



**“Examining the Threats Posed by Climate Change”**

Testimony by  
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Subcommittee on Clean Air and Nuclear Safety

United States Senate

The Honorable Sheldon Whitehouse, Chairman  
The Honorable Jeff Sessions, Ranking Member

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Protecting small business, promoting entrepreneurship

Chairman Whitehouse, Ranking Member Sessions, and Members of the Committee, thank you for hosting this hearing today on the impact of climate change on communities and the economy. My focus is going to be on the negative effects that regulations tied to the issue of climate change have on small businesses and the economy.

I am pleased to submit this testimony on the behalf of the Small Business & Entrepreneurship Council (SBE Council) and our Center for Regulatory Solutions.

My name is Raymond Keating, and I am the chief economist for SBE Council, as well as serving as an adjunct professor in the Townsend Business School at Dowling College where I teach a variety of courses in the MBA program; a weekly newspaper columnist for *Long Island Business News*; and author of several books, with the latest nonfiction book being *Unleashing Small Business Through IP: Protecting Intellectual Property, Driving Entrepreneurship*.

SBE Council is a nonpartisan, nonprofit advocacy, research and training organization dedicated to protecting small business and promoting entrepreneurship. With nearly 100,000 members and 250,000 small business activists nationwide, SBE Council is engaged at the local, state, federal and international levels where we collaborate with elected officials, policy experts and business leaders on initiatives and policies that enhance competitiveness and improve the environment for business start-up and growth. The Center for Regulatory Solutions is a project of SBE Council.

### **The State of the Economy**

Of course, the state of the economy must be weighed heavily when considering any major policy endeavor, including, of course, significant regulatory measures. After all, the economics of regulation is rather straightforward, that is, regulations raise the costs of and create uncertainties for investment, business and entrepreneurship, thereby restraining critical risk taking, along with productivity, economic growth and job creation. In turn, the wages and incomes of workers and families suffer.

While I would argue that, especially given the current burdens imposed by government, it's never a good time to impose significant regulatory or tax burdens on entrepreneurs, businesses, investors and workers, the current period is a particularly troubling time given how poorly the U.S. economy has performed in recent years, and how poorly it continues to perform.

Consider some facts about recent U.S. economic performance:

- The U.S. has not achieved respectable levels of annual real economic growth since 2004 and 2005 (3.8 percent and 3.4 percent growth, respectively), that is, about a decade ago.
- In fact, it can be argued that the U.S. has experienced a lost 13-plus years when it comes to economic growth. From 1950 to 2000, real annual GDP growth averaged 3.7 percent. That compares to average annual growth of only 1.8 percent from 2001 to 2013. Why does this matter? Well, one way of thinking about it is that at 3.7 percent growth, real GDP doubles every 18.9 years, while at 1.8 percent real GDP doubles every 38.9 years. Quite simply, the improvement in our standard of living has suffered dramatically in recent years.

- From 2007 to 2013, annual real GDP growth averaged a woeful 1.0 percent. Keep that up, and real GDP doubles every 70 years.
- Consider that from 1983 to 2000, an 18-year period, the U.S. had one recession. During the 13 years from 2001 to 2013, the U.S. had two recessions – the latest being one of the worst since the Great Depression.
- During this recovery (which began in mid-2009), real GDP growth has averaged only 2.1 percent. That compares to a 4.5 percent average rate experienced during recovery/growth periods since 1950.
- And of course, real GDP actually shrank by 2.9 percent in the first quarter of 2014. That's a stunning contraction in the economy, by far the worst performance since the first quarter of 2009, during the depths of the last recession. In addition, consider that first quarter GDP included a decline of 11.7 percent in real gross private domestic investment (with intellectual property investment being the only major subsection with growth at 6.3 percent). That was the worst performance since the second quarter of 2009. In addition, real exports declined by 8.9 percent. Again, that was the poorest number since the first quarter of 2009.
- Lackluster private investment stands out as the most troubling issue in this very troubling economy, given that private investment is vital for economic growth now and in the future. As of 2013, real gross private domestic investment still had not recovered to the recent high hit back in 2007. In fact, real private investment in 2013 was still down by 6 percent compared to 2007. That's the worst performance, by far, since the Great Depression.
- Productivity growth has lagged recently as well. Labor productivity grew at a mere 0.4 percent in 2011, 1.4 percent in 2012, and 0.9 percent in 2013. That compared to a post-World War II average of 2.5 percent, and an average since 1980 of 2.1 percent. During the first quarter of 2014, productivity actually dropped by 3.5 percent. And keep in mind the link between productivity and capital investment. That is, when businesses make capital investment, that in turn boosts labor productivity. Quite simply, workers have improved tools and technology with which to work, and increased productivity leads to increased income. In fact, the reason that Americans earn among the highest incomes around the world is because they rank among the most productive.

