

**Testimony of John J. McMackin
on behalf of
The Energy-Intensive Manufacturers' Working Group
on Greenhouse Gas Regulation**

**Before the House Committee on Energy and Commerce
Subcommittee on Energy and Environment
Hearing on Competitiveness and Climate Policy:
Avoiding Leakage of Jobs and Emissions**

March 18, 2009

Mr. Chairman and members of the Subcommittee, it is an honor to be here. The Energy-Intensive Manufacturers' Working Group on Greenhouse Gas Regulation, on whose behalf I appear today, greatly appreciates this opportunity, and we commend you and all the members and staff who are devoting so much time and energy to this critical issue.

I am Jack McMackin, and I am a principal in the law firm of Williams & Jensen, PLLC and a director of Owens-Illinois, Inc. O-I, headquartered in Perrysburg, Ohio and with U.S. facilities in eleven states, is the world's largest manufacturer of glass containers. O-I is a very active and committed member of the Working Group.

Solving the puzzle at the heart of today's hearing is the reason our group was formed. How can we reconcile three things that are seemingly at odds: (1) a unilateral U.S. legislative effort, that (2) addresses a global environmental problem, in light of (3) the reality of global competition?

**I. The Energy-Intensive Manufacturers' Working Group on GHG Regulation—
and “The Leakage Problem.”**

Put differently, our group is all about a solution to “the leakage problem.” The Working Group was formed early last year for a narrow but important purpose: to engage constructively with other stakeholders and Congress to attempt to solve what is often referred to as “the carbon leakage problem” but that is in truth—just as this hearing's title suggests—a problem both of the leakage of carbon *and* of jobs.

It is a problem that primarily afflicts energy-intensive industries that face foreign competition—the two factors that define our members. In short, if the U.S. enacts tough global warming regulation but other key manufacturing nations do not, production of energy intensive goods may well shift to the unregulated countries, moving the associated carbon emissions beyond regulation and moving American jobs elsewhere as well.

Our group is composed of companies from the U.S. industries that are widely and correctly seen as most vulnerable to leakage: ferrous metals (iron and steel), non-ferrous

metals (aluminum and copper), cement, glass (including fiberglass), ceramics, chemicals and paper. The companies include Alcoa, Corning, Dow, Holcim(US), NewPage Corporation, Nucor, Owens Corning, Owens-Illinois, PPG, Rio Tinto, and U.S. Steel.¹

I should mention that these are all companies that, of necessity, have already done much to increase their energy efficiency and decrease their emissions. Energy-intensive, trade-exposed industries already have a compelling economic incentive to become energy efficient, which, in turn, leads them to be carbon efficient. Energy costs are a substantial portion of these producers' manufacturing costs. Energy efficiency reduces their cost of energy, which enables them to compete more effectively.

The existence of this incentive is one of the primary reasons that, according to Energy Information Agency Data comparing 1990 emissions to those in 2005, the manufacturing sector as a whole has actually decreased its total emissions, direct and indirect, since 1990, while all other sectors are up, on average, over 30 percent. Similarly, the March 1, 2008 Public Review Draft of of EPA's Inventory of Greenhouse Gas Emissions and Sinks 1990-2007 (p. ES-16), shows the industrial sector's total direct and indirect emissions down by 4.2 percent over the period. Moreover, as I will discuss in more detail later in my testimony, our work indicates that based on available data the total emissions of the 40-plus specific industrial sectors or subsectors (by six digit NAICS code) that are most exposed to leakage represent only about 8 percent of total U.S. direct emissions.

There is a broad consensus that the leakage problem must be solved in any responsible global warming legislation. To fail to do so is irrational: it produces economic dislocation and job loss in exchange for no environmental benefit or, even, net environmental harm. The major question at this stage is not whether to address the problem but *how* to address it.

There are two categories of solutions that have appeared in proposed legislation to date, going back to the last Congress. Both address the root cause of leakage: the cost *differential* that would be imposed on U.S. production relative to that of unregulated or lesser regulated countries. One seeks to attack the differential by eliminating the cost through allowance grants or rebates, the other by instead imposing a comparable cost on competitive imports.

cost mitigation

The first category, the one upon which our efforts are focused, encompasses proposals to negate or mitigate the cost itself, at the production level, either by allocating free allowances to qualifying facilities or otherwise rebating to them the cost of allowances in some form. The leakage problem, it might be noted, is exactly the same

¹ While this written testimony generally represents the position of the Working Group, not all statements are necessarily endorsed by every member. I do not represent members of the group other than Owens-Illinois, and while my responses to any questions during the hearing will attempt not to stray from the group's views, those responses will be my own and not necessarily the group's.

whether legislation is structured as cap and trade or a carbon tax, and the solutions are similar. This testimony will assume a cap-and-trade context.

cost equalization

The second general category encompasses refinements of what the literature sometimes referred to as “green tariffs,” but which, since the Lieberman-Warner bill, have largely been in the nature of a more sophisticated “border equalization” involving a special international allowance requirement. In other words, this solution, rather than attempting to mitigate the cost at the production level, seeks to impose an equivalent cost on competing products at the border.

