Kelly Brownell:

Welcome to Policy360 I'm Kelly Brownell, Dean of the Sanford School of Public Policy at Duke University. In a single day, there were more than 600 marches and rallies worldwide recently. One on every continent in support of science. Many were drawn to march because of the dramatically different direction the U.S. is now beginning to take in regards to climate change. My guest today is Tim Profeta. Tim is the director of Duke University's Nicholas Institute for Environmental Policy Solutions. Tim has a wonderful history in the area of environmental issues before coming to Duke and has done tremendous work at Duke. The Institute is non-partisan and they help both the public and private sectors understand complex environmental issues. Welcome to Policy360, Tim.

Tim Profeta:

Thank you. Wonderful to be here.

Kelly Brownell:

So you have a blog in the Huffington Post every week where you offer a rundown of the latest climate and energy news. So in your opinion, what news should we be paying attention to when it comes to the new administration in the environment?

Tim Profeta:

I think of three things when an answer to that. The first is on the issue of climate change. I think that's the most overarching and most controversially environmental issues. I think we should be looking at as to whether this administration tries to change the means we are taking to address climate change. For example, the president's commitment to pull back the Obama Clean Power Plan and the Paris Agreement and our agreement to enter into that agreement to mitigate climate change. Or if some ministrations need to go back another step and try and move back the country's commitment to address climate change as a problem. For example, questioning whether climate change endangers public health and welfare in their Clean Air Act and questioning whether we should be a part to the Rio Convention from 1992, which began the process of addressing climate change internationally. And so how far back they take it is a question of how much is left in terms of the authority of the United States to act.

Kelly Brownell:

When you say, "how far back do they take it," I mean, I'm assuming what you're saying there is that we're regressing in advances that have been made on climate change, and it's just a matter of how much regression is occurring.

Tim Profeta:

Right. I think there's almost a threshold there. Are we going to change the means we use to tackle the problem or are we going to question whether we should tackle the problem? And the second steps I'm describing, we'd actually go after them very explicitly. And the Clean Air Act, the federal government of the United States has decided that greenhouse gasses endanger public health and welfare. So [inaudible 00:02:39] agree with the science of climate that is changing and is threatening human welfare. If they undercut that endangerment funding, if they question whether that finding was correct, it would take away the rationale for action on climate change by the federal government. The other thing I would say is to watch in the environment in this administration is just the environment and the EPA and some of the other agencies are the poster children for some people in some ministration for the overreach of

government. And so just to watch how much does the rollback of regulations and the resourcing of these agencies get affected by just a philosophic change by the Trump administration to deconstruct the administrative state.

Kelly Brownell:

So you're making the point that it's very important to track these things and to watch what's happening. We're only a hundred days or so into the administration. What sort of signs are there so far?

Tim Profeta:

On the climate issue, it's clear that this administration will go after some of the means that president Obama took to address climate change. They have already said they went through all the Clean Power Plan, the regulation of our power plants United States. There's been other places where they've surgically gone into trying to bring back some of the regulatory approaches president Obama took to address climate change. There's not yet indication there that they're going to back the Endangerment Finding. The place that this question is really at the fore right now is the Paris Agreement. And whether the president will pretty much [inaudible 00:04:14] the pen, remove the United States from the Paris Accord, the comprehensive agreement to address climate change across the globe, or whether he will go further and ask to remove the United States from the Framework Convention, or whether as someone's administration are advocating, he stays in both two for global citizenship and geopolitical reasons.

Kelly Brownell:

So we'll come back to the Paris issue in just a moment, but I'd like to ask you this first. So the U.S. Environmental Protection Agency administrator, Scott Pruitt, said the U.S. should exit the Paris climate Agreement. And so he's one voice on that side, but you say there are other voices on the other side of it. So where do you think this is going to all end up?

