from the assumption that the costs are accurate, which is difficult to verify, yes, if you -- if you have a longer time frame, it's the same cost spread out over a longer -- over a longer time, but that could make a big difference in terms of, you know, how you offset those costs with your ongoing revenue and things like that.

Q. Thank you, Ms. Lackner. No further questions.

HEARING OFFICER ORTH: Thank you, Mr. Hiser.

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Mr. Rose, do you have questions of Ms. Lackner?

MR. ROSE: Madam Hearing Officer, I noted that in -- earlier, that I had raised objections to the number of the exhibits that Ms. Lackner referred to, as well as portions of her prefiled written testimony. I noticed that there was no offer for admission of those exhibits. I was wondering if we should take that up now, whether we should do that at some later date, subject to my objection or however you wanted to deal with that.

We could certainly do that now, but -- and I didn't know, for example, if Ms. Day is going to be available much longer, if Ms. Katz has it.

HEARING OFFICER ORTH: Right. So I understand -- my understanding from our discussion yesterday was that in order to be most humane to Ms. Day, we were going to take up the discussion of exhibits after -- after this topic and the next topic.

MR. ROSE: I just wanted to make it clear for the record, Madam Hearing Officer, that we still have those objections to those exhibits.

HEARING OFFICER ORTH: Yes. Thank you for putting that on the record. That's perfectly fine.

MR. ROSE: Otherwise, I have no questions of this witness, Madam Hearing Officer.

HEARING OFFICER ORTH: Okay. Thank you very much, Mr. Rose.

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Mr. Janoe, do you have questions of Ms. Lackner?

MR. JANOE: No questions, Madam Hearing Officer.

HEARING OFFICER ORTH: All right. Mr. Butzier?

MR. BUTZIER: No questions. Thank you.

HEARING OFFICER ORTH: Thank you. Ms. Gutierrez?

MS. GUTIERREZ: No questions.

HEARING OFFICER ORTH: Thank you. Mr. Colclasure?

MR. COLCLASURE: No questions, Madam Hearing Officer.

HEARING OFFICER ORTH: Thank you. And Ms. Witherspoon?

MS. WITHERSPOON: No questions. Thank you.

HEARING OFFICER ORTH: Thank you. I'm going to turn to the Board members now for their questions. In the event you are an attendee and would want to pose a question to Ms. Lackner, please reach out through the Chat.

Madam Chair, do you have questions of Ms. Lackner?

EXAMINATION OF MAUREEN LACKNER BY THE BOARD

CHAIRPERSON SUINA: Thank you, Madam Hearing Officer, I do. Good afternoon, Ms. Lackner. Appreciate your time and your analysis and everything you've shared with the Board today. So I wanted to go back to, I think, a statement you made about the social costs of oil and gas and also the methane.

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For this effort, did you provide or did you do an analysis of what those social costs are?

MS. LACKNER: So, yes, I did. I used the current federal estimate of the social costs of methane and applied it to EDF's estimate of methane emissions from oil and gas production in New Mexico for 2019.

CHAIRPERSON SUINA: Can you just remind me what that cost -- what your estimate was?

MS. LACKNER: It was about 1.6 billion.

CHAIRPERSON SUINA: Okay. And then -- and that cost, was that using -- when was that analysis done, I should ask.

MS. LACKNER: So the social cost of methane was updated in, I believe -- well, the spring of 2021 by the interagency working group on the social cost of greenhouse gas emission to reflect just -- it's a -- it's an interim number that reflects inflation since the original analysis was conducted in 2016 or 2017, I believe.

CHAIRPERSON SUINA: And I just want to make sure I'm clear; and was that done just for New Mexico?

MS. LACKNER: Oh, so the social cost of methane is the math that we rely on at EDF, was a number estimated

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for -- it's a global number that reflects global climate damages.

CHAIRPERSON SUINA: Thank you for that clarification. I just wanted to make sure I'm doing apples to apples. I'm trying -- trying with so much data and assumptions here. So has there been an analysis done just specifically for New Mexico?

MS. LACKNER: So, for climate damages, since the damages are global and it's difficult to pinpoint how -- how those damages are impacting people on a local level, we tend to use just a global number. For the VOC damages that I noted, those would be local, although, I don't provide an estimate of the magnitude of those damages in my analysis.

CHAIRPERSON SUINA: Okay. Thank you for that, Ms. Lackner. And then I just want to make sure I clarify; so some of your analysis is only -- I think one of your numbers about, you know, trying to calculate apples to apples here with Mr. Dunham's analysis, and you're looking at Mr. Dunham's analysis, and can you remind me what your estimate is for the cost to industry as a result of this -- of these rules?

MS. LACKNER: Yeah. Happy to. I did not provide my own estimate. I did note that if you simply reduce the number of wells, the aggregate cost to industry is quite a

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bit lower. But, again, as others have testified, this doesn't address the per well cost amounts that are also -- I have some questions about those as well.

CHAIRPERSON SUINA: Okay. Thank you, Ms. Lackner. Appreciate your time. That's all for now, Madam Hearing Officer.

HEARING OFFICER ORTH: Thank you, Madam Chair. Vice-Chair Trujillo-Davis, do you have questions?

VICE-CHAIR TRUJILLO-DAVIS: I do not at this time. Thank you, Ms. Lackner, for your testimony.

HEARING OFFICER ORTH: Thank you. Member Cates?

BOARD MEMBER CATES: Yeah, one quick question here. It's kind of a broad question, and thank you for testifying, Ms. Lackner. So did I hear you say something along the lines of one way to look at this is not as a cost, but perhaps as a capital investment? Did you go there? Did I hear you say something like that?

MS. LACKNER: I'm not -- I'm not sure.

BOARD MEMBER CATES: Did your work look at the, you know, the waste associated with leaky infrastructure across the Permian and whether there was any cost -- whether there's any, you know, capital payback from, you know, repairing this leaky system?

MS. LACKNER: Yes. Yes, thank you for clarifying. Yes, I noted that some of these control

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measures would decrease methane emissions, which would increase revenue for those oil and gas facilities.

BOARD MEMBER CATES: Yeah, that's all I had. That's what I thought you said, so I just wanted to make sure. Thanks very much.

MS. LACKNER: Uh-huh.

HEARING OFFICER ORTH: Member Bitzer?

BOARD MEMBER BITZER: Do you have any -- thank you, by the way, for your testimony. Did you have a job loss estimate of your own since Dunham's data seems a bit high?

MS. LACKNER: No, that is not something I looked at.

BOARD MEMBER BITZER: That was my only question, Madam Hearing Officer.

HEARING OFFICER ORTH: Thank you. Member -- or do we have Member Duval? I don't think so. Member Garcia?

BOARD MEMBER GARCIA: No questions. Thank you, ma'am.

HEARING OFFICER ORTH: Thank you. Member Honker?

BOARD MEMBER HONKER: No questions. Thank you.

HEARING OFFICER ORTH: Thank you. Let's see. Ms. Paranhos, will there be any redirect?

MS. PARANHOS: No need for redirect or

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surrebuttal. Thank you, Madam Hearing Officer.

HEARING OFFICER ORTH: All right. Well, thank you and thank you very much, Ms. Lackner, for your testimony. I think we need a break. Shall we break until 3. Terrific. See you then.

(Recess taken from 2:42 p.m. to 3:00 p.m.)

HEARING OFFICER ORTH: Let's come back from the break, please. Ms. Katz, if you would please, I believe we're moving to the next topic.

MS. KATZ: Madam Hearing Officer, I believe Mr. Hiser said that Mr. Dunham would have some surrebuttal.

HEARING OFFICER ORTH: That's right. I'm sorry, Mr. Hiser, for forgetting.

MR. HISER: That's okay. It's been going on for a while.

HEARING OFFICER ORTH: Is this -- is this a good time then for Mr. Dunham?

MR. HISER: Yes, I think Mr. Dunham should still be with us.

MR. DUNHAM: Yes, and I hope I have a better microphone now.

HEARING OFFICER ORTH: It seems a little clearer, keep your voice up though.

MR. DUNHAM: I will. I will keep it up, yes.

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HEARING OFFICER ORTH: Thank you. Mr. Hiser?
MR. HISER: Thank you, Madam Hearing Officer.
SURREBUTTAL DIRECT EXAMINATION OF JOHN R. DUNHAM
BY MR. HISER:
Q. Mr. Dunham, welcome back for your surrebuttal. Just a reminder that you remain under oath in regard to this testimony. Did you hear the testimony of Ms. Day and Mr. Palmer?
A. Yes, sir, I did.
Q. And did you hear their discussion of the annualized cost of 215 million dollars per year?
A. Yes, I did.
Q. And is it your understanding that that would be the cost basically over -- if you were to take the capital costs and divide it over 15 years, instead of a shorter period?
A. I'm actually somewhat confused by what they were presenting. At one point they said the cost was 1.7 billion, and at one point they said 1.1 billion. If I take the 210 million, you know, and take it across 15 years, that's 3.2 billion -- (unintelligible.)
HEARING OFFICER ORTH: Mr. Dunham, I'm sorry. Hold on. Mr. Dunham, I'm sorry. I think the court reporter was able to capture very little of that.
COURT REPORTER: Right.

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MR. DUNHAM: I'll try to slow down.
COURT REPORTER: Listen, Mr. Dunham. I need you to look up when you speak. Part of mine, I read lips. I need you to slow down, please.
MR. DUNHAM: Okay.
COURT REPORTER: So please don't go so quickly.
A. All right. The answer to the question was I'm not sure. There were a number of different cost figures discussed. One was 1.7 billion, one was 1.1 billion, and then there was a discussion of, I think it was 210 million per year over 15 years, or maybe five -- I'm not actually sure what the cost number is.
Q. (BY MR. HISER) And did you estimate if you took the 15 years times the 210 million, what type of number would that give?
A. It comes up to 3.2 billion in nominal dollars.
Q. Okay. And did you prepare some surrebuttal testimony in response to the written rebuttal testimony of Mr. Palmer, Mr. Powell and Ms. Day?
A. Yes, sir, I did.
Q. And did you prepare some slides to help walk us through that surrebuttal testimony?
A. I do have some slides if I could make the sharing thing work.
Q. Okay. Let the Hearing Officer re-enable you.

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CHAIRPERSON SUINA: Madam Hearing Officer, I just want to ask a quick question: were those slides also distributed?
HEARING OFFICER ORTH: Again, we got a number of slide presentations last night sent to us via email. Pam, I suspect would have forwarded that to you.
If she did not -- Pam, will you confirm that you either forwarded it to the Board or do that now? She may have stepped away. Can I just ask, Madam Chair, did you get any email slide presentations last night?
CHAIRPERSON SUINA: No, we didn't. And so that's why I was just asking, just so I can confirm that the Board and my fellow Board members have access to that as well.
HEARING OFFICER ORTH: Okay. So I will forward those to you.
MR. HISER: We will be happy to wait, Madam Hearing Officer, until you can get that sent.
HEARING OFFICER ORTH: Okay. Hold on just a second.
MS. KATZ: Mr. Hiser, was that -- was this PowerPoint -- was the slide included in the same Dunham summary of testimony?
MR. HISER: It is. It's the part back of that testimony.

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MS. KATZ: Okay. Thank you.
MR. HISER: So, Madam Hearing Officer and other Board members, it will be in the Dunham PowerPoint, and it will be starting at the slide called surrebuttal, which I'm not quite -- looking at the thing it says it's slide seven in that packet.
BOARD MEMBER HONKER: I believe we -- we do have that slide packet.
MR. HISER: Great.
BOARD MEMBER HONKER: Pam sent it around earlier today.
MR. HISER: Okay. Thank you, Member Honker.
Ms. Orth?
HEARING OFFICER ORTH: I don't have to send it then unless -- can you find it, Madam Chair? I believe it was originally sent by Brandon Curtis.
CHAIRPERSON SUINA: Yes. Yes, we got it earlier today.
HEARING OFFICER ORTH: Okay. Great.
CHAIRPERSON SUINA: Thank you.
HEARING OFFICER ORTH: Go ahead, Mr. Hiser.
Q. (BY MR. HISER) So, Mr. Dunham, did you prepare some responses to the questions and concerns that were raised by Mr. Powell, Mr. Palmer and Ms. Day?
A. Yes, sir, I did.

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Q. Would you like to walk us through your response to some of those concerns?
A. Of course. Just in summary in general, there were three concerns with the work that we conducted. The first was that our well count number was -- was not correct, which I take full responsibility for. I looked over the data and I definitely interpreted it incorrectly.
The second was that our cost numbers were way too -- were high, and the third was the timing that we used to -- to put to the numbers.
HEARING OFFICER: I'm sorry. Mr. Dunham?
MR. DUNHAM: Yes, ma'am.
HEARING OFFICER ORTH: Mr. Dunham, your voice has gotten very muddy again and I think you are speaking a little too fast.
MR. DUNHAM: I'm sorry. Is this better?
COURT REPORTER: Wait. Is it possible for you to call in on the phone? Would that be okay?
MR. DUNHAM: Would somebody give me the -- is it on the same sheet?
MR. HISER: I believe, Mr. Dunham, that according to Vice-Chair Trujillo-Davis, if you go to the three little dots, it may give you -- under "switch audio" an option to have a phone number call or a number to call.
MR. DUNHAM: Let me see. (Unintelligible.)

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MR. HISER: So on my screen it's right next to the red X that would take you out of the platform.
MR. DUNHAM: Got it.
MR. HISER: Okay.
MR. DUNHAM: I'm terribly sorry. That's an option that I have to stop sharing the screen, I think. Okay. I'm looking for three dots. Yes. Switch audio?
MR. HISER: Yes.
MR. DUNHAM: Oh. Got it. I will be right back.
MR. HISER: Go ahead and leave your computer on because we'll still want to see your slides.
MR. DUNHAM: Am I here?
MR. HISER: Yes.
MR. DUNHAM: Okay. I hope you can hear me now.
MR. HISER: Yes, the court reporter has her thumbs up.
Q. (BY MR. HISER) And so if you could put your slide deck back on the screen, we will be ready to go.
A. I'm terribly sorry about that. Okay.
Q. Since you had responded that there were three concerns that you had seen expressed, and you were walking us through your response.
A. Correct. The first was -- the first concern was that the number of operational wells that we included in the model was incorrect, and that is actually -- I looked

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back at the data, and that is my mistake.
The second was that we used a five-year cost -- a five-year period for our net present value rather than a 15-year period, which the reason EPA uses that is because that's outlined in the B-O-M-B circular on regulatory impact analysis. We use five because that's when most of the operational production of most oil and gas wells occurs.
And then the third was that we had actual cost numbers that were not correct. So I reran the analysis using the 47,937 oil and natural gas wells that were in Exhibit 19 on page 3. I believe that was -- that was ERG's number, though it's close to what Mr. Powell was discussing.
I then used an overall cost number of 1.7 billion; I understand now it might be 1.1, it might be -- I used 1.7. And I ran the same exact model and I came up with a very different loss number, obviously, because all model are based on assumptions. So we -- the new loss number would be about 41 percent of currently operating oil and natural gas wells would become unproductive under those assumptions, and the other assumptions in the model would result in a reduction of about 7 percent of oil production and about 13 percent of natural gas production in the state, which would represent about a 9.5 reduction

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in production in value terms. And that would have still a pretty significant economic cost on the state.
There would be about 2000 jobs lost, about 423 million in reduced economic activity in the state, and a loss of state and local taxes of about 14.3 million a year, again, not including the -- the royalty payments.
And if I can get this to work. So just in general, just in response, the complaints that were made of my analysis, which I very much appreciate, it's -- it is difficult to -- to analyze something when you don't have the models in front of you. But my analysis relied solely on cost data provided by actual oil and natural gas companies via the New Mexico Oil and Gas Association.
I believe other witnesses have testified or will testify about that the ERG and NMED cost estimates may not be accurate. I'm not going to -- I can't tell you either way, I'm not an engineer. But even using the well data and cost numbers that were in the testimony, the impact is still quite significant and the rule will cost somewhere between 1.1 and maybe 3.2 billion dollars.
The models that we use are very standard models. The cost models are all developed based on IMLANs, input/output model which is widely used. It's how you develop production functions. I've been doing this for 30 years, it's how this is done. And all of -- all of my

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data, all of my models are open architecture. Nobody called me and asked me about any of these assumptions or where the data came from, but it is -- I'm more than happy to answer questions about that. So that's the sum of my -- of my surrebuttal -- of my surrebuttal testimony.

