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MONDAY, AUGUST 24, 2020 10:00 A.M.

PRESENTATION ON
REGIONAL GREENHOUSE GAS INITIATIVE
(RGGI)

BEFORE:

HONORABLE DARYL D. METCALFE, MAJORITY CHAIRMAN

HONORABLE STEPHANIE BOROWICZ

HONORABLE CRIS DUSH

HONORABLE R. LEE JAMES

HONORABLE KATHY L. RAPP

HONORABLE TOMMY SANKEY

HONORABLE PAUL SCHEMEL

HONORABLE DAVID H. ZIMMERMAN

HONORABLE GREG VITALI, DEMOCRATIC CHAIRMAN

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I N D E X

TESTIFIERS

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SUBMITTED WRITTEN TESTIMONY	
* * *	
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1	PROCEEDINGS
2	* * *
3	MAJORITY CHAIRMAN METCALFE: Good morning.
4	This meeting hearing of the House
5	Environmental Resources and Energy Committee is called to
6	order.
7	And before we get started with our first
8	testifier, if I could ask everybody to please rise. And,
9	Representative Borowicz, would you lead us in the Pledge,
10	please?
11	
12	(The Pledge of Allegiance was recited.)
13	
14	MAJORITY CHAIRMAN METCALFE: Thank you,
15	Representative Borowicz.
16	If I could ask our Member-Secretary to call the
17	roll call, please.
18	REPRESENTATIVE DUSH: Yes, Chairman.
19	
20	(Roll call was taken.)
21	
22	MAJORITY CHAIRMAN METCALFE: Thank you,
23	Representative Dush.
24	This morning's public hearing is on the
25	Regional Greenhouse Gas Initiative. Our first testifier is

Mr. Caleb Stewart Rossiter, Ph.D., Executive Director from the CO2 Coalition, and traveled from the DC area, I believe, to be with us today.

Thank you, sir, for joining us, and you can begin when you're ready, sir.

MR. ROSSITER: Thank you, Chairman Metcalfe.

In balancing energy needs and environmental protection, not just quality of life but lives themselves are in the balance, whichever way you lean. So before leaning, it's important to know why.

I am a former professor of statistics,
mathematics, and public policy at American University. I
direct an alliance of 55 climate scientists and energy
economists called the CO2 Coalition. I'm happy to report
that when I retire in January, I'll be replaced by a
talented Pennsylvanian, geologist Gregory Wrightstone.

Mark Twain famously identified three descending gradations of falsehood: lies, damn lies, and statistics.

Analyzing the magical claims by the Department of Environmental Protection about RGGI, I would like to add models to that list.

As a professor, I taught not just statistics and mathematical modeling, but also their use and cost-benefit analysis for public policy. We must include all the costs, not just all the benefits, to find the net effect of a

policy decision like RGGI, and DEP does not.

Statistics and modeling are often combined into one technique, which we broadly call multiple regression, or econometrics. It controls for all variables so you can see the independent effect of each one. But DEP dispenses with this technique and provides you with a lawyer's one-sided brief rather than an accountant's fair analysis. It uses input-output models that can't distinguish between correlation and causation.

A proper analysis would conclude that RGGI is an act of economic, health, and environmental suicide. It will raise electricity prices, increase health problems and mortality, and damage the environment. And it won't even affect the level of the dreaded, but actually beneficial, CO2 emissions.

First, a look at the science.

The lead picture on the DEP website for RGGI, contradicting all the peer-reviewed science and the UN body that studies climate change, shows emergency workers surveying a flooded town. I can't believe that we are 15 years since Al Gore stood and tried to convince the world that Hurricane Katrina came from SUVs and not the normal flow of events and we're looking at a picture like this to justify your policy.

As a professor, I taught my students about the

propter hoc: "correlation is causation." CO2

concentrations in the atmosphere have increased due to

industrial emissions. We have a flood; the increase must

be the cause of the flood. But weather is not climate

change. The UN reports no statistically significant change

Latin enemies of logic. This one is called post hoc ergo

in rates of extreme weather, including floods, in the era
when CO2 emissions were large enough to cause measurable

9 warming.

We are not in a CO2-driven climate crisis. That is the scientific fact. Some models predict we may be in one in a hundred years, but even their estimated damages pale next to the fossil-fueled increase in wealth we will have on hand to address them. And remember, there are benefits to CO2 emissions, since the molecule is a crucial plant and plankton food.

Now to economics.

RGGI is not a market-based approach, as claimed by DEP. We already have an energy market, and the result is that over 80 percent of American energy comes from fossil fuels. Why? Because they are inexpensive, reliable, and efficient.

RGGI is a market-distorting approach. It taxes fossil fuels, even more than the 50 billion they are already net taxed. It subsidizes so-called renewable

sources of energy.

There is nothing renewable about renewable energy. The sun and wind are indeed free and recurring, but turning their energy into electricity is fossil-fuel intensive:

- Minerals for blades, panels, and batteries
 have to be mined in horrific conditions in
 Africa powered by fossil fuels.
- Then come the lengthy transmission lines that bring the power to populated areas.
- And you still have to back up the intermittent electricity with fossil fuel plants.

DEP says, "Economic modeling shows that participating in RGGI will lead to a net increase of more than 27,000 jobs and add \$1.9 billion to the Gross State Product in Pennsylvania."

Huh? You're going to raise the cost of energy dramatically, reduce reliable fuels in favor of intermittent ones, and that's going to increase jobs and

productivity? How's that working out for California this
week?

Renewable electricity, once subsidies are factored in, costs four times as much per kilowatt-hour as natural gas electricity. When States are mandated to provide renewable energy, the result is blackouts, misery, and reduced economic activity.

Now, how did DEP do its magical thinking?

Through the Regional Economic Models, Inc., or REMI,

input-output model. Input-output models change a single

parameter -- in this case, the addition of the money taken

from electricity providers in RGGI auctions -- and then

estimate the economic impact as it cascades through the

economy.

Sure, spending that money creates jobs and growth, but remember, that same amount of money is also removed from the economy as the effect of taxes passed along to consumers of the electricity. So it's impact on growth and jobs is immediately canceled out. RGGI estimates incorrectly count only benefits and not costs and even ignore the harm to the competitiveness of your industries, raising the cost of energy inputs.

Now let's turn to the modeled health claims.

DEP's modeled health benefits from RGGI's reduction, not in CO2, carbon dioxide, but in coal-fired

pollutants like sulfur dioxide, nitrogen oxide, and particulate matter.

DEP estimates that up to 639 premature deaths will be avoided by 2030 because of Pennsylvania's participation in RGGI. But that will mostly be due not to RGGI policy but rather fracking's dramatic reduction in the price of natural gas electricity that will reduce coal-fired power.

Affordable heating saves far more lives than coal-fired electricity loses. A 2019 study for the National Institutes of Health estimated that 11,000 lives are saved in America each year by fracking. When costs are low, more people use enough heat to stay healthy.

DEP's failure to do a full cost-benefit mortality analysis for a policy change, or even in this case, a production change due to other factors, is inexcusable.

The same goes for the claimed 30,000 less hospital visits from asthma from ground-based ozone, which is a byproduct of fossil fuels. DEP did not factor in increased hospitalization for deadly pneumonia and bronchitis from more expensive heating.

In addition, the NOx, the nitrogen oxide that creates ozone, which then stimulates asthma, can be successfully "scrubbed" to low levels with modern coal power technology.

This coal-cleaning technology is in operation in America only at the Turk Plant in Arkansas, because it was the only one under construction when the natural gas revolution exploded. A retrofit with this technology would be a lot cheaper than RGGI hamstringing the economy, which has its own health impacts.

Finally, let's take DEP's environmental claims.

As you reduce emissions from coal and natural gas, you have to compensate with wind, solar, hydro, or nuclear. But the construction of dams, say in your Pine Creek Gorge, or wind turbines, say throughout your State's Game Lands, would indeed have tremendous environmental costs.

And while the solar-powered grid electricity you would use comes from States that are thousands of miles away, as Americans, we can't just ignore the environmental costs there. As Johnny Cash used to sing about trucking, there ain't no easy run when it comes to providing Pennsylvanians with affordable, reliable energy. There will always be trade-offs.

Governor Wolf justified his RGGI order by dramatically claiming that average temperatures in Pennsylvania, as is the case globally, has increased 1.8-degrees Fahrenheit in the past 110 years. But that global increase began with an entirely natural warming

after the Little Ice Age ended in the 18th century. Half of the increase came from 1920 to 1950, before CO2 levels were large enough to cause measurable warming.

The UN climate body is only confident, of all that warming, that more than half of the more recent half of total warming from 1980 to today came from industrial CO2. Pretending that all the warming for 110 years was human caused is misleading. A quarter is more likely, according to the UN.

Please, finally note that RGGI errs scientifically in including methane in the warming gases it controls. I have with me today for the Committee a recent study called "Methane and Climate" by two leading atmospheric physicists in our Coalition. Methane emissions are only one-tenth as powerful in forcing this carbon dioxide. Each molecule is 30 times more potent, true, but we only have 1/300th of the level of methane emissions that we do of carbon dioxide emissions. It's a very minor product in warming gas in total. So it's one-tenth as important as CO2, and CO2 is about 1 degree for a doubling, which takes hundreds of years. Cows and pipelines can rest easy in Pennsylvania.

I look forward to hearing your perspectives and taking your questions.

Thank you, Mr. Chairman.

MAJORITY CHAIRMAN METCALFE: Thank you. Thank you, sir, for your testimony.

And just to remind the Members, as we talk with our testifiers today, they are here to present their expertise and they are not here to be engaged in an argument. We can argue amongst each other at a later time, and we will, I'm sure. But they are here for us to gather information from, so please refrain from engaging the guests in an argumentative fashion and stick to a questioning to solicit information that you're looking for.

Do Members have questions?

Representative James.

REPRESENTATIVE JAMES: Thank you, Mr. Chairman.

Thank you for your testimony. I'm over here. I might move for the next one.

You mentioned California, and it is, of course, very timely. It's in the news. The fires are raging out of control, et cetera. Can you give us a little bit more background on how they find themselves in this dilemma, please?

MR. ROSSITER: Yes, sir.

California has the legislation in effect and other incentives for the companies that are presaged by the RGGI regime here. For at least a decade, California has forced its energy companies to purchase renewable power

from other States primarily, which is much more expensive, and they haven't allowed the prices to rise -- the costs have risen but the price does not, and so that's absorbed by the company. They have dramatically reduced their ability to spend on the proper clearance for their power lines and for providing the fossil fueled and nuclear fuel they do.

So for example, in California, if cars are running on oil, that oil is sometimes brought from Saudi Arabia, which no one else in America even does because of restrictions on them having their own fossil-fueled plants to produce oil and refine it there.

Wildfires, of course, are very predictable, a scientific fact in California, and will always be there for a variety of reasons, mostly not related to temperature but to management and forest density, things of that nature.

So California has got a double whammy now. They have got these terrible fires after the COVID has harmed their economy, but their energy grid cannot handle it. So like South Africa or Egypt, places I study in Africa, they are now putting out brownouts and blackouts to maintain the grid, which is inexcusable in a developed country with all the resources that we have.

REPRESENTATIVE JAMES: Thank you.

Thank you, Mr. Chairman.

1 MAJORITY CHAIRMAN METCALFE: Thank you, 2 Representative Lee James. 3 Representative Vitali. MINORITY CHAIRMAN VITALI: Thank you. 4 5 I first just want to apologize for my conduct the 6 last hearing. I lost my temper, and that's not who I want 7 to be as a Chairman. So I'll just get that on the record. If I could, sir -- thank you for coming -- let 8 9 me just read you a statement. You had mentioned the 10 United Nations, and let me read you a statement from the 11 United Nations Intergovernmental Panel on Climate Change, 12 which you know is a body composed of some of the world's 13 best atmospheric scientists. And it's actually two 14 different statements made at two different times, and one 15 is their report with regard to climate change, and the 16 quote is this: 17 "One of the key messages that comes out very 18 strongly from this report is that we are already seeing the consequences of 1°C of global warming through more extreme 19 20 weather, rising sea levels diminishing Arctic...ice, among 21 other changes...." 22 And then in 2018 they said: "Staying at or below 1.5°C requires slashing 23 24 global greenhouse gas emissions 45 percent below 2010

levels by 2030 and reaching net zero by 2050."

Now, I mean, is it safe to say, reading the material on this, the CO2 Coalition, that you disagree with that?

MR. ROSSITER: On those two statements, sir, let me take the second one first.

I think there is some good argument in the second one that there is an impact, as we know, and we agree with the UN of CO2 on temperature, and trying to stay under a 1.5-degree increase since 1900, you probably would have to slash. However, the first question is more important, which is, what is the effects of that warming?

Now, as I said, the UN says in the body of its report that only a quarter of the 1-degree Celsius rise, which is about a 1.8 Fahrenheit rise since 1900, can be attributed confidently to CO2. So most of that warming change, the climate change they're talking about, comes just naturally and came before the CO2 era in 1950.

But the other important point you raise is, how is it that the studies in the report, in the body of the report, show clearly that the slope, the rate of change of sea level from 1920 to 1950, before the carbon dioxide era, is the same as the rate today, about a foot a century.

It's a long natural claim. So for them to put in sea level in their press release or in their summary, executive summary, they frequently contradict in their language of

press release and executive summary what's in the body of their report.

In my testimony, I have the footnote for the

sea level rise being the same today as it was before CO2 was an impact, which is very well known. It's a longstanding problem for the people in the Netherlands, for example. Since the 1800s, the sea level has been coming up, which, of course, was long before CO2 was a factor.

MINORITY CHAIRMAN VITALI: But what they are saying in essence is that we need to reach carbon neutrality by 2050 to avoid the worst effects of climate change. We have to slash our greenhouse gases to avoid very serious consequences. Do you agree with that conclusion?

MR. ROSSITER: I agree that that is their model predictions that you can see in there.

MINORITY CHAIRMAN VITALI: Now, do you agree with that conclusion?

MR. ROSSITER: Well, it's a matter of opinion. It's very hard to put forward---

MINORITY CHAIRMAN VITALI: What is your opinion?

MR. ROSSITER: I'm trying to give it, sir.

MINORITY CHAIRMAN VITALI: I'm waiting.

MR. ROSSITER: As you look forward, you have to use a climate model to get to the year 2050, and climate

models are something that I teach and I love and I'm very
interested in, but they are very uncertain. They are not
oracles, they're tools. So with certain assumptions about
the sensitivity of climate's reaction to carbon dioxide,
you could have serious problems.

So this is a prospective problem. The models are key to it. I don't think that the models should be the basis, and I have testified for this before the Congress, for making such an important policy decision to forgo these future damages that are modeled versus real damage today by raising the price of energy. I don't.

MINORITY CHAIRMAN VITALI: So do you believe climate change is real and we ought to be reacting in a very deliberative way to combat it?

MR. ROSSITER: By climate change you mean a change in temperature driven by carbon dioxide, or do you just mean the fact that the climate---

MINORITY CHAIRMAN VITALI: I mean the conventional definition.

Now, please. Please.

MR. ROSSITER: No; it's very important. As a professor, I always say we better know what we're talking about. Climate has changed about 1 degree since---

MINORITY CHAIRMAN VITALI: I'm using it in the conventional sense, sir. Please.

1 MR. ROSSITER: What is the conventional sense,
2 sir?

MINORITY CHAIRMAN VITALI: You are dancing.

MR. ROSSITER: No, no, not at all. I'm trying to act professorially and say, are we talking about natural climate change in the last 100 years, and about 75 percent of temperature has been natural, according to the UN, and a quarter has been CO2 based.

If it's CO2 based, you have to look at the data today. We don't see, the UN doesn't see any statistically significant change, whatever the cause of this warming, in the number of hurricanes per decade since 1920 before the era, the rate of sea level rise since 1920. So I would affirm the UN's data, because I can't create the data. The data don't show any more tornadoes per decade, hurricanes per decade, flooding per decade. That's the UN talking.

MINORITY CHAIRMAN VITALI: Okay. One final question.

So, well, actually, RGGI in effect, when it goes into operation, essentially causes less coal to be produced, more gas to be produced, and have nuclear power, existing nuclear, maintain itself.

Now, you said that this will result in more air pollution. Now, if you are shutting down coal, which I think we can agree is very dirty from a conventional

air-pollution source, increasing gas, which testifiers will say is cleaner than coal, and maintaining nuclear, which is essentially emissions, emission free, how is it, one, that this will not result, A, in greenhouse gas being reduced, because coal emits less greenhouse gas, coal than natural gas; and two, air pollution won't be reduced because coal is dirtier.

