The Impact of Voluntary Measures and the Asia Pacific Partnership for Reducing Greenhouse Gas Emissions

by

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Before the

Committee on Commerce, Science and Transportation Subcommittee on Global Climate Change and Impacts

April 5, 2006

Introduction

Mr. Chairman and Members of the Subcommittee, I appreciate the opportunity to submit this statement for the record. The International Council for Capital Formation is a Brussels- based think tank whose goal is to promote market based solutions cost-benefit analysis to address economic and environmental issues. The ICCF is an affiliate of the Washington-based American Council for Capital Formation. We appreciate the opportunity to comment on the goals of the Asia Pacific Partnership on Clean Development and Climate and positive impact that voluntary programs (in contrast to mandatory programs) can have in reducing greenhouse gas emissions.

Pros and Cons of Mandatory Approaches to GHG reduction

Although there are numerous supporters of mandatory US programs to reduce GHGs in the US it is useful to examine the record of our allies in the EU in reaching their Kyoto Protocol targets before making such a committment.

- **Emission Trading in the EU:** As UK Prime Minister Tony Blair noted in a speech last week, "I think first of all I should say that Britain is one of the very few countries in the world that will meet its Kyoto targets." The main reasons for the UK being one of the few countries able to meet it's Kyoto target are: 1) that it switched from coal to natural gas power for electricity generation and 2) DuPont closed a facility that emitted large quantities of GHGs. Other EU countries are not so fortunate and incur significant costs if they try to meet their Kyoto targets. The ETS requires approximately 12,000 large industrial emitters and utilities to reduce CO2 emissions (or purchase the right to emit CO2) in accordance with their country's Kyoto Protocol targets.

  The approach to emissions reductions embodied in the EU's sectoral approach has failed to make much of a dent in EU emission growth, but has the potential to

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make a significant impact on the economies of countries trying to meet their targets. As noted in a recent report by the UK's EEF, an association of engineers and manufacturers, part of the 34% increase in UK electricity prices in 2005 was due to the ETS. The price of the right to emit a ton of carbon reached unexpectedly high levels in 2005, reaching $36 per ton of CO2 ($120 per ton of carbon). Similarly, German climatologist Dr. Gerd Weber states that the ETS has placed additional costs through higher electricity prices on a number of energy intensive companies located in Germany, making production in the EU uncompetitive versus production from outside the EU. Several companies have announced that they will shift production to non-Kyoto countries, taking with them thousands of jobs. Norsk Hydro Aluminum, a Fortune 500 energy and aluminum supplier, closed several production sites in northern Germany because of higher costs related to emissions trading/electricity prices, Dr. Weber notes.. The latest data from the European Environmental Agency shows that the "EU 15" is expected to be 4% above their emissions target in 2010 instead of 8% below 1990 levels as required under the Kyoto Protocol(see figure 1).. There now appears to be a rift within Europe on climate change policy as Italy and some German industrialists express growing concerns with the impact of the ETS on electricity prices, production costs and competitiveness. The EU's slow economic growth rate (about 1% annually) and high unemployment (about 10%) will only be exacerbated by their ETS.

It seems very unlikely that EU governments will actually enforce their Kyoto targets because the cost, in terms of reduced GDP and employment, would be political suicide. If the EU actually wanted to reduce its emissions to the Kyoto Protocol target, it would have to use an economy-wide approach and cover all sectors, including transportation and households. Recent macroeconomic analyses of Germany, Spain, UK and Italy by the International Council for Capital Formation show that an economy-wide ETS designed to meet the Kyoto targets would reduce these countries' GDP levels and employment significantly in 2010 (see http://www.iccfglobal.org/pdf/Country-reports-overview.pdf).