Tim Profeta:

I don't have any deep insights into the Bates and the Trump administration, but the trends that we are hearing in the conversations in Washington are against the Paris Accord. That Mr. Pruitt and others like him in the administration are beginning to persuade the president that he might want to remove the United States from the Paris Agreement. This has been somewhat characterized as a debate between the Steve Bannon wing of the Trump administration and the Jared Kushner wing. The Kushner wing, seeing the importance of this issue for the geopolitics. Also see, I think a little bit more moderated on whether the nation should address climate change. The Bannon wing, seeing this as a context of regulatory overreach by the state, and something that should be rolled back.

I think the important thing that happened here is that there's a question of whether the United States can remain in the Paris Accord yet reduce its obligations. And there've been several legal theories put forward that the United States is not allowed to lighten its load on their Paris, which is making this more of a black and white choice to the president. He either has to accept Obama's commitment, or he has to get out. I think that's what's trending in the conversations to lead him to think he might want to get out.

Kelly Brownell:

So if it does turn out to be either-or, and we pull out, what would that mean to the world?

Tim Profeta:

Indications from the world is they will move forward with the Paris Accord. The Paris Accord was an interesting document. That was not a top-down negotiated document. It was really a gathering of commitments from nations around the world and an agreement to both live up to those commitments and monitor each other, and then continue to work together, evaluate what else would be necessary to address climate change. So in my view, the world is thinking that it goes forward with that plan without the United States. If you look at the trends in the United States, our greenhouse gas emissions are on a downward trajectory, largely because of market forces such as cheap, natural gas. And if the world is going to see this Trump administration as a four or eight year period, they would probably go forward with the Paris Accord, keep the course and hope that the United States will come back for those next iterations and evaluations of what else we need to do to address climate change.

Kelly Brownell:

Okay. So back to EPA administrator Scott Pruitt, he said something that was interesting. I'm quoting here that the Paris agreement means that we are, quote, "Contracting our economy to serve and really satisfy Europe and China and India. They are polluting far more than we are." Is that true?

Tim Profeta:

Well, the answer is perhaps. Depends on how you look at the metric. China is a larger emitter in terms of cumulative emissions than we are, but they're not nearly the same emitters we are per capita. India is not. We are number two in the world in cumulative emissions and the other developing nations don't have the same per capita footprint. The key in the Paris accord was we were trying to find a way for every nation to start from where they were and get on trajectory that gets us to a safe level of greenhouse gases in the atmosphere. And I think the real breakthrough on the Paris Accord was we no longer treated the world in two different parts, those who were developed and those weren't. But it really just saw the world as a spectrum and everybody making a commitment they could live up to.

In terms of whether this is sacrificing our economy, I have not seen any indication that our economy has shrunk over the past decade as our emissions have gone down. And I think if you accept that climate is a challenge, that your economic growth is actually going to be in those technologies that help us mitigate greenhouse gases, not those that help make this problem worse because eventually political and physical forces will force us to come to grips with this problem and people have to buy the products that don't emit greenhouse gases, not those that will. And we would rather own the patents here in the United States and have them own in China.

Kelly Brownell:

So given the directions you see the Trump administration going in so far, what do you think it means for support for renewable sources of energy? Where are market forces likely to prevail in any event, no matter what government does?

Tim Profeta:

In terms of the market forces, the market forces are definitely driving our emissions down. I don't see any indication that our largest submitting source in the power sector, coal, is going to have resurgence at this point, simply because it does not pencil to build a coal plant. In terms of renewables, renewables prices are coming down and competing almost at par with markets... I mean, with fossil sources as well. So the market forces there are also in the same direction, but there is still some policy that's helping

them come to the force. So if the federal government draws back on the policy that support those renewables, it may be up to the states across the United States to put policies in place, to continue to encourage the development of those markets as well.

Kelly Brownell:

So your Institute, obviously, because policy is in the name of it, does a lot of work on thinking through what governments can do to help address environmental issues, climate change, particularly what we're talking about today. What are some of the policies you'd recommend to help renewable sources of energy go forward?