I don't understand why reducing coal and increasing natural gas and maintaining nuclear doesn't result in less CO2 and less conventional air pollution.

MR. ROSSITER: Thank you, sir.

I testified that it will damage the environment and it won't even affect the level of CO2 emissions because of the solar and wind power which will be added to your mix. And I testified that solar and wind are not renewable. They take tremendous amounts of fossil fuel to be burned. Carbon dioxide and other pollutants enter the atmosphere stream whether they are burned in Canada, here, or Africa. You will have this tremendous damage of mining, transporting, refining, and then trying to recycle all these wind turbines and solar panels, and especially the batteries.

The batteries haven't yet solved the problem of storing the power overnight, and we hope that it will. So what you're doing is increasing the solar and wind, which

1 has tremendous environmental impact, not on the atmosphere 2 but in general an impact on the land and the mining of it, 3 and then you are not going to reduce fossil fuel use anyway 4 because you're going to have to get your power somewhere. 5 It may be from a coal plant somewhere else. You will have 6 natural gas reduced under RGGI more than it would be 7 otherwise. 8 Yes, under RGGI, natural gas is going to rise, 9 but it would rise much more, and the natural gas producers 10 also have to take part in the auction, because they emit 11 some carbon dioxide. 12 MINORITY CHAIRMAN VITALI: Okay. If I could 13 just---14 MAJORITY CHAIRMAN METCALFE: Representative 15 Vitali, we're going to be out of time for this witness. We have two other---16 17 MINORITY CHAIRMAN VITALI: Can I just have one 18 more question, sir? 19 MAJORITY CHAIRMAN METCALFE: No. You already 20 said that was your last question, but thank you. 21 Representative Dush. 22 REPRESENTATIVE DUSH: Thank you, Chairman. 23 Professor, it's great to have you here. I really 24 appreciate your answers.

And, you know, you touched on something, and

going through thousands of pages of things like the Nongovernmental International Panel on Climate Change, there's thousands of pages of summaries, of studies, and you kind of touched on this, but there's a thing in computer science called garbage in/garbage out. The same thing goes with statistics.

I want to go back, since the previous questioner said something about coal being dirty. Coal, natural gas, oil, they all come from the same thing -- compost. It's the composted plant material that were here centuries ago. Leaving something out like the Medieval warming period, as Professor Mann did in his study, those types of things, which are a lot of the flaws that you see in these other studies, how would anybody -- the academic vigor that goes into these things, would people be able to actually get through their doctoral thesis defending that on some of these studies that you have mentioned?

MR. ROSSITER: You are referring to studies that look back at the temperature record to the year 1000, which I don't even look at too much because it's so difficult to get the input data for that. Tree rings and coral shells are pretty hard to correlate with precise temperature. However, it's a modeling exercise. That's a backwards modeling exercise. There is also a future modeling exercise, like the ones we just discussed, that look to the

year 2050 or the year 2100.

In all of them, and I have taught them and I adore them, but changing one or two assumptions can completely change your answer from positive to negative on any of these. They are supposed to really help you look, if this were true, what would happen; if this were true, what would happen, but they can't say what would be true.

The father of the models had a wonderful line.

This is John von Neumann, who was our great mathematician in the Defense Department after World War II. He actually wanted the climate models to work, because he wanted to figure out the atmosphere so he could cause drought in the Soviet Union as a weapon. Fortunately, he failed. He didn't, but he was playing with them. And he famously said when he invented these mathematical models that they use now, the global climate models, if you give me four parameters free, I can draw an elephant. If you give me five, I can make it wiggle its trunk. And just last year, a couple of mathematicians did in fact put out a paper showing that with four parameters, you can draw an elephant with the resulting output line and make the trunk wiggle.

The models are useful for what they are, but as we have learned through COVID, the models can't help you if you get some of your assumptions right. And it's very hard, and I don't have anybody's -- I'm not calling

anybody's motivations out. It's very hard to predict the future, as they say, because if you slightly change one parameter in a thousand-parameter model and you have to estimate most of those parameters—— Models are just not a good tool for deciding what the temperature will be in the year 2050.

And then there's that link between temperature and hurricanes, sea level rise, flood, ice. All of these are complex physical processes. So there's no defining truth in a model, but it can help you make estimates. That's about it. You have to decide in the present what would be better to retrofit your coal plants, like the Turk Plant down in Arkansas, so it removes most of the pollutants, that cost versus the benefit to the health of people, or get rid of the coal plants and start buying a lot of this solar and wind, as California did, and raise your prices. There are results to that, too.

MAJORITY CHAIRMAN METCALFE: Thank you, Representative Dush.

Representative Rapp for our final question.

REPRESENTATIVE RAPP: Thank you, sir, for being here today. It was very informative.

Currently, from what I understand, solar and wind provide about 1 percent to the grid as far as electricity goes.

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                MR. ROSSITER: Here in Pennsylvania. I'm sorry.
                 REPRESENTATIVE RAPP: But that's some of the
 2
 3
       hearings, I think---
 4
                MR. ROSSITER: Okay. I'm not sure.
                 REPRESENTATIVE RAPP: --- and it could be a little
 5
 6
      bit more, you know, today.
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                 So when we're looking at solar and we're looking
       at turbines, and people who are supportive of RGGI are also
 8
       usually promoting green space and all of that, but isn't
 9
       that going to take away, if they are looking to actually
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11
       contribute a whole lot more to the grid---
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                 MR. ROSSITER: Okay.
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                 REPRESENTATIVE RAPP: ---there's going to have to
14
      be a whole lot of landmass set aside on our hilltops for
15
      turbines and solar fields.
                 So being a mathematician, any projections on how
16
17
      much landmass it would take---
18
                 MR. ROSSITER: Sure.
19
                 REPRESENTATIVE RAPP: --- to bring that 1 percent
20
       up to even 50?
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                 MR. ROSSITER: Paul Driessen has done work on
22
      this with the actual mathematics. I think it was, you have
23
      to move everybody out of all the New England States,
24
      New York, and Pennsylvania and just put wind turbines
25
       there.
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But unfortunately, that is missing the point.

Even with the wind turbines there providing that, you would need a massive amount of batteries to store the power, and that is not, technology is not there yet. And so what do you do? What California does; what you do right now: You have to have the reliable energy that can be turned on in a heartbeat -- nuclear, hydro, gas, or coal.

And so the places that have done a lot of wind and solar, which is phenomenally expensive and uses a lot of fossil fuels anyway to construct it, they have to maintain their natural gas and coal-powered plants, their hydro, their nuclear, because you need that power or the grid, as you'll hear from more experts than me today in this testimony, will shut down and you won't be able to function. So you don't even replace. You have to have that other power, because it's intermittent. When the sun is not coming through and the wind is not blowing, you still need to have the power to make sure the lights are on, your hospitals are open, people are working.

It would be wonderful if the battery technology got there, but it seems to have stalled in the last 15 years to make any major contribution. Storing power overnight is a very tough technical problem, apparently.

REPRESENTATIVE RAPP: Thank you, sir.

Thank you, Mr. Chairman.

MAJORITY CHAIRMAN METCALFE: Thank you, Representative Rapp.

Rapp's district that stores power overnight, but they do it by pumping water up during the evening when energy prices are low into their reservoir that's on top of the mountain for use during the day, and then they allow the water to come out during the daytime and generate power. So they have created kind of a water battery, but it still takes power to push it up to the top, and not everybody has that mountaintop in their district that they can create that kind of a hydro-battery, so to speak.

MR. ROSSITER: Well, could I just make one quick comment on that before you move on to the others?

MAJORITY CHAIRMAN METCALFE: Sure.

MR. ROSSITER: I work mostly on African energy and how Africa could increase its reliable electricity.

Only one-third of households in Africa have electricity, and they are living very much like America in the 1890s, 1900. So people are dying, 3 million a year, the UN says, because of the burning of fuel in their house. So they burn wood, they burn dung in their house, and the respiratory problems.

You have to use creative solutions like this water pump that you're talking about. But to go from

1 little individual solutions in remote areas, both in Africa and in Pennsylvania, to a grid that keeps power and lights 2 3 on at the level our economy requires for full employment 4 and to make our goods attractive, you cannot do it with the 5 little things. You need to do it with the big things. 6 grid, the reliable power, has got to be there. 7 So I'm all for innovation, but in the meantime, our economy and our health -- our health -- requires 8 9 keeping the lights on. 10 MAJORITY CHAIRMAN METCALFE: Thank you very much. Thanks for making the trip here today. 11 12 MR. ROSSITER: Thank you, sir. 13 MAJORITY CHAIRMAN METCALFE: And we appreciate 14 you sharing your expertise with us today. It was a benefit 15 to myself and many others and will continue to be as we share this information with others outside of the Capitol. 16 17 Thank you, sir. MR. ROSSITER: Thank you, Chairman and Members. 18 19 MAJORITY CHAIRMAN METCALFE: Our next testifier 20 is Mr. Roger -- Caiazza? 21 MR. CAIAZZA: Caiazza. 22 MAJORITY CHAIRMAN METCALFE: --- Caiazza, retired 23 Air Pollution Meteorologist. 24 Thank you, sir, for joining us here today. I

believe you made the trip in from New York?

1 MR. CAIAZZA: Yes. 2 MAJORITY CHAIRMAN METCALFE: Thank you very much. 3 When he talked about replacing the population of New York and Pennsylvania with wind turbines, the only good 4 5 point I saw was getting rid of Governor Cuomo, who I 6 wouldn't have to hear on television any longer. 7 MR. CAIAZZA: No comment. MAJORITY CHAIRMAN METCALFE: He wouldn't be able 8 9 to be Governor of New York any longer. 10 But thank you, sir, for joining us. 11 appreciate you being here, and you can begin when you're 12 ready, sir. 13 MR. CAIAZZA: Good morning, Chairman Metcalfe, 14 Chairman Vitali, and Members of the Environmental Resources 15 and Energy Committee. My name is Roger Caiazza. I am a retired Air Pollution Meteorologist from Syracuse, 16 17 New York. I have been working with RGGI since 2004 when it 18 19 When I retired, I started a blog called 20 Pragmatic Environmentalist of New York, where I try to 21 explain the importance of balancing risk and benefits of 22 both sides of environmental issues. 23 I did a recent article on a presentation by the

Pennsylvania DEP entitled "RGGI 101 How it Works and How it

Benefits Pennsylvanians." That caught the attention of

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Chairman Metcalfe, and I was asked to testify at this hearing.

The opinions expressed in my testimony do not reflect the position of any of my previous employers or any other company I have been associated with. These comments are mine alone. I have no affiliation with any company in Pennsylvania.

Let's talk a little bit about carbon pricing in general.

I agree it's an attractive theory. It has been getting a lot of positive press lately. It works by charging sources for the tons of CO2 they emit. The theory is that by setting a price, the market will devise the least-cost approach to reduce CO2 emissions.

RGGI is a market-based variation where a cap is established, allowances are auctions, and the proceeds are invested. Proponents call this kind of variation "cap and dividend." I call it "cap and tax." I realize it's not officially a tax, but the way it works with the companies, it is for all intents and purposes a tax. The problem is that power plants do not have a lot of options to reduce CO2, and because they don't have a lot of options, they just add the cost of the RGGI allowances to their operating costs and treat it just like a tax, and as a result, ultimately, it's a regressive tax.

Proponents of RGGI claim it's a success. I look at it from the standpoint of, is it successfully reducing CO2, and in that context, I don't think it is as much of a success as is claimed. The Pennsylvania DEP webinar talked about a 45-percent reduction since 2005. The latest RGGI Investments of Proceeds report has a 50-percent reduction since 2005. But how much did RGGI actually contribute to those reductions?

What I did is I looked at the actual effect of RGGI using data from EPA. I used data from 2005 to 2019 from all the RGGI States and Pennsylvania. Something to keep in mind is that RGGI had the advantage of the EPA Clean Air Markets Division tracking system for emissions. So they didn't have to deal with any of that. All the emissions are completely available and transparent to anybody.

The result since 2005, or whatever baseline you want to use before RGGI to today, is very impressive.

CO2 is down at least a third across RGGI and Pennsylvania.

SO2 is down 95 percent. NOx mass is down 82 percent.

Load is down 12 percent. So the question is, why did it reduce?

When you look at the data sorted by primary fuel type, it's obvious that the reductions from coal and oil generating, which are the orange and gray segments of the

bars in the figure, have reduced the most over time. In the nine States of RGGI plus New Jersey, Virginia, and Pennsylvania, coal and oil emissions have dropped over 78 percent. In the nine-State RGGI, those States that have been in RGGI since it started, coal is down 93 percent, oil is down 84 percent.

So why did that occur? Fuel switching.

Obviously, they switched from coal and oil to natural gas, but why? Because it was cheaper. RGGI had very little to do with it, because the cost adder of the RGGI price relative to the total operating cost of the plants was small.

We're not talking about fuel switching just at facilities, we're also talking about displacing older units with more expensive fuels. There is no options where there is any indication that RGGI was a driver. However, you got to keep in mind that there's displacement of the fossil fuel by other State programs that subsidize renewable generation, which displaced the fossil plant operating.

When you look at what did RGGI actually do, because the market signal of the RGGI price is so small, the only thing I claim that you can account directly for RGGI is the results from investments they made with the auction proceeds. RGGI publishes an annual investment proceeds report. If you total up all the annual

investments, it's \$2.8 billion. Avoided CO2 emissions from all those investments is 3.1 million tons.

The pre-RGGI baseline to the last 3-year reduction was 98 million tons. Three-point-one million over 98.2 million tons is a 3.3-percent reduction as compared to the 50-percent reduction that was claimed by the auction proceeds report.

The other thing to keep in mind is the \$2.8 billion divided by the 3.1 million tons gives a cost per ton removed of \$898 a ton. That's very inefficient.

Something else that I think, and this is something New York has never done with all their climate change regulations, is calculate the effect on global warming that would be caused by the procedure, and what we're talking here is, if you join RGGI, what effect will that have on global warming?

I found a projection for the United States. I prorated those results by the Pennsylvania electric sector emissions. So we're assuming if we eliminate all the electric sector emissions, what will the reduction to global warming be. I found a reduction or a savings of approximately 0.0023-degrees Celsius by the year 2100. As a meteorologist, you'll never be able to measure that.

If you put that change in temperature in the context of changes with latitude and elevation, it would be

the same as a 9-inch change in elevation, or two-tenths of a mile change in latitude.

It's also important to put that in context.

According to the China Electricity Council, China has

75.9 gigawatts of new coal capacity completed within the

last year or under construction. If you assume that new

coal plants are as efficient as possible, reductions

provided by eliminating all Pennsylvania electric sector

emissions will be replaced by the new Chinese coal plants

in 153 days.

Pennsylvania has a really good story to tell with their emissions reductions. You have accomplished nearly as much without joining RGGI as the nine States that have been members from 2009 to 2019 in terms of maintaining fossil generation levels while reducing emissions, improving efficiency, and switching to cleaner fuels.

An important thing to keep in mind is that in 2019, there were a total of 77.9 million tons of CO2 emitted in the electric sector and 37.8 million tons were emitted from coal generation. It's very likely that the continued switch to cleaner fuels enabled by Pennsylvania's natural gas industry will reduce emissions further whether or not Pennsylvania joins the program.

In conclusion, despite the claims made by its proponents, upon close examination, RGGI is an inefficient

1 method for reducing CO2 emissions. Because they don't have choices to reduce CO2, the affected source is treated 2 3 simply as a tax. As a result, that means that the primary 4 impact to the public is a regressive tax. 5 Fuel switching to Marcellus shale created by 6 Pennsylvania's fracking revolution was the primary cause of 7 the observed decreases in emissions. Clearly, Pennsylvania has done more to reduce CO2 in the RGGI States than RGGI 8 9 itself, and that will continue. Whatever the cause, any 10 electric sector CO2 reductions will not have any measurable 11 effect on global warming with direct benefit to 12 Pennsylvanians. 13 I'll be happy to answer any questions. 14 MAJORITY CHAIRMAN METCALFE: Thank you, sir. 15 Representative Otten. Representative Vitali. 16 17 MINORITY CHAIRMAN VITALI: I'll defer to 18 Representative Krueger, if I could. I do have a question, 19 but if she wants to go first, that would be fine with me. 20 MAJORITY CHAIRMAN METCALFE: Representative 21 Krueger. 22 REPRESENTATIVE KRUEGER: Thank you so much for 23 joining us here today. 24 I've got a guestion for you about your testimony.