Reducing GHGs: Alternative Approaches

- **Mandatory "Upstream" and "downstream" regulatory approaches:** Trying to reduce US emissions through a cap and trade system applied at either "upstream" or "downstream" is likely to have serious consequences for the US economy, including reduced GDP and increased unemployment rates. For example, various economic models show that the imposition of the Kyoto Protocol would reduce US GDP levels by 1 to 4.2% annually by 2010 (see Figure 2 at http://www.accf.org/pdf/oregontestimonyfinal.pdf). Less stringent emission reduction targets such as those in the McCain Lieberman and Bingamin proposals also have negative consequences for the U.S. economy (See table 1). While the upstream approach is perhaps easier to monitor and enforce because far fewer emitters would be in the system, it suffers from the fact that final consumers won't see much of a direct impact of the energy tax (or permit price) on their energy and fuel bills because those also include the cost of delivering the energy

to consumers.. On the other hand, if a business owner (say a paint manufacturer) who owns equipment that emits CO2 has to submit an emission allowance for each ton emitted, he will be able to make a careful cost-benefit analysis of when it makes economic sense to replace his capital equipment or make other production related decisions. An obvious question is, if a "downstream" system for reducing CO2 emissions is impractical because of the millions of small emitting sources, and an "upstream" system results in only attenuated decision making on emissions, how efficient would a cap and trade system be in providing emission decision makers with a realistic incentive to efficiently and significantly reduce emissions?

- **Mandatory Caps on Emissions will not Drive Innovation:** First, caps on emissions are not likely to promote new technology development because caps will force industry to divert resources to near-term, "end of pipe" solutions rather than promote spending for long-term technology innovations that will enable us to reduce GHGs and increase energy efficiency. An ETS will send exactly the wrong signals to investors because it will create uncertainty about the return on new investment. A mandatory cap would be seen by U.S. investors as just the "first step" in a likely series of more stringent targets as policymakers strive to reduce developed country to trajectories suggested by IPCC scenarios. Investors know that a "safety-valve" price of carbon (designed to create a sense of confidence about future energy costs) can easily be changed. Such uncertainty means that the hurdle rate, which new investments must meet, will be higher (thus less investment will occur) and they will be less willing to invest in the US. In addition, investors realize that if a mandatory emission reduction program were established in the US, they would be disadvantaged vis-à-vi European companies because the relationship between regulators and business in the EU tends to be more flexible and accommodating than in the U.,S. Now is the time to provide incentives for companies to voluntarily undertake additional carbon dioxide intensity reducing investments, not promote a system that raises the risk of any investment in our economy.

  Second, caps on US emission growth are unlikely to succeed unless all the relevant markets exist (in both developed and developing countries) and operate effectively. All the important actions by the private sector have to be motivated by price expectations far in the future. Creating that motivation requires that emission trading establish not only current but future prices, and create a confident expectation that those prices will be high enough to justify the current R&D and investment expenditures required to make a difference. This requires that clear, enforceable property rights in emissions be defined far into the future so that emission rates for 2030, for example, can be traded today in confidence that they will be valid and enforceable on that future date. The international framework for climate policy that has been created under the UNFCCC and the Kyoto Protocol cannot create that confidence for investors because sovereign nations have different needs and values. Therefore, it seems likely that the ETS system which the EU has implemented will fail to spread to other parts of the

world and will eventually be replaced with a more practical approach to climate change policy.

Third, a fixed cap on emissions inevitably collides with US population growth. The EU-15 countries are having difficulty meeting their Kyoto targets and they have negligible population growth. In sharp contrast, US population is projected to grow more than 20% over 2002 2025 according to the EIA. More people means more mouths to feed, more houses to warm, more factories to run-all of which require more energy and at least some additional GHG emissions.