The approaches are not incompatible. It is possible to enact both types of provisions in the same legislation, and indeed most of the legislation introduced to date has had both. I will have some further comments later in my testimony on the relationship of the two provisions, but at this point I will simply reiterate that our group’s work has been solely on the first category, the cost mitigating proposals, and we do not as a group take a position on border equalization proposals.

With respect to the object of our focus, the cost-mitigation proposals, good progress is being made and a convergence is emerging—much of this reflected in the legislation introduced late last year by Congressmen Inslee and Doyle, the “Carbon Leakage Prevention Act”.

**II. Good Progress Is Being Made—We Support
the Inslee-Doyle Solution, Subject to Further Work on the Eligibility Mechanism
and Other Issues.**

On behalf of the Working Group I want to thank Congressmen Inslee and Doyle and their staffs for their tireless, creative and inclusive efforts to address the leakage problem. We believe the bill they introduced last year represents the core of a workable solution and we support its approach. It is not perfect from our point of view and we know it is not final. It should be noted that it certainly does not negate all of the cost that would be imposed by cap and trade legislation on trade-vulnerable, energy-intensive manufacturers. It is appropriately neither a categorical exemption nor a complete elimination of compliance costs. Likewise, it is structured to be transitional relief that keeps American businesses competitive until global agreement can be reached. We look forward to continuing to work with the congressmen, the Committee and Subcommittee, and other stakeholders to refine it further.

There remain important issues we believe must be addressed. Chief among them is the manner in which last year’s bill dealt with selection by EPA of eligible industries. We believe that Congressmen Inslee and Doyle are reworking this section, and we are very hopeful that a new provision will make the process more certain, more objective and more data driven. In any event, I discuss our eligibility concern and a potential solution in more detail later in my testimony (Section IV). I would also note that among the other

important issues that merit further attention are the fact that the allowances would not be sufficient to cover the full amount of the costs at issue and the amount of discretion to reduce or eliminate the program.

I also want, similarly, to thank Congressmen Dingell and Boucher and their staffs for their very constructive efforts. After spending months wrestling with this, their discussion draft released last year adopted much of the Inslee-Doyle structure as it existed at the time, along with some changes that we think helped advance the thinking of all of us on the leakage problem. And, Mr. Chairman, the anti-leakage, special allocation provisions in your “Investing In Climate Action and Protection Act,” we thought, had much to commend them.

Moreover, I want to stress the “convergence” that we are seeing. In the Senate, those members who have worked most intensely on the issue, such as Senators Brown and Stabenow (as reflected in their amendment in Senate consideration of the Lieberman-Warner bill), as well as many of those in the environmental and academic communities who have studied the issue, USCAP, and others, are not only supporting allowance-grant relief to energy-intensive, trade-exposed industries, they are supporting key structural elements that also undergird the Inslee-Doyle approach. The most important of these is basing allocations on actual output as opposed to historic or grandfathered levels and incorporating an efficiency standard into the allocation formula.

III. Key Features of the Inslee-Doyle Solution

In essence, the Inslee-Doyle solution, like the Brown-Stabenow solution in the Senate, is a cost-mitigating program that *(i)* grants free allowances to energy-intensive trade-exposed industries to compensate them for *(ii)* a significant portion of the direct allowance and increased electricity costs of a cap-and-trade regime, *(iii)* that varies the grant based upon a facility’s actual, not historic, output, *(iv)* that rewards a facility for carbon efficiency and punishes it for inefficiency through use of a benchmark or efficiency standard, and *(v)* that phases out only as international agreements solve the underlying cost disparity.

I will not discuss each of these features in detail, but I do want to note a few of their most important aspects.

A. Output-Based Allotments

The Inslee-Doyle mechanism provides for output-based allotment of allowances. Most of the early anti-leakage, cost-mitigating provisions based their allocation of allowances on a facility’s historic emissions. This raised a number of problems, including the following two.

