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The Waxman-Markey Global Warming Bill – Is The Economic
Pain Justified By the Environmental Gain?

My name is Ben Lieberman and I'm the Senior Policy Analyst for Energy and Environment at the Heritage Foundation. I'll be discussing the economics of global warming policy and especially the cost of the Waxman-Markey cap and trade bill currently working its way through the House of Representatives. I'll focus on the Heritage Foundation's economic analysis of that bill. But before I do that I wanted to set out a framework with which to judge Waxman-Markey or any other measure offered up as a solution to the global warming problem - a set of questions that need to be answered before we enact any global warming measures, especially costly ones.

The first question is the one that is the main focus of this event and its highly distinguished panel of scientific experts - how much of a problem is man-made global warming? After all, Waxman Markey or any other solution is a solution only to the extent that there's a problem in the first place.

Secondly, even if one assumes warming is a problem, how much of it will be solved by the policy under consideration? In other words, if we accept that the increasing trajectory of atmospheric carbon dioxide concentrations is causing net harm, how much of that harm will be alleviated, how much of that rising trajectory will be reduced by the policy measure in question? Are we eliminating 100 percent of the problem, or 25 percent or maybe only a few percent? And consequently how much will the earth's future temperature be reduced, a lot, a little, enough to

even notice? And these are especially important questions to ask of a unilateral measure like Waxman-Markey.

A third question is whether this particular solution to global warming has been tried elsewhere, and how well has it worked, what is the real world experience with this approach. And here there are valuable lessons from Europe, which did us the favor of moving much faster than the U.S. and has already implemented the cap and trade approach embodied in Waxman Markey. And this real world experience needs to be taken into account.

And a fourth question to ask is whether there are better ways of addressing global warming and for that matter better priorities to address than global warming. Looking at all the challenges that present generations face and future generations will face, is this the best use of our resources?

So as I discuss the costs of the Waxman-Markey bill, keep this framework in mind – how much of a problem are we addressing in the first place, to what extent are we reducing the problem assuming it does exist, has our chosen approach worked where and when its been tried elsewhere, and is this really the best approach of all the options available to best serve present and future generations. These are the questions we need to have answered before we can judge whether the costs of Waxman Markey and its cap and trade approach are worth it.

So lets start out with what cap and trade is and then I'll get to the costs. The cap part of cap and trade refers to a cap on greenhouse gas emissions, chiefly carbon dioxide. The problem is that carbon dioxide is the unavoidable byproduct of fossil fuel combustion – the coal, oil, and natural gas that currently provides America with 85 percent of its energy. And there's no cheap or easy way to significantly reduce those emissions any time soon. The Waxman Markey bill requires a 3 percent reduction from 2005 baseline levels beginning in 2012, and rises to 17

percent by 2020 and 83 percent by 2050. There will be some fuel switching from coal to natural gas, and an increase in alternatives like wind and solar, especially if these alternatives get a federal mandate on top of the generous tax breaks they already receive. But for the most part, if you look at these targets as energy rationing, you'll be correct. And you'd be even more correct if you view them as an energy tax in disguise.

Now who would be directly regulated? Electric utilities, oil refiners, natural gas producers, and some manufacturers that produce energy on site. So the good news for the rest of us - homeowners, car owners, small business owners, property owners, farmers - is that we won't be directly regulated under Waxman Markey. The bad news is that almost all of the costs will get passed on to us anyway.

Now each of these regulated entities would be given for free or required to purchase enough rights to emit carbon dioxide to cover their activities. These rights to emit each ton, called allowances, would be tradable commodities, so those who have extras can sell them to those who don't, that's the trade part of cap and trade. And, over time the annual amount of these allowances goes down, as I mentioned, culminating in a 83 percent reduction in 2050. So in that year, everyone who uses fossil fuels would be fighting for allowances that cover only 17 percent of our 2005 greenhouse gas emissions.

Now I'm not going to put you through too much more torture about the details in this 900 plus page bill. But there are a few things I would like to point out. One factor that affects the cost of the bill is the provision for offsets. Offsets mean that instead of companies reducing their emissions, they can essentially pay somebody else to reduce theirs or to engage in projects that supposedly reduce them. There are both domestic and international offsets. The thing that makes offsets so important is that for regulated companies, actually having to reduce their

emissions is always the least desirable option because it's the most expensive one, so anything that lets them off the hook will be used to the fullest extent possible. And the amount of offsets allowed in Waxman Markey is big enough that they could greatly reduce the costs, at least conceivably. But in the bill, these offsets are subject to a lot of red tape, a lot of oversight before they are deemed acceptable. The reason for this is that there have been many instances of fraud with offsets, especially international ones, instances of phony emissions reductions. One colorful example involved factories in China that were deliberately built to emit more greenhouse gases, just so the Chinese government could be paid big sums by European nations to make the relatively cheap facility changes to lower those emissions. So Waxman Markey allows for domestic and international offsets, but has very tough and unprecedented procedures to try to prevent fraud, and the upshot is it is hard to say how much offsets will qualify and actually be used. But for our analysis, we assume some but not all, we assume 15 percent of the compliance obligations will be met with offsets.