Voluntary Approaches to Emission Reduction

- **The Role of Economic Growth and Technology in GHG reduction**
  Many proponents of the cap and trade system fail to realize that economic growth can have a positive impact on GHG emission reductions. For example, the US, with its voluntary approach to emission reductions, has cut its energy intensity by 12.2% over the 1997-2003 period compared to only 7.6% in the EU with its mandatory approach(see figure 2). Technology development and deployment offers the most efficient and effective way to reduce GHG emissions and a strong economy tends to pull through capital investment faster. Given the extremely long lives of much of the capital stock, the voluntary approach will allow emissions intensity to be reduced in a cost effective way (see figure 3). There are only two ways to reduce CO2 emissions from fossil fuel use -- use less fossil fuel or develop technologies to use energy more efficiently, to capture emissions or to substitute for fossil energy. There is an abundance of economic literature demonstrating the relationship between energy use and economic growth, as well as the negative impacts of curtailing energy use. Long-term, new technologies offer the most promise for affecting GHG emission rates and atmospheric concentration levels. In fact, a new analysis by DOE/EIA (AEO 2006) shows that their High Tech scenario reduces emissions more than does a mandatory reduction in GHG intensity (see table 2) and has a positive impact on GDP levels and reduces electricity prices.

- **Tax Reform Could Reduce Growth of US GHG Emissions**
  Stimulating the development of various high technology programs can be accelerated through government programs as well as by encouraging private sector investment. Improving the tax treatment of new investment through faster depreciation, investment tax credits, making permanent the 15% tax rate on dividends and capital gains received by individuals are positive steps that reduce the cost of capital for investment. ACCF research shows that US companies receive only 29 cents after 5 years through depreciation allowances on each dollar of investment in a combined heat and power facility while a company in China gets $1.04 back and a Brazilian company gets 50 cents. Thus, slow capital cost recovery in the US Federal tax code places domestic companies at a disadvantage compared to our trading partners and slows the development and installation of new energy efficient technology.

Conclusions: Energy use and economic growth go hand in hand, so helping the developing world improve access to cleaner, more abundant energy should be our focus. Near-term GHG emission reductions in the developed countries should not take priority over maintaining the strong economic growth necessary to keeping the U.S. one of the key engines for global economic growth. Establishing a mandatory cap and trade system in the US would impede, not promote, US progress in reducing emissions intensity. US climate change policies should continue to strive to reduce energy intensity as the capital stock is replaced over the business cycle and to develop new, cost-effective technologies for alternative energy production and conservation and encourage the spread of economic freedom in the developing world. This approach is likely to be much more productive than having the US adopt an ETS and thereby sacrifice economic well-being and job growth with little or no long-term impact on global GHG emissions.

Several provisions of the 2005 Energy Bill should have a positive impact on climate change. The new Asia-Pacific Partnership for Clean Development and Climate can also play a key role in transferring new technology to developing countries and help provide the practical assistance that is needed for a global approach to emission reduction.

Table 2: Comparison of EIA High Tech Scenario with "Salazar Request" Cap and Trade Scenarios

	2010	2020	2030
CO2 Emissions From Energy (Million Mt CO2)			
AEO2006 Reference Case	6,364	7,119	8,114
AEO2006 Integrated High Technology	6,253	6,734	7,421
EIA/Salazar Cap-Trade 2	NA	6,843	7,333
Change From Reference Case			
AEO2006 Integrated High Technology	(111)	(385)	(693)
EIA/Salazar Cap-Trade 2		(276)	(781)
Real GDP (billion 2000 Dollars)			
AEO2006 Reference Case	13,043	17,541	23,112
AEO2006 Integrated High Technology	13,056	17,580	23,152
EIA/Salazar Cap-Trade 2	NA	17,522	23,077
Change From Reference Case			
AEO2006 Integrated High Technology	13	39	40
EIA/Salazar Cap-Trade 2		(19)	(35)
% Change from Reference Case			
AEO2006 Integrated High Technology	0.1%	0.2%	0.2%
EIA/Salazar Cap-Trade 2		-0.1%	-0.2%
Electricity Prices (Average all users - cents per kwh)			
AEO2006 Reference Case	7.3	7.25	7.51
AEO2006 Integrated High Technology	7.2	7.03	7.33
EIA/Salazar Cap-Trade 2	NA	7.89	8.48
Change From Reference Case			
AEO2006 Integrated High Technology	(0.1)	(0.2)	(0.2)
EIA/Salazar Cap-Trade 2		0.6	1.0
% Change from Reference Case			
AEO2006 Integrated High Technology	-1.4%	-3.0%	-2.4%
EIA/Salazar Cap-Trade 2		8.8%	12.9%