In your written testimony, you call RGGI a tax,

and yet, RGGI is a plan that requires coal and gas-powered plants to pay for their carbon pollution.

Now, I have got an MBA degree, and I'll never forget sitting in my finance class in the first year and learning about externalities. Externalities are costs that don't actually show up on a company's balance sheet because they're not responsible to pay for them, and yet, those externalities may be impacting other communities who are not benefiting directly from that company's transactions.

Who do you think is responsible for the externalities caused by the coal and gas companies here in Pennsylvania?

MR. CAIAZZA: Are you asking whether that's related to it being a tax?

REPRESENTATIVE KRUEGER: I'm asking, who should pay for that?

MR. CAIAZZA: I think there has to be a balance between, yes, there's negative impacts, but they also provide positive impacts, and if you're one of the people in Africa who doesn't have electricity, I think you would be willing to accept burning coal to get electricity so I didn't have to burn dung to heat and cook.

REPRESENTATIVE KRUEGER: I understand that.

Who do you think is responsible for paying for the negative impacts, as you just noted, here in

Pennsylvania?

MAJORITY CHAIRMAN METCALFE: I think he already answered the question. It's a matter of both sides of the equation. So maybe you could ask him a question about his testimony instead of creating a question that has nothing to do with his testimony.

REPRESENTATIVE KRUEGER: Well, I'm sorry,

Mr. Chairman, but he clearly said that he believed RGGI is
a tax. That has been part of the rhetoric we have heard

from folks who oppose RGGI---

MAJORITY CHAIRMAN METCALFE: Well, that was--REPRESENTATIVE KRUEGER: ---but RGGI is not
actually a tax.

MAJORITY CHAIRMAN METCALFE: Well, that was clearly cited by the attorney we had testify at the previous hearing, that based on previous court rulings and the way that this would work is that it is a tax that would be levied by the Governor through this RGGI scheme.

REPRESENTATIVE KRUEGER: Mr. Chairman, we have had hearing after hearing on RGGI. I think this is now the fourth one-sided hearing that you have called. We can't ignore the externalities.

We have studies happening right here in Pennsylvania right now about children who have higher cancer rates who live close to coal and gas plants.

1 Someone needs to be responsible for that. Who is 2 responsible for the externalities of this industry? 3 MAJORITY CHAIRMAN METCALFE: I'm just glad that our families don't have to burn dung to cook their food, 5 because I think we would have a lot more asthma and a lot 6 more issues going on than what you are trying to create, 7 this illusion that it's actually some kind of negative 8 impact, because we actually have a country where we 9 actually produce energy to make the lives of our citizens 10 much better. 11 REPRESENTATIVE KRUEGER: Mr. Chairman, I have 12 asthma and so does my son, and there's a higher rate of asthma in families who live close to these industries. 13 14 Someone needs to be responsible. 15 MAJORITY CHAIRMAN METCALFE: Great. And we'll 16 argue about that more in the future, but in the meantime, 17 we're going to move on to---18 MR. CAIAZZA: Can I address that? 19 There's this concept---20 MAJORITY CHAIRMAN METCALFE: Do you have an 21 answer, a further answer for her question? 22 MR. CAIAZZA: Yes. 23 There's this concept that the local effects of 24 power plants are having these negative externalities, and

then they go back to because of inhalable particulates in

1 ozone. The problem is, those are secondary pollutants, and by the time ozone and inhalable particulates are created 2 3 from the emissions from your adjacent power plant, they have moved downwind. It's not the local power plants. 5 The 95-percent reduction we have seen in SO2 has 6 made a huge impact on the inhalable particulate levels 7 across the Northeast. Now, if you can show me where we have seen the benefits of those reductions in regional 8 9 inhalable particulates, I'll have more confidence that the 10 local impacts have any effect whatsoever. 11 REPRESENTATIVE KRUEGER: Moms Clean Air Force has 12 come out with research that shows that children living 13 close to fracking sites are more impacted. 14 MR. CAIAZZA: That's not a power plant. 15 REPRESENTATIVE KRUEGER: No, but it's directly 16 tied to this industry. 17 I think we still need to answer the question, who 18 is responsible? I thank you for your testimony today. 19 MR. CAIAZZA: You're welcome. 20 MAJORITY CHAIRMAN METCALFE: Our next question 21 will be from Representative Dush. 22 REPRESENTATIVE DUSH: Thank you, Chairman. 23 Can you discuss further how large a portion of

the emissions reductions that the RGGI States point to

actually had nothing to do with RGGI itself?

24

Or, one of the things that I'm looking at this slide and what you wrapped up your testimony with, we are an exporter, and New York being part of RGGI, they're an importer. How much of that additional on the RGGI States come from States like Pennsylvania importing some of that reduced NOx into their State?

We are not a part of RGGI right now. We're importing electricity to them, but their reduction levels are partly generated because of what Pennsylvania is doing, simply because we are producing natural gas and electricity and sending it.

MR. CAIAZZA: I think the major reason that New York has made the reductions they have made is because of switching to natural gas.

I worked for a power company in Upstate New York that had two coal-fired power plants. They put on every control option they could. They met every current and future pollution limits that they had. They went out of business because they couldn't compete with natural gas.

So when I say that your actions have done more to reduce CO2 than RGGI, it's because of your natural gas and the fracking that produced the cheaper gas.

Did I answer your question?

REPRESENTATIVE DUSH: Yes.

And if you don't mind, can you talk more about

the discussion of the social cost of carbon and how, and even if you were looking to address this issue, how would RGGI particularly be effective or ineffective in dealing with this?

MR. CAIAZZA: Well, the social cost of carbon is a parameter that they used to try to calculate the negative externalities of carbon. It's a long, convoluted process. It includes trying to figure out costs going out 300 years, so I'm a little reluctant to take it very seriously. But the bottom line for your question is, the current value of the social cost of carbon from the interagency working group with a 3-percent discount rate, and there was another condition I can't remember, is \$50.

Remember that the RGGI cost based on their investments and with the CO2 reductions they are getting is \$898. So it's a quarter of a magnitude more than the social cost of carbon.

MAJORITY CHAIRMAN METCALFE: Thank you. Thank you, Representative Dush.

Representative Vitali.

MINORITY CHAIRMAN VITALI: Mr. Chairman, I know that Representative Friel Otten has a question.

MAJORITY CHAIRMAN METCALFE: Well, I tried calling on her before. Does she have a question this time?

1 Representative Otten. 2 REPRESENTATIVE OTTEN: Thank you. 3 MINORITY CHAIRMAN VITALI: Thank you. REPRESENTATIVE OTTEN: Thank you, Mr. Chairman. 5 Okay. So I have just a couple of quick questions. 6 7 You just mentioned that the benefit to Pennsylvania of not being part of this coalition is that we 8 9 are importing energy to the States that are a part of the 10 coalition. Do you have an assessment of what the increased 11 external cost to Pennsylvanians would be based on that 12 increased importing? 13 So we're not just producing energy for ourselves 14 here in Pennsylvania. According to your testimony, we're 15 producing energy for other States, and so therefore, 16 Pennsylvanians are taking on the external consequences on 17 cost for that in their public health and safety. Can you 18 speak to that? 19 MR. CAIAZZA: I'm sorry I wasn't very clear. 20 What you're referring to is leakage, where 21 reductions, instead of the CO2 reductions being made inside 22 of the RGGI States, it just gets transported over to 23 Pennsylvania---24 REPRESENTATIVE OTTEN: Right. 25 MR. CAIAZZA: ---and you suffer the consequences.

According to RGGI, there hasn't been much leakage, and if I gave you the impression that I thought that there was a lot of increased emissions in Pennsylvania because we were importing it, I didn't mean to say that.

What you have done is you have provided us with the natural gas and brought that into the State, and that has displaced internal generation, not using your generation.

REPRESENTATIVE OTTEN: Can you explain that in layman's terms? So, like---

MR. CAIAZZA: I'm sorry.

REPRESENTATIVE OTTEN: I'm sorry. It's just not making a whole lot of sense to me.

MR. CAIAZZA: So if a coal plant in Pennsylvania

-- the bottom line is, when you send natural gas to

New York, it's cheaper than a coal-fired power plant in

Pennsylvania, so that wouldn't run more than it does

normally just to provide load to New York.

REPRESENTATIVE OTTEN: So you're saying that the people who live near fracking to extract natural gas, who are experiencing higher rates of cancer, higher rates of all kinds of pollution-induced illnesses, as a result of that activity, they are not having an increased burden because Pennsylvania is exporting that product to other States who are working to reduce their externalities and

1 | their air, water, and pollution control.

2 MR. CAIAZZA: I'm not sure if I can answer that appropriately.

I think on the whole, if you balance all the costs, positive and negative, fracking has been a positive.

REPRESENTATIVE OTTEN: Can you explain to me what all the costs are that you are talking about?

MR. CAIAZZA: Well, you are claiming all these local impacts. I have seen studies that dismiss those as not necessary or not accurate. And if you look at the numbers that I was showing, those total reductions across, you have reduced particulate matter and you have reduced ozone. That has huge health impacts -- allegedly. And if you take those on the whole, I think they are greater than the local impacts.

REPRESENTATIVE OTTEN: So I personally experienced some of the local impacts this weekend. I actually was with a constituent who does not have a contract with the energy company that is expanding in our community. They have not signed an easement. They have not, they have not been paid by the energy company or benefited in any way, and their entire backyard has turned into a swamp because of water being displaced from construction for pipelines to transport energy outside of Pennsylvania.

So when you talk about the cost and the impacts from the perspective of simply air particulate matter, that's not the complete cost and impact to our local communities. And as we become an exporter of this product to other States and other countries, that local impact expands across the entire Commonwealth. Beyond just simple fracking sites or coal mines, now we have impacts to our roads. We have impacts to our streams and waterways across 350 miles of Pennsylvania. We have impacts to schoolyards, playgrounds, libraries, major roadways that are opening up with dozens of sinkholes near valve stations.

So I think when you talk about the costs and you don't include the cumulative costs, not just to the public but also to private property owners who are just in the wake of all of this, I think that's an inaccurate representation of the conversation.

MR. CAIAZZA: I should have clarified, I am an air pollution meteorologist. I am only talking about air pollution.

REPRESENTATIVE OTTEN: Okay.

MR. CAIAZZA: I can't speak to---

REPRESENTATIVE OTTEN: So you can't speak to the full costs.

MR. CAIAZZA: Correct.

REPRESENTATIVE OTTEN: Thank you so much. I

1 appreciate that.

MAJORITY CHAIRMAN METCALFE: Interesting testimony given by a colleague.

I come from an area that has a lot of fracking, and I think the supermajority of my constituents that have leases and that live close to the fracking operations would passionately dispute a lot of the statements that were just made by my colleague from the southeast that doesn't have the fracking. But I actually live where it's occurring, and I think fracking has been a great benefit to our area, our State, and our nation for energy independence, so.

We are out of time for questions from this witness. Anybody that wanted to still question will be moved down the list for the next testifier.

Thank you, sir, for joining us. Thanks for making the trip from New York. We appreciate it.

MR. CAIAZZA: You're welcome.

MAJORITY CHAIRMAN METCALFE: And I grew up in the Baldwinsville area, so not too far from where you worked, so.

Have a good day, sir. Thank you for joining us, and have a safe journey home.

Our next testifier will be Mr. Walter Schroth.

He is owner of Schroth Industries, Inc. He is a member of
the Pennsylvania Small Business Compliance Advisory

1 Committee.

2 Thank you, sir, for joining us today.

MR. SCHROTH: Thank you, Chairman. It's a pleasure to be here.

MAJORITY CHAIRMAN METCALFE: And you can begin whenever you're ready, sir.

MR. SCHROTH: Good morning, everyone.

I want to thank you for the opportunity to speak today on the impacts RGGI will have on small business.

I am the third generation of a small forest and wood products company. Schroth Industries, Inc., can trace its roots back to when my grandfather started cutting mine props in 1929 for the local coal mines.

My father set up the wood-treating plant in 1970 to meet the increasing needs for treated timber used in the mines that were established in the 1960s to supply the mine-mouth-fed, coal-fired power plants here in Indiana County. They are the Keystone, Conemaugh, and Homer City Generating Stations.

I continue to operate that treating plant, supplying Rosebud Mining Company with their treated mine timber needs. Seventy to seventy-five percent of our annual revenues come from Rosebud. Schroth Industries employs four full-time employees and two part-time office workers.

I currently buy my raw, untreated wood directly from two small, one medium, and four large local sawmills. They are, to a greater or lesser degree, dependent on my purchases for their survival. While my purchases do not consume 100 percent of their production, should Schroth Industries, Inc., not survive, at least one or perhaps three of those sawmills would not survive either.

In addition, we support three maintenance facilities, a plumbing supply house, an auto parts store, a local paint store, a small community bank, a fuel and oil dealer, an independent accounting firm, and we purchase our preservatives from a subsidiary of the Koppers Corporation headquartered in Pittsburgh. Our capitalist economic system has created an intricate interlocking web, connecting small, independent family-owned businesses. When you break that chain, it affects everyone in the chain.

As a member of the DEP's Small Business

Compliance Advisory Committee, I, with the entire

committee, have been briefed on the RGGI tax proposal by

the Department. I used the term "tax," because at the end

of the first briefing, that was my immediate reaction to

what was presented.

A fee is something you pay with the expectation that you will get something directly in return. A tax is

something you pay to the government entity with no expectation of getting anything directly in return. With the RGGI proposal's failure to significantly change the global trajectory of greenhouse gas emissions, there is no realistic expectation of achieving the environmental improvements touted in the proposal.

During the Small Business Compliance Advisory virtual meeting on July 22nd, a Department representative gave the third presentation to the SBCAC prior to the committee taking the vote. I, along with three other business owners or business representatives, voted "no" in a 3-4 vote in moving the proposal forward. I voted "no" for three reasons.

First, the proposed RGGI regulations were not ready for presentation to the Small Business Compliance Advisory Committee, as there was no information presented on the impact those regulations would have on small businesses that weren't actual power generators. When challenged as to where the information was, the DEP's representative explained that they were in discussions with the DCED and had not yet determined the impacts.

It seemed incredulous to me that while we as representatives of the small businesses of the Commonwealth were being asked to approve a new program that would impact those businesses, there was no information presented on the

impacts that it would have on them.

Second, the proposed regulations did not actually solve the problem. As has been previously presented to this Committee, within 10 years, the CO2 levels will essentially return to current levels. Also, like we have already seen the shuttering of other fossil fuel-fired power plants, in the earlier RGGI States, which individually saw a reduction in CO2, the demand for inexpensive power was not abated, nor more importantly, was not replaced by greener sources, but rather it was transferred to other States such as Pennsylvania.

Manufacturing, one of the largest engines for creating true economic wealth, views inexpensive energy as existential. In short, if you don't have a source of stable, inexpensive energy, you don't have manufacturing.

I simply could not support a proposed regulation that would shut down businesses in Pennsylvania and transfer their product lines to plants in Ohio or West Virginia where those States would continue to produce fossil fuel-powered electricity, selling it back into Pennsylvania.

Third, the negative impact that the loss of better paying jobs and the shuttering of fossil fuel-fired plants would have on local school districts. As the president of the Indiana Area School Board of Directors, I

can tell you that our district like the 499 other districts in the Commonwealth have been pummeled and continue to be pummeled by the impacts of the COVID pandemic. The loss of tax revenue due to the shuttering of an electric generating plant would be disastrous. It would threaten their very survival. The closing of the three coal-fired power plants located in or bordering Indiana County -- Homer City, Keystone, and Conemaugh -- would devastate the Homer-Center, United, and Armstrong School Districts.

As an example, Homer City School District receives \$710,000 from the Homer City Plant in property tax revenue, representing 12 percent of their tax base. It also receives \$30,000 in direct EIT from those power plant employees that live within that district. The \$740,000 total revenue reduction equates to a 10-percent reduction in the total number of teachers employed by the Homer City School District. They also have \$38 million in long-term debt.

We would see something very similar with

United School District at 110,000 in direct annual
revenues, while holding \$19 million in long-term debt.

None of these figures include the impacts on the school
districts from small businesses that support the power
plants and their employees that live within the districts
that will decline, lay off, and/or go out of business

because of the impacts of RGGI.