Given this poor economic performance, the question is: Why? That is, why has the U.S. been suffering through such tough economic times? It's overwhelmingly about policy. Unfortunately, each major area of public policy has been pointed in anti-growth direction. Consider the following:

- Federal government spending as a share of GDP exploded from 2000 to 2009, and has remained at elevated levels ever since – thereby draining large amounts of resources from the private sector.

- Tax policy has been aggressively anti-entrepreneur, anti-investment, and anti-growth since 2009, serving as a real impediment to risk taking.
- After declining in the 1980s, regulatory costs have been mounting ever higher since, with recent years amounting to hyper-activity on the regulatory front (more on regulation below).
- For the past nearly six years, the U.S. largely has been absent from its traditional global leadership role in advancing free trade (though that may be changing with recent efforts regarding the Transatlantic Trade and Investment Partnership (TTIP) and the Trans-Pacific Partnership (TPP)).
- And finally, the Federal Reserve has created enormous uncertainty by running the loosest monetary policy in the history of the nation over the past six years.

This is the worst possible economic scenario to be imposing or considering an additional, massive regulatory intrusion into the economy in the name of climate change, or in the name of anything else, for that matter.

### **The Real Economic Challenge: Costs of Government Action**

Indeed, from an economics perspective, when it comes to the climate change regulatory agenda, the only outcome that we can be confident in is that new regulatory and/or tax regimes will impose very real costs on and reduce economic efficiency in industries, businesses, and the economy—all without providing any meaningful climate benefits or reductions in global temperatures. In other words, all pain for no gain.

When focusing on the threats posed and costs imposed by climate change, the clearest and most significant come from the resulting government actions, in particular, increased regulatory and tax burdens, such as mandating reductions in carbon-dioxide emissions, mandating the use of costly and inefficient alternative sources of energy, and/or imposing some kind of carbon tax.

The implications of a carbon tax are the clearest. That is, a tax is imposed in order to raise the cost of carbon-based energy. That's what Australia did in 2010. But earlier this month, Australia repealed the levy. A *Wall Street Journal* editorial ("Australia's Carbon Tax Message," July 17, 2014) noted that the tax was imposed at "A\$23 (US\$21.54) per ton of carbon," and "The government's own figures estimate the tax added A\$9.90 to the average household's weekly power bill. The burden to industry has been even greater, exacerbating Australia's loss of competitiveness in manufacturing. The tax was due to increase to A\$25.40 on July 1, and then become a cap-and-trade scheme in 2015."

The costs of taxes tend to be far more transparent and obvious to the public than is the case with regulations. Hence, higher taxes tend to be unpopular with voters. That was the case with Australia's carbon tax, and now it has been repealed.

Given how unpopular taxes are, elected officials often will turn to imposing regulations. While the costs of regulations are just as real as taxes, they remain largely hidden from the eyes of

consumers and voters. Businesses are largely left to deal with the costs of regulation. Therefore, it is easier to regulate than to tax from a political perspective.

But while the costs of regulation amount to a “hidden tax,” the economics of regulation are clear. Economics 101 tells us what to expect from increased regulation – that is, higher costs for businesses and consumers, reduced market exchanges and expanded political control, resources allocated based on political dictates and influences (such as rent seeking) rather than via competition and consumer sovereignty, and therefore, diminished economic growth.