Q. So, basically, in summary, you took the model, you took the revised well counts that were provided by the ERG folks in their rebuttal and you placed it in their model and then based on that, this would be the new calculation that you have on the slide just before this?

A. That would be -- yeah, these numbers on this -- on this slide here.

Q. Okay. Thank you, Mr. Dunham.

MR. HISER: I guess, Madam Hearing Officer, I think it might be useful -- he talked through all of these, but it might be useful to make this -- mark this as NMOGA Exhibit 57 just so that the Board would have it in tabular format rather than having to try read through it in testimony.

HEARING OFFICER ORTH: All right. Thank you. Let me pause for a moment in the event that are objections to admitting this as Exhibit 57. Hearing no objections, Exhibit 57 is admitted. Thank you, Mr. Hiser.

(NMOGA Exhibit 57 received into evidence at this time.)

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Q. (BY MR. HISER) I'm reminded that I had one more question. So, Mr. Dunham, there was some discussion earlier about doing a larger cost/benefit analysis that looked at the broader implications of a rule like this from a societal basis. Did you refer to that as more like a regulatory impact analysis?

A. That would be a regulatory impact analysis. For -- for large federal rules those are required by the Office of Management and Budget and there's a -- there's a whole format on how those should be conducted, the kinds of assumptions that are used, what needs to be presented. And a lot of what was being discussed in the rebuttal -- in the earlier testimony had to do with doing a regulatory impact analysis.

Q. Right. And in your experience, is that typically done by the regulated industry or is that usually done by the governmental agency proposing the rule?

A. The federal government requires it. I'm not honestly sure about New Mexico's requirements, but it's usually done -- it would be done by those proposing the rule.

Q. Okay. Thank you.

MR. HISER: That does complete my testimony now, Madam Hearing Officer -- or our testimony of Mr. Dunham today.

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HEARING OFFICER ORTH: All right. Thank you, Mr. Hiser.

Ms. Katz, do you have questions of Mr. Dunham?

MR. DUNHAM: Can I stop sharing the screen now?

HEARING OFFICER ORTH: Well, let me ask Ms. Katz. Will you be referring to the slides?

MS. KATZ: No, I will not.

HEARING OFFICER ORTH: All right. It seems to me we could -- there you go. Thank you. Go ahead, Ms. Katz.

MS. KATZ: Thank you.

SURREBUTTAL CROSS-EXAMINATION OF JOHN R. DUNHAM

BY MS. KATZ:

Q. Thank you, Mr. Dunham. I just have one question. Are you aware that the New Mexico Air Quality Control Act does not require the Department to do a regulatory impact analysis for a rulemaking under the provisions regarding ozone control?

A. Yeah, as I said, I'm not -- I'm not sure about New Mexico's rules, but the federal government would have to do one for this, but I'm not sure about any individual state.

MS. KATZ: Thank you, Mr. Dunham. That's all I have.

HEARING OFFICER ORTH: Thank you. Ms. Fox, do you have questions?

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MS. FOX: Thank you, Madam Hearing Officer. I have a couple.

SURREBUTTAL CROSS-EXAMINATION OF JOHN R. DUNHAM

BY MS. FOX:

Q. Hello, Mr. Dunham. My name is Tannis Fox; I represent a number of organizations in this proceeding. And I was wondering if you could put up the slides that you just had up, please?

A. I can do that, I believe. This one?

Q. Yes, thank you very much. First, I'd like to ask you accept as accurate Mr. Powell's well count number of approximately 47 or 48,000 wells that this --

A. I would agree.

Q. -- that the EIB's rule would apply to?

A. Yes. Yes, ma'am, I think Mr. Powell would be the expert on -- on that particular count.

Q. And then, did you -- based on that new well count, did you redo your total cost number from Table 1, which you estimated the total cost for the EIB rule would be 3.8 billion?

A. Not -- not for this particular surrebuttal. It's -- I could -- I could do that. I used the 1.7 billion which was the number in the other -- in the ERG's testimony.

Q. So you're accepting as more accurate, ERG's

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initial estimate of 1.7 billion dollars before they recalculated based on amendments they're now proposing?
A. I have no idea if their number is accurate or not, ma'am. I have not seen their -- any of their work.
Q. I thought you just said that you're relying upon ERG's 1.7 billion dollar estimate?
A. That was in the -- in the rebuttal testimony, to prepare this particular slide and this particular analysis, I relied on that number, though they -- through they said today that that was not a correct number.
Q. Right. You understood their testimony that they had recalculated that initial number based on amendments that they proposed, since they -- since their initial direct filing?
A. Yeah. Yes, that's what they said.
Q. Okay. So -- so you're relying on the 1.7 billion number, but you don't -- you're not saying that that number is accurate; is that -- is that what you're saying?
A. Correct. I have no idea if that number is accurate or not.
Q. So, then, based on the new well count that you have testified is more accurate or is accurate, you have not updated your initial costs of 3.8 billion dollars; is that correct?
A. No, ma'am.

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Q. If you were to do that calculation, approximately, what would your new cost estimate be?
A. Approximately?
Q. Correct.
A. Approximately, it would be probably somewhere around 2 billion dollars, maybe a little bit more.
Q. And in order to get that estimate, would you decrease your 3.8 billion dollars by about 47 percent; is that how you would arrive at that estimate?
A. I -- I don't know what the percentage would be. It depends on the split between oil and natural gas wells.
Q. Thank you. That's all the questions I have.
HEARING OFFICER ORTH: Thank you, Ms. Fox. Ms. Paranhos, I see you on screen. Do you have questions?
MS. PARANHOS: Thank you, Madam Hearing Officer. I just have one line of questioning.
SURREBUTTAL CROSS-EXAMINATION OF JOHN R. DUNHAM
BY MS. PARANHOS:
Q. Mr. Dunham, you may have gone over this before, but I just want to be crystal clear; did your analysis take into account any of the saved gas that would accrue to operators if they employ methods such as leak detection and repair, for example, that can in some instances ensure more gas is sent to a pipeline, rather than vented to the atmosphere?

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A. Did I include any -- any revenue estimates, you're saying, from that -- from that gas?
Q. Correct. Any of that natural gas --
A. No, I did not look at that. No.
Q. Thank you. Sorry to talk over you. I think you said "no." Thank you.
A. I said no. I'm sorry.
HEARING OFFICER ORTH: Thank you. Mr. Jaynes?
MR. JAYNES: No questions, Madam Hearing Officer.
HEARING OFFICER ORTH: Thank you. Ms. Devore? Mr. Nykiel?
MR. NYKIEL: Yes, I just have a few questions, Madam Hearing Officer.
SURREBUTTAL CROSS-EXAMINATION OF JOHN R. DUNHAM
BY MR. NYKIEL:
Q. Mr. Dunham, my name's Matt Nykiel, I'm here on behalf of WildEarth Guardians. I just want to clarify a couple of things; I might have the wrong understanding. But you did admit that you made a mistake in the number of wells you used as an input that would be subject to the rule when you ran your model initially; is that right?
A. That is correct.
Q. Okay. And the surrebuttal testimony that you have up on the screen today, that was shared to all of the parties late last night; is that right?

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A. I -- I'm not sure when it was sent to the parties. That was, I believe, done by Counsel.
Q. Okay. Did you create this surrebuttal PowerPoint before today?
A. Yes, I did.
Q. Okay. So did you understand that you used a mistaken number of wells in your modeling before today?
A. Yes, I did.
Q. Okay. And yet, this morning when you provided your testimony to the Board, you did not indicate to them that you understood this mistake at that time; is that right?
A. No, sir, I did say that my number was not correct.
Q. Oh, you did this morning?
A. Yes, I did, sir.
Q. Okay. Thank you very much. That's all the questions I had.
HEARING OFFICER ORTH: Thank you, Mr. Nykiel. Mr. De Saillan, do you have questions of Mr. Dunham?
MR. DE SAILLAN: I have no questions. Thank you.
HEARING OFFICER ORTH: Thank you. Mr. Rose?
MR. ROSE: No questions.
HEARING OFFICER ORTH: Thank you. Mr. Janoe?
MR. JANOE: No questions, Madam Hearing Officer.

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HEARING OFFICER ORTH: Thank you. Mr. Butzier?
MR. BUTZIER: No questions.
HEARING OFFICER ORTH: Ms. Gutierrez?
MS. GUTIERREZ: No questions. Thank you.
HEARING OFFICER ORTH: Thank you.
Mr. Colclasure?
MR. COLCLASURE: No questions. Thank you.
HEARING OFFICER ORTH: And Ms. Witherspoon?
MS. WITHERSPOON: No questions. Thank you.
HEARING OFFICER ORTH: All right. Thank you very much. I'm going to turn to the Board at this time for their questions. While I'm doing that, in the event you are an attendee rather than a panelist and there is a question you would have for Mr. Dunham, please reach out in the Chat.

EXAMINATION OF JOHN R. DUNHAM BY THE BOARD

HEARING OFFICER ORTH: Madam Chair, do you have questions of Mr. Dunham?
CHAIRPERSON SUINA: Thank you, Madam Hearing Officer. I appreciate that. Mr. Dunham, thank you again for coming back and clarifying some points that were -- were discussed earlier by other witnesses. I just wanted to go back to slide number 8, which is the one you're on. I have a quick question. Here on the slide number 8, it says that there's -- so you have a loss of operating in

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oil and gas wells, and I understand in previous testimony that there's a question about how the structure and the analysis is done. But can you explain to us right now how you translate the cost to industry and how that results in your calculation of the loss of operating and -- operating oil and natural gas wells?
MR. DUNHAM: Yes, ma'am. I'm going to -- we're still sharing the screen, right? When -- when -- when we built this model we broke down the costs of oil and natural gas development, two separate industries into -- into seven categories: exploration, permitting, drilling, completion, production, transportation and remediation, so that's the life cycle of a -- of a well.
The model is -- the model's unit of analysis is physical wells, holes in the ground, so that's -- everything is based on a per-well number. The number of wells, oil and natural gas wells in New Mexico, are basically lined up from the least productive, what's identified as a stripper well, to the most productive. And that's data that we have from the EIA, the Energy Information Agency.
And that is put into a big matrix, and the costs and the revenues from those wells, based on the price of petroleum, the wellhead price, are compared against each other, and some wells are profitable, some are not, and

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this whole matrix of these -- of every individual well is developed. We then take this cost -- this cost number, which in this case basically goes into the -- into the production side, and we -- we shock the system with that new cost, so that our costs go up while our revenues stay the same basically. And some wells become nonproductive, they become not economical with those higher production costs.
And what the model does, then, is it starts to close those wells. As you close those wells, your ability ratio goes up in the industry, and it closes wells until it matches the profitability ratio at the beginning of the exercise. So you're -- you're -- you're -- it would be the industry holding itself harmless, basically.
CHAIRPERSON SUINA: Thank you for that explanation. That's helpful to understand. I also want to go -- I have another question. In the assumptions from the data from the ten surveyed companies, were the inputs an average of the data from the ten companies, or were they the highest point or the lowest point average or medium values?
MR. DUNHAM: They were -- they were both average and medium values. We used average values when the distribution of the answers was fairly normal -- fairly tight. When there were outliers, your averages get -- get

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goofy. Right? So, you know, if you average -- me and Bill Gates together, our income is billions of dollars, so you don't want to use the average, then, because it's skewed. So in those cases we use a median, which is a middle value.
CHAIRPERSON SUINA: Thank you for that further explanation. And back to slide number 8, the significant economic loss -- excuse me -- chart.
MR. DUNHAM: Which one?
CHAIRPERSON SUINA: Go ahead.
MR. DUNHAM: Was it this one?
CHAIRPERSON SUINA: Yes, yes. Sorry, I have multiple screens up here.
So in the similar chart -- or sorry. In the sentence in the report -- so in this chart, basically, the number in Table 9 of the report went from about 22.8 million down to 14.35 million -- or 18.36 million, right?
MR. DUNHAM: Yes. Yes, I believe so.
CHAIRPERSON SUINA: Okay. So -- and then that --
MR. DUNHAM: It's roughly half.
CHAIRPERSON SUINA: Yeah, yeah. And then that 22.86 referenced in your table, there's a sentence above that on -- in your report on page 8, that the state economy would face a 674 million loss? And then --
MR. DUNHAM: Correct.

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CHAIRPERSON SUINA: And then the state and local taxes would fall by 2.9 million. And so, I'm trying to draw a connection back to -- was -- were you able to calculate the state economy loss -- that 674.2 million dollar loss in relation to also the adjustments you made for the impact to state and local businesses and personal taxes?

MR. DUNHAM: Yes, ma'am. Based on -- based on these assumptions on this slide, the loss to the economy of the state would be about 423 million dollars.

CHAIRPERSON SUINA: Okay. Thank you for that clarification. Thank you so much. And real quick, one follow-up. So included in that 423 million, can you just remind me what's included in that assumption or that calculation?

MR. DUNHAM: Sure.

CHAIRPERSON SUINA: Is it taxes and additional losses?

MR. DUNHAM: No, that's economic loss, so the taxes are separate -- a separate number. That's the 14 -- on this table, it's the 14.355 million dollars.

CHAIRPERSON SUINA: Okay. And --

MR. DUNHAM: The 423 is a loss in sales, so to speak.

CHAIRPERSON SUINA: Oh, okay, loss in sales of

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oil and natural gas?

MR. DUNHAM: Yeah. Yeah, roughly, sales.

CHAIRPERSON SUINA: Okay. All right. Thank you so much for that clarification, Mr. Dunham.

That's all I have for right now, Madam Hearing Officer.

MR. DUNHAM: Thank you, ma'am.

HEARING OFFICER ORTH: Thank you, Madam Chair. Vice-Chair Trujillo-Davis, do you have questions of Mr. Dunham?

VICE-CHAIR TRUJILLO-DAVIS: Yes, thank you, I do have a couple of questions. Mr. Dunham, did you -- did you say that your numbers didn't account for loss of royalties paid?

MR. DUNHAM: Correct.

VICE-CHAIR TRUJILLO-DAVIS: Okay. Is there a reason why you didn't include that number? It seems like it would be a significant number.

MR. DUNHAM: The royalty payments are, honestly, not in the model that we -- that we built back in 2018, so they just weren't in there, and that's what we were asked to use as our base.

VICE-CHAIR TRUJILLO-DAVIS: Okay. Thank you for clarifying that. And the other question I had was, I think you mentioned that you pulled the wells -- let's see

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if I have this correct; you pulled the wells number data from the EIA and not from the OCD?

MR. DUNHAM: Of the 47,937 number?

VICE-CHAIR TRUJILLO-DAVIS: Yes.

MR. DUNHAM: Yeah, I used -- I used the -- I used that number from the ERG number.

VICE-CHAIR TRUJILLO-DAVIS: Okay. And I believe -- and I apologize, I thought the gentleman from the OCD who testified said the same -- Powell perhaps.

HEARING OFFICER ORTH: It was Mr. Powell, Brandon Powell.

VICE-CHAIR TRUJILLO-DAVIS: Yes, Mr. Powell. I apologize. We're starting to get a lot of names in this hearing. But he stated some different numbers for the OCD, and I'm just curious why you used the EIA versus OCD data. Was there an availability issue, or was -- can you kind of just flesh that out for us?