Tim Profeta:

Well, actually I think still one of the best things that can be done from a policy perspective is to put a price on carbon. And that doesn't benefit renewables because perhaps some of the renewables aren't the top solution. Perhaps we should find a way to use the fossil fuel, but not let the pollution go in the atmosphere. But the pricing mechanisms allow private firms to see the costs that they're posing on society and put it into their calculus and find the lowest cost way to mitigate that impact on society. So that's been successful. That said, there's also some other places where government intervention is usually necessary. It's usually where the market doesn't operate purely. And it operates in the economics classroom and you need to have intervention to compliment that policy. In particular, I'm thinking of the utility sector, where we have a lot of regulated monopolies across the United States. Those regulators need to look and help plan those utilities a way forward where they can bring in low and zero meaning sources of power as part of their portfolio.

Kelly Brownell:

Are the utilities themselves making advances on renewable?

Tim Profeta:

Absolutely. Most utilities impact many of those regulated monopolies, have decided do not want to become solely dependent on one source of power, natural gas, and are looking diversify their portfolio. So they're not subject to price shocks. And if the market for gas changes dramatically, some of the Southern utilities, which sometimes are thought as more conservative, have really invested across the board in solar and wind and nuclear power, nuclear plants, where nuclear is also a non-emitting source of power to create that portfolio. And I think in their minds to hedge, to risk their business, that someday greenhouse gases will be priced or regulated in the way that will create cost if they're still emitting them.

Kelly Brownell:

So I know there's some very interesting technology issues with renewable energy storage. What are some of the chief advances that needed to be made there to help make it even more economically viable?

Tim Profeta:

Well, you named really, I think that the top one. The classic maxim about renewables is they're intermittent. The sun doesn't always shine, the wind doesn't always blow, but people always want their life to go on 2:00 AM. So there needs to be a source of power that's always there in the early morning,

and that's where we've always built nuclear plants and fossil plants that serve as what's called the base load. The way that renewables became able to play in that baseload part of the equation is when you have storage. And you have storage, it's economic. And so I think one of the big breakthroughs that we still need to get to a lower emitting electricity source is storage technologies that can work at par with generations and the economic part, the same price.

The other thing I think we want in terms of innovation is a much better ability to manage where power is flowing in the grid. Because renewables come on and off, there can be difficulty managing where there's surges and lags in the electric power on the grid. And the smarter you make that grid, the more that it's a two way internet operated computer system, the more you can manage for those flows and bring more power into the grid.

Kelly Brownell:

Okay. Let's go back to the U.S. government, their policy. It seems to be a pretty clear difference. And you alluded to this about how the U.S. government is now viewing climate change and how businesses are viewing this. Tell us about this dichotomy a bit.

Tim Profeta:

First of all, I think you're recognizing correct dichotomy. Most large corporations, multinational corporations have to operate first across geography. So they have to operate in Europe where there is a great concern for climate and policies in place, you have to operate in Asia where it's on the rise. And also they plan for multi-decadal horizons. They're planning to be around here next century, not just in four years. And so they see the inevitability that the climate issue needs to be addressed, and they need to position their firms to be there. So there is a responsible approach being taken in most corporate boardrooms towards climate change. A lot of conversation I've been party to have been, how do we continue to maintain that without getting on the wrong foot with the president administration? And so there is some political balancing that's being done between those two considerations.

Kelly Brownell:

So Tim, you've made the interesting point that some of these environmental issues have become part of identity politics. What do you mean by that?

Tim Profeta:

Well, I think... and we are talking about the corporate leaders and how they have a longer term multi-decadal view, you would think that they would be able to persuade both parties. That for long-term planning, addressing climate change is an important thing for the country. And when I first started working on this with John McCain and Joe Lieberman, it was much less of a polarized issue. But over time, this has become part of identity politics in United States. It's really affecting a lot of our ability to address policy questions and predicting the Republican party, there's a pervasive view that if that the party perceives climb changes area of government overreach, it's a place that the advocates of government are trying to grab power away from the private sector. And it's become almost a defining ethos for those in the Republican side of the aisle, that they should oppose action on climate change to avoid the creep of power to the government. And because of that, these larger strategic questions that the corporate leaders see aren't really being able to affect the leadership of the Republican party.

Kelly Brownell:

So we've talked mainly about the federal government. How important are state and local governments in this space?

