# Should the U.S. Consider a Modest Emissions Fee as Part of a Strategy to Lower Marginal Tax Rates?

Steven Nadel and Kate Farley
January 2012

**An ACEEE Working Paper** 

© American Council for an Energy-Efficient Economy 529 14<sup>th</sup> Street, N.W., Suite 600, Washington, D.C. 20045 (202) 507-4000 phone, (202) 429-2248 fax, aceee.org

#### CONTENTS

ACEEE Tax Reform Working Papers	1
Acknowledgments	1
Introduction	
Pollution Fees—The Bipartisan Policy Center Proposal and Related Concepts	2
Lowering Tax Rates	
Taking an Initial Step to Address Fossil Fuel Consumption	
Addressing Concerns that New Fees Will be Easy to Raise in the Future	
Discussion and Next Steps	7
References	

#### **ACEEE TAX REFORM WORKING PAPERS**

This is the first in a series of working papers on tax reform issues related to energy efficiency that ACEEE is preparing in 2012. We welcome feedback on this working paper. Comments and suggestions can be sent to <a href="mailto:taxreform@aceee.org">taxreform@aceee.org</a>. All comments will contribute to developing our working papers and will not be shared as public information. We also welcome suggestions on other topics to cover.

UPDATE: A summary report on this and the other working papers was published in February 2013 and is available at http://aceee.org/research-report/e132.

#### **ACKNOWLEDGMENTS**

Support for ACEEE's tax reform work is provided by several foundations—the Energy Foundation, Kresge Foundation, and one wishing to remain anonymous. We thank them for their support. We also thank former Representative Bob Inglis for pointing out the central issue addressed in this paper and for developing legislation to implement an emissions fee. Finally, we thank several ACEEE colleagues who provided helpful ideas and comments as this paper took shape, and who helped with production—Neal Elliott, Suzanne Watson, Sara Hayes, and Renee Nida.

#### **INTRODUCTION**

There is growing bipartisan interest in tax reform. Our tax code is widely criticized as being too complicated, and it has been more than 20 years since the tax code has had a major overhaul. Many proposals call for fewer tax brackets and eliminating many current tax breaks, creating a simpler code with lower tax rates. For example, the President's debt commission (officially called the National Commission on Fiscal Responsibility and Reform), in its December 2010 report, suggested eliminating most current tax breaks and reducing the number of tax brackets from five to three. Under this plan, income tax rates would fall to 12, 22, and 28%, down from present rates that peak at 35%—and down from the even higher rates scheduled to take effect in 2013 after the "Bush tax cuts" expire (NCFRR 2010).

However, a number of people have suggested that even these rates are too high. The budget for 2012 approved by the House of Representatives on April 15, 2011 called for consolidating current tax brackets and reducing the top bracket from 35% to 25% (House Budget Committee 2011). But as rates are lowered, either spending must be cut further (a difficult and contentious undertaking) or some additional revenue sources must be found.

In facing these issues, we think it is useful to go back to first principles. The government needs revenue, but there are many options for collecting it. Our present tax system largely taxes things that result from productive economic activity—wages, non-wage income, and corporate profits. An alternative is to collect revenue from things that produce negative economic effects, such as cigarettes, alcohol, and as

proposed in this paper, pollution. This is not a new suggestion. The idea that taxes can be used to discourage activities that produce negative externalities was originally suggested in 1920 by the economist Arthur Pigou, then the head of the economics department at the University of Cambridge in England. In the economics literature, these are now commonly known as Pigovian taxes. Many prominent economists and politicians have spoken in favor of using Pigovian taxes to regulate pollution. As the economist Milton Friedman noted in a 2005 interview: "There is a role for government and the question is what are the means that you use. And the answers of a free market environmentalist is you use market mechanisms. Instead of setting quantitative limits on pollution, you impose a tax" (Friedman 2005). And as David Frum, a speechwriter for President George W. Bush, said in a 2006 Wall Street Journal op-ed: "Democrats have made a great theme of 'energy independence.' The president has likewise denounced America's 'addiction to oil' and often presented nuclear power as a crucial element of an ideal energy policy. What if he baited the Democrats with some kind of energy tax (or, better, a carbon tax—which exempts nuclear-generated energy) in exchange for permanent cuts in taxes on work, savings and investment? 'Tax waste, not work' is not a bad slogan" (Frum 2006).