MR. DUNHAM: To be quiet honest with you, I -- I had totally screwed up my interpretation of their report that was online, so I didn't want to do that again. So I just took this number out of the testimony from ERG. It was -- it was very close. It's a couple of thousand wells different.

VICE-CHAIR TRUJILLO-DAVIS: Okay. Thank you for clarifying that for me. I don't have any more questions.

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HEARING OFFICER ORTH: Thank you. Member Cates, do you have questions of Mr. Dunham?

BOARD MEMBER CATES: Yeah, one question, Mr. Dunham. I think this has been covered, but I want to make sure I understand this correctly. So in your modeling and in your formulas, as you crunched the numbers, one thing it sounds like you didn't do was factor in the possibility that this gas that's escaping now, could be brought to market under some -- you know, under the provisions we're talking about here. Is that right, which is the -- so the question is, did you include the potential market gains from captured gases in your calculations?

MR. DUNHAM: No, sir, I did not.

BOARD MEMBER CATES: And is -- is -- is -- is there a reason for why that was the case? And I'm imaging that it's just simply not discussed in the industry, perhaps, but maybe there's more to it than that.

MR. DUNHAM: It wasn't my commission. My commission was to develop cost numbers. From an economist's perspective, one would -- an economist would assume that if it was profitable to capture that gas and sell it, that the industry would be doing it because industry's job is to make profits. But I honestly don't know how that works and it wasn't part of our -- our

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commission to do.
BOARD MEMBER CATES: Got it. Okay. Thank you for the testimony. Thanks.
HEARING OFFICER ORTH: Thank you.
MR. DUNHAM: Thank you, sir.
HEARING OFFICER ORTH: Member Bitzer, do you have questions of Mr. Dunham?
BOARD MEMBER BITZER: Just one. I want to follow Mr. Cates' line of questioning there, because I believe we heard earlier in testimony that the recapture, resale, recoupment was like 300 million, potentially. Does that sound realistic to you?
MR. DUNHAM: I -- I have no idea, sir. I didn't look at that. And it would depend very much on the price of gas at the time.
BOARD MEMBER BITZER: That's all I have.
HEARING OFFICER ORTH: Okay. Thank you. Member Duval?
BOARD MEMBER DUVAL: No questions. Thanks.
HEARING OFFICER ORTH: Thank you. Member Garcia?
BOARD MEMBER GARCIA: Yes, thank you. I just have one question. So, Mr. Dunham, I appreciate that you have your -- you're being candid in recognizing the mistake on the number of wells, I appreciate that very much, and that you've recalculated or given an estimate.

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So it looks like the cost estimates between NMED and you are coming closer together, but they're still -- let me see if I have this correct -- NMED's cost estimate is 1.7 billion and yours is now 2.3; did I get -- did I get that right?
MR. DUNHAM: Roughly. Roughly that. I didn't -- I don't have that actual -- I'd have to run through that cost model, but, roughly, that.
BOARD MEMBER GARCIA: Okay. I guess I have one more question, is -- one of the things that seems to be in contention is whether you amortized this cost over 15 years or -- I think you used five years. Could you explain why you used five years?
MR. DUNHAM: Yes, five years is pretty much the life of an oil and natural gas well. Roughly, 80, 85 percent of its production occurs over its first five years for virtually all of these facilities. So that's why I used five years. Fifteen years is kind of a random number, too. It's just -- again, it is what OMB says to use to discount when you're doing discounting for future, you know, future costs or revenues. And that's just to standardize their reports. It's not -- there's no hard and fast rule why one would use that.
And to be honest, right now, interest rates are so low, I mean, I think I used 3 and 1/2 percent, which is

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kind of junk bond rates. It doesn't make a huge bit of difference if you go out five years or fifteen, because the interest rate is not really bringing the numbers down that much.
BOARD MEMBER GARCIA: Okay. Thank you very much. That helps. Thank you.
HEARING OFFICER ORTH: Thank you. Member Honker, do you have questions of Mr. Dunham?
BOARD MEMBER HONKER: No questions. Thank you.
HEARING OFFICER ORTH: All right. Thank you. Mr. Hiser, will there be redirect?
MR. HISER: Madam Hearing Officer, I'm -- I'm spinning. Okay. Just one question.

SURREBUTTAL REDIRECT EXAMINATION OF JOHN R. DUNHAM

BY MR. HISER:

Q. And I think, Mr. Dunham, there's confusion about fifteen versus five years and averaging periods. There's a total cost, right, of capital cost, and you can divide that --
A. Yes, sir.
Q. -- over five years or you can divide it over fifteen years. Obviously, if you divide it over five years, the cost for each of the five years is greater; if you divide it over the fifteen years, the cost is less; is that correct?

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A. The annual cost, yes. But the total -- the total cost really is only going to differ depending on the discounting that you do. A dollar in the future is worth less than a dollar today.
Q. Correct.
A. So if I'm -- if I'm -- if I'm building something ten years from now, that's $100 in current dollars, it will be -- a hundred dollars in nominal dollars; ten years from now it will be worth less today.
Q. Right. And so, the major difference, then, is just whatever that discount rate is that you're using?
A. Whatever that discount rate is, yeah.
Q. Okay. And --
A. And right now, again, interest rates are very low.
Q. All right. I think -- I know that I am tired of five and fifteen years issues, so I will end my questioning on that and turn it back over to Madam Hearing Officer.
HEARING OFFICER ORTH: Thank you very much, Mr. Hiser. And Mr. Dunham, if you would remove your presentation there.
MR. DUNHAM: Okay.
HEARING OFFICER ORTH: There we go.
MR. DUNHAM: There we go.

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HEARING OFFICER ORTH: Terrific. Thank you.
Ms. Katz?
MR. DUNHAM: Great. Thank you, ma'am.
HEARING OFFICER ORTH: Thank you.
There you are. Do I understand from the spreadsheet that we'll be returning to the Department for the next topic?
MS. KATZ: Yes, Madam Hearing Officer. Finally, we will come around to the Department for the small business facilities definition and provisions topic. The Department is -- will call Susan Day and Liz -- Elizabeth Bisbey-Kuehn as well as -- for the -- for the direct and rebuttal summary, as well as Brian Palmer also for the rebuttal summary.
HEARING OFFICER ORTH: All right. And will there be slides and who will be driving them?
MS. KATZ: I believe there will be, but I can't remember. Sorry. I think there are. Maybe --
MS. KUEHN: There are slides that I'll be sharing. Thank you.
HEARING OFFICER ORTH: All right. So go ahead, Ms. Katz. I've already sworn all of your witnesses under oath, so please go ahead.
MS. KATZ: Let me just make sure they're all on the screen. I do not see Mr. Palmer at the moment.

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MS. KUEHN: And I still do need sharing privileges. Thank you.
MS. KATZ: Okay. So this -- for the Board's information, this testimony is appearing at -- the direct testimony is at NMED Exhibit 102, that's Ms. Day and Ms. Kuehn's testimony. And then the rebuttal testimony, which includes Ms. Day, Ms. Kuehn and Mr. Palmer is at NMED Rebuttal Exhibit 1.

SUSAN DAY AND ELIZABETH BISBEY-KUEHN
(Small Business Facility Topic)
having been previously duly sworn, were examined and testified as follows:

DIRECT EXAMINATION OF SUSAN DAY AND ELIZABETH KUEHN

MS. KATZ: Okay. Ms. Day, let me start with you. Have you submitted prefiled direct testimony on the small business facilities provisions in this proceeding?
MS. DAY: Yes, I have.
MS. KATZ: And your full, written direct testimony appears as NMED Exhibit 102?
MS. DAY: Yes, it does.
MS. KATZ: Do you have any changes to your written testimony?
MS. DAY: I do not.
MS. KATZ: And do you adopt your testimony here today?

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MS. DAY: Yes, I do.
MS. KATZ: Ms. Kuehn, did you submit prefiled direct and rebuttal testimony on the small businesses facilities provisions?
MS. BISBEY-KUEHN: Yes, I did.
MS. KATZ: And your full written direct testimony appears as NMED Exhibit 102, and your full written rebuttal testimony on that topic appears in NMED Rebuttal Exhibit 1?
MS. BISBEY-KUEHN: Yes.
MS. KATZ: Thank you. Do you have any changes to your written testimony?
MS. BISBEY-KUEHN: I do not.
MS. KATZ: And do you adopt your written testimony here today?
MS. BISBEY-KUEHN: Yes.
MS. KATZ: All right. Ms. Day, can you please summarize the data analysis you conducted for the small business facility definition?
MS. DAY: Yes. I prepared the analysis to provide NMED with information on the revenues and employment of the global ultimate parent companies -- excuse me -- of the well owners-operators that would be subject to the proposed new ozone rules. And NMED needed these data as the basis for developing the small business

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facility definition.
I started with a list of 535 owner/operators provided by NMED, which was compiled from the NMED equipment data and the New Mexico Oil Conservation data. Excuse me. Because the small business facility definition applies to the entity at the highest level of ownership in the corporate structure, I needed to identify the global ultimate parent companies associated with each of these owner/operators.
In order to link the owner-operators to their global ultimate parent company, I submitted the list of 535 owner/operators to a vendor called NAICS Association, LLC, or NAICS Association. And just to explain, NAICS stands for Northern American Industry Classification System.
NAICS Association uses Dun & Bradstreet data to link each owner/operator to its global ultimate parent company. Dun & Bradstreet is a corporation that provides financial and other information on businesses. It's well-known for creating a data universal numbering system or DUNS number, that uniquely identifies more than 100 million companies around the globe. NAICS Association locates the owner-operator in their database using name and address matching. Once they locate the owner/operator in their database, they know the DUNS number associated

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with the owner-operator.

Using the owner/operator DUNS number, they then attempt to provide the identity of the global ultimate parent as well as the global ultimate parent's DUNS, NAICS code, revenues and employment. NAICS Association used a matching algorithm to identify each New Mexico owner/operator or other affected facilities in their data. This algorithm assigns a level of confidence to each match.

Only matches with a high level of confidence were retained, which results in NAICS Association matching 460 of the New Mexico owner/operators in their data. The detailed explanation of how the matching algorithm works can be found in my direct testimony.

NAICS Association then identified a global ultimate parent company associated with 460 of the 535 New Mexico owner/operators provided by NMED and OCD.

HEARING OFFICER ORTH: Ms. Day, are you still speaking?

MS. KATZ: I'm sorry. I'm just talking to myself because I didn't unmute myself. Sorry.

Ms. Day, did you include the federal small business administration or SBA size standard for potentially affected owners and operators in your analysis?

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MS. DAY: Yes, I did. For context in this rulemaking, I included the SBA size standards for potentially affected owner/operators and other facilities. SBA created these size standards to identify companies that qualify for federal assistance programs.

They're intended to reflect the degree of competition within individual industries so that less-competitive firms would qualify for assistance. SBA size standards vary by industry type as defined by a NAICS code to reflect the unique competitive characteristics of different industries. In some cases, SBA uses a revenue standard; in other cases, the size standard is based on the number of employees.

I used global ultimate parent company information identified for each facility to determine how that global ultimate parent would be classified based on the SBA's size definition. In order to do this, I needed NAICS code revenue and employment data. Not all global ultimate parents had both revenue and employment data. I counted 406 unique -- excuse me -- unique ultimate parents with both revenue and employment data. Of the 406 unique glo -- excuse me -- global ultimate parent companies, I found that 355, or 87 percent, meet the SBA definition of small business and 51, or 13 percent, do not meet that definition.

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The 355 small global ultimate parent companies are associated with 359 small owner/operators and the 51 not small global ultimate parent companies are associated with 77 not-small owner/operators.

MS. KATZ: And did it estimate revenues per well and total oil and gas per well?

MS. DAY: Yes. I calculated an estimate of value per well using two methods. For both methods, I used oil and gas well production data for New Mexico owner-operators and other affected facilities from the GO-TECH website. These data include information on the total number of wells per owner/operator, as well as the total thousands standard cubic feet of gas and barrels of oil produced by the owner/operator in the 18-month time period between January of 2019 and June 2020.

Production data were available for 399, or 75 percent, of the 535 owner/operators. In method one, I estimated average revenue per well for each owner/operator by dividing the global ultimate parent revenues associated with the owner/operator by the total number of wells reported in the GO-TECH date for that owner/operator.

In method two, I estimated the average value of the oil and gas production per well for each owner/operator using dollars per barrel for oil and dollars per million BTU for gas. The prices I used were

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the New Mexico crude oil first purchase price, which was $45 per barrel; and will note this is a 24-month average over the period of February 2019 to January 2021, and the Henry Hub natural gas spot price, which was $2.39 for BTU. This is also a 24-month average, but over the period of March 2019 to February 2021.

I estimated the average oil and gas value per well by calculating the total production value, and that's oil and gas combined, for all wells owned by each owner/operator, then dividing that value by the total number of wells per owner/operator as reported in the GO-TECH data.

MS. KATZ: Thank you, Ms. Day.

Ms. Kuehn, turning to you, can you provide the proposed definition of a small business facility?

MS. BISBEY-KUEHN: Yes. Under the proposed rule a small business facility is defined as a source that is independently owned or operated by a company that is not a sub -- a subsidiary or a division of another business, that employs no more than ten employees at any time during the calendar year, and that has a gross annual revenue of less than $250,000. And employees include part-time, temporary or limited-service workers.

MS. KATZ: And can you provide an overview of the proposed requirements of Part 50?

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MS. BISBEY-KUEHN: Yes. Part 50 is structured in a way that there is a baseline set of requirements applicable to all owners and operators, and then a tiered set of requirements that apply based upon the equipment or the source type, the PTE of the equipment or source, and whether a facility meets the definition of a small business facility as defined in this rule.

It's important to note that there are numerous ways for the rule to apply or to not apply. It's also important to note if you're in the rule, there are other applicability thresholds in each section that determine that, that applicability.

First of all, everyone is required to calculate the potential to emit of equipment, and have that calculation certified by a professional or in-house engineer, and conduct leak monitoring and repair requirements by specified deadlines, and that monitoring frequency is determined by the facility PTE.

MS. KATZ: Can you provide an overview of the requirements for small business facilities?

MS. BISBEY-KUEHN: Yes. An owner/operator of a facility that meets the definition of a small business facility must comply with those requirements that I just listed, and a separate set of requirements in Section 125. And, again, if a facility does not meet the definition of

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a small business facility, the owner/operator would need to comply with the other sections of Part 50, to the extent that those section -- those sections actually apply to that operation.

MS. KATZ: And Ms. Kuehn, can you discuss why that -- the definition of small business facility is appropriate in the Department's view?

MS. BISBEY-KUEHN: Yes. The Department developed the definition of a small business facility to recognize the unique challenges smaller, independent operators may face in determining applicability of regulations and financing the initial and ongoing costs of compliance.

Both the federal Clean Air Act -- and I'll speak to this later as well -- and the Board's air quality permit rules speak -- provide the definition of the small business that's similar to that. And that's the slide that I'm on. So let me just say that again.

The federal Clean Air Act and the Board's air quality construction permit fee regulations at Part 75 contain provisions to the small businesses by providing compliance assistance, and a tiered fee schedule that gives a 50 percent reduction in the initial and annual permit fees. And these programs were developed because small businesses frequently lack the financial resources necessary to evaluate regulations, and finance those

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costs, and to pay the full cost of recurring permit fees.

MS. KATZ: Thank you. And can you -- can you summarize for the Board the basis for the proposed definition in Part 50 for small business facilities?

MS. BISBEY-KUEHN: Yes. The proposed definition is based upon three principal criteria that help delineate between small, independent businesses and large, vertically-integrated companies. The first criterion is ownership structure, which we used to distinguish companies that are independently owned and operated from those that are not a subsidiary or a division of another company, from larger corporations.