Now one other thing that has happened with Waxman-Markey that has gotten most of the attention as it went from a draft proposal to a bill was the allocation of allowances. President Obama had endorsed cap and trade with 100 percent auction of allowances. That means that the regulated entities would have to pay for all of the allowances and would get none for free, and we are talking about something worth hundreds of billions of dollars each year. On the other side, the US Climate Action Partnership, a coalition of many major corporations and some environmental groups, asked for some of those allowances for free, and they clearly had a role in drafting Waxman-Markey which gave them what they wanted. I thought President Obama actually had the right idea with no free allowances, because it means that none of these companies can be bought off in this manner. But in the end, 85 percent of the allowances have

been promised for free. The biggest winners are the electric utilities which get 35 percent of the allowances. Some energy intensive manufacturers also made out well. So only 15 percent of the allowances will be auctioned, at least in the initial phase of the bill, and even those may get promised away as the bill moves forward.

But these free allowances don't lower the costs of Waxman Markey, they just shift them around. Keep in mind that the targets are still the targets, and the way they work is by inflicting economic pain. After all, if the cost of electricity or gasoline stayed the same, individuals and businesses would use just as much and the targets would not be met. Prices have to go up enough to force people to use less energy, and so for those bought off with free allowances means the costs for everyone else are that much higher. For those of you in this room who haven't hired one of the 2,400 lobbyists working on this issue, it probably means whatever free allowances they get for their clients, that Waxman-Markey will cost you that much more. And as far as I know, none of those 2,400 lobbyists are registered to work for the American consumer. Free allowances also mean that the pot of money that the government collects from auction revenues will be lower. This money could have been used for various purposes like rebates to low income households that would otherwise be disproportionately burdened by higher energy prices or to fund the next big health care plan. But the available revenues that could be redistributed are made smaller by all the allowances given away.

Now if this all sounds confusing, remember that is exactly the point. This is an energy tax in disguise, energy prices go up but its done in such a roundabout and convoluted manner that proponents hope the public doesn't recognize it as a tax - at least not until it is too late. Otherwise it would suffer the same fate as the 1993 BTU tax, which was both defeated and became a political liability for those who supported it.

So what are the costs? The Heritage Foundation's Center for Data analysis modeled the economic impact, and I would like to thank David Kreutzer, Bill Beach, and Karen Campbell for their fine work. We used the Global Insight macroeconomic model to predict the future economy, and then we modeled the changes caused by Waxman Markey. Now I would be remiss in a room full of people who know very well the limitations of climate models not to mention that many of those limitations also apply to economic models, so I offer up these numbers only as estimates. But I can say that, unlike some climate modelers, we did not use questionable assumptions to skew the results, and in fact we gave Waxman Markey the benefit of the doubt in many respects. For example, we rather optimistically assumed that the 36 billion gallon ethanol mandate by 2022 will be met, which of course will take some pressure off gasoline supplies. We made that assumption even though we have already seen significant problems in 2008 with only 9 billion gallons of ethanol. Also, we only carry out our model to 2035 but not further, because beyond that we deemed it too speculative. Of course, if we carried it out further we would have come up with larger total costs. In contrast, the low ball estimates of cap and trade that some of you may have seen, such as those from the Environmental Protection Agency, invariably involve one or more far-fetched assumptions to get the costs down. In EPA's case they make rather optimistic assumptions about carbon capture and sequestration and nuclear power, they assume very modest economic growth out of line with the rest of the administration's projections, and they use a high discount rate to come up with a lower present value of future costs.

In our analysis, the higher energy costs kick in as soon as the bill's provisions take effect in 2012. For a household of four, energy costs go up \$436 that year, and they eventually reach over \$1,241 in 2035 and average \$829 per year over that span. Electricity costs go up \$468,

gasoline goes up \$565, and natural gas goes up \$161 by 2035. That's a 58 percent increase in gas prices, 90 percent for electricity, and 55 percent for natural gas. Cumulative higher energy costs for a household of 4 from 2012-2035 would reach nearly \$20,000.

But direct energy costs is only part of the consumer impact. Nearly everything goes up, since higher energy costs raise production costs. If you look at total cost of Waxman-Markey as reflected in the cost of the allocations and offsets, and divide these costs by the population, you get a total impact attributable to a family of four averaging \$4,618 annually from 2012 to 2035. And most of that \$4,618 per household would be passed on to the general public so it is a good gauge of the ultimate cost.