We are not suggesting that all revenues be collected from Pigovian taxes, but instead that a greater portion of the current tax burden come from these taxes. We start from a proposal examined by the Bipartisan Policy Center Debt Reduction Task Force and look at further details, such as how much tax rates could be lowered, and the impacts of the pollution fees on emissions and investments in low-emissions technologies. We also examine concerns that any new tax or fee would be easy to increase in the future and suggest ways to address this concern.

### POLLUTION FEES—THE BIPARTISAN POLICY CENTER PROPOSAL AND RELATED CONCEPTS

The Bipartisan Policy Center convened a Debt Reduction Taskforce chaired by former Senate Budget Committee Chairman Pete Domenici and Dr. Alice Rivlin, a former Director of the Congressional Budget Office and of the Office of Management and Budget as well as Vice Chair of the Federal Reserve Bank. Their final report, released in November, 2010, calls for simplifying the tax system, eliminating or reducing many current tax incentives and establishing a new system with two tax rates—15% and 27%. To help reduce the debt, they call for a "debt reduction sales tax" (DRST). This was ultimately chosen over a carbon tax because it would bring in greater revenue and thereby more effectively reduce the federal debt. However, there was also significant support on the Task Force for a tax on carbon dioxide. As stated in their report (BPC 2010):

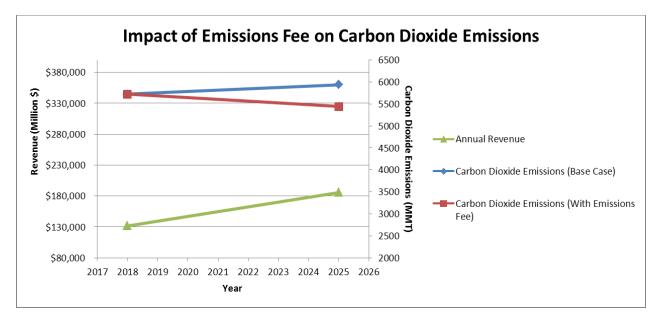
Of the alternatives considered, a tax on carbon dioxide  $(CO_2)$  emissions from fossil fuel combustion received the greatest—though not unanimous—support. The specific option that the Task Force examined would have introduced a tax of \$23 per ton of  $CO_2$  emissions in 2018, increasing at 5.8 percent annually, allowing the DRST to start at 5.75 percent instead of 6.5 percent, and phase-down to 4 percent by the end of the next decade. Staff projections estimate that this option would have raised about \$1.1 trillion in cumulative revenue by 2025, while resulting in  $CO_2$  emissions of 10 percent below 2005 levels in that year.

A tax on  $CO_2$  emissions has a number of desirable attributes. Unlike taxes on income, payroll, or consumption, which penalize work effort by reducing real wages without any corresponding economic benefit (other than the revenue raised), a  $CO_2$  tax could actually increase economic efficiency. By establishing a price for  $CO_2$  emissions—which have a social cost—the tax would shift production and consumption toward less carbon-intensive goods, reducing  $CO_2$  emissions in the process. In addition, by providing certainty regarding the cost of  $CO_2$  emissions going forward, the tax would relieve the uncertainty that has delayed necessary capital investments in the energy sector, while also

<sup>&</sup>lt;sup>1</sup> See http://en.wikipedia.org/wiki/Pigovian\_tax.

encouraging research and development in cleaner energy technologies. A  $CO_2$  tax would increase energy prices, however, raising concerns about impacts on energy intensive industries and regressive impacts on households. While the Task Force plan does not include a tax on  $CO_2$  emissions, many members believe it warrants further consideration as the nation works to address America's long-term debt.