First, historic or grandfathered emissions approaches provide a disincentive to increase production—and lost production opportunities in the U.S. may result in production of the same goods elsewhere. An historic-based allocation would not mitigate

the cost of additional production. Additional production would be fully exposed to the cost of allowances. Hence, the mechanism would do nothing to help energy-intensive industries to expand production and add jobs. At risk, for instance, would be added production to supply steel, aluminum, copper, glass, ceramics, fiberglass, etc. to what we all hope will be increased production of green products, from wind turbines to solar panels. Similarly, American suppliers would be less likely to be providing the cement, plate glass or fiberglass going into new construction of energy-efficient buildings or renovations of older inefficient ones.

Second, some believe historic-based allocations—but not output-based allocations—may in some instances produce an incentive to raise prices but not production. To some commentators this strange phenomenon is a function of “opportunity cost.” In some (limited) circumstances, a producer may be able to obtain higher prices, or fail to pass through the cost savings occasioned by free allowances, by in essence saying that if it does not receive from its customers an incremental return on its allowance-grant asset it will reduce production and sell the freed-up allowance. In other words, the existence of this opportunity to sell the allowance changes the seller’s supply curve. *In any event, basing the allowance grant on actual output solves this problem—to the extent it exists—by removing the “opportunity” to sell an unused allowance.* A facility only gets an allowance for a product it produces.

Output-basing has another big advantage. It facilitates the use of a benchmark or efficiency standard. A facility’s actual production can be included in a formula with an efficiency standard to determine the number of allowances granted.

B. Efficiency Standards

As I described earlier, energy-intensive, trade-exposed industries already have a compelling economic incentive to become energy efficient, which, in turn, leads them to be carbon efficient. That incentive has resulted in remarkable production innovations and efficiency gains. Nonetheless, some policy makers have sought additional assurances that anti-leakage provisions will further incentivize emissions reductions. For instance, from our earliest discussions with him, Congressman Boucher has said he would like to see additional incentives in the form of benchmarking.

Last year’s Inslee-Doyle legislation provided this through the use of an effective and practical benchmark: the average energy efficiency of a sector or subsector. This standard has the advantage of being both relatively easy to determine, by definition achievable, and constantly increasing over time. Companies above the average would do relatively better and those below relatively worse, creating an added incentive for each group to improve its efficiency—and thus raising the average. This mechanism inherently rewards operational efficiency and therefore creates a lasting incentive for continuous innovation and technological development.

So, we support the efficiency standard in Inslee-Doyle as introduced last year. We are very concerned, however, about some changes proposed to it. Some would seek to

replace the sector-average standard with a “best practices” standard. It would be impossible for companies facing the threat of leakage, or legislators assessing policy options, to know at this juncture whether that which would be deemed by EPA to be the “best practice” in a sector or subsector is economically feasible, or, for that matter, reasonably available.

If it were not, the leakage relief afforded by the allocation grant provision could be illusory. For example, while paper mills use biomass as fuel, many are also coal-fired. A coal-fired paper plant in Maine, for example, might be forced to close if EPA determined that gas combustion or biomass was the “best practice.” And, the jobs lost in all likelihood would not move to a gas-fired plant in the U.S., but, rather, to foreign producers. A best practices regulatory regime is a very different animal than a cap and trade scheme, and attempting to combine the two is very likely a bridge too far. We would strongly oppose it.

C. Direct and “Indirect” Costs

The Inslee-Doyle provision compensates for some, but not all, of the costs that would be imposed by cap and trade legislation. I believe it is important to understand the compromise it represents in this respect.

The costs imposed on U.S. manufacturers by greenhouse-gas legislation will be both those that result directly from their obligation to buy and submit allowances (or under a carbon tax to pay the tax) and “indirectly” from higher prices for electricity, feedstocks, and other production inputs. Moreover, the cost of natural gas, as one example, is likely to increase far more than the cost of allowances associated with its combustion because of the effect of fuel substitution that will drive up the demand for natural gas and because of a shift in the demand curve for natural gas that results precisely from its carbon advantage.

A true cost-*negating* anti-leakage provision would address all indirect as well as direct costs. The Brown-Stabenow amendment in the Senate attempted to take this approach. The Inslee-Doyle cost-*mitigation* approach does not. It would compensate for the increased cost of purchased electricity, but would not compensate for cost increases of feedstocks/inputs, nor would it compensate for the demand and demand-curve caused increases in natural gas. Additionally, Inslee-Doyle imposes an across-the-board 15 percent reduction on its reimbursed costs, direct and indirect—compensating, that is, for only 85 percent of those costs. This was done in part to reduce the grants awarded to a highly efficient producer as a result of the efficiency benchmark.