Consider various findings on the costs of regulation over the years:

- Economists John Dawson at Appalachian State University and John Seater at North Carolina State University recently looked at the impact of federal regulation on economic growth (“Federal Regulation and Aggregate Economic Growth,” January 2013), and offered some noteworthy findings. They reported: “Regulation’s overall effect on output’s growth rate is negative and substantial. Federal regulations added over the past fifty years have reduced real output growth by about two percentage points on average over the period 1949-2005. That reduction in the growth rate has led to an accumulated reduction in GDP of about \$38.8 trillion as of the end of 2011. That is, GDP at the end of 2011 would have been \$53.9 trillion instead of \$15.1 trillion if regulation had remained at its 1949 level.”

- As reported in “Ten Thousand Commandments: An Annual Snapshot of the Federal Regulatory State” (2014 Edition published by the Competitive Enterprise Institute) by Clyde Wayne Crews Jr.:

- “The estimated cost of regulation exceeds half the level of the federal budget itself. Regulatory costs of \$1.863 trillion amount to 11.1 percent of the U.S. gross domestic product (GDP), which was estimated at \$16.797 trillion in 2013 by the Bureau of Economic Analysis.”
- “When regulatory costs are combined with federal FY 2013 outlays of \$3.454 trillion, the federal government’s share of the entire economy now reaches 31 percent.”
- “The regulatory ‘hidden tax’ surpasses the income tax. Regulatory compliance costs exceed the 2013 estimated total individual income tax revenues of \$1.234 trillion.”
- “Regulatory compliance costs vastly exceed the 2013 estimated corporate income tax revenues of \$288 billion and approach corporate pretax profits of \$2.19 trillion.”
- “U.S. households ‘pay’ \$14,974 annually in regulatory hidden tax, thereby ‘absorbing’ 23 percent of the average in- come of \$65,596, and ‘pay’ 29 percent of the expenditure budget of \$51,442. The ‘tax’ exceeds every item in the budget except housing. More is ‘spent’ on embedded regulation than on health care, food, transportation, entertainment, apparel and services, and savings.”

- In a May 2014 study for the Mercatus Center (“Regulation and Productivity”), Antony Davies, an associate economic professor at Duquesne University and a senior scholar at George Mason University, reported: “Over the period 1997 through 2010, the 221 least-regulated industries in each year averaged 3.5 percent annual growth in output per hour in the subsequent year while the 221 most regulated industries averaged a significantly lower 1.9 percent annual growth. Accumulating the growth rates over all the years, the least regulated industries experienced a total of 64 percent growth in output per hour from 1997 through 2010 versus 34 percent for the most-regulated industries... Over the period 1997 through 2010, the least regulated industries in each year averaged 3.4 percent annual growth in output per person in the subsequent year while the most regulated industries averaged 1.8 percent annual growth. Accumulating the growth rates over all the years, the least regulated industries experienced 63 percent growth in output per person versus 33 percent growth for the most regulated industries.”
- In a July 1996 study (“Federal Regulation’s Impact on the Productivity Slowdown: A Trillion-Dollar Drag,” Center for the Study of American Business, July 1996), Dr. Richard Vedder estimated that rising regulations between 1963 and 1993 explained almost half of the nation’s slowdown in long-run productivity over that period, that is, annual productivity growth would have been 1 percentage point higher if regulations had remained at 1963 levels.

### **The Impact of Regulations on Small Business**

Considering these enormous costs, let’s zero in on a critical sector of the economy, that is, small business.

The Small Business Administration’s Office of Advocacy periodically estimates regulatory costs, obviously with an eye towards the burdens imposed on smaller businesses. In September 2010, the Office of Advocacy published an updated study estimating the costs of complying with federal regulations. The study – “The Impact of Regulatory Costs on Small Firms” by Nicole V. Crain and W. Mark Crain from Lafayette College – provided details regarding the burdens of federal regulatory costs. For example:

- For firms with less 20 employees, the per-employee cost registered \$10,585, which was 42% higher than the \$7,454 per employee cost for firms with 20-499 employees, and 36% higher than the \$7,755 for firms with 500 or more employees.
- On the environmental front, per employee regulatory costs for firms with less than 20 employees came in at \$4,101, which topped the \$1,294 cost for firms with 20-499 employees by 217% and the \$883 cost for businesses with 500 or more workers by 364%.
- Small manufacturers get hit particularly hard. Per employee regulatory costs for manufacturers with fewer than 20 employees came in at \$28,316, which was 110% higher than the \$13,504 for manufacturers with 20-499 employees and 125% more than the \$12,586 burden on companies with 500 or more employees. Again, serious cost differentials came in the area of environmental regulation, where per employee costs for manufacturers with fewer than 20 employees came in at \$22,594, which topped the \$7,131 for firms with 20-499 employees by 217% and exceeded the \$4,865 for firms with 500 or more workers by 364%.

The burden of regulation on small business is significant and disproportionate. Unfortunately, that economic reality seems to go unnoticed by too many elected officials.

### **Piling More Regulation on Small Business**

No matter the state of the economy and the costs of regulation, including on small business, various players in the federal government push to impose additional regulations in the name of climate change. For example, there's been a great deal of talk about the Environmental Protection Agency (EPA) and a "war on coal."

In 2013, the EPA proposed regulations imposing strict carbon dioxide emission limits on any new power plants built in the U.S. Specifically, the limits make it exceedingly difficult to build a new coal-fired plant. When the proposal was released last year, Hal Quinn, president and CEO of the National Mining Association, pointed out, "The rule effectively bans construction of the most efficient power plants the nation will need to provide affordable electricity for a growing economy and will certainly create further economic hardships for millions of families, especially those most vulnerable to higher energy costs." As reported by *USA Today* on September 9, 2013 ("EPA proposes strict emission limits on new power plants"), while the limits would force new plants to limit CO<sub>2</sub> emissions to 1,100 pounds per megawatt-hour of power produced, existing coal plants run in the range of 1,600 to 2,100 pounds. For good measure, there is the problem that the technology required to meet the standards, as widely reported, has never been used on a commercial level.

And in June of this year, the EPA came forward with emission limits on existing power plants, which will force a 30 percent reduction in carbon emissions from existing power plants from 2005 levels by 2030.

In reality, this is not just a "war on coal," but also a "war on small business."

For example, consider key ways that small businesses would be damaged under the emissions regulations on existing power plants:

- First, EPA regulation promises to inflict sizeable costs and damage on the economy. Straightforward economics makes clear that whatever the details of the regulatory schemes used by the states or imposed by the EPA – such as a carbon tax, cap-and-trade regulations, forcing greater utilization of non-economic renewables like wind and solar, and/or political rationing or management of electricity usage (i.e., dictating how and when consumers and businesses can use electricity) – the costs will be formidable.

For example, the U.S. Chamber of Commerce's Institute for 21<sup>st</sup> Century Energy recent study titled "Assessing the Impact of Potential New Carbon Regulations in the United States" projected \$28.1 billion annually in compliance costs, \$17 billion in added electricity costs for consumers annually, \$51 billion in real GDP losses annually, \$200 in lost real disposable income per household annually, and 224,000 in annual job losses through 2030. By the way, while the Chamber study assumed a slightly more stringent 42 percent reduction in emissions from the

2005 level by 2030, it's clearly far more accurate in terms of the direction and scope of costs compared to the fantasy-like assertions made by the EPA that benefits would far exceed assumed minimal costs.

Notably, EPA has tried mightily to dismiss the Chamber's study, arguing that it was based on a proposal by the Natural Resources Defense Council, *not* on what EPA ultimately proposed in June. But the crux of EPA's existing source rule was taken directly from NRDC's plan. Dallas Burtraw, of Resources for the Future, told the *New York Times* recently: "The NRDC proposal has its fingerprints throughout this, for sure." The Times also reported that NRDC conceived "the novel idea at the heart of Mr. Obama's climate-change rule."

When it comes to climate change regulation, we often hear that such regulation will actually create jobs, or "green jobs," as they were called not too long ago. Whether from installing more efficient technology in homes or constructing wind turbines, new jobs will undoubtedly be created to comply with new climate change regulatory requirements. But this analysis fails to account for the loss of jobs in other sectors of the economy caused by those same requirements. In sum, climate regulation, because it increases energy costs and lowers productivity, will create an *overall net loss of jobs*.