This would be true for any school district that houses a fossil fuel-powered plant. Remember, Indiana

County is a very rural area. Those high-paying jobs cannot be easily replaced.

But what happens when Homer City School District, which adjoins Indiana School District to the south, closes its doors because it can no longer pay its bills? Then what? Will PDE take over the district? History shows us that we want to think of this as the stewards rearranging the deck chairs on the Titanic after it hit the iceberg. Will you force a merger with Indiana School District? Who will pay their long \$38 million debt? The Indiana taxpayers? I don't think so.

The consolidation would necessitate the closing of one or more buildings between the consolidated districts and triggering a reconfiguration of that "new" district.

Again, who will pay for that? The Indiana School District taxpayers? The Commonwealth? PlanCon? The same questions apply to United. I do not believe that anyone has considered these unintended consequences, or are these costs part of the overall calculation made in RGGI?

My wife and I are at retirement age. I turned 69 this past April. We only had one child. Our son is a graduate of the University of Idaho with a BS in wildland

fire ecology and management. He sort of followed in my footsteps, as I have a bachelor of science degree in forest management and worked in my younger days as a land management forester. He and his wife currently work for our company, as they intend to succeed us and continue to operate the wood-treating plant.

Without the income from the coal mines, the real question for me is whether I will have a viable business to turn over to them. He's a sharp guy. He has got real strong work ethic. But more importantly, his critical thinking skills, which we so desperately need in our society, are highly developed. In short, he is an excellent problem solver and is capable of running the company and operating the company now, or for that matter, someone else's.

With all the current uncertainties that we all are facing, and now this existential threat from RGGI, we have delayed our retirement, as I can no longer assure my son that he will have that viable business. The tragedy is Pennsylvania is losing its younger generations. If Schroth Industries fails to survive, our son and his young family will move West, as there is little work for a wildland fire ecologist in Pennsylvania.

I will sell, or more likely, scrap out the business, ending the work of three generations and sell our

holdings here, and my wife and I will move wherever he lives to be close to our grandson and, hopefully, his future siblings.

Thank you.

5 MAJORITY CHAIRMAN METCALFE: Thank you,

Mr. Schroth.

Representative Sankey for our first question.

REPRESENTATIVE SANKEY: Thanks, Walter.

I'm from Clearfield County, so kind of a neighbor. Your story is very telling. We have very same dynamics in our school districts, and we can't afford to lose anybody.

So my question is, and it's more of a businessman is the answer I'm looking for, what's your sense of how Pennsylvania families and businesses will be affected if they have to absorb an additional, what, \$2 billion in higher electricity costs over the next year, the next couple of years, specifically during this economic and health pandemic?

MR. SCHROTH: That's an excellent question. But that was essentially the question that I was asking the DEP representative who could not answer the question, because that's exactly the thing that we need to know. Where are the longitudinal studies that have said or are going to say we're going to lose so many businesses and you are going to

lose so many employees and their cost of their energy is going to go up by a certain amount? And those businesses that are working on the margin are not going to survive who can't pass those increased costs on to their customers.

So I can't answer your question, because the data right now that we should have received prior to RGGI coming formally for a vote at the Small Business Compliance Committee was not there. I'm sorry; I---

MAJORITY CHAIRMAN METCALFE: Thank you, Representative Sankey.

Representative James.

REPRESENTATIVE JAMES: Thank you, Mr. Chairman.

Mr. Schroth, thank you for your testimony today.

I would like to just add on to Representative Sankey's question, if I may.

Now, you are an experienced businessman. Your family has been in business there for three generations, and you have hopefully a fourth generation coming. From day one here, I have been a proponent of business, especially small business, so my concern is, and if you would kind of run this out locally at your own level. My concern is that if the State engages in the RGGI situation, what will be the effects down the line on small businesses, say where you live, or across the State?

MR. SCHROTH: So when I mentioned that we

supported, you know, a local bank, three maintenance facilities, and that sort of thing, a lot of those same folks that are helping to keep Schroth Industries going that are necessary are also necessary to keep the local power plants going. They are also necessary to help keep the coal mines going.

There is one particular organization that comes to mind that builds little mine cars for the coal mines. They also do repair work on the boilers in the power plants, and they help keep my equipment running as well. So it will be a near disaster for that particular company.

Okay. Again, I mean, if we shut down and we move out, okay, then if one of those other sawmills shuts down — okay? — and they're not necessarily directly located right beside me, they're anywhere in Somerset, Cambria, and Indiana Counties, it will impact those counties as well. So there is, again, that interlocking web that I mentioned, when you break that chain.

You know, essentially what we have done here is we have built a small economy around these power plants, which includes the coal, which includes the timber, which includes the people who make the mine bolts, which includes the people who repair and rebuild these power plants, and when we break that economic system, it has, you know, a tidal wave or a tsunami, as I guess is more the current

terminology, on the impacts of every small business in that community where these plants are located.

REPRESENTATIVE JAMES: I agree with that.

I don't want to say nothing is more important to a man or a woman than a good essential job. All jobs are essential. They always have been, from the beginning.

When we talk about knocking down businesses and closing doors, we're talking about putting people, human beings, out of work. That's a bad situation all the way around.

MR. SCHROTH: To follow up, to follow up on your question, and I know this is not directly related with the RGGI, but the other big economic driver in Indiana, Pennsylvania, is Indiana University of Pennsylvania, IUP. This COVID has absolutely caused that university to make some very dramatic changes, as we've seen all over the State. I believe their current plans are only to bring back the freshman class and maybe a couple of other individual groups. Typically, they have around 11,000 students. Okay, if there's only going to be 3,000 students come back into our community, what did that do to the local businesses, and now you compound it with what's going to happen from RGGI.

In Indiana County like Clearfield and some of the others in the surrounding area have always been energy producers, including natural gas. The shallow fields of

1 natural gas have been around since the 1920s or 1930s, and 2 fracking of natural gas in Indiana County has been around since the 1960s or 1970s for the shallow fields. Now you 3 4 want to shut all this down, plus shut down the other big 5 economic driver that we have because of the COVID? 6 real concern that the community has is that it will become 7 a ghost town. 8 REPRESENTATIVE JAMES: I'm with you. 9 Thank you, Mr. Chairman. 10 MAJORITY CHAIRMAN METCALFE: Thank you, 11 Representative James.

Representative Schemel.

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REPRESENTATIVE SCHEMEL: Thank you, Mr. Chair.

Mr. Schroth, I'm here behind the podium. Thanks for your testimony.

MR. SCHROTH: Oh, okay. Okay; I'll lean back a little bit so I can see you.

REPRESENTATIVE SCHEMEL: Thanks.

So much of public policy is a balancing or a weighing of goods, and you're not a scientist. We heard from two scientists earlier in their testimony, and in their testimony they stated that the benefits of joining RGGI from a climate perspective are negligible at best. So on one end of that balanced scale, you have whatever those perceived or actual benefits may be.

You are a businessman, however. You're not here to testify as to climate science, but you're here to testify as to the real impact of RGGI upon your community. So you're saying in your community the impact of RGGI will be incredibly damaging to your business, to the business of so many others. So on that end of the scale, you are saying RGGI has a significantly negative impact. Is that correct?

MR. SCHROTH: That's absolutely correct, sir.

REPRESENTATIVE SCHEMEL: Yeah. Thank you,

Mr. Schroth.

And in addition, like my colleague from Delaware County, I also have an MBA. And I remember learning about external costs, but there are actual costs as well. And if you have something, a cost that is placed upon your business for which you have no benefit -- it's not like a new piece of equipment that is going to generate higher efficiency; it's just a cost, let's say the cost of a carbon fee -- what do you do with costs? When you have a new cost in your business, how do you make the payment for that cost? Where does the money come from?

MR. SCHROTH: The fallacy is, and when you talk about demand and whether it's elastic or inelastic, the problem is that you assume that just because my costs go up as a businessman that I can pass those costs on to my

customers, and that's not necessarily the case. Markets can be so competitive that you can't pass those costs on. And while maybe a higher electric bill isn't what actually causes the business to go out of business, because of that direct impact, it may be the straw that broke the camel's back when added to the other costs that a business might see that it has no control over.

So yes, it can have a very devastating impact on a small business, because you can't always just raise your price in order to recover that cost.

REPRESENTATIVE SCHEMEL: Thank you. So the cost to a business is then going to be borne out in employees. It's going to be borne by employees who may or may not have jobs, business owners that may or may not have businesses. Those are real costs as compared, once again, to the balance where we look at negligible benefits.

Thank you very much for your testimony.

MR. SCHROTH: Just to follow up on that, that was the point I was trying to make with the Homer City School District. You're looking at a 10-percent reduction of its teachers, but that also equates to a reduction in their programs, a reduction in the options. We all want rich education for our children, and it's critical if this Commonwealth is really to thrive. I could spend an hour here talking about this, but I won't.

But the point is that to lay those teachers off because we don't have the money to pay for them is going to hurt that school district to a point where it will have to make a choice that it doesn't want to.

5 MAJORITY CHAIRMAN METCALFE: Thank you, 6 Representative Schemel.

Representative Vitali.

MINORITY CHAIRMAN VITALI: Thank you,

Mr. Chairman.

I'm certainly sympathetic towards the loss of coal jobs and coal-related jobs. And I have seen, as you have over the years with the advent of natural gas, it's enormous supply, it's low price, coal mine after coal mine operator, or coal plant after coal plant closing down.

I mean, the reality is that natural gas's rise is killing coal. It is causing coal plants to close down.

About 90 percent of the closures are due to natural gas.

It just can't compete. And the studies I have shown indicate that coal plants will continue to close regardless of RGGI. They may even be closed, continue to close before RGGI is scheduled to start in 2020. Closing coal plants just seems to be an inevitable economic consequence of market forces at work.

My question to you is, Senator Costa recently introduced Senate Bill 15, which would divert perhaps,

well, not perhaps, but would divert 35 percent of perhaps \$300 million in revenues from RGGI to support communities such as yours, such as your school district, because they have been transitioned out of employment -- coal communities like yours.

So my first question is, would you support a bill like Senate Bill 15 that would use RGGI proceeds to support communities just like yours?

MR. SCHROTH: So first of all, Mr. Chairman, I recognize that coal is in a competitive disadvantage at this point. One of the issues, of course, is whether it is allowed to die its natural death, which then gives me as a business the opportunity to change and reconfigure my business, or whether, as I understand it in the RGGI rules, by the end of 2022, which is like 2 years from now, those coal-fired power plants will essentially be regulated out of business. That's not time enough to make, to make those changes.

The problem that I have with your suggestion, and I certainly welcome any support that the Legislature and the Governor can do to help those communities that are drastically impacted by these changes that are coming. The problem I have with that is that it is not always -- the money doesn't always go to the right people. It doesn't always have the desired effect that you want it to have.

And God forbid that I would mention the word "politics" in this room, but there are political forces, when those dollars become available, that somehow they don't get to the communities that are needed. They wind up in the communities where the political power directs them to be.

So I certainly would support any legislation that would help these communities. I'm not familiar with Senate Bill 15 so I can't comment on it specifically, but if you do put together a program like that, you need to be able to help businesses make that transition.

And one of the interesting things, I have looked at different State and Federal grants from a number of different perspectives.

MINORITY CHAIRMAN VITALI: Mm-hmm.

MR. SCHROTH: One of the things that always seems to be in those grant funds are moneys to help with training, is moneys to help with maybe a new website. It's moneys to help with some of these soft costs. I'm a manufacturer, also. Are you going to have money in there, particularly if it's grant money, that's going to help me make the transition, to buy the equipment that I might need to transition into this new product?

Let me give you an example. We have started to develop a polyurea barrier coating, and they have done this successfully on the West Coast. We see this as a great

environmental advantage, because when you put this polyurea coating on a marine piling, you prevent or drastically reduce the amount of migration you get from the chemical or the preservative out into the environment, okay? I actually had IUP doing a study on this for me as far as its efficacy, okay?

MINORITY CHAIRMAN VITALI: But that may be getting a little far afield of my question here.

MR. SCHROTH: Well, no, sir. My---

MINORITY CHAIRMAN VITALI: But I do want to, I do want to -- you know, I asked the question, and I think you may have answered it a while ago. So to be clear, you do concede coal is on its way out. And I'm just curious as to why this money, transitional money which so many people call for for your communities, is not something you seem to be supportive of. But I'm going to just put that aside for a second, and I just want to correct something that you have said.

MAJORITY CHAIRMAN METCALFE: Representative

Vitali, your questioning, your whole line is totally
inappropriate. To ask a testifier about a bill that they
have no idea about, that I didn't know about, because it's
one of your pet projects over in the Senate possibly, but
to do that, and then to criticize a testifier for not being
able to answer your question in an affirmative way that

satisfies you is totally inappropriate. So if you could

get---

MINORITY CHAIRMAN VITALI: He was getting into something like polystyrene and everything---

MAJORITY CHAIRMAN METCALFE: Why don't you, why don't you---

MINORITY CHAIRMAN VITALI: ---when the question really was---

MAJORITY CHAIRMAN METCALFE: Representative

Vitali, Representative Vitali, you started the hearing by

apologizing for your hollering at one of our previous

testifiers at the last hearing. And I appreciated your

apology, but let's remember the sentiment that hopefully

drove your apology and not go down that wrong path again.

So please ask a question of the testifier so we can move

on. Thank you.

MINORITY CHAIRMAN VITALI: Okay.

So I wanted to make the point, at the hearing you testified and referred to in your testimony, and I wanted to make it clear, that Hayley Book presented DEP's estimate that only 10 small business sources may have compliance obligations under RGGI. There also, the point is also that with regard to RGGI, DEP has set aside 9.3 million allowances for waste coal facilities each year to reduce their impact. And Hayley Book also said that because of

this \$300 million that can be used in part for these small businesses, small businesses would likely have a minimal or overall positive impact from the RGGI regulation.

MR. SCHROTH: I would disagree with that.

I would also disagree with the comment that Ms. Book's referral about the 10 businesses, as I recall it, she was referring to the classification of various power generating facilities and that 10 of those would qualify as a small business. That's not the kind of small business impact that I am concerned with or that our community is concerned with. It's all of the other interlocking companies and the impact it will have on them, sir.

MINORITY CHAIRMAN VITALI: And you are aware that during the RGGI process, and these regulations have yet to be introduced, cost-benefit analyses need to be studied and input of communities are heard in the public comment process.

MR. SCHROTH: Yes, sir. But my point was in my testimony that you need to come to -- if you're going to take it to one of these citizens advisory committees, you need to have your ducks in a line. You need to be able to tell me as a small businessman, these are going to be the impacts before you ask me to vote and move it forward.

1 That was what we're asking.

MINORITY CHAIRMAN VITALI: Yeah. Well, the regulatory process is a fairly lengthy 2-year process once it's introduced. There is adequate opportunity for public input and adjustment.

MAJORITY CHAIRMAN METCALFE: Representative Dush for our final question, please.

REPRESENTATIVE DUSH: Thanks.

Walter, thanks for the jobs you are taking care of and supporting in my area of Indiana County and even up into Jefferson County.

You know, there was a study done years ago from 2000 to 2015 that per capita income dropped 85 bucks, and in my district, it's 1143. You guys in the coalfields are the ones that prevented it from becoming an ultimate disaster.

The fact that the department did not have that information to provide to you going into, and looking broadly, because you have several different people that are supplying you. Cliff Forrest with Rosebud has probably a thousand or so suppliers in that chain somehow. The same thing goes for every one of those coal-fired plants.

Did they give you any indication as to why they came totally unprepared to that meeting and asked you, or what was their cause or why they hadn't held up that

meeting to ask you for that compliance or that agreement beforehand?

MR. SCHROTH: No, sir, they did not give us any indication. As I said in the testimony, they had indicated that they were still in discussions with the DCED and they would have those answers for us at a later time. But they did not tell us why, why they didn't have them ready at that point.

REPRESENTATIVE DUSH: Well, I'm telling you right now, there are going to be machinists, there are going to be so many other businesses that are impacted by this that supply those industries.

MR. SCHROTH: The only thing in this -- it's pure speculation on my part -- is that I believe they are on such a tight timeline to get this done in the prescribed period of time that any delay without meeting, as the Co-Chairman there indicated, you know, this process would actually, you know, slow down that process, even though they weren't ready for it.

