Industrial Energy Consumers of America
The Voice of the Industrial Energy Consumers

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June 10, 2016

Ms. Mary Nichols
Chair
California Air Resources Board
1001 I Street
PO Box 2815
Sacramento, CA 95812

Dear Chair Nichols:

Re: Comments on the May 18 Public Workshop on Emissions Leakage Potential Studies

The Industrial Energy Consumers of America (IECA) provides the following comments on California's Air Resources Board (CARB) May 18 Public Workshop on Emissions Leakage Potential Studies. IECA members are energy-intensive trade-exposed (EITE) companies from every sector and the very stakeholders from which you seek comments. The studies are very important and deserve a careful evaluation. We applaud CARB for their efforts to do research to reduce the likelihood of emission leakage.

I. INDUSTRIAL ENERGY CONSUMERS OF AMERICA

IECA is a nonpartisan association of leading energy-intensive trade-exposed manufacturing companies with $1.0 trillion in annual sales, over 2,900 facilities nationwide, and with more than 1.6 million employees worldwide. It is an organization created to promote the interests of manufacturing companies through advocacy and collaboration for which the availability, use and cost of energy, power or feedstock play a significant role in their ability to compete in domestic and world markets. IECA membership represents a diverse set of industries including: chemical, plastics, steel, iron ore, aluminum, paper, food processing, fertilizer, insulation, glass, industrial gases, pharmaceutical, building products, automotive, brewing, independent oil refining, and cement.

II. KEY POINTS

a. More time needed to evaluate studies – consult with industry stakeholders for specific sector input.

Given the importance of the studies to EITE industries, which have billions of dollars in existing assets at risk, we urge CARB to provide more time for industry analysis and input. We also encourage CARB to consult with stakeholders to enhance CARB staff understanding of sector impacts prior to devising new industrial leakage policy.

b. The studies are insufficient for changes to policymaking.

The studies used as the basis for this rule are not sufficient for decision-making leading to new policy. IECA is concerned about switching from existing metrics that can be independently verified and are transparent to new metrics that cannot. The two new metrics, domestic value added loss and international market transfer rates, cannot be either independently verified nor are they transparent.

c. The international market transfer conclusion, that over the long-run, domestic industries "adjust over time," is overly simplistic and not reality.

The referenced studies are incomplete, use outdated data, and are generally insufficient for the task of supporting a change in policy. The studies appear to use constant allowance pricing and U.S. average electricity pricing, both assumptions will underestimate the leakage impact. According to the Energy Information Administration (IEA) 2014 data, the industrial California electricity price at $12.40 cents per kilowatt hour is the fourth highest in the lower 48 states and over 42 percent higher than the national average of $7.10 cents per kilowatt hour.

It is the combination of the carbon price that will go up in time, plus other cumulative costs that will determine whether a company can continue to operate in California. However, the carbon price can be the tipping point because foreign competitors do not incur the same cost, whereby it is no longer economical to operate a facility. Plus, our competition is not static.

Leakage is already occurring today due to the costs of climate policy goals such as renewable energy, associated transmission, and battery storage. Therefore leakage protection off-setting carbon costs will only be partially effective. Ongoing delays in the actual leakage mitigation payments to EITE customers and future uncertainty credit calculation methods will lead to further leakage risk.

Please review Figure 1 which shows the relationship of higher natural gas prices to U.S. manufacturing jobs. This chart clearly shows that industry did not adjust over time as is postulated, and instead, shut down their facilities and moved the jobs elsewhere.

d. The most cost-effective way to reduce global GHG emissions is to produce more manufacturing products in California and import less from China. California will also benefit from increased high paying jobs.

If California desires to reduce global GHG emissions, the low-cost way is to support the Californian manufacturing sector in order to increase the production of products that are manufactured in California, and import less from China. Figure 1 illustrates this point by comparing the carbon intensity of manufactured products of the U.S. versus China. In this case, Chinese imported products emit four times more CO_2 emissions versus manufacturing in the U.S. These figures do not include CO_2 related to overseas transportation or reflect California's high percentage of renewable generation. The U.S. manufacturing product trade deficit was $627 billion in 2015 and 61 percent is with one country, China. The point is that increasing production of U.S. products and reducing imports reduces global CO_2 emissions.

For this reason, CARB should provide CO_2 allowances to companies that increase California-based production and that decreases imports from China or any higher emitting jurisdiction.

FIGURE 1: U.S. VS CHINA MANUFACTURING CO2 EMISSIONS – 2013

Country	Manufacturing – Value Added ($Billions)	Manufacturing Industries and Construction (Million tonnes of CO_2)	Million Tonnes of CO_2/Manufacturing Value Added
U.S.	1,943.8	422.1	0.22
China	2,856.9	2,813.1	0.98

Source: International Energy Agency (IEA), The World Bank, http://data.worldbank.org/indicator/NV.IND.MANF.CD

e. EITE electricity cost shifting impacts to California economy not considered.