D. Termination Tied to International Solutions

If the allowance-grant program were to expire on a date certain, or decline on a fixed basis, leakage could re-emerge even after it appeared under control. In fact, because manufacturers need certainty and because they plan their capital allocation far in advance, an expiring anti-leakage provision may well tilt plant location decisions toward

foreign locations without regulation. Moreover, a set expiration date would give other countries an incentive to drag their feet in negotiations—to wait us out.

Instead, targeted assistance to energy-intensive industries should be terminated only when the carbon leakage problem is solved through an international agreement. And, it should be phased down only in proportion to progress made in reducing the cost differentials between trading partners in a fashion that demonstrably reduces the disadvantage to domestic producers—not according to an arbitrarily defined timeline. While further refinements are needed, the Inslee-Doyle proposal generally takes this approach.

IV. The Issue of “Qualifying” Industries or Sectors

The Working Group’s major issue with the Inslee-Doyle Carbon Leakage Prevention Act as introduced last year concerned its procedures and standards for determining which sectors or subsectors would be eligible to receive allowances. The bill assigned this determination to the EPA subject to a set of criteria that left much room for interpretation and disagreement. In effect, EPA and manufacturers would have been subjected to a series of contested, forecast-rich procedures covering scores of manufacturing sectors and subsectors. These proceedings would be filled with questions of market and product definition as well as competitive impacts. The bill established a very uncertain process—and affected industries need some reasonable level of certainty in making capital expenditure decisions, decisions they must make even now. Similarly, members of Congress from manufacturing states need to know whether their industries will get relief or not.

By contrast, most of the other legislative proposals from last Congress, including the Lieberman-Warner bill, the Boxer substitute, the Brown-Stabenow amendment, and the Dingell-Boucher discussion draft, listed specific industries that would be eligible.

A middle way offering several advantages has emerged. It was suggested by an analysis of the European approach and the work of any number of organizations and scholars—for example, the work of the Peterson Institute and the World Resources Institute in their publication, *Leveling the Carbon Playing Field: International Competition and U.S. Climate Policy Design* (Houser, *et al.*, 2008).

Our Working Group has been actively engaged in providing analysis and ideas for this proposal, and it is likewise under consideration by Congressmen Inslee and Doyle. In brief, the provision establishes “presumptive” eligibility through a two-factor test, energy intensity measured by a ratio that sets energy costs over value of shipments and trade exposure measured by the value of imports and exports over the value of shipments plus imports. If a sector or subsector met the presumptive-eligibility standards, it would be eligible for allowances unless the Administrator found that it was not subject to substantial leakage. Any sector or subsector that did not meet the presumptive eligibility tests would be able to establish eligibility through a demonstration of the likelihood of leakage. The actual amount of allowances granted would be decided by the Inslee-Doyle

formulas which focus on carbon emissions. The proposed eligibility methodology would make the process of designation of eligible sectors more certain, manageable, principled and data-driven.

V. Some Key Metrics: The FTI Study

Attached to this testimony is a summary of the results of a study by FTI Consulting. We believe and hope it will make an important contribution to analysis of the eligibility issues by all concerned. One of its principal contributions, we think, is to “disaggregate” the very broad categories of industries that had been studied by others and to examine the data at a six-digit North American Industrial Code System level. In addition, it applies objective energy-intensity and trade-intensity criteria to the broad range of American industry, identifying sectors or subsectors that should at least presumptively qualify for relief but that were not on the list most frequently identified. We invite and welcome comment on the study, and we will ask Rob Fisher of FTI to be available for those who wish to work with him.

The study examines the public data using an energy-intensity threshold of 5 percent and a trade-exposure threshold of 15 percent. Both of these standards are consistent with, but somewhat more conservative than, other work to date in the area. For instance, the 5 percent appears to be very near the standard applied by the *Leveling the Carbon Playing Field* analysis cited above and slightly higher than the 4 percent level cited by the recent Pew Congressional Policy Brief, “Addressing Competitiveness in U.S. Climate Change Policy.” The study uses the same formula to determine a trade-exposure ratio as does the EU’s regulatory scheme, but the study applies a stricter 15 percent trade-exposure compared to the EU’s 10 percent.