This point was articulated well in a study for the National Black Chamber of Commerce by CRA International, which examined the economic impacts of the Waxman-Markey cap-and-trade legislation. As the authors found:

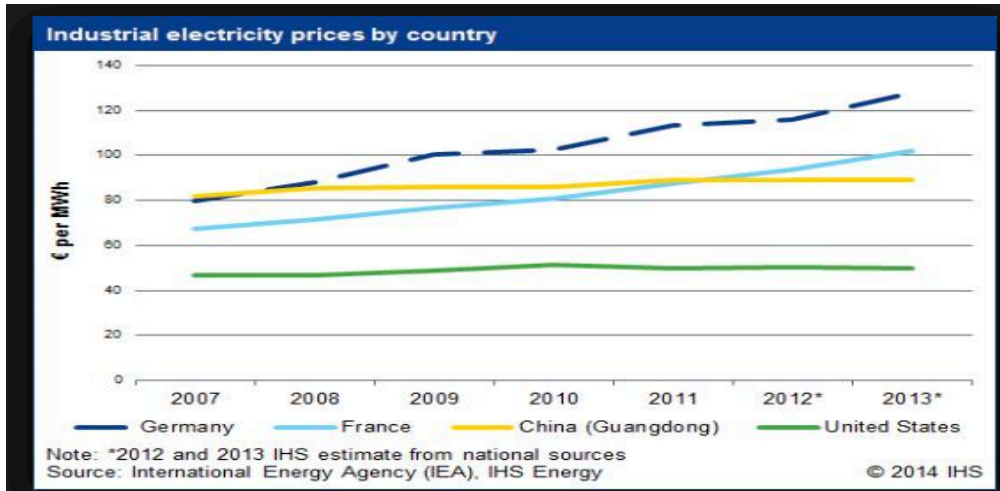
"The present study finds that the cap-and-trade program would lead to increases in spending on energy efficiency and renewable energy, and as a result that significant numbers of people would be employed in 'green jobs' that would not exist in a no-carbon policy world. However, any calculation of jobs created in these activities is incomplete if not supplemented with a calculation of the reduced employment in other industries and the decline in the average salary that would result from the associated higher energy costs and lower overall productivity in the economy. This study finds that even after accounting for green jobs, there is a substantial and long-term net reduction in total labor earnings and employment. This is the unintended but predictable consequence of investing to create a 'green energy future.'"

This point about the "green energy future" is not idle speculation, as we are seeing the effects of these policies playing out right now in Europe (see chart below). Consider Germany. Based on a recent story in Reuters ("Special Report: How fracking helps America beat German industry," June 2, 2014), industrial energy consumers in Germany are paying nearly twice as much in electricity costs as their counterparts in the U.S. An international petrochemical manufacturer told Reuters that, due in large part to relative differences in energy prices, it costs \$125 million more annually to run a large, modern plant in Germany than in the U.S.

Why the difference? For one, the EU has imposed a price on carbon, which has raised energy costs while having little impact on emissions. Second, Germany itself has made the wrong policy choices: it has shuttered nuclear power plants and imposed expensive mandates to encourage renewable energy over lower cost options like coal and natural gas. We see the same phenomenon in the UK. As *E&E News* reported earlier this year: "The [U.K.] government



places much of the blame for increased energy prices at the feet of so-called green policies. Currently, such policies account for only about 10 percent of the heating bill, but these numbers are set to go up dramatically. According to Department of Energy and Climate Change figures, they will add 33 percent to the cost of electricity by 2020 and 41 percent by 2030. Shutting down old coal-fired power plants and adding more expensive renewable energy -- particularly wind power -- to the grid will spur rising electricity costs.”



Given such a significant hit on the economy, we must acknowledge that the U.S. economy is overwhelmingly about small and mid-size business. For example, when counting both employer and non-employer firms, 99.9 percent of U.S. businesses have less than 500 workers, and 98 percent less than 20 employees (according to the latest U.S. Census Bureau data). For good measure, firms with less than 500 employees account for nearly two-thirds of net new jobs and generate approximately 46 percent of the private nonfarm GDP.