Figure 1: An Emissions Fee Reduces Carbon Dioxide while Raising Revenue that Could Be Used to Address the Federal Debt



The case for such a tax or fee on carbon dioxide emissions from fossil fuel combustion has also been made by N. Gregory Mankiw, former economic advisor to President Bush:

The economics here is straightforward: Emitting carbon into the atmosphere entails a negative externality. Absent any policy, people will emit too much. The Pigovian policy response is to impose a tax on carbon emission. This will induce households and firms to internalize the carbon externality when deciding, for example, how much to drive, what kind of car to buy, how much electricity to use, what kind of electric power plant to build, and so on.

For at least two reasons, Pigovian taxes are popular among economists. First, they are often the least invasive way to remedy a market failure. They can restore an efficient allocation of resources without requiring a heavy-handed government intervention into the specific decisions made by households and firms. Second, they raise revenue that the government can use to reduce other taxes, such as income taxes, which distort incentives and cause deadweight losses (Mankiw 2008) [emphasis added].

A somewhat similar proposal was introduced in the 111<sup>th</sup> Congress by Representatives Inglis (R-SC), Lipinski (D-IL), and Flake (R-AZ) as H.R. 2380, the "Raise Wages, Cut Carbon Act of 2009." Under this bill, the fee for carbon dioxide emissions from fossil fuels would start at \$15 per ton and gradually rise to \$100 per ton in 2040, with any revenue matched dollar for dollar with a reduction in the social security tax on wages. In addition, a border adjustment fee would be placed on imported goods, so foreign manufacturers pay the same fee per ton of carbon dioxide as domestic manufacturers. Essentially, the carbon dioxide fee would be placed in the social security fund and taxes on wages would be reduced by the same amount (e.g., about a 10% cut in the first year, increasing over time). By setting fees far in advance, businesses would be able to plan their investments. Another feature of the bill was to specify

that the revenue neutrality requirement (carbon dioxide fees offset with reductions in the tax on wages) would need a two-thirds vote in Congress to change (Inglis 2009).

#### **LOWERING TAX RATES**

The Bipartisan Policy Center estimated that its  $CO_2$  tax proposal would collect about \$1.1 trillion in revenue cumulatively over the 2018-2025 period. A 2011 analysis by the Congressional Budget Office of a similar proposal covering the 2012-2021 period was estimated to raise \$1.2 trillion (CBO 2011). This income could be used to reduce taxes on wages (e.g., the social security tax), as Rep. Inglis, Lipinski, and Flake proposed, or it could be used to reduce income taxes. \$1.2 trillion would be about enough to do one of the following:

- Simplify the tax code but with lower tax rates. For example, the Bipartisan Policy Center (BPC 2010) estimates a 2-tier 15-27% income tax rate would cost the Treasury \$1.3 trillion over the 2012-2021 period relative to a modified base forecast that includes extension of the "Bush tax cuts."
- Extend the "Bush tax cuts" for those earning more than \$250,000. President Obama has endorsed continuing the tax cuts for those making less than this amount; continuing the cuts for those with higher incomes over the 2013-2021 period (2012 is covered by current law) would cost an additional \$0.9 trillion (Pew Fiscal Analysis Initiative 2010).

Many economists and politicians believe that lower tax rates, including those with higher incomes, would help boost the economy by encouraging investment in businesses, thereby creating jobs. As Republican presidential candidate Rick Perry said in a 2011 debate, "You want to create jobs in America? You free the American entrepreneur to do what he or she does, which is risk their capital, and I'll guarantee you, the entrepreneur in America, the small businessman and woman, they're looking for a president that will say we're going to lower the tax burden on you and we're going to lower the regulation impact on you, and free them to do what they do best: create jobs" (New York Times 2011).