The difference, importantly, between small and large companies includes the size of business, the number of employees, revenue, legal structures, and financing and tax requirements. Small and large companies may operate within the same industrial sector; however, the differences in how these companies operate in their ability to finance, and its capital, and the well size can affect their operations.

MS. KATZ: Thank you.

MS. BISBEY-KUEHN: The second criterion is the number of staff employed by the company, which is an indication of the company's personnel and staff resources capacity, to interpret and implement the requirements of

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the rule. Larger companies have the financing capacity to employ dedicated environmental health and safety specialists. Based off that, the staff typically monitor the company's compliance with numerous state and federal environmental regulations and other regulations.

Small companies employing fewer numbers of employees typically do no have the staffing or financial capacity to finance dedicated environmental compliance specialists.

And the third criterion is annual revenue. The Department recognize that the cost of compliance to Part 50 may disproportionately impact the small companies and may result in early abandonment of small business-owned wells, which, in turn, may result in increased, uncontrolled emissions from abandoned wells.

MS. KATZ: Can you explain how the Department developed the thresholds in the definition of small business facility?

MS. BISBEY-KUEHN: The Department evaluated the report prepared by ERG and sorted the companies by the annual global ultimate parent revenue and staffing levels. The proposed thresholds were chosen because the data compiled by ERG indicated that those thresholds balanced the cost of compliance with Part 50 against the company's ability to finance the costs of compliance, and would not

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put the majority of companies at risk of becoming insolvent and therefore cause wells to be abandoned without remediation.

MS. KATZ: And can you provide a summary of the Department's analysis and the cost of compliance for a representative facility?

MS. BISBEY-KUEHN: Yes. The Department estimated the annual average cost of compliance for a representative well site, to determine the number of companies that could finance those compliance costs. A representative facility was developed and was assumed to have emissions greater than 15 tons per year of VOCs; thus, requiring quarterly LDAR monitoring, a storage vessel emitting greater than 2 tons per year, requiring a control device, and an annual inspection of the storage vessel.

The annual average cost of compliance for the representative facility was estimated at $37,945; based on an average cost of $32,400 to controlled storage vessel, around 4,300 for quarterly ozone monitoring, and 1,100 for an annual inspection.

MS. KATZ: And can you discuss the results and comparison to the estimated total revenue?

MS. BISBEY-KUEHN: The Department ranked the companies by the GULT revenue, from the highest to lowest revenue, and screened those companies that reported 1

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million dollars or less and $250,000 or less, to determine how many of these companies had per well site revenue less than the estimated cost of compliance for the representative facility. The Department determined that 96 companies reported a GULT revenue of 100 million dollars or less and had a calculated revenue per well less than $37,945. These 96 companies operate approximately 9,200 wells or 18 percent of the total wells.

The Department then determined that 54 companies reporting a GULT revenue of $250,000 and less had a calculated revenue per well less than 37,945. Again, that's the estimated cost of compliance for the representative facility. And these companies operate approximately 4,600 wells or 9 percent of total wells.

MS. KATZ: Thank you. So can you now walk -- walk the Board through the proposed requirements of -- of the rule in Section 125 for small business facilities?

MS. BISBEY-KUEHN: NMED determined the average annual cost of compliance for facility meeting the small business definition at $4,300 based on a conservative quarterly LDAR monitoring requirement. According to the report, few companies had a revenue of less than $4,300 per well. NMED proposed the $250,000 threshold as the revenue threshold to meet the small business definition.

Eighty-two companies that operate those 4,500

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wells would qualify as a small business facility under the threshold established in the rule; 15 percent of the total number of companies subject to Part 50 would be considered owners or operators of small business facilities; and 9 percent of the total wells would be considered small business facilities.

We also estimated revenue from a well producing 7 and 1/2 barrels of oil per day, to give the Board an idea of what those annual estimated revenues are for some of the smaller wells. That arithmetic is available here. We have estimated 7 and 1/2 barrels of oil per day, 365 days a year, at $60 a barrel of crude oil as $164,250 per year, or $450 per day. And comparing this estimated revenue with the estimated cost of complying with the small business provisions of Part 50 would cost companies approximately 2.6 percent of their total revenue to comply.

And this estimated cost of compliance again, for the representative facility, was 37,945; as a percentage of the total estimated revenue is approximately 23 percent of total revenue.

MS. KATZ: Thank you, Ms. Kuehn. And at this point -- oh, there, sorry, you're not finished.

MS. BISBEY-KUEHN: No. Yeah, and so, here, we have the definition of the small business facility as

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previously discussed, and we have the section of the rule, 125, that contains the provisions for those facilities that qualify as a small business.

And so, as you can see, the owners and operators are required to ensure that all equipment is operated and maintained consistent with manufacturer specifications. The owner/operator is required to calculate VOC and NOx emissions from the facility on an annual basis, and that calculation shall be based on the actual production or processing rates of the facility.

We also require in a company-wide database to track OVC and NOx emissions for all subject sources. And to comply with the requirements of the monitoring requirements of Subsection C or D of Section 116, which we'll hear later in this rulemaking hearing. Those are the provisions of fugitive emissions and leak detection requirements.

The recordkeeping requirements include an annual certification, demonstrating that the company continues to meet that definition; the calculated annual emissions from each facility in a company-wide annual VOC and NOx emission calculation for all subject facilities. And the reporting requirement includes the reporting of the initial small business certification within 60 days of the effective date of this part, and then by March 1st each

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calendar year thereafter.
MS. KATZ: Thank you, Ms. Kuehn. And I do want to ask you if -- if we received any -- from any of the other parties, if any -- if they suggested any changes to our -- to our thresholds in the small business definition, or if they -- or if they took issue specifically with the data that we provided associated with that definition in their -- in any of their direct or rebuttal testimony?
MS. BISBEY-KUEHN: No, the other parties have not provided specific feedback on the cost estimates that we have prepared, the thresholds that have been set. We have requested feedback on the definition and the concept numerous times, and we have not received that engagement from the other parties.
And we really do need engagement with this concept in order to right-size this definition. And without that engagement, it has been -- it has not moved the concept forward in any meaningful way.
MS. KATZ: Thank you. That is all for the summary on the direct and rebuttal.
HEARING OFFICER ORTH: Ms. Katz, Ms. Kuehn and Ms. Day, we will turn to questioning.
Ms. Fox, do you have questions of the panel?
MS. FOX: No questions. Thank you, Madam Hearing Officer.

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HEARING OFFICER ORTH: Ms. Paranhos?
MS. PARANHOS: Thank you, Madam Hearing Officer. I have no questions.
HEARING OFFICER ORTH: Thank you. Mr. Jaynes?
MR. JAYNES: Thank you, Madam Hearing Officer. We have no questions.
HEARING OFFICER ORTH: Thank you. Ms. Devore? May not be with us.
Mr. Nykiel?
MR. NYKIEL: No questions. Thank you.
HEARING OFFICER ORTH: Thank you. Mr. De Saillan?
MR. DE SAILLAN: No questions. Thank you.
HEARING OFFICER ORTH: Thank you. Mr. Hiser?
MR. HISER: Madam Hearing Officer, I just have one question, I think, probably for Ms. Kuehn.
CROSS-EXAMINATION OF ELIZABETH BISBEY-KUEHN
BY MR. HISER:
Q. Ms. Kuehn, when you were looking at this, did the Department give any consideration, or how did you address under 14-4A-3 Subsection E. of the New Mexico Statutes Annotated, the state statutory definition of a small business means a business entity, including affiliates, that employees 50 or fewer full-time employees. And using that 50, compared to the 10 that you ended up with?

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A. Certainly. And -- and I'm not exactly sure what statute that -- is that the state small business statute?
Q. It's the state -- yes, it's the state Small Business Regulatory Relief Act. I'm sorry, I should have told you -- said that at the beginning.
A. Sure. Thank you. Yes, and so that does provide an example of one threshold that has been established under state statute and that may be appropriate in certain publications.
Here, we need to balance the need for strong emission reductions with the number of companies that would qualify as a small business. So this was really tailored toward the companies that we have operating here.
Q. Did you look at what would -- how many companies might qualify under this alternative 50 employee, from the state act definition?
A. I think that may be covered in another question in the next round of surrebuttal.
Q. Okay. Thank you. We'll look forward to that then. Appreciate, as always, your insights. Thank you.
HEARING OFFICER ORTH: Thank you, Mr. Hiser.
Mr. Rose, do you have questions?
MR. ROSE: I do.
CROSS-EXAMINATION OF ELIZABETH BISBEY-KUEHN
BY MR. ROSE:

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Q. Let me make sure that -- I don't know if I ought to let you see me on video this late in the day. But I'm not sure exactly who this should go to, so I'll let Ms. Kuehn or Ms. Day decide between them how to answer this. My understanding is that the proposal is predicated on two pieces: the number of employees and the -- and the gross revenues.
As to the number of employees, does the rule define, or have you evaluated what -- what would constitute an employee for purposes of this section?
A. We have included in the definition what should be considered employees.
Q. Could you -- would that include contractors -- contractor employees?
A. It would not, I believe, include contract employees. I don't believe that was the intent, to include contract employees.
Q. For example, if a company were to decide that a function that could be performed by an employee of the company, but decided to contract that responsibility to a third-party contractor, would the third-party contractor and their employees count toward the count of number of the employees?
A. I think we'll have to -- I don't have an answer for that right now. I think I'll have to think about that

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question and return to that question.
Q. Thank you. In terms of the gross revenue provision that I think you explained, or Ms. Day did, the assumptions that went into that, and I think you testified that there would be a certification that would be performed by these companies on an annual basis.
Is that -- I'm just trying to figure out if, for example, the price of the commodity was such that they exceeded the gross revenue threshold in a given year, would -- if they could not certify that they were a small business at the certification point, would that -- would then they be in violation for the previous year, and not adhering to some of the requirements, or would the responsibility be prospective from that point on, until the next year? It's not clear exactly when the obligation to meet requirements, that they would be exempted from, would suddenly become applicable.
A. Thank you for that question. And that's exactly the type of issue that we needed feedback on when we developed this concept. And there are certainly ways to resolve that, with indexing with the market, with the commodity price, or other options.
But that, we simply have not received any engagement on this concept and so we have not been able to kind of address those -- those questions.

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Q. I take it, Ms. Kuehn, you've not referred to Mr. Davis's rebuttal testimony or the discussions that your counsel has had with me concerning that definition, as being engagement?
A. We haven't received significant and meaningful engagement on data in any way. There may have been conversations I'm not aware of that occurred between counsel, but I'm not privy to those conversations.
Q. And I take it, that the small business staff initiative that you're proposing or that you did propose was -- was first available when the Department proposed its rules to the Board, correct? The discussion -- a version of these rules, that was out earlier, initially before the Department's petition, to not have any similar small business exemptions, did it?
A. It did not.
Q. Okay. So did the Department engage with the industry or the affected -- potentially affected small businesses when it originally decided to propose this small business definition?
A. We did not specifically engage with small businesses on the concept.
Q. Okay. Thank you.
And -- and with respect to the employee number cut-off, it wasn't clear, and maybe I just missed it as to

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why the decision was made on the cut-off number that -- that you're proposing here. Where that came from?
A. The ten employees, again, was a proposal to be -- meant to be a starting point on this definition, with the expectation that the owners and operators of the stakeholders would engage with the definition. That -- the permitting regulation that I cited previously has that same employee threshold.
Q. But -- but those are -- those thresholds only apply to facilities that are subject to the permitting program, correct?
A. That's correct.
Q. As it currently exists?
And do you know what -- whether most well sites, in fact, qualify for permitting or are subject to air quality permitting under Part 72?
A. It depends on the production and equipment and emissions data.
Q. Have you evaluated what percentage of those wells are currently subject to either the NOI or the permitting requirements?
A. We do -- we do have that. I don't have those numbers right in front of me, but we could provide those -- that data.
Q. Okay. Thank you.

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MR. ROSE: I have no further questions, Madam Hearing Officer.
HEARING OFFICER ORTH: Thank you, Mr. Rose.
Mr. Janoe, do you have questions?
MR. JANOE: No questions, Madam Hearing Officer. Thank you.
HEARING OFFICER ORTH: Thank you. Mr. Butzier?
MR. BUTZIER: No questions. Thank you.
HEARING OFFICER ORTH: Thank you. Ms. Gutierrez?
MS. GUTIERREZ: No questions. Thank you.
HEARING OFFICER ORTH: Thank you.
Mr. Colclasure?
MR. COLCLASURE: No questions. Thank you.
HEARING OFFICER ORTH: Thank you. And Ms. Witherspoon?
MS. WITHERSPOON: No questions. Thank you.
HEARING OFFICER ORTH: Thank you. I'll turn now to the Board for their questions. While I'm doing that, in the event you are an attendee and would pose a question to the panel, please reach out in the Chat.

EXAMINATION BY THE BOARD OF ELIZABETH BISBEY-KUEHN AND SUSAN DAY

HEARING OFFICER ORTH: Madam Chair, do you have questions of Ms. Kuehn or Ms. Day?
CHAIRPERSON SUINA: Madam Hearing Officer, I

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don't have any questions.
HEARING OFFICER ORTH: Thank you. Vice-Chair Trujillo-Davis?
Vice-Chair Trujillo-Davis, can you hear me?
VICE-CHAIR TRUJILLO-DAVIS: I could hear you, but I, apparently, couldn't unmute. I don't have any questions. I apologize. Thank you.
HEARING OFFICER ORTH: All right. Thank you. Member Cates?
BOARD MEMBER CATES: No questions. Thank you.
HEARING OFFICER ORTH: Thank you. Member Bitzer?
BOARD MEMBER BITZER: Just real quick. What is the fee that you're proposing to waive 50 percent of?
MS. BISBEY-KUEHN: Thank you, Member Bitzer. That reference is to a construction permit fee regulation that exists. And --
BOARD MEMBER BITZER: Is it -- is it a variable fee depending on factors then?
MS. BISBEY-KUEHN: Correct. There's not a rule -- there's not a fee associated with this rule, but there is a permit -- an annual initial permit fee and annual permit fee for air permits. And the annual permit fee is indexed to the CPI.
BOARD MEMBER BITZER: Okay. So it changes from year to year, goes up a bit, maybe a bit more next year.

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And you're proposing to waive half of that for the small businesses?
MS. BISBEY-KUEHN: That's not -- that's not correct. The concept of the small business facility was that the definition includes two threshold: one is a revenue-based threshold, and the second is an employee number threshold. And the limit is ten employees, and that number of ten employees was derived from another regulation, which is the construction permit fee regulation. And so we simply modeled that part of the definition after the construction permit fee regulation.
BOARD MEMBER BITZER: So if I -- if I'm understanding your proposal correctly, you propose to waive a portion of that fee for bona fide small businesses?
MS. BISBEY-KUEHN: We are proposing to have a reduced set of requirements for facilities that qualify as a small business facility. And there is no fee associated with this rule.
BOARD MEMBER BITZER: Okay. I was just trying to figure out what we were actually talking about there. That's all I have. Thank you.
HEARING OFFICER ORTH: Thank you. Member Duval?
MEMBER DUVAL: No questions.
HEARING OFFICER ORTH: Thank you. Member Garcia?