REPRESENTATIVE DUSH: And you touched on it as well: This is coming down from one person's decision, the Governor, without any consideration for the impacts it's going to have on the daily lives of so many millions of people in Pennsylvania, from the consumers to the people that are involved in the industry.

1 This is not the way this republic was set up. were meant to have anything that has the force of law 2 3 compelling you out of business, anything that has that kind 4 of force of law, that is to be brought before the 5 legislative process in a deliberative manner. That has not 6 happened. 7 Thank you. MR. SCHROTH: I understand. 8 9 Is there anything else, Mr. Chairman? 10 MAJORITY CHAIRMAN METCALFE: Thank you, sir, for 11 joining us today. Thank you for sharing your business 12 expertise with us. We appreciate you sharing it. It was 13 beneficial to myself. 14 I know many others and I were emotionally 15 impacted by your testimony, thinking about all the people that will be ultimately impacted if this would move forward 16 17 in the fashion that it's designed. 18 MR. SCHROTH: Well, I appreciate the opportunity 19 to have---20 MAJORITY CHAIRMAN METCALFE: Thank you. 21 MR. SCHROTH: ---spent this morning with you 22 Thank you, sir. folks. 23 MAJORITY CHAIRMAN METCALFE: Have a good day. 24 Drive safe back to Indiana County.

MR. SCHROTH: I will do that.

MAJORITY CHAIRMAN METCALFE: Our next testifier will be County Commissioner Blair Zimmerman from Greene County. And thank you, Commissioner, for making the trip to Harrisburg today.

COMMISSIONER ZIMMERMAN: Thanks to you.

MAJORITY CHAIRMAN METCALFE: Especially how things kind of came together late in the week last week for you to join us, so we do appreciate you making time to be here today.

COMMISSIONER ZIMMERMAN: You bet.

And I recognize that my State Rep, Pam Snyder, isn't here today. I did have some conversation, but I do appreciate what she does for me as Commissioner and here at the State.

MAJORITY CHAIRMAN METCALFE: Representative

Snyder would have liked to have been here, and I do have a statement that she gave to me that I will give to you after you are done presenting your testimony in a timely manner there. But I know she would have hoped to have been here but had a conflict that was preventing her from being here today.

COMMISSIONER ZIMMERMAN: Well, you guys are going to love me because I'm going to be brief. This was put together rather quickly.

I am an expert in the coal industry. I worked in

it for 41 years. I worked in the process that cleaned the coal after it came out from the mine, so I'm well aware of what happens in the coal process.

Again, for you that don't know -- Greene County is in the southwest corner; you should -- but we're the OPEC of the world. We're the OPEC of the United States. We are an energy county. We are gas and coal.

And I would like to say we have something else there. We have State prison, thanks to Representative DeWeese back in the day. But, you know, the people that provide us with funding and keep us going is the coal industry.

The gas industry is, you know, slowed up right now. Again, I referred to OPEC. You know, they're not getting the money for the gas right now, so the production is way down.

But currently, our top 10 taxpayers in Greene

County are Consol Energy at almost 251 million; Contura,

the company I used to work for, at 144 million; Murray at

46; and Triple-A Mining at almost 20 million. Again, those

are our big taxpayers and employers. Number 10 on that

list is Walmart.

So again, I got three children and I have three grandchildren. I put my kids through college. My son works for KPMG. He lives in Washington, DC. My other son

works for a university, an admissions director. And my daughter, by choice, has two degrees. She graduated from Penn State and is a stay-at-home mom with her three grandchildren -- my grandchildren. But this would have never happened on a Walmart salary. It can't happen.

You know, as a County Commissioner, I know what you know, maybe more, because I'm down in the grass, down in the grassroots of what goes on, and, you know, I see people that need help every day. People can't make it on a Walmart salary and, you know, live the American dream.

So again, I'm telling you that the coal industry and the gas industry, again, the gas industry is relatively new. Prior to being Commissioner, I was Mayor of Waynesburg, and yeah, I did have some issues early on, some of the trucks going through town on roads they shouldn't have been. But we worked through that, and again, they made a big change in our region as far as traffic and as far as the environmental stuff.

Again, I think back in the day. Our Federal Government years ago looked at the coal industry and said, you know, we've got to be green. We're looking at solar; we're looking at wind. And the money that they spent all went to the other energies, wind and solar. The gas industry was left behind the door.

There are a lot of technologies that can help the

gas industry. We see that in the power plants. Some are being used. Something that I was aware of in the coal industry, what probably got as much attention as the air pollution was water pollution. And in my time before I left and became Commissioner, they were in the process of coming up with new ideas, which they did, which was reverse osmosis. That water discharge from impoundments -- an impoundment is the refuse after the coal is cleaned and stored in the slurry, the liquid from underground in the mining and the prep plant -- was discharged into streams. Now, it was treated, but it wasn't treated really well. Let's be honest.

So they went to reverse osmosis. They worked on that. That added an additional \$4 per ton to coal, but they knew that was the best way to go. And they actually, talking to some of the engineers and experts, had to add bacteria to the water, you know, to be able to discharge, it was that clean. Probably cleaner than, I noticed some folks had some water up there, cleaner than the water they were drinking.

But again, the coal industry is so important in my region and I think for this country. Consol Energy, they have around 1800 employees. Cumberland has about 700, and there's a few others, so let's say 2500 more people.

So every coal miner, and I know I read some facts from some

of the other statements from previous meetings. It said there were about two. But the numbers I got from my former economic development director, and maybe not counting retirees, was about four people for every coal miner. In a county of 36,000, that's over 10,000 people that are employed or affected by the coal industry.

So if the coal industry fails, the gas industry fails, who is going to pay for that? Who is going to pay for my county and help us? It should have been looked at maybe 50 years ago, but everybody up here is going to pay for that, because we're not going to exist.

We have been working with our neighbors in West Virginia and Morgantown where WVU is, trying to get some industry in our region, but most of our industry is coal related. Machine shops, lumber yards, the service industry, they're going because of the coal industry.

I'm a retiree, so I go to the doctor a fair amount, and again, I wanted to touch on a couple of things that were said earlier.

As Commissioner, you know, we talked a little bit, someone mentioned nuclear. Well, probably 6 years ago -- I actually took Pam Snyder's place when she stepped up here to the House. I went from Mayor to Commissioner. I had about 12 people from Germany, the Chamber of Commerce, some government folks and stuff like that. Germany at that

time, and I know there's other countries, were eliminating nuclear power. And I know it happens in our region, too, close to me in Beaver County. Because of the dangers and fear of that, they were looking at, they came to look at gas and coal.

Again, someone else mentioned about, you know, the cost of doing business with, you know, what the effects of the environment is. What about the cost, of picking up the cost of losing a county completely, and that's how I see if the coal and the gas industry, you know, is let go.

So again, I said I would be brief. I am, and again, I put this together pretty fast, but I am somewhat of an expert. I have worked in the industry for 41 years. I've lived in Greene County. And did the coal industry, breathing the air in Greene County, affect me? I'm a marathoner, ultra-marathoner. I have climbed mountains. So my grandsons run; my sons run. I am one person, one family, and I'm sure it has affected people, asthma, but, you know, I have not been proven different than what I think, and that's how I feel, so.

Thank you very much.

MAJORITY CHAIRMAN METCALFE: Thank you,
Commissioner.

And Representative Pam Snyder, she did send some remarks in for the record that I told her I would be happy

1 to present to you on her behalf and before the Committee with you joining us. And as I said, things kind of came 2 together late in the week to have you join us. 3 4 COMMISSIONER ZIMMERMAN: Yeah. 5 MAJORITY CHAIRMAN METCALFE: And I know her 6 schedule was in conflict for being able to be here today. 7 She wrote: 8 9 "Thank you, Mr. Chairman, for allowing my 10 comments to be read into the record this morning. 11 12 "As you hear in the words from my friend and 13 Greene County Commissioner Blair Zimmerman, this 14 issue means a lot to us and the people that we 15 represent. 16 17 "Supporting the energy industry and the jobs it creates is imperative for the future of Greene 18 19 County, and all of southwestern Pennsylvania. 20 This issue transcends party lines for 21 Commissioner Zimmerman and me. 22 23 "A carbon tax would devastate our economy in 24 southwestern Pennsylvania and force thousands of 25 workers to the unemployment lines. Greene County

is home to North America's largest underground coal mine, and coal production remains our top industry. If Pennsylvania joins RGGI, coal-fired power plants will close and our people will be left without work. Nearly half of all the coal mined in my district is used for power generation. Commissioner Zimmerman and I cannot stand by and allow our friends and neighbors to lose their livelihoods.

"For America to truly be energy independent, we need to use our natural resources like coal and gas to power the nation, and our economy.

Singling out these industries and these workers with an unfair tax will not solve climate change, but instead crush the livelihoods of thousands of middle-class workers.

"Though I could not be with you all, I want to thank Commissioner Zimmerman for being here today. As a former coal miner and now county commissioner, he knows the importance of the energy industry to our workers and economy.

"By working together, we can have a clean

1 environment and protect the livelihoods of thousands of blue-collar workers in southwestern 2 3 Pennsylvania. "Thank you, Mr. Chairman." 5 6 7 And that was from Representative Pam Snyder, her remarks for the record today. 8 9 COMMISSIONER ZIMMERMAN: Thank you, Pam. 10 MAJORITY CHAIRMAN METCALFE: And I know she 11 wanted to be here to welcome you herself. 12 So Representative Vitali is next up on the list 13 here. 14 MINORITY CHAIRMAN VITALI: Thank you, 15 Commissioner. About a thousand good nuclear jobs were going to 16 17 be lost in western Pennsylvania in the Beaver Valley. Two units at Beaver Valley announced their closure. But 18 19 when Governor Wolf announced his RGGI proposal last 20 October, those two plants, now owned by Energy Harbor, 21 decided to stay because they knew that RGGI would protect 22 1,000 good-paying jobs. That's important to note. 23 With regard to gas jobs, this State has enacted 24 the biggest tax credit in its history, and many people are 25 working in that Shell cracker plant on the Ohio River.

more recently, we introduced another tax credit of up to 663 million for petrochemical plants. So we are doing our job with regard to creating jobs in western Pennsylvania and trying to protect jobs in western Pennsylvania, and RGGI is part of that.

But you are a 40-year coal man and you have seen time pass, and you know that coal is on the way out primarily because it is being competed, outcompeted by natural gas. And the previous gentleman testified, yes, but we want a couple, you know, we want to squeeze a couple more years out of it so we can get our retirement together and so forth, and I get that. I get that.

But my question is this. My question is this.

What I am puzzled about is I don't hear elected officials from western Pennsylvania calling for just transition, calling, fighting the fight for State legislation that would help these coal communities and other communities.

But we do have legislation, as was previously mentioned, that would provide perhaps \$100 million as part of RGGI to divert RGGI's proceeds to coal communities that have been impacted by their shutdown. And make no mistake, they would be shut down whether RGGI occurred or not.

Would you at least consider taking a look at this legislation and consider supporting it for the sake of your communities, so when coal inevitably does stop, you have

1 funds to help your communities. 2 COMMISSIONER ZIMMERMAN: First of all, I'm 3 offended by saying these guys are working for their 4 pension. These guys are passionate about what they do. 5 These guys come in, the gentlemen I work with and the 6 ladies I work with could come in here on any given day and 7 take any one of your jobs. They are intelligent and passionate, and they're not -- yes, everybody, you're 8 9 working for your pension. People aren't---10 MINORITY CHAIRMAN VITALI: No; no. To be clear, 11 Mr. Schroth was talking about he and his wife wanted a 12 couple of extra years to get things in order---13 MAJORITY CHAIRMAN METCALFE: Representative 14 Vitali, Representative Vitali ---15 MINORITY CHAIRMAN VITALI: --- and this was just said an hour ago. 16 17 COMMISSIONER ZIMMERMAN: As you just said, a few 18 extra years, and, you know, in your position, too. Maybe 19 you'll get voted in again or not. 20 REPRESENTATIVE DUSH: Mr. Chairman, a point of 21 order. 22 MAJORITY CHAIRMAN METCALFE: Representative 23 Vitali, let the testifier finish his comments. You

interrupted him, as you did at our last hearing. Just let

the testifier finish his remarks to your question.

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MINORITY CHAIRMAN VITALI: And if I could ask you to maintain order.

MAJORITY CHAIRMAN METCALFE: You totally, you totally took out of context what the previous testifier even said. He wasn't even talking about his pension, getting it in line. He said 2 years wasn't enough to transition his business in a marketplace to other products and services. That's what he was making the point of.

He's planning on retiring if you and your comrades go through with this RGGI scheme. That's when he's going to retire. And again, he has told his son, that's why he's not retiring now, if you missed his testimony, because you kind of heard what you wanted to hear. But what you have presented to the people sitting here listening is not what the previous testifier even said to base your comments to this testifier on. You're totally inaccurate.

MINORITY CHAIRMAN VITALI: No. I think he understood that coal is going out no matter what happened. I think he understood that.

COMMISSIONER ZIMMERMAN: If anybody, if anybody knows anything about industry, or the coal industry and the steel industry, we have seen, you know, it's not like a forest. You can't mine coal and then go out and plant coal. Coal is developed over millions or billions of

1 years. So the coal industry will go away at someday. 2 it is so important, these lights that I'm looking at right 3 now wouldn't be on if the coal industry didn't exist. 4 And like the gentleman, the first speaker, I 5 believe, talked about the solar and wind, it's not 6 available all the time. You need coal, period. Now, I'm 7 not going to say anything else. You need coal to do what's 8 going on here, for me to be able to talk into this 9 microphone, so. 10 MAJORITY CHAIRMAN METCALFE: Thank you. 11 Representative James. 12 REPRESENTATIVE JAMES: Thank you, Mr. Chairman. 13 Mr. Zimmerman, thank you for coming today. 14 Among other things---COMMISSIONER ZIMMERMAN: My pleasure. 15 16 REPRESENTATIVE JAMES: Pardon me? 17 COMMISSIONER ZIMMERMAN: My pleasure. 18 REPRESENTATIVE JAMES: I hope so. 19 COMMISSIONER ZIMMERMAN: Yeah. 20 REPRESENTATIVE JAMES: Among other things that 21 are green, plants. Plants love green, or excuse me, love 22 CO2, and that's why everything is so green as you drive 23 here and drive home. 24 I, too, have just a brief question. So that

every Pennsylvanian who is either watching this or will be

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reading this or just kind of tunes in later to figure out
what we were talking about, could you boil it down
specifically to individuals in your county.

If we join RGGI and shut all these mines down, we have already established what happens to business, what about tax revenues and what about the services that you currently provide to everybody in your county? What will happen specifically to them?

COMMISSIONER ZIMMERMAN: I read the money we give -- we have about a \$20 million budget in Greene County.

Again, I read, you know, what the assessment is on the coal industry.

REPRESENTATIVE JAMES: Mm-hmm.

COMMISSIONER ZIMMERMAN: Our total tax assessment from the coal industry, land and minerals, is \$460 million-plus. The county gets over 3 million, almost \$3 ½ million from coal revenue assessment.

School districts, we have five school districts. They get over, the largest -- I mean, the entire county is probably graduating around 250 kids. Some of the school districts are graduating like 30-some children. They are getting \$16,700,000 in tax dollars. It is depleting as the mining goes on and as things change.

But I'm telling you, everybody here is going to have to pick up the tab for Greene County if the coal

1 industry and the gas industry goes away, period.

I've been around. I was Mayor, now County

Commissioner. One time I thought about trying to move up.

I'm happy where I'm at, trust me. But again, I love my

county. I'm passionate about, you know, my county, the

coal industry. And would I have liked to have Amazon or

Apple in Greene County happen years ago? Absolutely; more

jobs, you know. But we're an energy county. We're energy.

You know, again, I said we're OPEC. Check us out. We are

the energy capital of Pennsylvania and of the United

States.

Dennis Davin and Denise Brinley have been to -like I said, I was invited to go down to Houston with them
and the Gulf, and at the end of the day, I mean, Houston
doesn't want to hear it, but we are the energy capital of
this country, and it's important that we remain that, and
that's the bottom line.

But if we lose those dollars, if we lose those dollars, CYS, human services, the courts -- you know what I'm talking about, all that. You know, we're going to cut all the services. We're down to a minimum, if we can even exist, and that is the bottom line.

REPRESENTATIVE JAMES: I do know that--COMMISSIONER ZIMMERMAN: You do. I know.