#### TAKING AN INITIAL STEP TO ADDRESS FOSSIL FUEL CONSUMPTION

Most scientists in the world agree that global average temperatures are increasing, and that the change is due to human-created emissions of carbon dioxide and other greenhouse gases into the atmosphere (IPCC 2007, U.S. Global Change Research Program 2009, NOAA 2010). Still, there are some skeptics. As noted in a recent Washington Post story:

The notion that humans have contributed to climate change has generated increasing skepticism among the American public, especially as proposals to deal with the problem, such as reducing carbon emissions, have come with high costs. But [Governor Rick] Perry is wrong to say that such skepticism has gained strength among scientists. To the contrary, various surveys of climate researchers suggest growing acceptance, with as many as 98 percent believing in the concept of man-made climate change (Kessler 2011).

Furthermore, as former President George W. Bush noted in a 2001 speech: "The policy challenge is to act in a serious and sensible way, given the limits of our knowledge. While scientific uncertainties remain, we can begin now to address the factors that contribute to climate change (Bush 2001).

Reducing carbon emissions by reducing fossil fuel consumption could also improve national security. The United States currently imports 49% of the oil it consumes, 18% of which is from the Persian Gulf and 23% of which is from Africa (EIA 2011b). This situation places the United States in a precarious position, as many of our sources of oil are in volatile regions of the world. The Department of Defense has recognized this situation, and is working with the Department of Energy to reduce energy consumption

© American Council for an Energy-Efficient Economy, 529 14<sup>th</sup> Street, Suite 600, Washington, DC 20045 Phone: 202-507-4000. Fax: 202-429-2248. www.aceee.org. For additional information, email aceeeinfo@aceee.org.

and research alternative fuel sources, thereby increasing the safety and effectiveness of American troops (DOD/DOE 2010).



Figure 2. Top Ten Suppliers of Crude Oil to the United States

Note: The size of each oil barrel is proportional to the percentage of imported oil originating in that country.

Senator Lindsey Graham (R-SC) has stated: "Cap-and-trade as we know it is dead, but the issue of cleaning up the air and energy independence should not die—and you will never have energy independence without pricing carbon." Graham argues: "The technology doesn't make sense until you price carbon. Nuclear power is a bet on cleaner air. Wind and solar is a bet on cleaner air. You make those bets assuming that cleaning the air will become more profitable than leaving the air dirty, and the only way it will be so is if the government puts some sticks on the table—not just carrots. The future economy of America and the jobs of the future are going to be tied to cleaning up the air, and in the process of cleaning up the air this country becomes energy independent and our national security is greatly enhanced" (as quoted in Friedman 2010).

Unfortunately, in the past few years, many efforts to support technologies that have no or very low carbon dioxide emissions have withered. Despite claims of a "nuclear renaissance" a few years ago (Gertner 2006), no new nuclear plant has been completed in the past 20 years. Presently, only one new reactor is under construction in the U.S., with seven more in the planning and land preparation stages (World Nuclear Association 2011). Many of these are looking for federal loan guarantees before making a decision to proceed. Meanwhile, many proposed projects have been canceled. For example, Exelon, one of the nation's largest owners of nuclear plants, had plans to build two new nuclear plants in Texas but has those plans on indefinite hold. CEO John Rowe stated in 2010: "I just don't think nuclear has a chance in a pure marketplace without a carbon price" and "As long as we have \$4 gas and no carbon price, we're not going to bet on a new nuclear plant" (Rowe 2010). Likewise, in 2010, Entergy suspended two applications filed with the NRC to build new reactors in Louisiana or Mississippi. According to a news report at the time: "While a few U.S. companies are moving ahead to develop new reactors, [Entergy CEO J. Wayne] Leonard said that to make the economics of nuclear work for Entergy, he would need to see 'double-digit natural gas prices and carbon blow-out prices' starting at \$25 per ton and escalating toward \$50" (Reuters 2010).

© American Council for an Energy-Efficient Economy, 529 14<sup>th</sup> Street, Suite 600, Washington, DC 20045 Phone: 202-507-4000. Fax: 202-429-2248. www.aceee.org. For additional information, email aceeeinfo@aceee.org.