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BOARD MEMBER GARCIA: Yes. Thank you. I do have a question for Ms. Kuehn. So what I'm understanding is with your proposal on the small business exceptions or changes for small businesses, you did not receive feedback from the industry in order to make changes to the rule? For instance, in the last version, which was September 16th, that does not reflect any feedback from the industry on this provision, right?
MS. BISBEY-KUEHN: That's correct.
BOARD MEMBER GARCIA: Okay. So it sounds like you're getting some feedback now. At least, Mr. Rose suggested some questions about this. So might you, then, make some changes to this rule again, based on the feedback you get during this hearing?
MS. BISBEY-KUEHN: I think we would be very supportive of making -- right-sizing this definition to meet the intent of the definition, which is to provide a tiered set of requirements and provide regulatory relief for those true small businesses, while also securing the necessary emissions reductions. And so this definition is intended to balance those two.
BOARD MEMBER GARCIA: That's all I have, Madam Hearing Officer.
HEARING OFFICER ORTH: Thank you, Member Garcia. Member Honker?

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BOARD MEMBER HONKER: No questions. Thank you.
HEARING OFFICER ORTH: All right. Thank you. Ms. Katz, will there be any redirect?
MS. KATZ: Yes, Madam Hearing Officer. I have just a few questions for Ms. Kuehn.
REDIRECT EXAMINATION OF ELIZABETH BISBEY-KUEHN
BY MS. KATZ:
Q. Ms. Kuehn, did we make the proposed definition of small business facilities available with our petition for rulemaking?
A. Yes, we did.
Q. And we made the data on which that definition was based available at the end of May, correct?
A. That's right.
Q. And so has IPANM had over four months to evaluate that data and the proposed language of the definition and the concepts, and provide suggestions to us?
A. Yes.
Q. And has IPANM had two opportunities to submit written prefiled technical testimony on this -- on this topic?
A. Yes.
Q. And do you recall any testimony raising the issue regarding contract employees in either their direct or rebuttal testimony?

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A. No.
Q. And has -- has IPANM or any party submitted any proposed changes to the small business definition in their technical testimony, which is required under the Board's -- as required under the Board's rulemaking procedure?
A. No.
Q. Do you -- do conversations between counsel constitute testimony that the Department and the Board can take into account when deciding what provisions of a rule to adopt?
A. No.
Q. Can you explain why the previous approach of exempting stripper wells was -- and marginal wells was rejected in favor of this small business facility approach?
A. Yes. That proposal contained a low PTE exemption and a stripper well exemption, and between those two exemptions, they simply left too many emissions on the table and exempted too many wells from the requirements to reduce emissions under this rule.
And this was an -- this definition was an attempt to balance those two -- those two needs, to provide some necessary regulatory relief to act -- to true independent small operators and secure meaningful emission reductions

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from those wells.
Q. And so it wouldn't be true that only smaller, independent operators would be owners of stripper wells or marginal wells, correct?
A. That's correct.
MS. KATZ: Okay. Thank you. That's all I have.
HEARING OFFICER ORTH: Okay. Thank you very much, Ms. Katz, Ms. Kuehn and Ms. Day. I know, Ms. Day, it's been a long day for you, and night. If there's no reason not to excuse the panel, we will do that. Thank you, all.
MS. KATZ: I cannot have them excused just yet because there is surrebuttal on this.
HEARING OFFICER ORTH: Okay. Good.
MS. KATZ: So, unfortunately, Ms. Day has to continue into the wee hours here.
HEARING OFFICER ORTH: Okay. I meant excuse them until after we hear from Mr. Smitherman and Mr. Davis; is that it?
MS. KATZ: (Nodding head.)
HEARING OFFICER ORTH: All right. Great. So thank you, ladies, I'm going to --
MR. HISER: Madam Hearing Officer?
HEARING OFFICER ORTH: Yes.
MR. HISER: This is Eric Hiser for NMOGA. IPA

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New Mexico has a lead on small business issue for industry and so it might be best to start with IPA rather than us. We're sort of more, me, too.
HEARING OFFICER ORTH: All right. And so that was Mr. Davis, right?
MR. ROSE: That's correct, Madam Hearing Officer.
HEARING OFFICER ORTH: All right. I trust -- I'm sure I made him a panelist at some point. Do I need to make him a panelists again? No, there he is. Okay. Terrific. Mr. Davis, you're still under oath.
Mr. Rose, go ahead.
MR. ROSE: Thank you, Madam Hearing Officer.

JEFFREY "RYAN" DAVIS,

having been previously duly sworn, was examined and testified as follows:

DIRECT EXAMINATION OF JEFFREY "RYAN" DAVIS

BY MR. ROSE:
Q. Mr. Davis, did you -- we've already qualified you in terms of your experience and we've identified yesterday that you provided direct and rebuttal testimony. Does your direct testimony, IPA Exhibit 2, include your testimony related to the proposed small business definition and exception?
A. Yes, sir, it does.
Q. It doesn't look like his -- there we go.

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And does your rebuttal testimony, which we've identified -- I think it's been admitted as IPANM 10 -- that includes your rebuttal testimony with respect to the small business definition and exemption provision?
A. Yes, sir, it does.
Q. Can you briefly summarize your direct and rebuttal testimony for the Board, please?
A. Yes, sir, I can. So in my direct and also rebuttal I provided my understanding of the Department's drafted provisions for the small business facility definition, as well as the provisions for the small business facilities. During the direct, we -- we were unable -- we followed the spreadsheet that was provided, but it wasn't until we've seen the Department's direct testimony that we fully understood the analysis that they undertook to develop those thresholds.
In reviewing the provisions, it's evident that the Department intended to reduce the requirements applicable to small businesses in New Mexico. And IPANM is supportive of this reduction in requirements applicable to small businesses. In stripper wells in the state, we do not believe that it provided -- that the proposal effectively accomplished that objective.
And the first thing to note was the ten employee cut-off. We felt this was very limiting, and testified to

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that effect. And that we felt this would exclude many of the smaller operators that are in need of relief from some of these provisions. In my rebuttal testimony, I referenced the Small Business Regulatory Relief Act, which Mr. Hiser brought up earlier, defines a small business as an entity that employs 50 or fewer full-time employees.

Moving to the gross revenue cut-off, we also felt that this was very limiting. And our biggest concern with the gross revenue threshold is that it's tied to commodity prices, which are dependent on market conditions. The variability with commodity pricing creates a lack of regulatory certainty there for the regulated community. We felt like this was -- was not a good measure of the profitability of the operators or producers. And that the gross revenue does not include operating expenses or capital expenditure that operators and producers are going to have.

As I mentioned before, it wasn't until I was able to review the direct testimony of Susan Day, that I fully understood the extent of the effort the Department had went through to design the thresholds for small business facility. I do want to commend the Department for the extensive analysis that was performed there. But from my understanding, the Department established the $250,000 gross revenue cut-off based on an operator's average well

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revenue being less than the cost of compliance.

So, in essence, what they were doing with that cut-off was providing relief for operators in which all of their wells would not be able to support the cost of compliance, which does provide some relief for a very small group of operators. It prevents them from being insolvent due to the cost of compliance, but it doesn't provide the appropriate relief for small businesses or stripper wells in the State of New Mexico.

First off, the average cost of compliance that the Department used or ERG used in the analysis did not include any cost of compliance with pneumatic controllers and pumps that are in Section 122. And this is something that IPANM has had significant concerns on and we will address later.

Secondly, this only provides relief, again, as I stated, for companies who operate a small number of wells, in which the -- on-average, those wells cannot support the cost of compliance. There are many operators, many members of IPANM who operate a large number of stripper wells and, you know, operators make an economic decision on a well-by-well basis. We're not going to absorb the cost of compliance on one well if it can't support that cost by another well's revenue.

We look at wells on an individual basis. And so,

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for that reason, we have significant concerns that there are thousands of wells that would be plugged -- prematurely plugged and abandoned due to the provisions that are in the proposed rule.

One of the things that I did after reviewing Ms. Day's testimony is, I took a look at the well counts and production data that was used by ERG in their analysis, and ran the same gross revenue calculations. And it was very difficult, I found, to find a natural break in terms of gross revenue. The main takeaway from -- from looking at that data, was, you know, the higher percentage of stripper wells that an operator had, the higher -- the higher percentage of gross revenue would be taken up for the cost of compliance.

And -- and we stressed this both in direct and in rebuttal that we believe this relief needs to be based on individual wells, and that we believe a well's production and/or potential to emit are better measures to base the appropriate relief on. And again, this is due to the fact that we make economic decisions on a well-by-well basis.

MR. BAAKE: Madam Hearing Officer, I think Clean Air Advocates would like to object to all of this testimony and move to strike it on relevance grounds. There has been no proposal put forth on this provision by IPANM or anyone else. It's effectively a stipulated

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proposal, the parties have had the chance to suggest alternatives and IPANM did not, so we think that has been waived. I'm not sure why we're here.

HEARING OFFICER ORTH: Thank you, Mr. Baake.

Mr. Rose, your response?

MR. ROSE: Madam Hearing Officer, in fact, IPANM did propose alternatives, including striking the small business proposal. The testimony is in response to a Department proposal, which the Board can consider. It's not a stipulated proposal; IPANM did not agree to the proposed regulatory provision and is expressing its concern to the Board, in terms of the Board making a decision on whether or not to adopt it.

So we don't believe -- we believe it's highly relevant and we believe that the testimony should come in. We think it's relevant to the decision as to whether or not the Board should adopt the Department's small business definition and the exemptions for small businesses as well.

HEARING OFFICER ORTH: All right. Thank you. Mr. Baake, the objection is overruled. I'd like to hear the testimony and rebuttal.

Go ahead, Mr. Rose.

MR. ROSE: Thank you.

Q. (BY MR. ROSE) Mr. Davis, would you -- had you

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finished your testimony and response on your explanation of your rebuttal testimony?

A. No, sir, I have a little -- a little more I'd like to cover.

Q. Could you go ahead and give the remainder of that testimony?

A. Yes, sir. So I was just getting to the proposal that IPANM had put forward. In our direct testimony we had proposed to strike the small business definition and its provisions due to the fact that we do not believe this provides the necessary relief. After reviewing the direct testimony from the Department, we came back and indicated that we felt like the preproposal draft structure, based on production and PTE, was the more suitable structure to provide relief for small business.

And so that was where -- in rebuttal is where we made that recommendation of looking back to the relief being based on a well's production or potential to emit. One of the things that we noted was the Department had put that in the preproposal draft and then had removed it. In reviewing rebuttal testimony, the reason for removing that was they felt that it left a lot of wells unregulated.

And I -- I, in rebuttal, highlighted the fact that the requirements that are set forth there still subject these wells to, as Ms. Kuehn said earlier,

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requirements for proper operation and maintenance of the equipment to reduce emissions, as well as complying with the fugitive requirements with the leak detection and repair under Section 116. And then, in addition to that, the operators have the requirements to calculate, maintain a company-wide database of the VOC and NOx emissions, while being subject to the reporting requirements of Section 112.

These -- you know, these subsections of the rule still apply to these wells, but we believe that the best structure to provide relief is based on the production and PTE. And these wells would still be subject to regulation and the associated emission reductions. And that concludes my -- my summary.

MR. ROSE: Madam Hearing Officer, is it appropriate for -- at this time for me to ask him to respond to the Department's direct and rebuttal testimony or will that be handled later?

HEARING OFFICER ORTH: Ms. Katz, do you have an opinion about that?

MS. KATZ: I'm sorry, I'm a little bit confused.

So, Mr. Rose, are you saying -- so this is supposed to be the summary of the direct and the rebuttal?

MR. ROSE: Correct. And my question is does this -- am I permitted to question him in surrebuttal in

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response to others' rebuttal and the Department's testimony here, or would that -- would that occur later after others have given their -- their direct and rebuttal testimony? When -- it wasn't clear to me exactly how we're scheduling surrebuttal at this point, or what could be labeled as surrebuttal.

MS. KATZ: Yeah, it's a little confusing, but I would think -- so it would typically go that it would be the Department and then whoever the parties that had all submitted the direct and rebuttal testimony, and then we would go in the opposite order for the surrebuttal. I'm okay if you want to do that here. I don't know if -- I think, I guess NMOGA is -- I'm not sure if they were planning to put Mr. Smitherman on.

HEARING OFFICER ORTH: That's my understanding from the spreadsheet. So if you don't object and Mr. Hiser doesn't object, I would just as soon take his surrebuttal now.

MS. KATZ: Yes, I agree.

MR. HISER: That's fine with NMOGA, Madam Hearing Officer. I think it's more expeditious.

HEARING OFFICER ORTH: All right. Thank you very much. Go ahead. Thank you, Ms. Katz.

Go ahead, Mr. Rose.

MR. ROSE: Thank you.

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Q. (BY MR. ROSE) Mr. Davis, have you reviewed the rebuttal testimony submitted by the Department and other parties in this proceeding?

A. Yes, sir.

Q. And did the Department's rebuttal or other parties' rebuttal testimony on this issue change your -- or IPANM's position on the acceptance and the propriety of the Department's proposal?

A. No, sir.

Q. Could you explain, please?

A. Reviewing -- I'll focus primarily on the NMED rebuttal here. You know, looking at their rebuttal, it's in Exhibit 1, as we read through there, the Department did not support initially striking of the small business provisions. And, specifically as I walked through their rebuttal, on page 99, the NMED agreed with IPANM that gross revenues are not a measure -- a good measure of profitability, but pointed back to EPA's guidance, where direct compliance costs are sometimes used to compare sales or gross revenues.

Responding to that, you know, while -- while that practice may be, you know, exist in a general sense, IPANM does not believe that that's the appropriate impact analysis for oil and gas operations in New Mexico. And throughout reviewing testimony, it's evident that the

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Department based a lot of the provisions within this rule on Colorado Reg 7. And Colorado Reg 7 does have some blanket relief in there, based on average per-well production regardless of the size of the company or revenue.

And then, similarly, with Pennsylvania, I think it's worth noting that, you know, Pennsylvania has separate regulations for their conventional and unconventional operations or development, and with that, the Pennsylvania regulations provide relief for the low-producing conventional production. So that's kind of my general response on -- on the rebuttal.

One other thing which has come out today in testimony as well is, is NMOGA nor IPANM providing testimony addressing the data that was compiled by ERG, and that we didn't make any proposal back to the Department, you know, in terms of revisions to the definition.

So, my response there, you know, the data -- the review of the data initially was -- was -- was not sufficient for us to fully understand how the Department developed the basis for the definition. Again, once I was able to review the direct testimony there, I was able to follow the Department's analysis, but everything that I've stated previously still applies.

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We -- we still do not believe that those thresholds or, really, the basis being on gross revenue is a good way to provide relief. We're very concerned that as commodity prices fluctuate, that an operator may find themselves subject to regulation, and this was included in my -- in my testimony.

Q. Mr. Davis, just for clarification, for those who aren't necessarily familiar with the jargon, can you explain the distinction that you drew on the Pennsylvania regulations between conventional and unconventional wells?

A. Yes, sir. So most of the conventional production would be your vertical, kind of, your legacy production. As we've moved into the modern development, we've moved into targeting what we call unconventional resource plays. These would be the shell plays where we've gone horizontally; we drill horizontal wells and put a multistage fracture treatments on those wells.

The distinction in Pennsylvania specifically in the regulation is, the conventional versus unconventional. They regulate the more modern, unconventional wells in a more strict manner. They're held to much higher standards than the older, lower-producing conventional wells.

Q. And with respect to employees, could you explain to the Board -- my understanding is you work for a company that has a limited number of employees. Could you explain

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how that might apply to your company or others in IPANM?

A. Yes. So we looked at the data provided by the Department and looking at the companies based on the revenue cut-off, you know, it was difficult to determine how the 250 or the ten employees, you know, provided relief for those operators that we consider small -- small operators or small businesses in New Mexico.

I work for a third-generation, family-owned and operated company here in Farmington. We've got 18 full-time employees, five part-time employees, and we operate 66 wells in New Mexico. And we would consider ourselves a small business, and we would -- we would not qualify for that small business exemption.