Beyond the cost impact on individuals and households, Waxman-Markey also affects employment, and especially employment in the manufacturing sector. We estimate job losses averaging 1,145,000 at any given time from 2012-2030. And note that these are net job losses, after the much hyped green jobs are taken into account. Some of the lost jobs will be destroyed entirely, while others will be outsourced to nations like China and India that have repeatedly stated that they would never hamper their own economic growth with energy cost boosting global warming measures like Waxman-Markey.

I should also add that these costs are not distributed evenly. As I mentioned, the burden of higher energy costs disproportionately hurts the poor, who spend a larger percentage of their incomes on energy. The Congressional Budget Office has been very clear on this point. And of course any attempts to try to make low income households whole by redistributing the auction proceeds gets a lot harder to fund because of all the free allowances. So it is not only a tax but a highly regressive one at that. Waxman-Markey also hurts some regions of the country much more than others, particularly the industrial Midwest, which, unlike the West Coast and

Northeast, still has manufacturing jobs to lose. It also hurts those areas that get a larger percentage of their electricity from coal, which is the hardest hit energy source. So keep in mind that these national numbers in our analysis understates how badly the worst hit persons and regions are hit.

The overall gross domestic product losses will average \$491 billion per year from 2012-2035 and the cumulative GDP loss is \$9.4 trillion by 2035. The increase in the national debt by 2035 for a family of four is 26 percent or \$115,000.

In sum, Waxman-Markey carries quite a price tag, an unprecedented one in many respects. And now to try to wrap things up, and try to integrate the rest of today's discussion, we should ask ourselves whether it is worth it. Back to the question of how much of a problem man-made global warming actually is, I really can't add anything to the excellent discussions we have heard today, and I look forward to reading the Heartland Institute's new comprehensive report on this subject. But it is clear that both the seriousness and the imminence of anthropogenic global warming has been overstated. My rule of thumb, and I think it has been verified today, is that virtually everything one hears about global warming that sounds terrifying is not true, and what is true is not particularly terrifying. The risks of global warming are outweighed by the risks of ill-advised global warming policy like Waxman-Markey.

But even assuming global warming is a problem, how much of it is being alleviated by Waxman Markey? Proponents of this cap and trade bill scare us with the usual gloom and doom litany - sea level rise, more storms, more disease - but even if one accepts that litany, how much of it will go away thanks to Waxman-Markey? Proponents of the bill never really address this question, and for good reason. Globally speaking, Waxman-Markey would have a trivial impact on future concentrations of greenhouse gases. The bill only binds the U.S., and the

trends in the rest of the world are clear that emissions are rising. China alone now out emits the U.S. and it hasn't just inched ahead it has raced ahead with emissions rising six times faster than ours. A similar story is true of other rapidly developing nations. And the notion that if we bind ourselves first that China will be more inclined to follow our lead is most likely the opposite of the truth, the opposite of what usually happens in international negotiations. I should also add that, until the recent recession came along, many western European and other nations that had signed on to the Kyoto Protocol global warming treaty have been seeing their emissions rising as well. Taking all this into account, climate scientist Chip Knappenberger of New Hope Environmental Services, in a series of blog posts for www.masterresource.org that was turned into a paper for the Science and Public Policy Institute, calculates that Waxman-Markey would reduce the earth's future temperature by 0.1 to 0.2 degrees C by 2100, an amount too small to even notice. And I have yet to see a decent refutation of the assertion that the temperature impact would be inconsequential.

We also need to look at how well carbon cap and trade has fared. And here Gabriel Calzada's analysis of Spain, which like the rest of western Europe has had a cap and trade program in place since 2005, is extremely valuable. Spain, as with most of the rest of western Europe, has higher unemployment and energy costs than America, and yet has seen its carbon dioxide emissions increasing anyway. In fact, European emissions have been rising more quickly than those in the U.S. That's right - many nations with cap and trade have had faster rates of emissions growth than the U.S. has had without it.

And there are reasons that explain this seemingly counterintuitive result that cap and trade is not only the wrong approach for the economy but may also be the wrong approach for reducing greenhouse gas emissions. Any sensible approach to global warming has to center on

technological innovation as it applies to energy production and use. Innovation is really what we want. And we know from long experience that free economies innovate better than centrally planned ones, but cap and trade introduces a significant element of central planning and thus stifles innovation. We also know that strong economies innovate better than weak ones, but cap and trade weakens economies. And stable economies innovate better than unstable ones, especially for something like energy where the investments are great and the payoffs play out over decades. But cap and trade adds instability, and indeed in Europe we have seen wild swings in the price of carbon allowances, and companies less interested in long term investment and more interested in short term gaming of the system.

In conclusion, it is free markets, even ones like ours that run on fossil fuels and will continue to do so, that provide us with the best way forward. The wealth that they create, which according to our study is \$9.4 trillion dollars more without Waxman-Markey than with, that wealth will give us the resilience and the adaptive capacity to deal with whatever challenges the future brings, whether global warming or much more likely something else. Thank you.