Likewise, a number of plants that proposed to use coal but then capture and store the carbon dioxide emitted have met a similar fate. Cancelations have included plants proposed by American Electric Power, Duke, and Southern Company. For example, American Electric Power canceled its carbon capture and storage (CCS) project at the Mountaineer coal plant in West Virginia, citing uncertain energy policy and the weak economy. "We are clearly in a classic 'which comes first?' situation," Morris [AEP Chairman and CEO] said. "The commercialization of this technology is vital if owners of coal-fueled generation are to comply with potential future climate regulations without prematurely retiring efficient, cost-effective generating capacity. But as a regulated utility, it is impossible to gain regulatory approval to recover our share of the costs for validating and deploying the technology without federal requirements to reduce greenhouse gas emissions already in place. The uncertainty also makes it difficult to attract partners to help fund the industry's share" (AEP 2011).

On the other hand, some low emissions technologies are growing, although perhaps not prospering. Investments in utility-sector energy efficiency programs have increased fivefold from 2000 to 2010, driven by state policies and the growing cost difference between energy efficiency and new power plants (Sciortino et al. 2011). Renewable energy production is also up, likewise driven by state policies and improving economics. For example, renewable energy production is up 32% from 2000 to 2010 (EIA 2011a). In addition, natural gas reserves are up, primarily from shale formations, leading quite a few utilities to look into new natural gas-fired power plants (Newell 2011).

A fee on carbon dioxide emissions would begin to address these problems. As noted previously, the Bipartisan Policy Center Task Force estimated that the emissions fee it examined would reduce carbon dioxide emissions in 2025 by about 10% below 2005 levels. At the same time, the fee would provide the support for alternative investments that utility executives such as Rowe, Leonard, and Morris have put on hold pending such a price on emissions.

While just establishing a price on emissions would provide substantial market support for clean technologies, additional support could be provided if some portion of the revenues were recycled into investments in clean technologies such as research and development, investment credits, loan loss reserves, and energy efficiency programs. Such policies have already been implemented on a smaller scale: for example, the city of Boulder, Colorado has had an emissions tax in place since 2006, with revenues directed toward a program designed to help the city meet emissions targets outlined in the Kyoto Protocol (Brouillard and Van Pelt 2007). Additionally, the Canadian province of Quebec has implemented a small tax on fossil fuels, with revenues funding improvements to public transit and other energy-saving initiatives (CBC News 2007). On the national level in the United States, it will be controversial in some circles to direct some carbon tax revenues to emissions reduction programs rather than dedicate them entirely to offsetting tax rate reductions. However, even a modest investment in such programs has the potential to lower the overall cost of reducing emissions or reduce emissions by a greater amount (Fischer and Newell 2007). Given differing views on this subject, to start, we would recommend allocating perhaps 10% of the revenue in this way, and if the program proved successful it could be expanded (and if unsuccessful, canceled).

## Addressing Concerns that New Fees Will be Easy to Raise in the Future

Some anti-tax crusaders have argued that any new tax or fee would be "letting the camel's nose into the tent," arguing that once established, a new tax or fee would be easy to increase. We disagree in this case, since industries that have significant emissions would be sure to weigh in with Congress and fight any unreasonable increases, and these are major companies with substantial resources. Also, unlike a value-added tax for which similar statements have been made, revenues from an emissions fee would be smaller and therefore this would be a less inviting target. Also, provisions can be added, as were in the Inglis, Lipinski, and Flake bill, to require a supermajority before revenue neutrality provisions could be changed. Finally, we would note the emissions fee is a means to an end—lower tax rates. It will be hard to get bipartisan support for lower tax rates without a new revenue source such as an emissions fee.

#### **DISCUSSION AND NEXT STEPS**

An emissions fee is a classic Pigovian tax, collecting revenue from something we want to discourage (air pollution) in order to enable lower tax rates on wages and other income, which we want to encourage. The lower tax rates would help spur economic growth, while the emissions fee would help to support low emissions technologies that are now struggling for a market. Furthermore, the combination of emissions fees and tax reductions also have the potential to be a creative solution to the partisan impasse our country is now facing—lowering tax rates will be hard without offsetting revenues, and these revenues work within the market to unleash private enterprise, ingenuity, and inventiveness and also help to achieve environmental goals. However, any new policy idea needs additional discussion before it can be seriously considered. We recommend that further discussions take place, and that further details be developed, building on H.R. 2380 from the 111<sup>th</sup> Congress.