And then, just as an example, there are -- there are other companies that are similar family-owned companies that, you know, have over 100 employees, operate a thousand wells, but when you look at their average daily production, it's in the range of 24, 25 MCF, so they're operating a bunch of stripper wells. They would not qualify on either side of this, but if you take their gross revenue and their cost of compliance based on the average of $37,000 or almost $38,000, their cost of compliance is more than their gross annual revenue, which, again, those -- those folks, we feel like should see some relief. And they're not going to see any relief based on

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this provision being based on the number of employees and gross revenue.

MR. ROSE: Thank you, Madam Hearing Officer. I have no further questions.

HEARING OFFICER ORTH: All right. Thank you, Mr. Rose and Mr. Davis. We need a short break before we begin public comment. So let's come back at 5. For those of you on the platform to offer public comment, I'll be calling you in this record: Adrienne Sandoval, Anna Hansen, Linda Burchfiel, Karen Adams and Anthony Cook. Let's come back at 5. Thank you.

(Recess taken from 4:49 p.m. to 5:00 p.m.)

HEARING OFFICER ORTH: Let's come back from the break, please.

We've reached the 5:00 public comment period. And public comments -- just a few things about public comment. It is limited to five minutes. It is taken under oath, as with all comment and testimony in this hearing, and it is accepted through audio, not video.

I will call you in the following order: Adrienne Sandoval, Anna Hansen, Linda Burchfiel, Karen Adams, and Anthony Cook. In the event there is someone on the platform who did not reach out by email earlier, I am still happy to take your comment. Please reach out in the Chat. If you struggle with the Chat function, please call

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or text Pam Jones at (505) 660-4305 and we'll get you on the list.

So Ms. Sandoval? Director Sandoval, I am unmuting you. Can you hear me?

MS. SANDOVAL: I can. Thank you. Can you hear me?

HEARING OFFICER ORTH: Yes, your voice is coming through loud and clear. If you would please spell your first name. Sandoval is the common spelling. Spell your first name.

MS. SANDOVAL: It's Adrienne, A-D-R-I-E-N-N-E.

HEARING OFFICER ORTH: Thank you. If you would raise your right hand. Do you swear or affirm to tell the truth?

MS. SANDOVAL: I do.

HEARING OFFICER ORTH: Thank you. I will start your five minutes now.

MS. SANDOVAL: Thank you, Ms. Orth.

ADRIENNE SANDOVAL,

having been first duly sworn or affirmed,

gave public comment as follows:

PUBLIC COMMENT BY ADRIENNE SANDOVAL

MS. SANDOVAL: My name is Adrienne Sandoval; I'm the director of the Oil Conservation Division within the New Mexico Energy, Minerals and Natural Resources

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Department. The Environment Department and the Energy, Minerals and Natural Resources Department have been working together since early 2019 to develop complimentary strategies to reduce waste and air pollution from New Mexico's oil and gas industry.

These strategies are designed to meet the state's climate targets, improve air quality, and reduce methane waste by ensuring salable resources are captured, which increases royalties and revenues to the state. The agencies set out to draft separate, but complimentary and nonmutually exclusive rules consistent with the distinct statutory responsibilities. EMNR's rules addressed natural gas waste, while NMED's rules addressed air pollution.

The agencies worked together for nearly two years and during that time jointly held multiple meetings with a diverse group of stakeholders, convened the methane advisory panel, to create a comprehensive technical support document and met frequently to discuss stakeholder input in rule development. This approach enabled the agencies to develop rules that are not duplicative, do not conflict and do not leave regulatory gaps.

The two sets of roles are designed to work together to provide full coverage of the industry to achieve the climate targets New Mexicans deserve. EMNR's

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rules went before the Oil Conservation Division in January, and were approved by the commission in March. They subsequently went into effect on May 25th. ENMR's rules require that the upstream and midstream operators achieve a 98 percent gas capture target by the end of 2026.

These high-level requirements will dovetail well with the Environment Department's proposed rules, putting this state on task to achieving its climate goals while also achieving meaningful waste and emissions reduction. The Energy, Minerals and Natural Resources Department support the proposed rules before the Environmental Improvement Board and encourages the Board to adopt these rules. Thank you for your time today.

HEARING OFFICER ORTH: Thank you, Director Sandoval. It sounded like you were reading from a written statement and I'm wondering if you'd be willing to send that to Pam Jones or to me so that we can share it with the court reporter.

MS. SANDOVAL: Yes, I can. I can send that to you.

HEARING OFFICER ORTH: Thank you so much.

MS. SANDOVAL: Thank you.

HEARING OFFICER ORTH: Let me call then on Commissioner Hansen. Commissioner Hansen, I'm unmuting

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you. Can you hear me?

MS. HANSEN: I can. Can you hear me?

HEARING OFFICER ORTH: Yes, I can. If you would raise your right hand, please. Do you swear or affirm to tell the truth?

MS. HANSEN: I do.

HEARING OFFICER ORTH: All right. I will start your five minutes now. Thank you.

ANNA HANSEN,

having been first duly sworn or affirmed,

gave public comment as follows:

PUBLIC COMMENT BY ANNA HANSEN

MS. HANSEN: Good afternoon. I am Santa Fe County Commissioner Anna Hansen. Thank you to the Environmental Improvement Board for the opportunity to comment. As a local, elected official, it is my job to make my community a safer and healthier place for my constituents. One of the ways we can do that is by regulating harmful pollutants from oil and gas sector.

The EIB should finalize the strongest possible rules to curb methane and other industry emissions to ensure all New Mexicans can breathe clean air. Santa Fe County has supported stronger methane-capture rules since -- with Resolution 2015-51 and Resolution 2018-28. And as a strong advocate for human survival on the planet,

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I strongly advocate to cut greenhouse gases.
We need strong rules. And on that point, I would like to comment on how improvements could be made to the rule: protection for frontline communities, and it is critically important that the leak inspection program proposed by NMED in July be adopted and that the final rule is strengthened to protect frontline communities requiring more frequent inspections to find and fix leaks.
Also, completions: The final rule must strengthen to ensure New Mexico incorporates leading approaches to address pollution during well completions. It should require operators to capture or combust emissions during completions, including the initial flow back stage, as the State of Colorado now requires.
And with pneumatics, the final rule should strengthen pollution cutting measures on pneumatic controllers, and the second -- the second largest source of oil and gas methane pollution in New Mexico.
NMED should require companies to inspect gas-powered pneumatics for malfunction and leaks, as well as accelerate the timeline for operators to retrofit equipment with zero bleed and zero emissions. Reducing methane waste and pollution is a key step in Governor Lujan Grisham's strategy to address air pollution and climate impacts caused by the oil and gas facilities.

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The Governor has committed to enact nation-leading methane emission rules. The proposed NMED rules will complement rules finalized by the New Mexico Oil Conservation Commission, OCC, in March 2021, the bans of practice of routine venting and flaring at new and existing wells across the state.
Rural communities, tribal communities, children and the elderly are especially at risk. It is an environmental justice issue. A recent analysis made it clear that tribal communities often suffer from disproportionately high pollution levels. New Mexico is home to the two energy producing regions that are among the nation's most polluted counties: Eddy, Lea, San Juan, Rio Arriba and Chaves Counties, the five New Mexico counties home to 97 percent of the state's oil and gas wells all -- are all at risk of violating federal ozone standards of 70 parts per billion.
In closing, we need to create the strongest rules on ozone and be a leader for the rest of the nation. We must support the rules NMED has proposed, and make them stronger. I am grateful for the opportunity to comment. Thank you for your service to our community, and I look forward to seeing strong rules being passed. Thank you very much.
HEARING OFFICER ORTH: Thank you very much,

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Commissioner Hansen.
Let me look for Linda Burchfiel. I think I saw her earlier on the platform. There you are, Ms. Burchfiel. I am unmuting you. Can you hear me?
MS. BURCHFIEL: Yes. Can you hear me?
HEARING OFFICER ORTH: Yes. Speak a little bit -- a little bit louder.
MS. BURCHFIEL: Okay.
HEARING OFFICER ORTH: If you would spell your last name, please.
MS. BURCHFIEL: Okay. It's B-U-R-C-H-F-I-E-L.
HEARING OFFICER ORTH: Thank you. Raise your right hand. Do you swear or affirm to tell the truth?
MS. BURCHFIEL: Yes, I do.
HEARING OFFICER ORTH: Thank you. I'll start your five minutes now.

LINDA BURCHFIEL,
having been first duly sworn or affirmed,
gave public comment as follows:

PUBLIC COMMENT BY LINDA BURCHFIEL

MS. BURCHFIEL: Okay. To begin, I want to thank the EIB for this opportunity to comment. The Environment Department's proposed rule to limit ozone precursors is strong, but it does need to be strengthened in three areas in order to protect New Mexicans.

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First, the rule needs to be adjusted to improve the area that New Mexicans who live near oil and gas production breathe. The American Lung Association gave an F grade for ozone to our top oil and gas producing counties: Lea, Eddy and San Juan in its 2021 state of the air report.
Neither I nor my family lives within a half mile of wells, but over 100,000 New Mexicans do. And they have suffered lung problems for too long. The health of those families is important as that of your family. Production wells located there will need inspections and leak repair more often than once a year, to ensure that they are not leaking ozone precursors.
The second adjustment is to extend the rule to capture or combust emissions during completions of oil or gas wells, including during the initial flow back stage, as well as during redevelopment of an existing well.
Finally, the Environment Department should strengthen this rule to cut pollution from pneumatic controllers. Companies should inspect pneumatics for malfunctions and leaks and accelerate the timeline to retrofit equipment with zero bleed or zero emission pneumatic controls.
In addition to these three adjustments, I want to urge the Environment Department to stick to their

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requirement for annual inspections, even for those wells with low production and assumed low potential to emit. While industry argues that their potential for damage is minimal, these low-emitting wells together produce more than 60 percent of air pollutants according to John Goldstein, of the Environmental Defense Fund.

These proposed regulations are a good start and I urge you to strengthen them by requiring more frequent inspections for wells located near homes, and by extending the rule to include completions and redevelopment, as well as pneumatic controllers. Thank you.

HEARING OFFICER ORTH: Thank you very much, Ms. Burchfiel.

Let me move now to Karen Adams. There you are, Ms. Adams. I've unmuted you. Can you hear me?

MS. ADAMS: I can. Thank you for taking my little talk today. I do appreciate --

HEARING OFFICER ORTH: Hold on. Yes. Your last name is A-D-A-M-S?

MS. ADAMS: That is correct.

HEARING OFFICER ORTH: All right. Would you raise your right hand. Do you swear or affirm to tell the truth?

MS. ADAMS: I do.

HEARING OFFICER ORTH: All right. I'll start

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your five minutes now.

KAREN ADAMS,

having been first duly sworn or affirmed, gave public comment as follows:

PUBLIC COMMENT BY KAREN ADAMS

MS. ADAMS: Okay. I certainly won't be taking a full five minutes of your time, but I do want to question the logic behind the petition for the regulatory change regarding the gas and oil sector. The most important job I have right now is being a grandmother to three grandchildren who attend the APS schools. And I know that the gas and oil industry provides in just Bernalillo County alone, over 400 million dollars to these schools. And the education of our children is already lagging on a national level, and I don't think we're doing ourselves any favors by limiting the monetary resources we gain from this industry.

This industry, you know, it becomes unpopular for really unknown reasons, and I'm not sure that all of the science is there to support the complaints. I think we can be a leader in this industry. I think they're always working to make it more secure and more safe, but we need to provide for our children. We need jobs in our state and we are, unfortunately, a very poor state.

So if this is something that we can continue to

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improve on, I think we should limit the amount of regulations that are put on this industry. And I thank you for your time.

HEARING OFFICER: Thank you very much, Ms. Adams.

All right. Let's go to Anthony Cook. Mr. Cook, I am unmuting you.

MR. COOK: Hello.

HEARING OFFICER ORTH: Hello. If you would please -- standard spelling on first and last name. And would you raise your right hand?

MR. COOK: Yes.

HEARING OFFICER ORTH: Do you swear or affirm to tell the truth?

MR. COOK: Yes, I do.

HEARING OFFICER ORTH: All right. I'm starting your five minutes now.

ANTHONY COOK,

having been first duly sworn or affirmed, gave public comment as follows:

PUBLIC COMMENT BY ANTHONY COOK

MR. COOK: Okay. So I'm actually -- currently, I live in Roswell, so right outside the Permian Basin. And I'm a teacher now, but I used to work for Department of Health for about five years as a health educator and also as nutritionist. And I grew up in Carlsbad, so I've grown

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up there my whole life, been around the whole area. And it's definitely transformed a lot since I've grown up there.

I mean, at nighttime, if you just drive outside the city, it's glowing from all the flaring that's going on there. And so it's a huge difference than when I was a kid, where you would go out, it's pitch black, you could see the Milky Way just 20 minutes outside of town, and now that's not really possible.

Although that's just light pollution, that's one of the many pollutions or problems that we have, but I do feel like we need stronger regulations on emissions and emission standards, and also on who is regulating what's going on. To me, the way I see it is most of the industry is self-regulated. If they spill, they report their spill. They report when they clean it up, they write the report, submit it to Santa Fe or NMED, wherever that office may be at, and somebody just rubber stamps it. Nobody actually goes out in the field and says, oh, this company cleaned up their own spill. Right? And the way I see it is, like, that would be like me self-reporting my electric bill or my water bill every month.

If they said I went over a certain kilowatt usage or so many gallons of water, then I would be fined. Well, then, I would never go over, right, because I don't want

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to be fined. So that's kind of one way I see it.
Another thing, too, is that we are also the cheapest state to drill in, and we have the least amount of regulation when it comes to drilling and our bond price is also the lowest. I know someone mentioned that we need to reduce regulation, but by increasing regulation and increasing bond prices, we, therefore, increase the amount of jobs and revenue that we get from oil and gas industry.
Right now, the bond price for, like, well areas is like $20,000 and they can drill multiple wells on those sites, and each well to remediate them could be anywhere from 40- to 80- or $120,000. So whatever that $20,000 bond didn't cover, we, the taxpayers, then have to foot the bill. So although some people may see it as detrimental to the industry, they actually enjoy driving here because it's the cheapest place.
With that, also being said, the Environment Department doesn't really have any staff to regulate what's going on, so although we say all of these things on paper, I would like to see something happen with actual jobs being put in place, where people want to work and live in those areas. Because the cost of living is so high in Eddy County and Lea County, most of the Environment Department jobs do not cover the cost of living in those places. So most of those workers don't

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want to work for the Environment Department, they'd rather work for the oil and gas industry, where they're going to get paid a fair wage.
So there's multiple factors involved in this besides just a piece of paper saying we should increase regulation. We have also got to have the boots on the ground to do it. Another thing that's very upsetting with this bill is that when they went from state to state -- I mean, not state to state, but city to city, especially in the Permian and the San Juan Basin, their big push was public health and protection of public health, yet there has been zero collaboration with New Mexico Department of Health or other health agencies or entities.
And New Mexico Environment Department hasn't done anything to actively address public health issues, where in the Permian Basin or the Southeast region has the highest cases of asthma, of ER visits for asthma for children and adults. And this was before massive drilling and increased drilling operations and fracking in the Southeast region. So they knew that there were health -- that there were health disparities in our region, and then release more volatile organic compounds and things like that into the air, to pollute the air more, and increase and exacerbate these problems.
So there's also these health impacts that also

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have to be addressed and studied, and there should be something where people can go and get help for being exposed to toxic substances, volatile organic compounds and things of that nature, especially produced water.
Another thing is that produced water can also produce polyfluoroalkyl substances, which are considered forever substances that never go away. If anybody would like to do research, you could look at Clovis Air -- the -- the military base in Clovis, the Air Force over there did a lot of testing with a fire retardant chemical that has the PFAS chemical or the forever chemicals, and now there's tons of ranchers and farmers whose livelihoods and water is polluted. So they can't drink the water, they can't use the livestock, they can't do everything because it's polluted with a cancerous substance. This same substance is in --
HEARING OFFICER ORTH: I'm sorry. Mr. Cook?
MR. COOK: Yes.
HEARING OFFICER ORTH: Your five minutes is approaching. Would you wrap up, please?
MR. COOK: Okay. Yes. So this same substance, this forever chemical has also been proven to be present in produced water, which is actually radioactive waste and has tons of toxic chemicals and substances in it, which often gets poured on the ground or isn't correctly

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disposed of in our region and could contaminate our water table. So, thank you.
HEARING OFFICER ORTH: Thank you, Mr. Cook.
All right. No one has reached out in the Chat, so I believe I've come to the end of public comment for today. There are more than two dozen other opportunities for public comment at 9, 1 and 5 each subsequent day of the hearing. Thank you, all.
We'll return at this point to the technical case. When we broke, we had heard from Mr. Davis. And I think if we just have Mr. Davis's questioning, then we can end for the day if that's all right with everyone.
Ms. Katz, do you have questions of Mr. Davis? And can we get Mr. Davis back on the screen. There you are.
MS. KATZ: Thank you, Madam Hearing Officer. I just have a couple of hopefully really quick questions.
CROSS-EXAMINATION OF JEFFREY "RYAN" DAVIS
BY MS. KATZ:
Q. So I know that you -- you have -- Mr. Davis, thank you for your testimony. I know you've said this in so many words, but I just wanted to get you to say it one more time. So IPANM did not actually suggest any alternative approaches to the revenue or employee threshold in the definition, correct? You just -- you

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just want it removed, and to go back to the -- the prepetition draft stripper well exemption; is that correct?