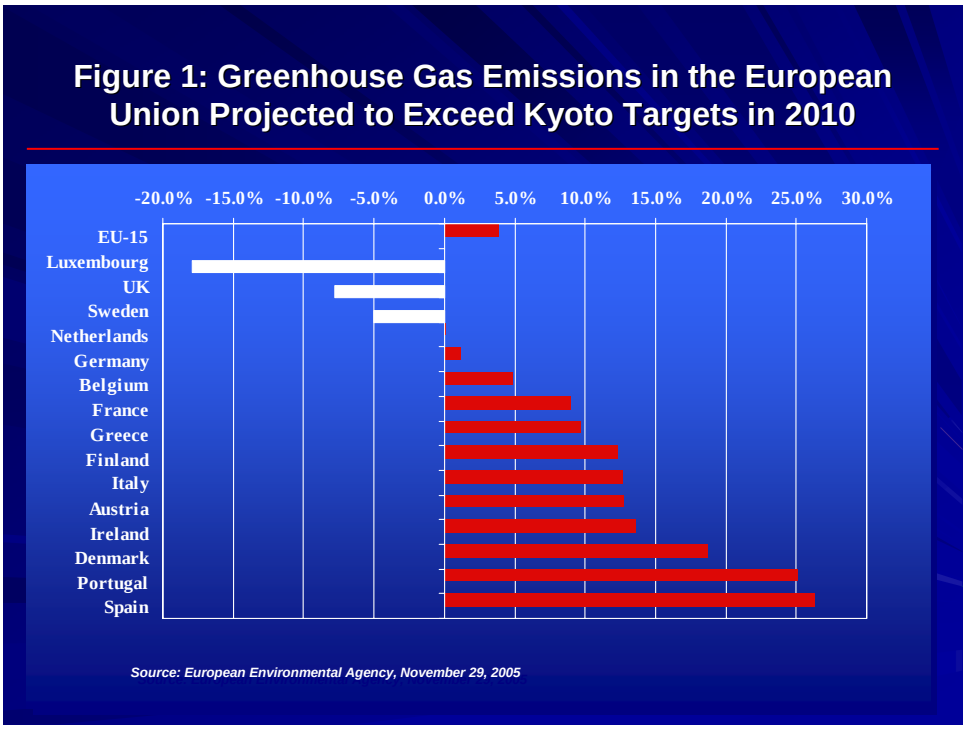
Figure 1: Greenhouse Gas Emissions in the European Union Projected to Exceed Kyoto Targets in 2010
-20.0%
-15.0%
-10.0%
-5.0%
0.0%
5.0%
10.0%
15.0%
20.0%
25.0%
30.0%
EU-15
Luxembourg
UK
Sweden
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Portugal
Spain
Source: European Environmental Agency, November 29, 2005