We also welcome feedback and suggestions on this paper. It is a "working paper," and based on the feedback we receive, we plan to issue a report later in 2012 that will include a revised version of this paper. Comments and suggestions can be sent to <a href="mailto:taxreform@aceee.org">taxreform@aceee.org</a>. All comments will contribute to developing our working papers and will not be shared as public information.

#### REFERENCES

- [AEP] American Electric Power. 2011. "AEP Places Carbon Capture Commercialization on Hold, Citing Uncertain Status of Climate Policy, Weak Economy." Press release. July 14. <a href="http://www.aep.com/environmental/news/?id=1704">http://www.aep.com/environmental/news/?id=1704</a>.
- [BPC] Bipartisan Policy Center. 2010. Restoring America's Future: Reviving the Economy, Cutting Spending and Debt, and Creating a Simple, Pro-Growth Tax System.
- Brouillard, Carolyn and Sarah Van Pelt. 2007. *A Community Takes Charge: Boulder's Carbon Tax.* http://www.bouldercolorado.gov/files/LEAD/climate%20and%20energy/boulders carbon tax.pdf.
- Bush, George W. 2001. "President Bush Discusses Global Climate Change." June 11. <a href="http://georgewbush-whitehouse.archives.gov/news/releases/2001/06/20010611-2.html">http://georgewbush-whitehouse.archives.gov/news/releases/2001/06/20010611-2.html</a>. Accessed September 28, 2011.
- CBC News. 2007. "Quebec to Collect Nation's First Carbon Tax." June 7. <a href="http://www.cbc.ca/news/canada/montreal/story/2007/06/07/carbon-tax.html">http://www.cbc.ca/news/canada/montreal/story/2007/06/07/carbon-tax.html</a>. Accessed November 22, 2011.
- [CBO] Congressional Budget Office. 2011. *Reducing the Deficit: Spending and Revenue Options*. <a href="http://www.cbo.gov/ftpdocs/120xx/doc12085/03-10-ReducingTheDeficit.pdf">http://www.cbo.gov/ftpdocs/120xx/doc12085/03-10-ReducingTheDeficit.pdf</a>. Accessed November 28, 2011.
- [DOD/DOE] Department of Defense and Department of Energy. 2010. *Memorandum of Understanding Between the Department of Defense and the Department of Energy*. July 22. <a href="http://energy.gov/sites/prod/files/edg/media/Enhance-Energy-Security-MOU.pdf">http://energy.gov/sites/prod/files/edg/media/Enhance-Energy-Security-MOU.pdf</a>.
- [EIA] Energy Information Administration. 2011a. Annual Energy Review 2010. <a href="http://www.eia.gov/totalenergy/data/annual">http://www.eia.gov/totalenergy/data/annual</a>. Accessed November 22, 2011. Washington, D.C.: U.S. Department of Energy.
- ——. 2011b. "How Dependent Are We on Foreign Oil?" <a href="http://www.eia.gov/energy\_in\_brief/foreign\_oil\_dependence.cfm">http://www.eia.gov/energy\_in\_brief/foreign\_oil\_dependence.cfm</a>. Accessed November 29, 2011.
- Fischer, Carolyn and Richard G. Newell. 2004, revised 2007. *Environmental and Technology Policies for Climate Mitigation*. <a href="http://www.rff.org/documents/RFF-DP-04-05-REV.pdf">http://www.rff.org/documents/RFF-DP-04-05-REV.pdf</a>.
- © American Council for an Energy-Efficient Economy, 529 14<sup>th</sup> Street, Suite 600, Washington, DC 20045 Phone: 202-507-4000. Fax: 202-429-2248. www.aceee.org. For additional information, email aceeeinfo@aceee.org.