EITE industries typically operate 24/7 providing critically important base load electricity demand. If EITE industries move their facilities out of state or to a foreign country, the fixed electricity costs that they are paying will be shifted to the remaining retail consumers of electricity, thereby increasing their electricity rates. This cost shifting factor has not been considered in any of the studies and is a significant additive public policy issue that should be overlaid on California AB 32 policymaking.

f. Include imported GHG emissions in California GHG inventory.

Addressing GHG reductions realistically cannot be achieved without considering imported GHG emissions. California has not included in its inventory, the increased GHG emissions through imported manufactured product. We believe these imported GHG emissions dwarf the reductions achieved or will be achieved through AB32. To not do so is to ignore the sizable GHG emissions that it is causing by not holding imported products to the same GHG standard as California produced manufacturing products.

III. COMMENTS ON THE STUDIES

a. Study entitled "Energy Prices, Pass-Through, and Incidence in U.S. Manufacturing"[1]

Of serious concern is that the study results are based on the Census of Manufacturers (CM) data from 1972 to 1997, which is between 19 and 44 year old data. Too much has changed since then to use data that old. Plant operation changes and access to our markets by foreign competition are two key elements to mention among many. We urge this study to be redone using current data.

However, IECA generally agrees with the paper's conclusion that cost pass-through to consumers is incomplete and instead manufacturing margins are reduced. The degree of pass-through that does or does not occur should be subject to a new study using up-to-date data. We do not agree with the assessment of the cement industry.

[1] "Energy Prices, Pass-Through, and Incidence in U.S. Manufacturing," May 2016, http://faculty.haas.berkeley.edu/rwalker/research/GanapatiShapiroWalker-PassThrough.pdf

On page 28 it states, "Standard methods for studying tax incidence, especially with respect to carbon taxes, assume perfect competition and complete pass-through." The market in which these industries compete is the most dynamic and competitive in the world, thus there is perfect competition on price but imperfect competition on the cost to manufacture the product. It is imperfect, if not for any other reason, because a significant portion of foreign competition is heavily subsidized,[2] thus lowering their costs unfairly. Plus, the products from offshore do not include a carbon price.

The paper does not address a key element, that as prices/costs go up with time, less and less of the costs can be passed through and profit margins decline. Going forward, we can only assume that AB 32 will increase carbon costs. It is a relative function, not linear. Many products have competitive alternative products that are a substitute when certain prices/costs thresholds are achieved. As a simplistic example, at certain price/cost thresholds, steel is displaced with aluminum. Or steel is displaced with cement. Or plastic is displaced with paper, etc. Also, as prices/costs rise, consumer behavior changes and they delay the purchase, or decide to not purchase the product at all.

On page 4 it states, "Third, we estimate that a 1 dollar increase in marginal costs due to higher energy prices translates in to a 70 cent increase in output prices for the average firm in our sample." This data set confirms that company margins decline over time because the energy costs cannot be passed onto the consumer due to competition. The study does not address that when energy costs rise, output volume can decline due to lost market share to foreign competition. As volume declines and manufacturing facilities are operating at reduced rates, the per unit operational costs increase, further reducing company margins. In other words, the study does not consider the cost impacts of changes in operational efficiencies due to declining volumes.

b. Study entitled "Measuring Leakage Risk"[3]

On page 5 it states, "An increase in relative operating costs can, in turn, adversely impact the ability of regulated firms to compete in a global market. If this shifts production outside the regulated jurisdiction, any associated increase in emission can undermine the effectiveness of regional policies." We agree with this concluding statement. However on page 41 it states, "The imprecision of our estimates makes it difficult to estimate leakage potential for any particular industry with any degree of precision." For this reason alone, the study should not be used.

Furthermore, the data used for foreign natural gas prices and foreign electricity prices has changed significantly relative to the study inputs. In 2015, foreign natural gas prices have plummeted along with crude oil prices. For example, prices of natural gas in Asia were roughly $15/MMBtu and are now roughly $6/MMBtu. So the relationship of the U.S. to foreign cost differences used in the study are no longer relevant.

[2] "Subsidies and the China Price," Harvard Business Review, https://hbr.org/2008/06/subsidies-and-the-china-price

[3] "Measuring Leakage Risk," May 2016, http://www.arb.ca.gov/cc/capandtrade/meetings/20160518/ucb-intl-leakage.pdf

IV. LESSONS LEARNED: AS NATURAL GAS PRICES INCREASED – MANUFACTURING JOBS AND GHG LEAKAGE INCREASED

We urge CARB to examine a more near-term example of the relationship of higher energy costs to GHG emissions and jobs leakage. Figure 2 illustrates what happened when natural gas prices increased by over 200 percent from 1999 to 2008. According to the Census Bureau, over 50,000 U.S. manufacturing facilities were shut down and we lost over 5 million manufacturing direct jobs, plus several million indirect jobs. Figure 3 illustrates that as US jobs increased, China jobs increased.