REPRESENTATIVE JAMES: --- and I just wanted you

1 to have a chance to articulate it. 2 COMMISSIONER ZIMMERMAN: Yeah. 3 REPRESENTATIVE JAMES: Thank you very much. COMMISSIONER ZIMMERMAN: Thank you. 4 5 REPRESENTATIVE JAMES: Thank you, Mr. Chairman. 6 MAJORITY CHAIRMAN METCALFE: Thank you, 7 Representative James. 8 Representative Zimmerman. 9 REPRESENTATIVE ZIMMERMAN: Thank you, 10 Mr. Chairman. 11 And I don't know, we may be cousins? I don't 12 know. 13 COMMISSIONER ZIMMERMAN: Well, Governor Wolf, his 14 cousin was in business with him. His last name is 15 Zimmerman. So the very first time I met him, actually when he was running, I called him "Cuz." And so if I see him, 16 17 if he comes down to speak, I refer to Governor Wolf as "Cuz." 18 19 REPRESENTATIVE ZIMMERMAN: There you go. Good; 20 good. 21 Well, just a couple of things. 22 I know, I'm somewhat familiar with Greene County 23 in a former life, and I know that once upon a time there 24 was lots of dairy cows, and many of them have been replaced 25 with beef cattle running all over the hillsides out there,

1 so there have been changes.

But I would like to know, in light of having the largest coal mine in the country, I believe, and Greene County has the---

5 COMMISSIONER ZIMMERMAN: The largest deep mine.
6 Yes.

REPRESENTATIVE ZIMMERMAN: Right. So in light of that and with RGGI possibly going into place, how many jobs are we actually going to lose just in Greene County?

And also, you know, the unions across the State have really come out strongly opposing RGGI, and it seems like the Administration hasn't really been hearing that or at least the unions don't feel they've been heard. So do you have any comments on that?

COMMISSIONER ZIMMERMAN: Well, I actually talked to the United Mine Workers in my district. I'm a 41-year member of the United Mine Workers. And just for the record, there's only one dairy farm left in Greene County now.

REPRESENTATIVE ZIMMERMAN: I know.

COMMISSIONER ZIMMERMAN: And Greene County at one time was the number-one wool producer in the State. So yeah, you're talking directly 2500 to -- I'm not even counting the management. These are, you know, probably, 30-some-hundred, take that times four -- 12, 15,000. Like

1 I said, in a county of 36,000 -- we're doing our census now -- probably a little lower than that. 2 3 REPRESENTATIVE ZIMMERMAN: Uh-huh. COMMISSIONER ZIMMERMAN: Think of what that would 4 5 do to a city, a small city. But think what that would do to my county. 6 7 I mean, I'm up here shaking, not because of questions or anything you are saying, but thinking about 8 9 what it would do to my people. I love Greene County and I 10 love the people of Greene County. I'm a Democrat. So 11 what. I love people. Like, I'm on either side of the 12 fence at any given time. But I have a passion for them, 13 and to take away an industry that keeps my county alive, 14 both industries, it's just unheard of. 15 REPRESENTATIVE ZIMMERMAN: Thank you. 16 Thank you, Mr. Chairman. 17 COMMISSIONER ZIMMERMAN: Thank you. MAJORITY CHAIRMAN METCALFE: 18 Thank you, Representative Zimmerman. 19 20 Representative Otten. 21 REPRESENTATIVE OTTEN: Thank you, Mr. Chairman, 22 and thank you, Mr. Zimmerman. 23 Your passion for your community is palpable, and 24 I can appreciate that. I feel the same way about mine. 25 And so thank you for that. Your people need you, and

1 they're lucky to have you.

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COMMISSIONER ZIMMERMAN: Thank you.

REPRESENTATIVE OTTEN: And that being said, I can also appreciate the experience of the previous testifier as a small business owner. I was a small business owner on Main Street in the last economic crash, and I remember, and when I'm hearing you speak, I'm thinking of my own personal experience in that I remember sitting with my business partner on a milk crate in the loft of our little boutique and saying, I can see a freight train coming and I don't know how to stop it. And over the next 2 years, we had a devastating experience with the economic crash that happened in 2008. And a lot of those things were out of our control. Internet was changing the way retail operated. Fast fashion was changing the way boutiques did their business, and we had to adapt and change. And thankfully I'm standing here as an example of how you rebuild after things like that.

And so I feel an extreme responsibility to ask the question of, we know that this is coming. It could come in 5 years; it could come in 10 years; it could come in 50 years. What are the plans for economic development in these communities as they change?

I get it. My dad was a Teamster. His identity was his work, and I appreciate that. I really genuinely

do. And, we need to keep these communities whole. We need to keep them healthy, and we need to keep them moving forward into the future.

And so as a County Commissioner, a position that focuses a lot on economic development and local communities---

COMMISSIONER ZIMMERMAN: Absolutely.

REPRESENTATIVE OTTEN: ---what is the plan for reimagining what that community looks like as the market forces inevitably change our energy markets? It's going to happen. We all know this, right?

COMMISSIONER ZIMMERMAN: Surely.

REPRESENTATIVE OTTEN: So what are the plans? What are the plans? What are we doing, and how can a program like RGGI actually potentially help to create grants for retrofitting and things that might need to happen for our local communities that will be so deeply impacted by this?

Because I can tell you, as somebody who has experienced the worst-case scenario, I really wish that, I really wish that it didn't have to be so hard to make that change and make that transition. I really wish that there were people in government who were thinking about the future and preparing the ability for businesses to change and transition.

And so I guess as a County Commissioner, I admire the role that you play. You know, working with our County Commissioners in Chester County is one of my favorite things to do, and so I just would like to hear a little bit more about, what does the future look like regardless of whether it's in 5 years, 50 years, 10 years. What is Greene County doing to adapt and change and innovate for your community's future?

COMMISSIONER ZIMMERMAN: Ha ha. I have been working on it, probably before being a Commissioner, as a Mayor.

Again, you just can't in any length of time replace an industry like the coal industry and the gas industry that is supporting my county. Along with my fellow Commissioners, we're looking at, you know, the housing. Our school taxes are unbelievable in just my community and doing something about that, getting some building, trying to bring some developers, some industry in.

I was fairly aggressive when Amazon was looking for places, you know, around the country. We had some property that I thought would be close to interstates and stuff. So everything that I can do, I'm trying to do.

Again, I'm not naïve; I know eventually. But it's what's keeping us alive now, and until, you know,

something better comes along--- And then even that, these people are my friends and family.

REPRESENTATIVE OTTEN: Mm-hmm.

COMMISSIONER ZIMMERMAN: And those kinds of jobs are the kind of jobs that put their children through college. They are living the American dream. They have a nice home, maybe two cars, and you don't do that at Walmart.

So as Commissioners, we are absolutely looking at different industries. Some are energy related. And Morgantown, WVU, right below us, is growing by leaps and bounds, and their housing market is full. So we have been working across the border with the County Commissioners in Mon County, Monongalia County, to see what we can do to help each other out.

So yeah, that's a daily thing, and my job is trying to better my region and my area.

REPRESENTATIVE OTTEN: Thank you.

COMMISSIONER ZIMMERMAN: And again, I was at a conference a few years ago in DC, a NACo conference, the national organization of county commissioners, and I was talking to a Commissioner who was a former president of a bank. And I don't want to get in the same situation that he did. Because Harlan County, you know, Kentucky, everybody knows Harlan County coal mines, maybe moonshine

and whatever down there. But for economic development, they lost their mines, and he was saying, we're really trying to get a zip line in. And I did the deer in headlights. I said, you're kidding; you just lost umpteen mines that have closed, and you're looking for---

You know, we can't go with a zip line. We have to find, at some point in time, new industry. But some of it, like I said, isn't moving away from the energy market; it is trying to advance some opportunities with the energy market.

REPRESENTATIVE OTTEN: And I think, you know,
Pennsylvania has a history of boom and bust, right? And we
have the opportunity right here today, now, to not get
caught up in things like RGGI but to be looking at our
future and what does that mean and how do we plan and how
do we use tools like RGGI to implement those future plans.

And I just, thank you for your testimony. Thank you for the passion you bring to your community. I look forward to the opportunity to working with County Commissioners to be able to think about what the future looks like.

I don't know if you have seen the Reimagine

Appalachia plan, but it's incredible, and I think there's

some really great ideas out there. And I would love to

stop arguing about these nitty-gritty things and start

talking about, how do we innovate, how do we move forward,

how do we build a robust and vibrant community for the

people of your county and also our future generations.

MAJORITY CHAIRMAN METCALFE: Thank you. Thank you, Representative Otten, for your testimony.

Representative Dush for the final question, please.

REPRESENTATIVE DUSH: Yes, and thank you, Chairman.

As a Commissioner, you deal with every one of these businesses as a community member. You deal with the environmental impacts. You deal with how they are as employers. How are they as neighbors, and what will be the impact to you in your position if this is forced through RGGI to happen in 2 years instead of just letting it go — and it's by one person's dictate — instead of allowing things to take their natural course?

COMMISSIONER ZIMMERMAN: Again, you're asking me questions that as you asked it, my stomach is churning.

I will fight it to my last breath, and I do mean that, because I am that passionate about what goes on in my county and the people that work there and live there, the businesses.

You know, let's talk about the businesses outside that, the machine shops. I'm engaged, going to get married

next month, and my future son-in-law, who has survived and had a bone marrow transplant, had to lay off all his people and did a lot of his work in the gas industry, you know, struggling to stay alive and struggling to keep his business alive. And I'm using him for an example, but there are tons of people out there that rely on the coal and the gas. And again, it's hard to talk about it. really is.

We have to -- you know, I understand that at some point in time, there's going to be change, and we all know that. I mean, we're naïve if we believe different. But for now, you know, living in the time I live in and the energy that we need to keep going, I will fight for the coal and the gas industry forever.

Thank you.

REPRESENTATIVE DUSH: And they're good neighbors, in other words.

COMMISSIONER ZIMMERMAN: Yes.

REPRESENTATIVE DUSH: And, Mr. Chairman, I want to bring up one point.

What I heard from the Minority Chairman was disgusting with his complete mischaracterization of Walter's testimony. That man was talking about preserving a business that was employing others and had the net effect of employing people in other industries, preserving that

business to pass it on to his son so that those, not only his son, but also those employees of those other industries would have something to live on. And for him to use that phrase, "padding his pension"? That is disgusting, totally disgusting, and it was totally off base because it was totally out of context.

MAJORITY CHAIRMAN METCALFE: Thank you, Representative Dush, for correcting the record.

REPRESENTATIVE DUSH: Thank you.

MAJORITY CHAIRMAN METCALFE: Thank you, sir, for making the trip to Harrisburg on short notice last week. We appreciate you being here.

COMMISSIONER ZIMMERMAN: Thank you. And I hope, if anything, you heard the numbers that I mentioned about how important they are to my county. Those dollars are absolutely---

MAJORITY CHAIRMAN METCALFE: We did. We did, definitely. I appreciate you listing those top employers in your county, because it was good information for us to hear, good information for our colleagues to hear who will be weighing in on this in the future as we continue the debate.

So thank you for being here and sharing your expertise today, and have a safe journey back to Greene County.

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                 COMMISSIONER ZIMMERMAN: Okay. Thank you very
 2
      much.
                MAJORITY CHAIRMAN METCALFE: I did a little
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 4
       door-knocking in Greene County years ago and enjoyed
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      meeting with the people down there when I was down. A
 6
      beautiful, beautiful area of the State.
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                 COMMISSIONER ZIMMERMAN: It is. Good people,
 8
       too.
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                MAJORITY CHAIRMAN METCALFE: They are. Thank
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       you, sir.
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                 Our next testifier, our last testifier, is
      Mr. Vince Brisini, and he is the Director of Environmental
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      Affairs with Olympus Power, LLC.
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                 Thank you, sir, for joining us. Good to see you
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       again.
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                MR. BRISINI: Thank you. It's good to see you.
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                MAJORITY CHAIRMAN METCALFE: You can begin when
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       you're ready, sir.
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                MR. BRISINI: Okay.
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                 Good morning, Chairman Metcalfe and Committee
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                My name is Vince Brisini. I'm the Director of
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      Environmental Affairs for Olympus Power. I appreciate the
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       opportunity to provide testimony today regarding
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       Pennsylvania's participation in RGGI.
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                 Based upon my analyses of the ICF modeling
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performed for Pennsylvania DEP, it is clear to me that
Pennsylvania's participation in RGGI won't produce carbon
dioxide or other pollutant reductions that provide
meaningful impact on local, regional, or global climate
change, ambient air quality, or provide the monetized
health benefits that have been claimed.

I have previously testified before this Committee regarding Pennsylvania's participation in RGGI, so for this testimony, I will focus upon the new scenario identified as the "Policy Case with Revenue Recycling aka RGGI + Investment." Remember, RGGI history shows us that RGGI participation typically results in less in-State electric generation and the purchase of more electricity from non-RGGI areas.

The impact upon conventional generation, regardless of the expenditure on renewable generation, remains remarkably consistent between policy cases. That means that in the ICF modeling, the renewable generation under the "Policy Case with Revenue Recycling" will replace electric generation from some other PJM States rather than replacing Pennsylvania conventional generation. Because of the additional cost of the RGGI allowance price adder, this is predicting that higher cost electricity will be used rather than lower cost electricity. That simply doesn't make sense.

I compared the annual net generation predictions for both the Reference Case and the "Policy Case with Revenue Recycling" to the 2018 Pennsylvania net generation. The total summed difference in net generation for the Reference Case years, 2022 through 2030, is 189.6 million megawatt-hours greater than the 2018 net generation level. Clearly, the Reference Case net generation has been overstated in the modeling. Remember that in 2018, Pennsylvania was the number-one electricity exporter in the U.S., and 2018 was the largest year of generation in PJM.

I also looked at the Reference Case and the "Policy Case with Revenue Recycling" PJM net generation.

Contrary to the ICF modeling, PJM system demand should be the same for all scenarios and the modeling should predict which sources in the various States in PJM will serve that demand.

In both cases, the combined increase in net generation in Pennsylvania, Virginia, Delaware, Maryland, and New Jersey is greater than the overall net generation increase in PJM. That means that the aggregate increase in net generation in Pennsylvania, Virginia, Delaware, Maryland, and New Jersey is reducing the generation in non-RGGI PJM States. This doesn't make sense, because RGGI participation increases the price of conventional

generation, and it has typically reduced generation in States after they begin participating in RGGI.

Realizing that the Reference Case net generation is over-predicted, I calculated a Reference Case carbon dioxide emission factor to reflect the Reference Case generation mix and then calculated the Reference Case carbon dioxide emissions using the more realistic net generation of the "Policy Case with Revenue Recycling." I then calculated the missing years' values and compared the adjusted Reference Case emissions to the aggregated "Policy Case with Revenue Recycling" carbon dioxide emissions for 2022 through 2030, the real RGGI affected years.

I calculated that the adjusted Reference Case would result in aggregated carbon dioxide emissions of about 92 million tons rather than the Pennsylvania DEP's calculated 188 million tons. Consequently, the emissions reductions and the corresponding monetized benefits are less than half of the inflated monetized benefits claimed by Pennsylvania DEP, regardless of the methodology used to calculate those benefits.

The second issue of concern regarding the calculated benefits are the methodologies used to monetize the emissions reductions attributed to Pennsylvania's participation in RGGI. Pennsylvania DEP used the benefit per ton and incidence per ton methodology.

I researched EPA data analyses for benefit per ton and incidence per ton. On this slide are some of the excerpts for the "Limitations" section describing the use of the benefits per ton methodology.

Most importantly, EPA tells us that the benefit per ton method is a "screening level assessment." A screening level assessment is a very conservative assessment used to determine if a more rigorous assessment is appropriate and necessary to determine actual effect and impacts. A screening level assessment does not calculate accurate total monetized benefits nor the monetized benefits for any particular area.

Regardless of the location, regardless of the population, regardless of the exposure, regardless of the current health of the population, the benefit per ton methodology will calculate the same monetized benefit.

What EPA has also identified is that they assign the same mortality rate to all fine particulate matter regardless of composition. But they also identify that fine particulate matter precursors from electric generating units may differ significantly from fine particulate matter emitted directly from diesel engines. And while they are indeed dramatically different and there has been considerable research on this matter, EPA says they don't have enough information at this time to differentiate.

And they assign these monetized benefits to all areas regardless of whether or not they are meeting the National Ambient Air Quality Standards. Importantly, those air quality standards are established to protect all populations with an adequate margin of safety.