Tim Profeta:

They're very important. In fact, if you think about a lot of the infrastructural decisions, if you think about this time in our history as we need to ensure that the infrastructure continues to be laid, to support the economy we want. So we want to have the storage brought in. We want to have the grid brought in in these four to eight years. Those decisions mostly happen at the regional level or the state level, or even the local level. And as long as we are continuing to sort of walk the right path in terms of instructional investment, that infrastructure to be there to support those low carbon technologies that are brought in in the years ahead. So they're becoming very important, increasingly important.

Kelly Brownell:

Are there some states that are making specially good progress on these issues?

Tim Profeta:

I think a lot of states are beginning to evaluate what they need to do, particularly with what they sense is a lack of leadership from Washington DC. The state that is far out ahead as anybody's California, of course. They have a carbon pricing regime. They are almost treating themselves as independent of the federal government in terms of how they want to move forward on this. But I think there's some real leadership in the upper Midwest and the Northeast coming out of the electricity regulation side of the equation as states decide, how are we going to manage power that flows across our state borders? There are many governments up there in those regions that want to continue on this low carbon path. And they are working with their peers in states that design programs that again, allow us to move in that direction even without a federal policy in place.

Kelly Brownell:

So you mentioned carbon pricing in California, how's that work?

Tim Profeta:

Well, California has had a cap and trade system and has had for many years, and they've just moved forward with renewing it. And the cap and trade is a pretty simple concept when it comes down to it. You think that there's a certain amount of greenhouse gases or some type of pollution you want to put in the air, you create that amount of permits. Let's say it's a million tons. You create a million permits to emit a ton of CO2. And then you distribute to the people who emit them. So if you want to emit in that state, you either have to already possess one of those permits for that ton, or you need to go buy it from somebody else. And what allows is allows the market to be created, where if you can make a reduction cheaper than me, you'll make that reduction and it's your interest to sell me that permit. It's in my interest to buy it rather than making the more expensive reduction. And it allows market forces to drive, instead of against environmental considerations that drives towards pushing people to invest in the things that reduce the pollution.

Kelly Brownell:

So it's a heavy incentive to develop new technology, isn't it?

Tim Profeta:

Absolutely. It changes the balance sheet for the business plan for a low carbon technology, because now all of a sudden you get paid for the reductions you can make of the greenhouse gases.

Kelly Brownell:

So it's possible that... I'm asking you a question where you don't know the answer, but California charges, I'm assuming, for these permits?

Tim Profeta:

They began the system by giving away a lot of them free, but now they mostly auction them off.

Kelly Brownell:

Oh, interesting. And then, then what happens to the revenue?

Tim Profeta:

It's a major revenue source for California. In fact, that's almost the larger conversation in the politics of California, where to use it. The pressure in California is to use it for some infrastructural investments like high-speed rail and to help lower income communities deal with the effects of climate change. Whereas other forces are trying to push them to reinvest it in the infrastructure they need to support the energy economy. And that has become as much of a political football as whether to do it itself in California.

Kelly Brownell:

Oh, that's really interesting. I mean, what jumped into my mind as I was thinking about this would be a venture capital money to support firms, developing new technology to help address these issues.

Tim Profeta:

Absolutely. There is a strong camp for that as well, but there's other equity issues that have come into California politics. And California politics are different than Washington DC politics. The strength of different constituencies is sometimes almost feels on its head from what happens in Washington, DC.

Kelly Brownell:

Well, Tim, thanks for joining us today. These are incredibly important issues, and it's really wonderful to have a Duke and a leading national voice on these. And I love talking to you about these because you explain them in very interesting and understandable way is given the complexity. So thanks again for being with us today.

Tim Profeta:

It's been my pleasure.

Kelly Brownell:

So our guest today has been Tim Profeta. Tim is the director of Duke University's Nicholas Institute for Environmental Policy Solutions. Tim is also associate professor of the practice in the Sanford School of Public Policy. We'll have a link to Tim's weekly blog called The Climate Posts at our website that's policy360.org. Until next time, I'm Kelly Brownell.

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