- Friedman, Milton. 2005. "Agreeing to Disagree." Interview with Robert Kuttner. *The American Prospect*. <a href="http://web.archive.org/web/20080119161418/http://www.prospect.org/cs/articles?articleId=10764.">http://web.archive.org/web/20080119161418/http://www.prospect.org/cs/articles?articleId=10764.</a>
  Accessed September 23, 2011
- Friedman, Thomas. 2010. "How the GOP Goes Green." *New York Times*. February 27. <a href="http://www.nytimes.com/2010/02/28/opinion/28friedman.html">http://www.nytimes.com/2010/02/28/opinion/28friedman.html</a>. Accessed September 27, 2011.
- Frum, David. 2006. "Last Chance." *Wall Street Journal* op-ed. November 9. <a href="http://online.wsj.com/article/SB116303434014718016.html?mod=opinion\_main\_commentaries">http://online.wsj.com/article/SB116303434014718016.html?mod=opinion\_main\_commentaries</a>. Accessed September 26, 2011.
- Gertner, Jon. 2006. *Atomic Balm? New York Times* Magazine. July 16. <a href="http://www.nytimes.com/2006/07/16/magazine/16nuclear.html?pagewanted=all">http://www.nytimes.com/2006/07/16/magazine/16nuclear.html?pagewanted=all</a> Accessed November 14, 2011.
- House Budget Committee. 2011. *Pro-Growth Tax Reform*. <u>Budget.house.gov/uploadedfiles/pro-growthtaxreform.pdf</u>.
- Inglis, Bob. 2009. "The Triple Win: Energy Security, The Economy and Pollution; H.R. 2380, The 'Cut and Swap' Proposal." Washington, D.C.: Office of Representative Bob Inglis, U.S. House of Representatives.
- IPCC. 2007. *Climate Change 2007 Synthesis Report.* Pachauri, R.K. and Reisinger, A. (Eds.). Geneva, Switzerland.
- Kessler, Glenn. 2011. "The Fact Checker, No Groundswell of Doubt from Scientists on Warming." Washington Post, Dec. 12, A14.
- Mankiw, N. Gregory. 2008. "Smart Taxes: An Open Invitation to Join the Pigou Club." Based on a talk presented at the Eastern Economic Association, March 8. <a href="http://www.economics.harvard.edu/files/faculty/40\_Smart%20Taxes.pdf">http://www.economics.harvard.edu/files/faculty/40\_Smart%20Taxes.pdf</a>. Accessed September 23, 2011.
- [NCFRR] National Commission on Fiscal Responsibility and Reform. 2010. "The Moment of Truth: Report of the National Commission on Fiscal Responsibility and Reform." Washington, D.C.: The White House.