FIGURE 2

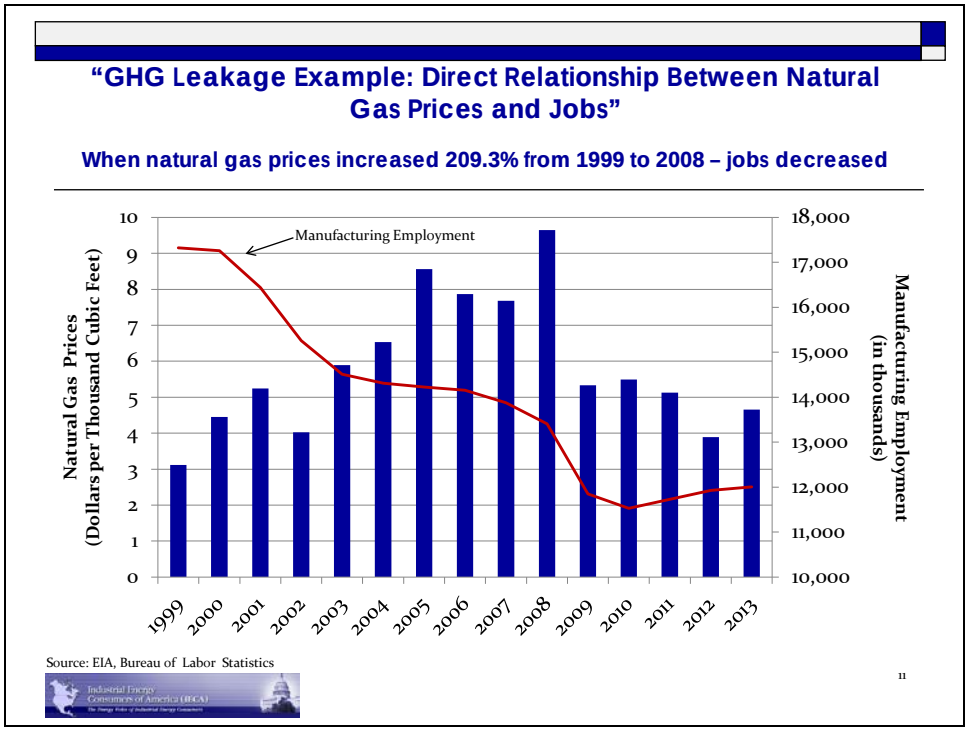
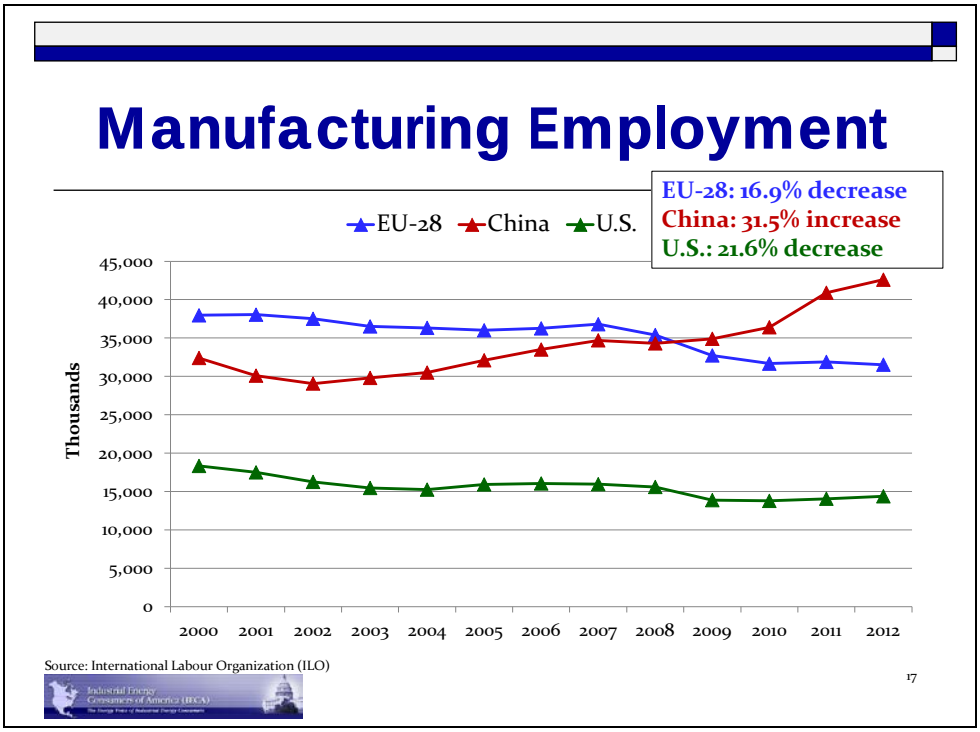


FIGURE 3



As EITE stakeholders, we very much appreciate your efforts to focus on industrial leakage. We urge you to move forward quickly to meet with each EITE industry as soon as possible to seek their specific input. Leakage is occurring today. Thank you for taking the time to review our comments.

Sincerely,

Paul N. Cicio
President