- Second, U.S. competitiveness will suffer. Part of the reason for imposing costly EPA regulations on the economy apparently is to somehow spur various developing nations, whose CO2 emissions are growing rapidly, to follow the U.S. But that, of course, would be economic suicide for those nations. The notion that China, India, or other nations that are still struggling to raise themselves out of relative poverty would inflict such massive costs on themselves is naïve, and a dangerous miscalculation for U.S. businesses and workers.

This loss of competitiveness due to higher energy costs spells trouble for U.S. firms in the international marketplace. And while many think of international markets being all about big business, the International Trade Administration (ITA) reports that 98 percent of U.S. goods exporters are smaller firms with less than 500 workers.

- Third, U.S. manufacturers will face increased costs and reduced competitiveness. While all businesses will suffer, let's take a moment to focus on manufacturers. Regarding the EPA regulations, National Association of Manufacturers (NAM) President and CEO Jay Timmons observed: “As users of one-third of the energy produced in the United States, manufacturers rely on secure and affordable energy to compete in a tough global economy, and recent gains are largely due to the abundance of energy we now enjoy. Today's proposal from the EPA could

singlehandedly eliminate this competitive advantage by removing reliable and abundant sources of energy from our nation's energy mix. It is a clear indication that the Obama Administration is fundamentally against an 'all-of-the-above' energy strategy, and unfortunately, manufacturers are likely to pay the price for this shortsighted policy."

And as reported by TheHill.com ("Business groups close ranks for climate battle," June 2, 2014), "Timmons told reporters that the regulations, if enacted as planned, would simply force manufacturers to move overseas to China or other nations with less stringent standards." Again, Hal Quinn of the National Mining Association echoed these points: "These rules are another step by the administration to take us to a more expensive and less secure energy future. They embody unrealistic measures that move America's electric grid away from the low cost and reliable power our economy needs to grow. These regulations, if finalized, would be a loss for American consumers, manufacturers and businesses nationwide, but especially for those in states that rely on low cost electricity from coal."

- Fourth, keep in mind that manufacturing is mostly about small business. Among employer manufacturing firms, according to the latest Census Bureau data, 98.6 percent have less than 500 workers, and 75.8 percent less than 20 employees. Also, the ITA notes that nearly 97 percent of manufacturing exporters were small and mid-size businesses with less than 500 workers.

- Fifth, in fact, key carbon-based energy sectors are all overwhelmingly populated by small firms as well.

- Among oil and gas extraction employer firms, 91.1 percent have less than 20 employees and 98.5% less than 500 workers.
- Among drilling oil and gas wells employer firms, 79.8 percent have less than 20 employees and 97.6% less than 500 workers.
- Among support activities for oil and gas operations employer firms, 83.3 percent have less than 20 employees and 98.7% less than 500 workers.
- Among oil and gas pipeline and related structures construction employer firms, 65.5 percent have less than 20 employees and 95.3% less than 500 workers.
- Among oil and gas pipeline and related structures construction employer firms, 65.5 percent have less than 20 employees and 95.3% less than 500 workers.
- Among oil and gas field machinery and equipment and manufacturing employer firms, 57.6 percent have less than 20 employees and 91.8% less than 500 workers.
- Among coal mining employer firms, 59.6 percent have less than 20 employees and 93.9% less than 500 workers.
- Among support activities for coal mining employer firms, 68.6 percent have less than 20 employees and 95.5% less than 500 workers.

- Among coal and other mineral and ore merchant wholesaler employer firms, 85.6 percent have less than 20 employees and 93.9% less than 500 workers.
- Among electric power generation, transmission and distribution employer firms, 40.2 percent have less than 20 employees and 92.8% less than 500 workers.

So, the EPA's plan to reduce carbon emissions from power plants in the name of climate change promises to be a horror show for the economy, for household incomes, for jobs, and for small businesses. Indeed, that will be the real and significant threat with whatever regulatory or tax scheme is imposed on carbon-based energy in the name of a climate change agenda.

Thank you for this opportunity to address the Committee, and I will be glad to answer any questions.