A. That's correct.

Q. Okay. Thank you. And would you agree that there are potential-to-emit thresholds that are included throughout the rule in the various provisions, addressing specific equipment and processes that would give relief to lower-emitting facilities?

A. I do. I mean, that's one of the reasons that we originally proposed the leading or removing that provision. I would say with the exception of pneumatics, pneumatics is -- well, and the liquid transfer. Originally, there was no applicability threshold for liquid transfer requirements, and all wells are subject to the pneumatic provision.

Q. Okay. Thank you, Mr. Davis. That's all I have.

A. Thank you.

HEARING OFFICER ORTH: Thank you. Ms. Fox, do you have questions of Mr. Davis?

MS. FOX: Thank you, Madam Hearing Officer. I do.

CROSS-EXAMINATION OF JEFFREY "RYAN" DAVIS

BY MS. FOX:

Q. Hello, Mr. Davis. My name is Tannis Fox and I

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represent nine organizations in this proceeding that we collectively refer to as Clean Air Advocates.

Mr. Davis, you submitted direct testimony in this proceeding, correct, on behalf of the independents?

A. That is correct.

Q. And with that direct testimony, you-all filed Exhibit 1, which is your proposed modifications to NMED's proposed rules; is that correct?

A. Yes, ma'am.

Q. And within that Exhibit 1 within your proposed modifications, you did not propose any amendments to the small business facility definition, correct?

A. That is correct.

Q. And then you filed rebuttal testimony in this proceeding, correct?

A. Yes, ma'am.

Q. And then with that rebuttal testimony, the independents did not file any additional proposed amendments with that rebuttal testimony, correct?

A. That's correct.

Q. And are you familiar with the EIB's rule at 20.1.302 A 5, which says -- you may not be familiar with that citation, but are you familiar with the Board's requirement that requires in any Notice of Intent, if a party wants to propose recommended modifications to a

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rule, that the party include that language for recommended modifications within the Notice of Intent?

A. Are you asking whether I was aware of that?

Q. Yes. Are you familiar with that rule of the Board's?

A. Yes.

Q. In your rebuttal testimony, you mentioned the definition of the small -- of small business under New Mexico statute, correct?

A. Yes, ma'am.

Q. Which is 50 employees or less, correct?

A. Yes, ma'am.

Q. And the independents have not provided any economic analysis, have you, on the impact of NMED's proposed rule on oil and gas operations with 50 employees or less; is that correct?

A. That is correct.

Q. And you haven't proposed to the Board any modification to the small business facility definition that would include that state definition of small business, correct?

A. Correct.

Q. Then, also in your rebuttal testimony, you mentioned the former stripper well exemption that appeared in a draft of NMED's proposed rule in 2020; is that

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correct?

A. That is correct.

Q. In your rebuttal testimony, you don't supply any analysis or data or financial analysis for the Board, of the impact of NMED's proposed rule on stripper wells, do you?

A. No.

Q. And nor do you propose any modified language to the small business facility definition that would include stripper wells, correct?

A. Correct.

Q. Then, in your rebuttal testimony, you mentioned the low PTE exemption that had been in this previous draft of NMED's proposed rule, correct?

A. Correct.

Q. And you-all don't provide to the Board any analysis or data or economic analysis of the impact of NMED's rule on -- you just called it low emitting -- low emitting facilities, have you?

A. No, ma'am.

Q. And you haven't proposed any modified language to the small business facility for the Board to consider, that would include low emitting facilities, correct?

A. Correct.

MS. FOX: Thank you very much. That's all the

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questions I have.
HEARING OFFICER ORTH: Thank you, Ms. Fox. Ms. Paranhos, do you have questions of Mr. Davis?
MS. PARANHOS: No questions. No questions, Madam Hearing Officer.
HEARING OFFICER ORTH: All right. Thank you. Mr. Jaynes.
MR. JOHNSON: No questions, Madam Hearing Officer.
HEARING OFFICER ORTH: Thank you. And I think that was you, Mr. Johnson, right?
MR. JOHNSON: Yes, ma'am. I'm speaking on behalf of Mr. Jaynes.
HEARING OFFICER ORTH: Right. I just wanted the transcript to be clear.
MR. JOHNSON: Okay. Thank you.
HEARING OFFICER ORTH: I don't believe Ms. Devore is with us. Mr. Nykiel?
MR. NYKIEL: No questions. Thank you.
HEARING OFFICER ORTH: Thank you. Mr. De Saillan?
MR. DE SAILLAN: No questions. Thank you.
HEARING OFFICER ORTH: Thank you. Mr. Hiser?
MR. HISER: No questions. Thank you.
HEARING OFFICER ORTH: Thank you. Mr. Janoe said

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he has no questions. Mr. Butzier?
MR. BUTZIER: No questions. Thank you.
HEARING OFFICER ORTH: Thank you. Ms. Gutierrez?
MS. GUTIERREZ: No questions. Thank you.
HEARING OFFICER ORTH: Thank you. Mr. Colclasure?
MR. COLCLASURE: No questions. Thank you.
HEARING OFFICER ORTH: All right. And Ms. Witherspoon. She may have departed.
All right. I'm going to turn now to the Board members for their questions. In the event you are an attendee with a question, please reach out through the Chat and we'll follow-up on it.

EXAMINATION BY THE BOARD OF JEFFREY "RYAN" DAVIS

HEARING OFFICER ORTH: Madam Chair, do you have questions of Mr. Davis?
CHAIRPERSON SUINA: Thank you, Madam Hearing Officer. I just have a couple just for clarification in my head here. Mr. Davis -- sorry, I don't see you. There you are. Okay. You had mentioned there was -- you had mentioned the regulations in Colorado and Pennsylvania -- or Pennsylvania -- Pennsylvania as having separate regs for conventional versus unconventional. And I understand from Ms. Fox's examination and questioning that there was no additional language proposed; is that correct? Just so

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I have that right in my head? Related to the difference -- related to your statement that -- that these two states had different regs where they separated conventional versus unconstitutional; is that correct?
MR. DAVIS: That's correct, regarding the small business provision. We did provide some language that was similar to the Colorado approach in pneumatics, which we'll get to later, but not regarding the small business.
CHAIRPERSON SUINA: Okay. And thank you for that clarification. And in that discussion you had earlier, you had talked about, you know, the difference between a conventional and unconventional well. I think Mr. Rose asked for additional explanation for all of us on the Board. By chance, do you have a percentage in New Mexico what the -- what the breakdown is between conventional and unconventional?
MR. DAVIS: I don't off the top of my head. I would say the majority of the wells classified as stripper wells would fall into the legacy or conventional side of things, but I don't know the exact number of what's unconventional in the state.
CHAIRPERSON SUINA: Okay. Thank you for that. And one more question regarding that, even though I know there was no additional language proposed, but I just want to have this correct in my head. So with unconventional

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wells versus conventional wells, along the line of why other states have different -- you know, separate regulations that separate the two, do you see any additional emissions coming from conventional wells? Or what's the difference between maybe potential emissions from both types of wells?
MR. DAVIS: So it varies from well to well, but I would say in general, most of your conventional or stripper-type wells are going to be operated at lower pressure, so -- and lower throughput to the tank, so I think it's safe to assume that the emissions from those wells would be -- would be less than those of the higher producing, higher pressure-type wells.
CHAIRPERSON SUINA: Okay. So just -- again, just so I have it, so you're saying that those conventional wells probably emit less?
MR. DAVIS: Correct.
CHAIRPERSON SUINA: Okay. All right. Thank you so much. I appreciate that and thank you so much for your testimony.
MR. DAVIS: Thank you.
HEARING OFFICER ORTH: Thank you, Madam Chair. Vice-Chair Trujillo-Davis, do you have questions of Mr. Davis?
VICE-CHAIR TRUJILLO-DAVIS: I do. Thank you.

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Can you hear me okay?
MR. DAVIS: Yes, ma'am.
VICE-CHAIR TRUJILLO-DAVIS: Okay. Great. Thank you, Mr. Davis, for your testimony. I have to agree with you on the point, after listening to your testimony, that I would think that Merrion Oil and Gas would be a small business based on your explanation of them, so I do find that point kind of interesting. And I wanted to kind of flesh out your -- your statements about the well-by-well examination when you're looking at costs per well for implementation of the rule.
And it seems as we've gone through this day, and a lot of the testimony, that there's a perception that there's a big pot of money as far as profit, and then that profit is -- could easily be distributed back to the wells evenly for implementation of the rule. Is that the way you understand that it is being presented? Because that's the way I'm understanding it.
MR. DAVIS: Yeah, I would say that's my perception of the discussions that have taken place. And that's one thing that I was trying to illustrate there, that that is not the way that we do business. We run economics on the individual wells. And so, you know, that well's future revenue or cash flow needs to support the expenditure that we're going to make. If not, then we

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would plug and abandon and reclaim the site if the future revenue doesn't justify the investment on that asset.
VICE-CHAIR TRUJILLO-DAVIS: So if an individual well cannot support the cost of the rule implementation, then it's likely that you'll just plug and abandon it?
MR. DAVIS: That's correct.
VICE-CHAIR TRUJILLO-DAVIS: Okay. So that's where you were making the statement -- and I have so many notes here, I don't seem to see it, but I think you were making a statement along the lines of early abandonment of some of these wells. So that's where you were getting that from?
MR. DAVIS: Yes, ma'am. A lot of these stripper wells or legacy-type producers are at the end of their decline, so they're relatively flat. There's quite a bit of reserves to be recovered over, you know, many years, and so I was referring to the premature abandonment of those. There's still recoverable reverses associated with those wells, but in an instance where the cost of compliance overburdens those wells, we would prematurely plug and abandon and leave that resource in the ground.
VICE-CHAIR TRUJILLO-DAVIS: Do you think that stripper wells are worth operating if they're toward the end of their life?
MR. DAVIS: There are many, many companies that,

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you know, they -- they have a business around operating stripper wells. You know, they're sometimes intermixed with the term marginal wells, so their margin is much lower, but smaller companies with lower overhead are able to continue to operate those and -- and be profitable at doing so. It's just the margins associated with that are -- are lower.
VICE-CHAIR TRUJILLO-DAVIS: Okay. Thank you for that. That's insightful. And I did note that you didn't -- or I'm sorry -- IPANM did not submit a proposal for the language change to this portion of the rule, but you did mention Colorado and Pennsylvania's kind of take on this portion of it.
And maybe you can't answer this question, but if you-all had made a recommendation, is there one of those states or a combination of those that you would have recommended?
MR. DAVIS: Yeah, it's kind of a long answer, but I would say I like Pennsylvania's approach and where they separate the two, you know, the conventional versus unconventional.
Colorado tends to have more of a provision-specific relief in terms of low producers, and that is something that we proposed in pneumatics, was following a similar approach that Colorado had, in terms

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of providing relief for folks that operate low-producing wells. And our original approach was supporting NMOGA's position in striking the small business provision and definition, because we didn't feel like it provided the necessary relief.
VICE-CHAIR TRUJILLO-DAVIS: Okay. Thank you again, Mr. Davis. I don't have any more questions.
HEARING OFFICER ORTH: Thank you, Vice-Chair. Member Cates, do you have questions?
BOARD MEMBER CATES: No questions here. Thank you.
HEARING OFFICER ORTH: Thank you. Member Bitzer, do you have questions?
BOARD MEMBER BITZER: No questions. Thank you .
HEARING OFFICER ORTH: Thank you. Member Garcia?
BOARD MEMBER GARCIA: Yes, I just have a couple of questions. You mentioned that you wanted the exemption put back in for stripper wells. Do you have -- do you have a ballpark figure of how much -- what percentage of the wells in New Mexico are stripper wells -- would be classified as stripper wells?
MR. DAVIS: I've looked at that in the past. I believe by well count, there's 30-, 31,000 stripper wells and 39 nonstripper -- or sorry, that's a percentage -- a little over 19,000 nonstripper wells, and that's 61

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percent and 39 percent.
BOARD MEMBER GARCIA: All right. And then one other question is, I believe in Ms. Kuehn's testimony, she mentioned that the small business exemption would be about 15 percent of the total number of companies, which represents about 82 companies. That would be with the ten employees limit, so it sounds like you-all are suggesting 50 employees be the limit instead of ten.
And do you know how many more companies would be included in that exemption? Do you have an idea if it were 50?
MR. DAVIS: I do not. That was one part of the analysis that I was unable to follow from the Department's standpoint. And that's one of the reasons that I just made the general reference to the Small Business Relief Act, because I wasn't sure how they determined the ten employee cut-off, and so I do not know what that would look like if you raised it to 50.
BOARD MEMBER GARCIA: Thank you very much. That's all I have. .
HEARING OFFICER ORTH: Thank you. Member Honker, do you have questions of Mr. Davis?
MEMBER HONKER: Member Garcia asked my question, so I have no questions. Thank you.
HEARING OFFICER ORTH: All right. Thank you,

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Madam Chair, we're coming back to you.
CHAIRPERSON SUINA: Thank you, Madam Hearing Officer. I just have one follow-up question to Vice-Chair's line of questioning. So can you just remind me why -- why IPANM did not propose additional language that -- that, you know, for -- related to either the Colorado or the Pennsylvania regarding small business, and the separation between conventional and unconventional?
MR. DAVIS: So I think it would be difficult in this context to separate the two, just in the way that this regulation is set up. And -- and we felt like the original preproposal language or structure accomplished that same goal, in terms of -- of moving, you know, back to a well's production or potential to emit. We had engaged with the Department, and they had indicated they wanted some feedback, but it seemed to be within the context of their structure, which we found just very difficult to be able to -- to provide any feedback there or to make that workable. So that's one of the reasons that we did not provide those changes there.
CHAIRPERSON SUINA: Great. Thank you for that clarification.
HEARING OFFICER ORTH: All right. Thank you, Madam Chair.
Mr. Rose?