So I looked at the EPA's Technical Support

Document, which was updated in 2018, to using benefit per

ton and incidence per ton methodologies. What I found was,

after 7 years, EPA still doesn't consider the chemical

composition of fine particulate matter and still assigns a

monetized value down to a concentration of zero in some

cases, even though the National Ambient Air Quality

Standards have been established to provide an adequate

margin of safety for all.

In the "Limitations and Uncertainties" section, EPA again in 2018 let us know they are applying the same benefit to all areas regardless of human conditions and ambient concentrations.

My question is, if EPA intends to apply this benefit per ton method to estimate monetized benefits to justify the actions and allow others, like the Pennsylvania DEP, to use it for the same purpose, then why hasn't EPA addressed the uncertainties that are identified in both the 2011 and 2018 documents? If they don't, it's obvious that overestimations of monetized benefits, like Pennsylvania's

participation in RGGI, will continue.

Alternatively, if there is a recognition that the methods used by Pennsylvania DEP are screening level efforts, why hasn't Pennsylvania DEP completed the area specific modeling and analyses that would allow the "real" monetized benefits to be calculated and represented as opposed to using the screening level results that are admittedly extremely conservative and calculate a grossly inflated monetized benefit for emissions reductions?

As you can see on this slide, Pennsylvania electric generating units in 2019 were already at a 94-percent reduction of sulfur dioxide and an 85-percent reduction of nitrogen oxides from 2002 emissions.

On July 22, 2020, the Pennsylvania DEP provided a presentation to the Small Business Compliance Advisory

Committee regarding the state of measured air quality in Pennsylvania. In this presentation, they showed the measured "design values" for the various monitoring sites.

A design value is established using data collected over a 3-year period. So 2019 design values are developed using monitoring data for 2017, 2018, and 2019.

What Pennsylvania DEP showed was that all monitors in Pennsylvania, except for four monitors in the Philadelphia area, which are primarily affected by mobile source emissions, have 2019 design values that show

attainment of the 2015 Ozone National Ambient Air Quality Standard. Reductions from electric generating units won't result in Philadelphia monitors achieving attainment. So the question is, are there any RGGI participation benefits relative to ozone?

Every monitor in Pennsylvania, except one near

Pittsburgh, which I have been told is impacted by a local

industrial source, is demonstrating attainment of the

Annual Fine Particulate Matter National Ambient Air Quality

Standard. Reductions from electric generating units will

not bring that monitor into attainment of the National

Ambient Air Quality Standard.

Here you can see that every monitor in the Commonwealth is already measuring attainment of the 24-Hour Fine Particulate Matter National Ambient Air Quality Standard.

Every monitor in Pennsylvania, except one near Pittsburgh, which I have been told is impacted by a local industrial source, is demonstrating attainment of the 2010 Sulfur Dioxide National Ambient Air Quality Standard. Reductions from electric generating units will not bring that monitor into attainment with the National Ambient Air Quality Standards.

My conclusion is that the ICF/Pennsylvania DEP quantitative modeling of Pennsylvania RGGI is flawed, and

the following demonstrate those flaws:

The estimated level of net generation under the Reference Case is unreasonably high for Pennsylvania. As an aggregate, it's almost 190 million megawatt-hours greater than the aggregated 2018 net generation when Pennsylvania was the number-one exporter in the U.S., and that it was the highest year during which PJM emissions occurred.

By simply adjusting the Pennsylvania net generation to reflect more realistic levels and considering just the 2022 through 2030 period, the "real" RGGI affected period, the Pennsylvania DEP monetized benefits are reduced by more than 50 percent.

The increase in net generation in Pennsylvania,
Virginia, Delaware, Maryland, and New Jersey in 2022 as
compared to 2020 is greater than the overall increase in
PJM net generation in both the Reference Case and the RGGI
+ Investment Case. This situation means the model is
predicting that non-RGGI PJM States are generating less in
both cases. That's highly unlikely, considering the RGGI
allowance price adder applied to all conventional
generation.

Remember, history has shown us RGGI participating

States generally generate less electricity after joining

RGGI. And Massachusetts and New York are both increasing,

building transmission lines to bring even more Canadian hydroelectric power to New York City and into New England.

ICF's Integrated Planning Model appears to change the total net generation in PJM by scenario, when the total net generation in PJM should be the same regardless of scenario, and the subsequent State-by-State net generation should be estimated to satisfy the electricity demand based upon energy costs and transmission and distribution constraints.

Further, the estimations of monetized health benefits are grossly overstated by the ICF/Pennsylvania DEP modeling and the benefit per ton methodology:

The Reference Case overstates Pennsylvania emissions, which inflates the represented reductions achieved by Pennsylvania RGGI participation, which then inflates the monetized benefits.

The monetized health benefits are estimated using a methodology that EPA has identified as a "screening tool" with considerable limitations. I am unaware of any refined analyses by Pennsylvania DEP to substantiate their representation of monetized benefits.

The modeling and calculated monetized benefits don't take into consideration important inputs, including particulate matter speciation, population densities, and the current local ambient air quality, including whether

areas are measuring attainment of the various National
Ambient Air Quality Standards.

coming.

In the event the lost Pennsylvania electric generation is replaced by conventional generation in non-RGGI PJM States, then little or no regional monetized benefits will be achieved.

Thank you for the opportunity to provide testimony today. I would be happy to go into this topic in more detail at a future time.

MAJORITY CHAIRMAN METCALFE: Thank you, sir.

Our first question is from Representative Sankey.

REPRESENTATIVE SANKEY: Thanks again, Vince, for

Briefly, and I can let you elaborate as much as you want. I'm going to do a two-part question and let you go with it.

In your opinion, has DEP fully considered the impacts of Pennsylvania's participation in RGGI on Pennsylvania's current power generation, do you think? And the second part of that is, how will the shift of electricity production from Pennsylvania to clearly neighboring States of Ohio and West Virginia, we'll say, what kind of impact is that going to have on the Commonwealth?

MR. BRISINI: Well, as far as the estimation on

generation, they ran the Integrated Planning Model. ICF ran it for DEP. But I don't think the Integrated Planning Model at this point accurately reflects in any of the cases, frankly, what the impact on generation is going to be.

In the Reference Case, which is the current case
-- no RGGI -- they have Pennsylvania generation in 2022
increasing to over 245 million megawatt-hours. In 2018,
Pennsylvania generated around 215 million megawatt-hours.
In 2018, PJM, if you look at the one slide, they had the
highest level of generation they had. In 2019, it dropped.
It's predicted to drop again in 2020 by 3 percent, recover
slightly in 2021, and then be flat or decrease out into the
future.

If you look at all of the cases, they show considerable growth in the PJM generation. My opinion is that you're not going to see that growth in generation. It looks as though they almost forced PJM generation increases to fit Pennsylvania higher generation into that, both in the Reference Case and in the Policy Case.

I don't believe that we're going to generate 217 million or 207 million megawatt-hours under the policy cases with RGGI. I believe we'll generate substantially less, because what we have always seen when we look at RGGI is once you participate in RGGI, you generate less in-State

electricity.

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Now, New Jersey is an interesting case, and if you look at New Jersey in that 2018 slide, what happened was, New Jersey was initially a RGGI State. At that point in time, they were importing in 2008 over 20 percent of their power. They reached a point, they dropped out of RGGI, and people started to build natural gas in New Jersey. Now -- they actually, before Oyster Creek retired, they were a single-digit exporter of electric power. Now they're a very slight importer of power with the retirement of Oyster Creek, but their actions indicate to me that they have a fear of creating what is called a stranded investment situation with joining RGGI. I think their actions and their explorations of dropping out of PJM are really actions where they are exploring, how do I protect the natural gas-fired generation that has been built in New Jersey? So there is that.

Now, if you go on to look further, I think what's going to happen is that Pennsylvania will continue to be an exporter. I don't think it's going to generate nearly at the level that we are going to. I think we're -- my opinion is we are going to lose minimum 50 percent of our exported power. That is probably 30-some thousand less than we generated in 2018. So I think we're probably going to be generating somewhere in the 185 million

1 | megawatt-hour.

Because what folks aren't taking into account, they look at people who have said, oh, natural gas, that's a \$2 adder. That is kind of the case for a natural gas combined cycle. That is not the case for older combined cycles. It's not the case for coal that has been switched to natural gas. It's not the case for combustion turbines.

And if you look at my testimony, I added, I provided my RGGI price adder. The price adder is what the price has to increase on a net megawatt hour to allow that cost to be recovered. So you have a considerable amount of natural gas that is already at \$3.50 to \$5 per net megawatt-hour, and I think we're going to lose at least 50 percent of that generation.

MAJORITY CHAIRMAN METCALFE: Thank you.

Thank you, Representative Sankey.

Representative Schemel.

REPRESENTATIVE SCHEMEL: Thank you, Mr. Brisini, for your testimony.

So this morning we have heard from two scientists, a businessman, and a county commissioner. You work for the industry itself, so I'll ask you specific questions in regard to that.

Of the States which currently participate in RGGI, do any of them come anywhere close to the amount of

energy production that Pennsylvania has?

2 MR. BRISINI: No.

REPRESENTATIVE SCHEMEL: So as a Member of this

Committee, I have received a fair amount of lobbying

advocacy for RGGI, interestingly from your, I guess, sister

and brother electric generation companies in Ohio and

West Virginia. Why would Ohio and West Virginia energy

companies be asking me to vote to allow Pennsylvania to

enter RGGI?

MR. BRISINI: Well, the slides that I provided in previous testimony show that. You have a number of natural gas combined cycles being built in New Jersey. With House Bill 6, they were going to walk away from them. They are permitted. Some are now under construction. And if Pennsylvania joins RGGI, that is the signal to finish construction of those power plants.

If you look at the maps I provided previously, you can see they are right along the eastern edge of Ohio, and they'll just make up the coal-fired generation lost in western Pennsylvania. Their transmission and distribution is in place. It's perfect.

In other words, what we do is they will then provide a considerable amount of the generation to States like Maryland and Delaware that won't, that they don't make their own power, and they continue to decrease the amount

of in-State generation that they create.

REPRESENTATIVE SCHEMEL: So for an overall view of emissions, we're really just offsetting our production emissions to other States, which leads into the final question.

So RGGI, the money that would be presumed to be generated under RGGI that would then go in to reinvest in communities like Greene County to dream up new industries for them is generated under the presumption that

Pennsylvania will continue to generate as much energy as it does now and some of the industries will just pay to emit the amount of CO2 that they do. But under your calculations and based upon, you know, the assertions, I guess, of our sister States that are not going to join RGGI, we wouldn't be generating that additional electricity, those industries would not be paying into RGGI, and that money would not be there to reinvest in counties like Greene. Is that correct?

MR. BRISINI: Well, there's two issues there.

Number one, I do not believe there will be \$300 million per year due to RGGI participation. I have testified in several venues, and in all cases, I believe it will be something closer to 175 to 200 million tops, and then possibly decreasing as time moves out.

Because what happens, when you put RGGI in place,

what you do is you have a very quick and easy way to eliminate your natural gas-fired generation as well. And they have done this in RGGI. When the price of an allowance gets too low to achieve the desired outcomes, they decrease the budget and drive the price of allowances up. And that's what will happen with people. Once they get some money, they're going to want to drive up the price of the allowance to keep getting the amount of money they get, and I kind of look at that as the same situation as Allegheny County and why is their Southpointe in Washington County? They got to get driven to another place. That's the whole point of leakage and why generation will move outside of a RGGI-participating State.

The second issue, though, and this is really important, and this goes to Representative Vitali's point, that they want to have legislation to allow the RGGI revenues to be used in a variety of fashions.

Right now, the RGGI revenues have one place to go, and that's into the Clean Air Fund. The Clean Air Fund under the Air Pollution Control Act has very limited uses, and providing training, providing support to bills, providing support to communities, that's not one of them. It's very specific.

In fact, I think there's a stretch that you make. They talked about three-pronged energy efficiency,

- investment in renewables, and another one, but

 fundamentally, it needs to be emissions reduction. So the

 stretch you have to make is that money you would spend on

 energy efficiency constitutes an emissions reduction. I

 don't know if that's the case, but that's really part of

 the issue.
 - My response to that is really, if you want legislation to identify these multiple means by which you spend the RGGI revenue, I think the question needs to be asked, why wouldn't you want to have legislation regarding whether or not Pennsylvania should even participate in RGGI? I think that's a logical extension of that.
 - MAJORITY CHAIRMAN METCALFE: That's a great segue, because Representative Vitali has the next question.
- MR. BRISINI: Okay.

- MINORITY CHAIRMAN VITALI: Thank you,

 Mr. Chairman.
 - Just a couple of points I want to make and get at your assertion that RGGI is not going to reduce CO2.
 - First of all, RGGI has been around since about 2009, and there's 10 States in it, and it just seems that most, if not all of the States, are satisfied with the progress they are making. There was a recent study by the Analysis Group that cited 100 tons of CO2 reduction in those 10 RGGI States since its inception.

1 As you mentioned, the DEP modeling has 188 million tons of CO2 reduction from 2022 to 2030. And 2 3 it just seems logical that this would happen if you have a 4 basic understanding of it, the cap-and-trade system, 5 because you have a cap of CO2 tonnage which decreases 6 gradually over time. 7 But I think to reemphasize that point, I mean, 8 the way RGGI works conceptually is, it will dampen coal, 9 and I know you are paid for by a company that burns coal, 10 so I understand where you're coming from. 11 MR. BRISINI: I also personally own wind. My 12 company owns wind. 13 MINORITY CHAIRMAN VITALI: Right. 14 MR. BRISINI: And we own biomass. 15 MINORITY CHAIRMAN VITALI: I understand. I'm 16 asking a question. Please. Please let me finish. 17 MR. BRISINI: Well, I just wanted to clarify, I 18 just wanted to clarify---19 MINORITY CHAIRMAN VITALI: So Olympus Power, your 20 employer -- please. It's my turn. You talked for a long 21 time. It's my turn, okay? 22 Olympus Power has power plants that are fired by 23 both waste coal and conventional coal, and you are paid by 24 them to be here today. So I think that's important to get

on the record. But the point is, in the previous testimony

you indicated that the closing of coal plants in Pennsylvania has resulted in CO2 reduction.

Now, the way RGGI works, the modeling of RGGI is that when implemented, it will reduce coal production, it will maintain nuclear, and natural gas will also increase. So it just seems to me that under this scenario where you have nuclear not being replaced by natural gas, natural gas being a fossil fuel, coal being lessened, which you indicated will result in a reduction, so if you have these factors at work -- coal being reduced, which causes CO2; nuclear being maintained, which causes CO2-free power -- why wouldn't CO2 be reduced, especially in light of the experience of the RGGI States and the modeling by the DEP?

MR. BRISINI: Well, number one, the RGGI States are importing more and more power. They're buying Canadian hydro. So they're not meeting their own energy needs or the energy needs of others.

A slight exception. There's actually some gas generation and some gas generation in Connecticut and Rhode Island, but they're very, very small.