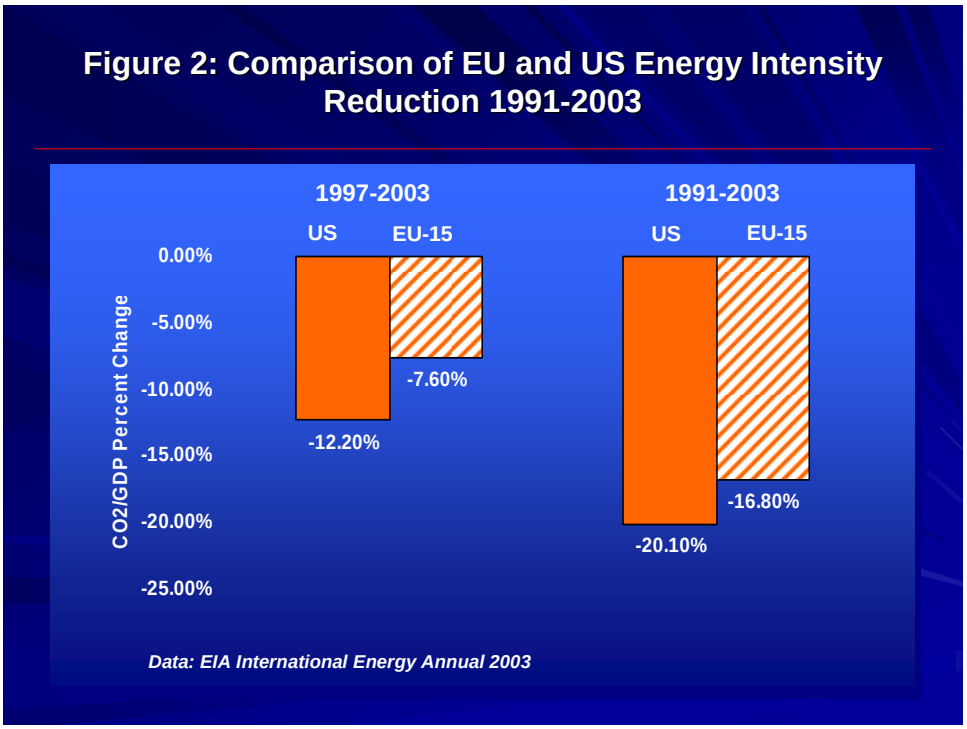
Figure 2: Comparison of EU and US Energy Intensity Reduction 1991-2003
1997-2003
1991-2003
US
EU-15
US
EU-15
0.00%
-5.00%
-10.00%
-15.00%
-20.00%
-25.00%
CO2/GDP Percent Change
-12.20%
-7.60%
-20.10%
-16.80%
Data: EIA International Energy Annual 2003

Figure 3: Average Life Spans for Selected Energy-Related Capital Stock

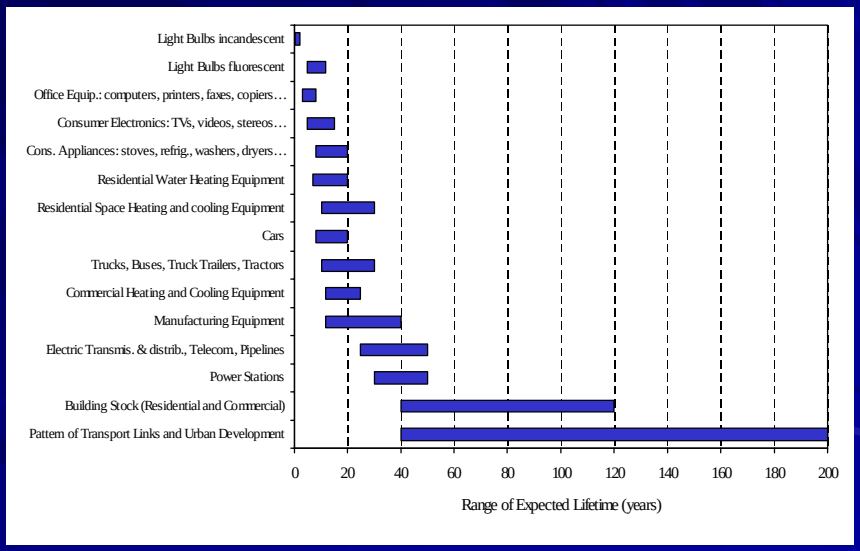

Table 1: Economic Impact of McCain / Lieberman and the Bingaman Proposal on the United States

	2010		2020	
	McCain/ Lieberman	Bingaman	McCain/ Lieberman	Bingaman
GDP Falls	-1.0	-0.2	-1.9	-0.4
Job Losses	-840,000	-230,000	-1,306,000	-326,000
Household Consumption Falls	-$725	-$147	-$800	-$164

- State and Federal Tax receipts Decline
- Low Income and Elderly Bear Large Burden Due to Higher Energy Costs