  <a href="http://www.fiscalcommission.gov/sites/fiscalcommission.gov/files/documents/TheMomentofTruth12">http://www.fiscalcommission.gov/sites/fiscalcommission.gov/files/documents/TheMomentofTruth12</a>
  <a href="http://www.fiscalcommission.gov/sites/fiscalcommission.gov/files/documents/TheMomentofTruth12">http://www.fiscalcommission.gov/sites/fiscalcommission.gov/files/documents/TheMomentofTruth12</a>
  <a href="http://www.fiscalcommission.gov/sites/fiscalcommission.gov/files/documents/TheMomentofTruth12">http://www.fiscalcommission.gov/sites/fiscalcommission.gov/files/documents/TheMomentofTruth12</a>
  <a href="http://www.fiscalcommission.gov/sites/fiscalcommission.gov/files/documents/TheMomentofTruth12">http://www.fiscalcommission.gov/sites/fiscalcommission.gov/sites/fiscalcommission.gov/files/documents/TheMomentofTruth12</a>
  <a href="http://www.fiscalcommission.gov/sites/fiscalcommission.gov/files/documents/TheMomentofTruth12">http://www.fiscalcommission.gov/sites/fiscalcommission.gov/sites/fiscalcommission.gov/files/documents/TheMomentofTruth12</a>
  <a href="http://www.fiscalcommission.gov/sites/fi
- New York Times. 2011 "The Republican Debate at the Reagan Library." *The New York Times*, September 7, sec. U.S. / Politics. <a href="http://www.nytimes.com/2011/09/08/us/politics/08republican-debate-text.html">http://www.nytimes.com/2011/09/08/us/politics/08republican-debate-text.html</a>.
- Newell, Richard. 2011. "Shale Gas and the Outlook for U.S. Natural Gas Markets and Global Gas Resources." Presentation to the Organization for Economic Cooperation and Development (OECD). <a href="http://www.eia.gov/pressroom/presentations/newell\_06212011.pdf">http://www.eia.gov/pressroom/presentations/newell\_06212011.pdf</a>. Washington, DC: Energy Information Administration.
- [NOAA] National Oceanographic and Atmospheric Administration. 2010. State of the Climate 2010 Highlights. <a href="http://www1.ncdc.noaa.gov/pub/data/cmb/bams-sotc/2010/bams-sotc-2010-brochure-lo-rez.pdf">http://www1.ncdc.noaa.gov/pub/data/cmb/bams-sotc/2010/bams-sotc-2010-brochure-lo-rez.pdf</a>. Accessed January 30, 2011.
- Pew Fiscal Analysis Initiative. 2010. "Decision Time: The Fiscal Effects of Extending the 2001 and 2003 Tax Cuts." <a href="http://www.pewtrusts.org/uploadedFiles/wwwpewtrustsorg/">http://www.pewtrusts.org/uploadedFiles/wwwpewtrustsorg/</a> <a href="http://www.pewtrusts.org/uploadedFiles/wwwpewtrustsorg/">http://www.pewtrusts.org/uploadedFiles/wwwpewtrustsorg/</a> <a href="http://www.pewtrusts.org/uploadedFiles/wwwpewtrustsorg/">http://www.pewtrusts.org/uploadedFiles/wwwpewtrustsorg/</a> <a href="https://www.pewtrusts.org/uploadedFiles/wwwpewtrustsorg/">https://www.pewtrusts.org/uploadedFiles/wwwpewtrustsorg/</a> <a href="https://www.pewtrusts.org/uploadedFiles/wwwpewtrustsorg/">https://www.pewtrusts.org/uploadedFiles/wwwpewtrustsorg/</a> <a href="https://www.pewtrustsorg/">Accessed</a> November 22, 2011.
- © American Council for an Energy-Efficient Economy, 529 14<sup>th</sup> Street, Suite 600, Washington, DC 20045 Phone: 202-507-4000. Fax: 202-429-2248. www.aceee.org. For additional information, email aceeeinfo@aceee.org.

- Reuters. 2010. "Entergy Says Nuclear Remains Costly." May 25. <a href="http://uk.reuters.com/article/2010/05/24/us-energy-summit-entergy-idUSTRE64N5S420100524">http://uk.reuters.com/article/2010/05/24/us-energy-summit-entergy-idUSTRE64N5S420100524</a>. Accessed September 28, 2011.
- Rowe, John. 2010. Presentation at RFF's Policy Leadership Forum, May 12, 2010. Mp3 recording. http://video.rff.org:8000/~rff/100512.mp3. Accessed September 28, 2011.
- Sciortino, Michael, Max Neubauer, Shruti Vaidyanathan, Anna Chittum, Sara Hayes, Seth Nowak, and Maggie Molina, Colin Sheppard, Arne Jacobson, Charles Chamberlin, and Yerina Mugica. 2011. *The 2011 State Energy Efficiency Scorecard.* Washington, D.C.: American Council for an Energy-Efficient Economy.
- U.S. Global Change Research Program. 2009. *Global Climate Change Impacts in the United States*. Thomas R. Karl, Jerry M. Melillo, and Thomas C. Peterson (Eds.). Cambridge University Press.
- World Nuclear Association. 2011. "Nuclear Power in the USA." <a href="http://www.world-nuclear.org/info/inf41.html">http://www.world-nuclear.org/info/inf41.html</a>.