Now, when you say retirements, there is also reduced operations. If you look at the level that the plants are operating, they are operating at less load, but my point being is, I looked at the Policy Case scenario. I looked at what Pennsylvania DEP presented. I don't agree

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       with what was presented, but using their own information, I
       can show that they don't achieve what they claim.
 2
                                                         I think
 3
       they'll achieve something different. They're basically
 4
       going to put a lot more people out of work than coal
 5
       plants. I think people are going to operate their gas
 6
      plants a lot less. Some of them may get to the point where
 7
       they have to retire. Now they have much lower overhead
 8
       costs with manpower.
 9
                 But I do want to correct something. You called
10
       RGGI a cap-and-trade. It's not a cap-and-trade. It's a
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       cap-and-buy. It's not a trade.
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                MINORITY CHAIRMAN VITALI: Okay.
13
                MR. BRISINI: Nobody is buying and nobody is
14
       trading. Somebody put out a budget---
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                MINORITY CHAIRMAN VITALI: Yeah.
16
                MR. BRISINI: --- and people go and buy from it.
17
       It's not a cap-and-trade where you could over-control.
18
                MINORITY CHAIRMAN VITALI:
                                           Okav.
19
                MR. BRISINI: You don't have a control system
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       that you can go and put on a plant and over-control one
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       plant and basically balance to meet the budget over
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      multiple plants. So either you reduce operations ---
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                MINORITY CHAIRMAN VITALI: Okay; okay. A couple
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       -- okay.
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                MR. BRISINI: You either reduce operations or you
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shut the place down.
 1
                MINORITY CHAIRMAN VITALI: If RGGI was such a
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 3
       failure, why hasn't it dissolved long ago?
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                And on the jobs issue, you'll agree that Beaver
 5
      Valley, the two units at Beaver Valley would have shut
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       down, costing 1,000 jobs, 1,000 good, solid nuclear jobs,
 7
      but for Wolf's announcement with regard to proposing RGGI.
       Isn't that right?
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 9
                MR. BRISINI: No. I disagree with that entirely.
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       I think the money---
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                MINORITY CHAIRMAN VITALI: I'll show you the
12
      press release.
13
                MR. BRISINI: I understand your press release,
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      but the reality is, the hospitals---
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                MINORITY CHAIRMAN VITALI: Not my press release.
                MR. BRISINI: I know.
16
17
                MINORITY CHAIRMAN VITALI: Energy Home's press
18
       release.
19
                MR. BRISINI: I know. I fully understand.
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       I'll tell you what, I think it was House Bill 6, because
21
      House Bill 6 did not just allow the Ohio nuclear plants to
22
       survive. I also have a press release that says
23
      House Bill 6 allowed them to maintain Sammis Plant. And
24
      you know what? They just did outages at Pleasant.
25
       coal plants are sitting now ready to generate and make up
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1 for us. 2 MINORITY CHAIRMAN VITALI: And Exelon is also a 3 supporter. 4 MR. BRISINI: So I understand, I understand what 5 you're saying. MINORITY CHAIRMAN VITALI: Exelon also will make 6 7 that same job argument. I've spoken to the representatives, and I'm sure you're aware of that. 8 MR. BRISINI: I understand. I don't think that 9 10 RGGI has anything to do, because I don't believe RGGI is 11 going to dramatically increase the price of electricity in 12 PJM. Because non-RGGI PJM States will not take on the 13 adder, and they will produce the electricity at costs that 14 are very slightly increased compared to what we have been 15 making them in the past. 16 MINORITY CHAIRMAN VITALI: Okay. 17 MR. BRISINI: And I don't think Pennsylvania is 18 going to do the generation, and I don't think there's going to be \$300 million. I think there's going to be \$175 to 19 20 \$200 million for a while. 21 MINORITY CHAIRMAN VITALI: That's nice money to 22 help counties like Greene.

MR. BRISINI: That's, that's not very much money when you talk about the number of jobs that will be lost.

And I'm not talking just about coal jobs. I'm talking

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about jobs in the natural gas industry as well. Because the bottom line that's going to happen is that all you have to do when you decide you want to get rid of gas, when you have RGGI in place, is decrease the budget and force up the price.

MAJORITY CHAIRMAN METCALFE: Representative Dush.

REPRESENTATIVE DUSH: Thank you, Chairman.

MAJORITY CHAIRMAN METCALFE: For the final

question.

REPRESENTATIVE DUSH: Thank you, Chairman.

Mr. Brisini, is it your understanding that the generators only have to purchase carbon credits for the power plants that would net out the load in Pennsylvania, or would it cover all the load generation no matter where it went?

MR. BRISINI: Yeah.

REPRESENTATIVE DUSH: In other words, what I'm saying, will Olympus Power be forced to purchase credits for electricity that is actually consumed in other States?

MR. BRISINI: No. You will buy allowances to cover your operations in the States that are participating in RGGI. So you will buy those, and you bid into PJM. The lower priced energy and who operates is based on locality. In other words, are there transmission and distribution constraints that mean a higher priced generation will

provide power to a certain area or are you simply out moving power around? And so it comes and it moves through, and energy prices and transmission and distribution constraints define who operates.

REPRESENTATIVE DUSH: So within PJM, on the PJM States, would those credits be, would they be able to purchase or would you have to purchase those from---

MR. BRISINI: No, they won't have to purchase those. What happens is that for every net megawatt-hour of conventional generation, depending upon the fuel, depending upon the efficiency of the unit, there will be a certain dollar amount per net megawatt-hour that you will have to put into your bid price.

For example, if it costs you \$18 to make a net megawatt-hour and your RGGI price adder is \$4, you have to bid \$22, which may put you out of market, likely put you out of market, and somebody else who maybe generates at \$21 will generate the power that you otherwise would generate.

REPRESENTATIVE DUSH: Thank you.

MAJORITY CHAIRMAN METCALFE: Representative Otten for a final question.

REPRESENTATIVE OTTEN: Thank you.

So can you just help me understand a little bit about Olympus Power. What sectors of power do you work in specifically?

MR. BRISINI: Olympus Power, it has wind power, biomass, coal refuse, coal, and we unfortunately, we had natural gas-fired generation, but that has been sold.

REPRESENTATIVE OTTEN: Okay.

And I heard you talk about stranded investments in New Jersey, and I guess something that piqued my interest is that it seems a lot of times we are talking about stranded investments protecting investments of infrastructure, you know, without talking about the flip side of that, and I get it, you work for a private company and so that is what you are paid to do, right? But we're here paid to protect the public interests and the public health and safety.

I have a school district -- we talk a lot about how RGGI will increase the rates for ratepayers and things like that, but I think we're failing to talk about what happens when we become more energy efficient because of things like this.

So, for example, one of my school districts went from a natural gas-powered school to a geothermal-powered school. They are saving \$70,000 a year in energy costs.

And so can you speak a little bit about that? I mean, there are going to be, there are going to be impacts where actually the public reduces, their energy costs are reduced by going off of the grid by being able to have independent

energy infrastructure that, you know, one upfront investment creates a long-term savings.

So as we're talking about school districts who are suffering and things like that, I am thinking about some of my school districts that have made investments in those off-the-grid independent energy infrastructure and how much money they are saving and how much healthier the environment is for those kids. So do you have any insight into that?

MR. BRISINI: Well, it all depends -- whether the environment is safer for the children depends upon what is being used. I mean, in every resource, whether it's a natural gas or a solar or whatever, a diesel generator, they all have their impacts.

Now, one of the challenges that will have to be addressed if you have more and more distributed generation is aggregators. Now, what happens and what they do is they go out and they get people, farms, they'll get water treatment plants that have engines, and they will create a virtual power plant. And this was one of the things that I testified regarding, and Representative Vitali might remember this. We testified, we had a hearing about the aggregation and the emissions from the diesel generation. So if you aggregate diesel generators, at that time, if my memory serves me correctly, there were 2500 megawatts of

1 these distributed aggregated resources, and they had an 2 emissions profile that was equal to something like 3 25,000 megawatts of uncontrolled natural gas-fired combined cycles. 4 5 So until you actually have specifics and you are 6 talking about the specifics associated with different 7 emissions, you can't make an assessment as to whether or not it's better for the environment or not. 8 9 REPRESENTATIVE OTTEN: But your focus is actually 10 on the distributed energy through the grid versus---11 MR. BRISINI: Well, centralized generation and 12 distribution---13 REPRESENTATIVE OTTEN: Right. 14 MR. BRISINI: ---through the PJM Interconnection. 15 REPRESENTATIVE OTTEN: Right. So we're not factoring in the decentralization of generation and local 16 17 independent infrastructure off the grid. 18 MR. BRISINI: If you have -- well, that's a 19 misnomer. They are not off the grid. They are still on 20 the grid. They are still attached. Most of the folks, 21 what happens, it's kind of like a solar. 22 REPRESENTATIVE OTTEN: Mm-hmm. 23 MR. BRISINI: You do solar, and this is one that 24 I think is really interesting. So you have a solar

generator, and they reverse meter. Essentially they're

being paid full retail price for their power. But something else that is not considered is that your transmission and distribution cost is determined by how much you buy power. So if you send the power out, take power out such that the net is that you only use a couple of kilowatt-hours, you are forcing all of your neighbors on the grid to subsidize your activity because they pay for all the power going in. And you're actually using the grid two ways. You're using it to transmit power and to bring the power back, and all you pay for is the difference.

REPRESENTATIVE OTTEN: And wouldn't community solar help that?

MR. BRISINI: Pardon?

REPRESENTATIVE OTTEN: Wouldn't community solar help that?

MR. BRISINI: Well, if it works in reverse metering, it works the same way. Everybody else on the system will subsidize your use of the grid, which is why people are getting so upset, because people are saying, wait a minute, I'm not going to let you reverse meter at retail price; I'll let you reverse meter at a wholesale price. So people are up in arms over that issue because they're like, I can't make all the money I was making before. Yeah, but the issue gets to be, you need to pay, everybody needs to pay their share of the transmission and

distribution costs.

2 REPRESENTATIVE OTTEN: Mm-hmm.

MR. BRISINI: And so there's all of those issues that really when they come up, it's kind of like the statement people say, renewables are as cost effective as other generation, and then you find out, well, that's only when they include the production tax credit and the investment tax credit and the alternative energy credit. So are they?

And then people say, well -- and I've heard this before, you know -- 70-some percent of the people say they are willing to pay more for renewables. I don't see that happening in the PJM system. I don't see people going out -- they have choice. They have the ability to go out and buy whatever source of power they want, and if it were really as cost effective as other generation and if people were really willing to bear some nominal additional cost, people right now could be doing to natural gas what natural gas did to coal in that short a period of time. People have the ability to do this right now.

REPRESENTATIVE OTTEN: And I can tell you, actually, I did take that choice, and my family does use renewable energy through energy choice.

MR. BRISINI: Yeah. And---

REPRESENTATIVE OTTEN: And our bills are actually

1 lower than they used to be, so.

MR. BRISINI: And that's great, but that's the opportunity that you have. You as an individual have that opportunity to take advantage of that choice.

Now, the reason it's lower for you is that they are sharing with you the level of the subsidies, and that's fine. They're out there. We have alternative energy credits. That gets baked into the price, and it is what it is.

REPRESENTATIVE OTTEN: So what I'm hearing from you, though---

MR. BRISINI: But all of that was done with legislation.

REPRESENTATIVE OTTEN: What I'm hearing from you, though, is that if there was a mechanism like RGGI that would incentivize people to go to a cleaner energy model, that those savings would be shared with all of us.

MR. BRISINI: It won't. But it won't. RGGI doesn't do that.

REPRESENTATIVE OTTEN: Okay.

MR. BRISINI: If you go back and you look at all of the States that have been in RGGI, RGGI does not -- renewable energy generation is not an outcome of RGGI.

RGGI does not protect nuclear. If RGGI protected nuclear, why did New York have to invent the zero-emission credit

for nuclear energy? It doesn't protect nuclear. That's why they invented that.

REPRESENTATIVE OTTEN: Mm-hmm.

MR. BRISINI: Now, as far as the ability of people to take advantage of those things, those things were done under legislation. I believe that these kinds of things and energy should be done, if you're going to do these things, they should be done under legislation. They shouldn't be done under Executive Order, either at the State or Federal level, for the simple reason it creates an environment that creates huge uncertainty for anybody to make an investment.

If every election term for the Executive officer, be it the Governor or a President, and you have things done this way with Executive Order, every election cycle you have good investments that can turn bad, just like that.

The investment community needs the ability to have certainty to make the investments and move forward in a sound, reasonable fashion. You can't just have this back and forth done with Executive Order. And I don't care if it's Federal or State, it's just that you guys need to do these things. You guys need to be statesmen and stateswomen and make decisions and do these things and represent your constituents.

1 REPRESENTATIVE OTTEN: I think that I would 2 differ that the markets are showing that investments in 3 clean energy is the better path forward and the better 4 investment. But thanks for your testimony. 5 MR. BRISINI: Well, certainly you can have an 6 opinion---7 MAJORITY CHAIRMAN METCALFE: Thank you. 8 MR. BRISINI: --- and we can argue. 9 MAJORITY CHAIRMAN METCALFE: No, not today. 10 MR. BRISINI: But I don't think things are 11 showing that. 12 Yes? 13 MAJORITY CHAIRMAN METCALFE: We just kind of 14 wanted you here to share your expertise, not to argue with 15 you. 16 MR. BRISINI: Yeah. 17 MAJORITY CHAIRMAN METCALFE: Was my hope. But 18 thank you for taking time to be with us. Thanks for 19 sharing your expertise with us today. And we appreciate 20 you making the trip. Have a safe journey home. 21 This is our final hearing on RGGI prior to a plan 22 consideration by the EQB of RGGI. So with that said, I 23 would like to kind of rap this hearing up today with a few 24 comments to let everybody kind of summarize what we have

done and where we are going with this meeting that myself

and the Minority Chair expect to be involved in in September, which I expect is going to be via Zoom call again, because I think DEP is not even in their offices currently. But they're still going to move forward with this consideration when they're not even occupying their own offices yet.

First, regarding who testified at this hearing.

The purpose of the hearing was not just to discuss RGGI but to discuss the almost certain devastating negative economic consequences on Pennsylvania if we participate in it. Every testifier had critical thoughts about it, and my goal in holding these hearings was to bring about a fair and balanced conversation about the issue, since the DEP and the Administration continually release biased, one-sided modeling, press releases, and presentations. My goal throughout these hearings has been to present the other side of the argument, which the Administration has completely ignored, disregarding even all the various advisory committees' votes on it.

At the previous RGGI hearing, one of our testifiers presented detailed and compelling testimony that the Administration's attempt to join RGGI through Executive action clearly exceeds the powers delegated to the Governor under Pennsylvania law and its Constitution and, therefore, is illegal and illegitimate. It is not in the interests of

this Committee at this time or any time to welcome testimony from those who support and are cheerleaders for lawless actions.

I want to make sure that we also recognize the serious corruption that has been involved with this development. In Ohio, they have got indictments to saving supposedly the nuclear energy industry there. We haven't had any indictments here, but we have got corruption here, and that corruption has been with the company that was hired, ICF, to do the modeling.

On June 8th, the Keystone Energy Efficiency
Alliance, of which ICF is a member, wrote a letter to the
House ERE Committee Members opposing House Bill 2025. On
June 11th, they wrote a letter opposing the bill to all
House Members. That's the Keystone Energy Efficiency
Alliance, and ICF, who is doing the modeling, supposedly
unbiased, on behalf of and for DEP, hired, contracted by
DEP, is a member of that committee that was lobbying
against this bill, to require ultimately to crystallize
what is already, I believe, law and constitutional
requirements for the Administration to get our approval
before moving forward with this scheme.

On July $9_{\rm th}$, ICF signed onto a letter to the EQB, along with several other clean-energy businesses, supporting DEP's RGGI proposal and encouraging investments

of RGGI funds into energy efficiency and clean energy in Pennsylvania. After I pointed out this corruption in the past hearing on July 21st and Senator Yaw sent a letter to the same effect to the Administration on July 24th, ICF then released a statement declaring that their name had been added to the July 9th letter without permission and stating that ICF is a nonpartisan, nonpolitical group.

The statement did not address the other letters, which makes it difficult to believe and reveals that the company is either extremely incompetent or has no credibility. This is the height of corruption when a supposedly neutral company, whose analysis we're supposed to trust, is publicly lobbying in favor of what they should be analyzing in an unbiased fashion and then lobbying regarding how these funds should be spent, revealing a further conflict of interest.

DEP has lost three advisory committee votes on RGGI now. First on May 7th, before the Air Quality Technical Advisory Committee, stacked with environmentalists, they voted 9 to 9 with one abstention, so they failed to approve DEP's proposal. Then on May 19th, the Citizens Advisory Council voted 9 to 4 to reject the proposal. And then we heard from one of the gentlemen who sits on the Small Business Compliance Advisory Committee today, who on July 22nd there was a vote of 4 to 3 to reject

DEP's RGGI proposal. With all of that, they are still going to move forward, supposedly, with their September consideration by the EQB.

Now, there is never a good time to pursue an illegal, unconstitutional scheme like RGGI, but it's a horrible idea for Pennsylvania, especially right now during our current economic crisis. We must be trying to get our business community to reinvest, encouraging them to know that they have got a stable environment to move forward in to try and help our economy recover out of what has been occurring because of the virus and because of Wolf's reaction to it, not hit them with additional costs and burdens with little to no environmental benefits.

Governor Wolf, Secretary McDonnell, the evidence is mounting against you and your corrupt hired company that is reviewing this. The time is now for you to withdraw this horrible job-killing RGGI regulation.

This meeting is adjourned.

(At 12:59 p.m., the public hearing adjourned.)

	133
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2	are a true and accurate transcription produced from audio
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