RATIONAL MIDDLE

# NET ZERO

## POLICY VS. MARKET

EPISODE TRANSCRIPT

**Dr. Richard Newell:**

Changing the structure of the global energy system is not going to be simple. It's not going to happen of its own accord. It's really going to require an alignment of three major forces. Markets, technology, and policy. All three of these dynamics are going to need to be moving in the same direction in order to lead to decarbonization of the energy sector in the economy.

**Mark Finley:**

Part of the challenge that we face in trying to figure out how to deal with climate change is how much to rely on the market and the innovation that takes place there versus government direction. The classic view of a marketplace is that the collective decisions of lots of buyers and sellers will find its way to the low cost solution for society as a whole, and that's something that's hard for a central planner in a government office to pull off on their own.

**Lesley Jantarasami:**

What a free market capitalist economy does is it's creating the conditions whereby we're making choices. Corporations make choices about what to make, what to sell, and individuals make choices about what they want to buy, and sometimes these decisions lead to indirect effects to society.

**Mark Finley:**

And in the particular example of climate change, the whole concept of how we got to where we are today is that the social cost of our energy consuming activities, CO2 accumulating in the atmosphere, is not reflected in the price of the energy consuming activity. So this is literally the textbook example of how economists would say, "This is where it's appropriate for a government to try to intervene in the functioning of the market to make sure that the social cost of this activity is fully reflected in the price of that commodity."

**Dr. Julio Friedmann:**

We've done this a lot over the years. One example is sanitation. We no longer throw refuse out in the street. We are trying to figure out how to do the same thing for climate and carbon.

**Dr. Richard Newell:**

Innovation doesn't just happen on its own. It's driven by market forces. Where do companies see the opportunity to increase their businesses, to make money?

**Mark Finley:**

In my experience, I've lived in my career to see lots of examples of industry finding creative, low-cost solutions to things that no one had expected when given the right opportunities, incentives.

**Sasha Mackler:**

So free markets and an ability to compete is key to the energy system. But if we look at how fast we are moving when it comes to climate and clean energy deployment against the transition to a net zero economy by 2050, we are clearly not moving fast enough.

**Gov. Bill Ritter:**

One of the things that I've learned is that markets can dictate a lot, but they don't dictate timing. So if you have a ticking clock, if there is something that is pressing us like climate change is, then you cannot take policy off the table and say we're going to leave it all to the market, because the market may not work in a timely fashion given the fact that it's coming at us and it has a ticking clock.

**Sasha Mackler:**

And so that means we need to be moving faster on technology development and deployment. It means we need to be moving faster on creating the new market conditions, so that the right answer from a climate perspective is the most profitable answer for our companies.

**Lesley Jantarasami:**

There are choices in how government can establish climate and energy policies to not necessarily create winners and losers.

**Dr. Julio Friedmann:**

In the United States, we like two things. Tax policy and regulation. That's how we dealt with acid rain, that's how we've dealt with mercury, it's probably what we're going to do on carbon. A combination of incentives and regulations.

In the US, we have things like an investment tax credit for solar power, a production tax credit for wind, a carbon capture tax credit. We have incentives for nuclear power, a renewable energy credit which allows you to trade value around zero carbon sources. Or we can just say, "By 2035 all US energy can no longer emit carbon dioxide. Any emissions will be fined at this rate." One is incentives, one is penalties. But they're not nipping at the edges. They are big and clear, and they're on a timeline that allows investors to make investment decisions. Cause this is not slapping a solar panel on your roof. You're talking about building an asset that will operate for 50 years that costs two billion dollars. You cannot do that with risk. You need it to be big and you need it to be clear.

**Gov. Bill Ritter:**

It's also important to consider the cost of those policies and whether they overburden certain parts of the population or all of the population.

**Dr. Julio Friedmann:**

Those issues must be navigated. We cannot allow the cost to go up too high, because they will disproportionately impact those who are least able to do it. People who with limited means,

people of hardship, people with limited incomes. They really cannot afford price increases and that's got to be conscienced as we put together policies.

**Sasha Mackler:**

2050 is three decades away. We're not moving fast enough, but I think we do see signs that the policies that will be needed to accelerate the energy transition are starting to emerge and come forward, and that's what we need to focus on. The good news is that the technologies are becoming available, and now we need to think about how do we bring them forward more quickly.

**Gov. Bill Ritter:**

We've already seen some early successes. To have witnessed how utilities have embraced emissions reduction is pretty serious. That we see all of these major plays in the corporate world that I think are a significant development. We're going to have to meet those targets to really say we're clearly successful, but I think the fact that we have goals in mind, that we have policy supports for many of those goals, those are markers of success.

**Lesley Jantarasami:**

Where the private sector has been leaning in and where governments have been helping to create those incentives and drivers for change, that does give me hope that we are moving in the right direction. I think the question just becomes, how quickly can we do this?

**Mark Finley:**

There's never yet been a challenge we human beings haven't been able to figure out an answer to. So if we can do the hard work of lining up incentives for changes in behavior, I have every reason to believe that the innovations will follow. They may not be what we expect. They may come from different technologies than we currently have in mind, but history tells us that people can be amazingly creative at solving problems when they are given the opportunity to do so.

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