The FTI study finds 40-plus sectors or subsectors that would qualify for presumptive eligibility, including the list commonly identified as most at risk and represented by our Working Group members. However, the study also identified smaller industries, largely overlooked to date, that meet the criteria and thus would be presumptively qualified. For example, nitrogenous fertilizer with an energy intensity of 14 percent and a trade intensity of 86 percent would qualify, as would wet corn milling, which includes corn sweeteners, at 11 percent energy intensity and 20 percent trade intensity. Beet sugar production (7 percent energy intensity; 22 percent trade intensity) would qualify as well.

While the energy-intensity and trade-intensity data is relatively straightforward, figuring out the amount of emissions implicated takes considerable extrapolation, so the numbers that follow are approximate. In all, 45 industries are identified as presumptively qualifying (out of the 473 industries included among the NAICS industrial manufacturing codes). These represent about 8 percent of total direct U.S. emissions. When all of the emissions associated with their electricity consumption are included, these industries represent about 10.5 percent of total U.S. emissions. An allowance program that compensated them for the cost of their direct emissions and increased cost of electricity would require about 13 percent of allowances available under an aggressive cap in the

first year, assuming, that is, a first year cap of 5,775 million. It should be noted that the 13 percent figure is a rough approximation and that it does not reflect industries that do not qualify for presumptive eligibility but successfully make individuated showings. Moreover, the figure does not include allowances needed to cover production growth.

I should also note that while using data from six-digit NAICS codes to determine whether a sector or subsector would presumptively qualify provides an excellent balance of determinacy, accuracy and administrative ease, it does not work in every instance. Some energy-intensive and trade-intensive manufacturing facilities are not classified in six digit codes that meet the presumptive thresholds. For example manufacturers of ceramic substrates for catalytic converters and diesel particulate filters are classified in a NAICS code for auto parts that would not meet the standards. Yet, these manufacturers are energy- and trade-intensive and meet the thresholds on properly individuated data. These circumstances must be accommodated in designing a presumptive-qualification mechanism.

VI. The Relationship of Allowance Grants and Border Cost-Equalization Proposals

As indicated above, while our Working Group's focus has been solely on the Inslee-Doyle type allowance grants that seek to address the leakage problem by mitigating the cost impact of greenhouse gas regulation on energy-intensive and trade-exposed industries, most legislative proposals to date have included border equalization provisions as well. The details of the interface of the two provisions are critical. I wish to make just a few brief and general points about the relationship of the two.

Exports. First, most border equalization provisions suggested so far do not help U.S. manufacturers stay competitive in export markets, and because of the WTO prohibition on export rebates it is difficult to design a border equalization mechanism that will ensure U.S. manufacturers maintain their competitiveness in export markets. Energy-intensive manufacturers are significant exporters. In fact, energy-intensive manufacturing accounts for approximately 14 percent of all U.S. exports. It is unwise to put these exports in jeopardy. This export problem can effectively be addressed through a system of free allowances or rebates without giving rise to a WTO challenge.

Downstream and "Green" Products. Second, border-equalization mechanisms are designed to allow energy-intensive manufactures to pass along the legislation-driven costs to their customers by raising the cost of materials imported into the U.S. by a comparable amount. This creates the troubling possibility that the downstream products could become less competitive as against products produced elsewhere. For instance, because the cost of a bottle is significant part of the cost of a beer or a bottle of wine, Mexican beer and Chilean wine would have a cost advantage over American beer and wines. By way of further example, and assuming the relevant downstream industry is not covered by a border adjustment mechanism, U.S. car assembly plants could be at a cost disadvantage relative to foreign car manufacturing locations that can buy their steel, glass, aluminum and ceramics outside the protective zone of the border equalization

provision. This downstream-product phenomenon could be especially harmful to our country's hopes of participating in the manufacture of "green products" such as wind turbines and solar panels.

Certainty. Lastly, allowance allocations to energy intensive industries are within our control, are not subject to serious legal challenge, are a feature of cap and trade regimes enacted to date including those in the EU and Australia, and are very unlikely to lead to retaliation or trade wars.

There is a role for WTO-compliant border equalization mechanisms where allowance grants are inadequate or unavailable, and, moreover, such mechanisms should be part of our negotiators' tools and as an assurance against failure. They cannot, however, be the primary mode of relief for the pressing problem of the leakage of carbon and jobs presented by U.S. greenhouse gas regulation.

Mr. Chairman and members of the Subcommittee, thank you very much for this opportunity to appear before you.