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MR. ROSE: I have no questions of this witness, Madam Hearing Officer. That -- that completes our testimony and I assume he can be excused until the next time he has to testify.
HEARING OFFICER ORTH: Yes.
MR. ROSE: Which, hopefully, will be sometime this week, but we'll see.
HEARING OFFICER ORTH: All right. Thank you very much, Mr. Davis, for your testimony, and thank you, Mr. Rose.
So let's see. I did note that Mr. Hernandez actually joined us. I hadn't, you know, wanted to necessarily go to another witness unless the Board and court reporter were willing.
Mr. Johnson, could you tell us whether maybe Mr. Hernandez's presentation would be a lengthy one.
MS. KATZ: Madam Hearing Officer, sorry. We still have surrebuttal from Ms. Day and Mr. Palmer and Ms. Kuehn.
HEARING OFFICER ORTH: Oh, I'm very sorry. We did need to loop back to Ms. Day.
MS. KATZ: Yes.
HEARING OFFICER ORTH: I'm sorry, Mr. Johnson. And sorry to Mr. Hernandez if he had hoped to speak today.
Ms. Katz?

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MS. KATZ: Thank you. The Department calls back Susan Day, Brian Palmer and Elizabeth Bisbey-Kuehn. So I'll start with Ms. Day, who is being quite the trooper.
SUSAN DAY, ELIZABETH BISBEY-KUEHN AND BRIAN PALMER
having been previously duly sworn, were recalled, examined and testified as follows:
SURREBUTTAL EXAMINATION OF SUSAN DAY, ELIZABETH BISBEY-KUEHN AND BRIAN PALMER
BY MS. KATZ:
MS. KATZ: Ms. Day, can you summaries the issues raised in the direct testimony and rebuttal on the small business definition from the other parties?
MS. DAY: Yes. In their direct testimony, both NMOGA and IPANM proposes to remove section 20.2.50.125 in its entirety. And both parties stated that they were unaware of any companies in New Mexico that would meet the thresholds in the definition of small business facility in Section 20.2.50.7.
IPANM also stated its preference that NMED restate -- sorry, reinstate the exemptions for low-producing and low-PTE facilities, as proposed in the prepetition draft rule that NMED released for public input in July of 2020. In their rebuttal, IPA -- IPANM recognized the Department's efforts to provide appropriate relief for small businesses and prevent the premature

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abandonment of marginal wells. They also acknowledge that the small business definition may provide relief, but only for very small operators.

Their concern is that an operator could find itself qualifying as a small business one year and not the next due to the uncertainty in commodity prices. Additionally, they state that the NMED analysis for the small business facility threshold only considered operators with wells that overall on average, could not support the cost of compliance.

Finally, they restate their preference that NMED reinstate the exemptions for low-producing and low-PTE facilities as proposed in the prepetition draft rule that NMED releases for public input in July of 2020.

On page 4 of his rebuttal, Ryan Davis of IPANM states -- says that well production and PTE are better measures to ensure the necessary relief, but does not recommend specific limits. In response to that, I'd just like to point out that the rule has PTE limits for many of the sections, and those limits in some cases were revised based on industry testimony.

I'd also point out that no production limits were recommended by IPANM or NMOGA. On page 6 of his rebuttal, Ryan Davis appears to be recommending that the Board consider a small business definition of 50 or less

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employees based on the New Mexico statutes -- excuse me -- then he cites in his testimony. Specifically, definition E reads "small business means a business entity, including its affiliates that is independently owned and operated and employs 50 or fewer full-time employees."

We did an analysis of the 50 employee or less definition, and found that 324 of the global ultimate parent companies that had revenue employment and well production data in our analysis, of those, 274 global ultimate parent or 85 percent would have less than 50 employees. And this 85 percent of global ultimate parent companies were associated with about 19,000 wells, or about 40 percent of the wells in the analysis, and represents 4.7 billion dollars in oil and gas value, or about 28 percent of the value of the wells in the analysis.

And this is -- this is really the same unacceptable impact as the stripper well exemption.

MS. KATZ: Thank you. And Ms. Day, what is your response to IPANM's concerns that operators could move in and out of qualifying as a small business from one year to the next due to uncertainty in commodity prices?

MS. DAY: In the context of this rulemaking, it's appropriate to take a snapshot of the industry to profile the affected universe. There are always going to be

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economic fluctuations. Not even considering commodity prices, production can also be variable. Moreover, for federal rulemaking, it's standard practice to pick a snapshot of conditions in the regulated industry or industries when estimating compliance costs and small business impacts.

MS. KATZ: Thank you. Ms. Kuehn, are there examples of statutes and regulations that use small business definitions based on revenue and employment?

MS. BISBEY-KUEHN: I'm sorry. That's what I discussed in my previous testimony, that both the Clean Air Act and New Mexico's Construction Permit Fee Regulation do contain definitions of small business and both definitions contain an employee threshold and an air pollutant threshold to qualify. These definitions are used in compliance assistance and a reduction in the permit fees.

MS. KATZ: Okay. Thank you.

Mr. Palmer, can you respond to Mr. Davis's testimony that NMED's proposed threshold for small business facility did not account for the cost of pneumatics?

MR. PALMER: Yes. Mr. Davis is correct that those costs were not included in the estimated cost per operator in the example facility that Ms. Kuehn described

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earlier. If you look at the data that are included in exhibit -- NMED'S Exhibit 095, which is our pneumatics cost spreadsheet, you can look at that in the Permian Basin on a per-well basis, the annual cost would be about $460 at a site with electricity, or $850 at a site without electricity. In the San Juan Basin, the cost per well would be about $2,300 dollars at site with electricity, and the annual cost to the well per well at a site without electricity would be about $4,200.

And we'll get into those costs, I'm sure, a lot more when we talk about the pneumatics section of the rule, but that's just it for an order of mag, just to give the Board some sense of what those costs would be.

MS. KATZ: And so, did you do any estimates with those costs?

MR. PALMER: Yeah, it would change the -- it would change the cost from -- of the example facility, on average, by about $2,000 per facility. So probably from about $38,000 per facility, to probably about 40-, $42,000 per facility.

MS. KATZ: Okay. And how many companies would that change -- that estimated change affect with -- (unintelligible.)

MR. PALMER: I think it would move the number of facilities on that revenue threshold analysis by only two

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or three facilities, based on the data that we have in the spreadsheet.

MS. KATZ: Okay. Thank you. That's all I have.

HEARING OFFICER ORTH: All right. Thank you, Ms. Katz, Mr. Palmer and Ms. Kuehn, Ms. Day.

Ms. Fox, do you have questions of this panel?

MS. FOX: No. Thank you, Madam Hearing Officer.

HEARING OFFICER ORTH: Ms. Paranhos?

MS. PARANHOS: No questions, Madam Hearing Officer.

HEARING OFFICER ORTH: Thank you. Mr. Johnson?

PROFESSOR PACYNIAK: No questions from CCP and NAVAEP, Madam Hearing Officer.

HEARING OFFICER ORTH: And that was Professor Pacyniak. All right. Thank you.

I don't believe we have Ms. Devore with us. Mr. Nykiel?

MR. NYKIEL: No questions. Thank you.

HEARING OFFICER ORTH: Thank you. Mr. De Saillan? He may have stepped away. Mr. Hiser?

MR. HISER: No questions, but with thanks to our London correspondent for staying up through this.

HEARING OFFICER ORTH: Yes. Mr. Rose?

MR. ROSE: No questions, but I'll engage Mr. Palmer perhaps later on pneumatics, later this week.

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Hopefully not later today.

HEARING OFFICER ORTH: All right.

MR. ROSE: So I think he was correct, that that's where that debate will happen.

HEARING OFFICER ORTH: All right. Thank you. Mr. Janoe said he didn't have any questions. Mr. Butzier?

MR. BUTZIER: Madam Hearing Officer, the only question I have is for you, which is, are we going to hear from Smitherman on this subject or no?

HEARING OFFICER ORTH: Mr. Hiser?

MR. HISER: I would be -- given the late hour, I'd be happy to chat with my client and see if we have anything to say about it, and then maybe we'd just touch on it tomorrow. It's very brief.

HEARING OFFICER ORTH: All right. Let me finish with the round of questioners here. Ms. Gutierrez?

MS. GUTIERREZ: No questions.

HEARING OFFICER ORTH: Thank you. Let's see. Mr. Colclasure?

MR. COLCLASURE: No questions. Thank you.

HEARING OFFICER ORTH: And Ms. Witherspoon? No. All right.

I'm going to turn to the Board. In the event you are an attendee and have a question, please reach out through the Chat.

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EXAMINATION BY THE BOARD OF SUSAN DAY,
ELIZABETH BISBEY-KUEHN AND BRIAN PALMER

HEARING OFFICER ORTH: Madam Chair, do you have questions of this panel?

CHAIRPERSON SUINA: I have no questions at this time. Thank you, Madam Hearing Officer.

HEARING OFFICER ORTH: Thank you. Vice-Chair Trujillo-Davis, any questions?

VICE-CHAIR TRUJILLO-DAVIS: I have a couple of questions, and I apologize if I'm asking the same thing. I realize that at this time in the day, my brain and all of these numbers flying across, are starting to mesh.

So the 50 employees per -- or we were talking about the smalls business cut-off, 50 employees versus 10 employees. I think the question is for Ms. Day. Is that 50, when you -- when you applied the constraint of 50 employees, was that 50 employees and a $250,000 revenue, or was that 50 employees and based on an average revenue of what a company with 50 employees would make?

MS. DAY: I was just looking at the revenue data reported in Dunn & Bradstreet for the global ultimate parents in the analysis, that actually had revenue, employment and well production data. So it's just -- it's just those qualifying global ultimate parents over-arrayed by their employment data, and then counting the number

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that have 50 or fewer employees.

VICE-CHAIR TRUJILLO-DAVIS: Okay. And I think you said the number didn't change drastically from 10 to 50 employees, and how many businesses were able to qualify?

MS. DAY: I did not say that. I believe that there was -- that Mr. Palmer might have been talking about there being not much difference when he included the cost of the pneumatics.

VICE-CHAIR TRUJILLO-DAVIS: Okay. So maybe that's a better question. Does the number of qualifying businesses change drastically when you look at 10 versus 50?

MS. DAY: The -- the number of global ultimate parents that are less than ten -- have less than ten employees -- ten or less employees, is just one part of the small business facility definition. It also has that $250,000 revenue threshold. So that -- the number that has been raised by Ms. Kuehn included both of those pieces. The number that I talked about was -- was not looking at a revenue threshold in addition to employment threshold.

VICE-CHAIR TRUJILLO-DAVIS: Okay. Okay. Thank you for clarifying that. And I'm switching subjects a little over -- yeah, subjects a little bit here.

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But Mr. Palmer, I think you said that the cost of per well was up to $4,400 per well for implementation. Did I get that correct?

MR. PALMER: That is -- that is the average cost to retrofit pneumatics per well in the San Juan Basin at a site without electricity.

VICE-CHAIR TRUJILLO-DAVIS: Okay. I have to admit, given my experience, that number seems kind of low. So I'm just curious what that includes. Is that just parts and installation, mileage?

MR. PALMER: Let me clarify; that is the annualized cost. So that's not the -- that's not the -- that's not the total cost. That is just the annualized cost.

VICE-CHAIR TRUJILLO-DAVIS: Okay. Could you explain that a little further?

MR. PALMER: The annualized versus the total cost?

VICE-CHAIR TRUJILLO-DAVIS: Yeah.

MS. DAY: We went back and forth on this, too.

MR. PALMER: I know. Yes, when we talk about the economics and there will be --

MS. KATZ: Yeah.

MR. PALMER: Pneumatics will be a huge -- I'm sure, a big subject of testimony later, and so --

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MS. KATZ: Yes. I was going to suggest Madam Trujillo -- Member Trujillo-Davis, that those costs and all of the pneumatics stuff are going to be very extensively covered, and so maybe that could be targeted at that time, just to not go down that rabbit hole tonight.

VICE-CHAIR TRUJILLO-DAVIS: No, that's fair. Thank you. Yes, thank you for indulging my questions there. I don't have any more.

HEARING OFFICER ORTH: All right. Thank you. Member Cates?

BOARD MEMBER CATES: No questions here. Thank you.

HEARING OFFICER ORTH: Member Bitzer?

BOARD MEMBER BITZER: No questions. Thank you.

HEARING OFFICER ORTH: Thank you. Member Garcia?

BOARD MEMBER GARCIA: No questions. Thank you.

HEARING OFFICER ORTH: Thank you. And Member Honker?

BOARD MEMBER HONKER: No questions. Thank you.

HEARING OFFICER ORTH: Thank you. Ms. Katz, did any of the questioning prompt redirect for you?

MS. KATZ: No, I think we can leave it there. Thank you, Madam Hearing Officer.

HEARING OFFICER ORTH: All right. Thank you very

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much. Thank you, all of you. So this panel for this topic is done. And Ms. Day, I hope you're able to get some rest.

MS. DAY: Thank you.

HEARING OFFICER ORTH: Thank you. Let's bring -- let's see -- was it Mr. Hiser back on?

MR. HISER: Yes, Madam Hearing Officer.

HEARING OFFICER ORTH: For a discussion of whether it would be a good time to bring on Mr. Smitherman.

MR. HISER: We certainly can. Our position is more or less the same as what you heard from IPA, but it's after -- it's after 6, I don't know if you wanted to continue or not.

HEARING OFFICER ORTH: Right. No, I'm not insisting, just -- just wondering.

Then, can we take a few moments, please, just to discuss the schedule for tomorrow? We don't have a lot of public comment at 9 a.m. We do have some, but not a lot.

And then my memory is, we can certainly go to Mr. Smitherman, and then we were going to go to -- was it ozone attainment and then the engines and turbines?

MR. HISER: I believe that we have a modeling expert yet from EDF that we need to cover.

HEARING OFFICER ORTH: That was Thompson?

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MR. HISER: Yes.

HEARING OFFICER ORTH: Okay. That's right.

MS. KATZ: We have already done Ozone Attainment Initiative.

HEARING OFFICER ORTH: I'm sorry. Excuse me. So we were going to engines and turbines?

MR. HISER: I think it would be general provisions and definitions next.

MS. KATZ: Yes, definitions -- sorry. Yeah, Topic 21, definitions; and then Topic 22, which is general provisions -- or sorry, applicability; Topic 23, which is general provisions; and then 24, which is engines.

HEARING OFFICER ORTH: All right. So we have a little ways to go before we get to engines and turbines. I just got overly excited. All right.

So is that sufficiently clear for the Board members for your preparation for tomorrow? We'll hear some public comments, briefly from Mr. Smitherman, from Thompson, and then going to Topics 21, 22, 23 and then the big one is 24.

MR. HISER: I do see Ms. Paranhos and I don't know if she perhaps has a concern for her witness's availability.

MS. PARANHOS: Just on the screen, just because you did mention Dr. Thompson earlier, but I think we're

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clear now that she'll go after Mr. Smitherman tomorrow, so that's terrific.

HEARING OFFICER ORTH: All right. Great. And that will be fairly early in the morning.

Well, if that's all for today, thank you all very much. And we'll see you tomorrow morning at 9.

(Proceedings adjourned on September 22, 2021, at 6:04 p.m.)

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STATE OF NEW MEXICO
BEFORE THE NEW MEXICO ENVIRONMENTAL IMPROVEMENT BOARD
PROPOSED ADOPTION OF RULE 21-27 NMAC
RULES HEARING

REPORTER'S CERTIFICATE

I, THERESA E. DUBOIS, RPR, CSR #29, DO HEREBY CERTIFY that on September 22nd, 2021, the Public Hearing of the New Mexico Environmental Improvement Board was taken before me, that I did report in stenographic shorthand the Proceedings set forth herein, and the foregoing pages are a true and correct transcription to the best of my ability.

I FURTHER CERTIFY that I am neither employed by nor related to nor contracted with (unless excepted by the rules) any of the parties or attorneys in this matter, and that I have no interest whatsoever in the final disposition of this matter.

THERESA E. DUBOIS, RPR
New Mexico CCR #29
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