



Industrial Energy Consumers of America

The Voice of the Industrial Energy Consumers

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The Office of Management and Budget
725 17th Street, NW
Washington, DC 20503

Re: Technical Support Document: Social Cost of Carbon, Methane, and Nitrous Oxide Interim Estimates, Docket No. 2021-09679

EXECUTIVE SUMMARY

Use of the social cost of carbon, methane and nitrous oxide (SCC) places the U.S. manufacturing sector at a distinct competitive disadvantage with competitors from all over the world, including China. Due to government subsidies, the Chinese manufacturing sector has surpassed the U.S. and now has the largest manufacturing sector in the world. **China will never disadvantage their manufacturing sector by imposing an SCC.** Without a level playing field, we cannot compete, invest and create high paying family sustaining jobs, improve the supply chain of critical materials necessary for U.S. national security, economic growth and a new clean economy.

This is not a theoretical exercise. We know of no other country in the world who impose the global cost of carbon onto its manufacturing sector. No other sector of the U.S. economy faces the global cost pressures that we do in manufacturing.

If our costs increase due to the use of the SCC, U.S. manufacturing will shift production to offshore locations in order to survive competition that often comes from state-owned enterprises and companies whose governments subsidize the cost of energy in order to generate jobs and exports. When this happens, both jobs and GHG emissions move offshore, which gains nothing environmentally. This is called industrial GHG leakage.

Therefore, IECA opposes the use of the SCC, not because we oppose GHG reductions, but because it will result in industrial GHG leakage and a loss of jobs. The SCC is the wrong climate policy for the manufacturing sector.

Finally, using the SCC is inconsistent with President Biden's efforts to increase manufacturing jobs and supply chain capabilities as stated in The American Jobs Plan.

INDUSTRIAL ENERGY CONSUMERS OF AMERICA

One hundred percent of IECA members are manufacturing companies. IECA is an association of manufacturing companies with \$1.1 trillion in annual sales, over 4,400 facilities nationwide, and more than 1.8 million employees. Most companies are energy-intensive and trade-exposed (EITE). IECA membership represents a diverse set of industries including chemicals, plastics,

steel, iron ore, aluminum, paper, food processing, fertilizer, insulation, glass, industrial gases, pharmaceutical, building products, automotive, independent oil refining, and cement.

THE MANUFACTURING SECTOR IS VITAL TO U.S. NATIONAL SECURITY, ECONOMIC GROWTH, AND JOB CREATION

The U.S. industrial sector is a significant climate and middle-class jobs success story. According to the U.S. Energy Information Administration (EIA), from 1990 to 2019, the industrial sector reduced energy intensity by 54 percent, while increasing gross output by 359 percent. Absolute GHG emissions were reduced by 16 percent, more than any sector of the U.S. economy. We did this without mandates or subsidies. We did it because energy is a cost. And, to remain competitive, we must continuously drive down costs. There are about 13 million manufacturing workers, accounting for 8 percent of the entire workforce, which pays families sustaining wages and benefits that average over \$88,000 per year.¹

U.S. manufacturing has one of the lowest carbon dioxide (CO₂)/value added intensity of any nation, about one-third of China's.² That is why growing U.S. manufacturing output and displacing imports of foreign production, reduces global GHG emissions.

Manufacturing is the engine for U.S. economic growth. Taken alone, manufacturing in the U.S. would be the seventh-largest economy in the world. For every \$1.00 spent in manufacturing, another \$2.74 is added to the U.S. economy.³ That is the highest multiplier effect of any economic sector. Manufacturers are also the country's biggest innovators, accounting for 61 percent of all private sector R&D investments. Moreover, EITE industries produce all of the raw materials needed for clean energy technologies.

According to the EIA, in 2019, the manufacturing sector consumed 27 percent of U.S. natural gas supply.⁴ Industrial consumption has increased from 6.8 trillion cubic feet (Tcf) in 2010 to 8.3 Tcf in 2020, a 22 percent increase. The EIA AEO 2021 forecasts industrial demand to increase to 11.8 Tcf by 2030, an increase of 42 percent from 2020. Finally, manufacturing consumes 25 percent of U.S. power production. Natural gas consumption by the power sector has increased from 7.4 Tcf in 2010 to 11.6 Tcf in 2020, a 57 percent increase.

In January 2020, Chairman Frank Pallone of the House Energy and Commerce Committee released the "Clean Future Act," which summarized the Committee's findings from hearings held in 2019. The information below is from Title V the Industrial Sector, and accurately describes the challenges of decarbonizing the manufacturing sector.⁵ The key takeaway is that imposing SCC costs on the manufacturing sector, who does not have alternative decarbonization technology and fuels to run its factories, will absolutely result in industrial GHG leakage.

¹ National Association of Manufacturers

² Source: CO₂ Emissions from Fuel Combustion 2018, International Energy Agency (IEA)
The World Bank, <http://data.worldbank.org/indicator/NV.IND.MANF.CD>

³ National Association of Manufacturers

⁴ U.S. EIA, *Natural Gas Consumption by End Use*, available at https://www.eia.gov/dnav/ng/ng_cons_sum_dcunusm.htm.

⁵ "E&C Leaders Release Draft Clean Future Act Legislative Text to Achieve a 100 Percent Clean Economy," January 28, 2020, <https://energycommerce.house.gov/newsroom/press-releases/ec-leaders-release-draft-clean-future-act-legislative-text-to-achieve-a-100>

“The U.S. industrial sector – one of the most technically and economically challenging sectors to decarbonize. In some cases, GHG emissions are unavoidable byproducts of industrial processes. In others, low-carbon alternatives are either prohibitively expensive or underdeveloped. Several industrial subsectors also compete in highly competitive global markets, and manufacturers may choose to relocate production overseas rather than invest in emissions mitigation technologies. These energy-intensive and trade-exposed (EITE) industries consequently face steep barriers to deep decarbonization. The Committee believes that industrial decarbonization will require both industry- and process-specific solutions, as well as cross-cutting measures. It is imperative that Congress and the Executive Branch put in place policy measures across all committee and agency jurisdictions to preserve the global competitiveness of EITE industries and manufacturers in the United States.”

Chairman Pallone provides a clear picture of the challenges with decarbonizing EITE industries. These are very diverse industrial sectors and there is no one-size-fits all solution. Thoughtful, science-based, and cost-effective climate policies can support and boost U.S. economic growth, jobs, innovation and competitiveness, while achieving robust environmental goals. By contrast, poorly crafted climate policies can lead to unintended consequences, such as industrial GHG leakage, arbitrary winners and losers, diminished U.S. competitiveness, and the loss of well-paying American jobs. The SCC is such a policy.

Manufacturing’s livelihood is dependent upon natural gas. The 2018 EIA Manufacturing Energy Consumption Survey (MECS) covers 15,000 facilities representing 98 percent of manufacturing payrolls and 50 groups and industry.⁶ The report states, “Overall, the percentage of natural gas that could not be switched in the manufacturing sector was 93 percent in 2018”.⁷ The reason for this is that much of our equipment used to make products are designed for natural gas, not electricity. And, in almost all cases, equipment does not exist that would allow us to use electricity versus natural gas.

President Biden and Congress have acknowledged the need to manufacture more products in the U.S., especially the products that are needed in the supply chain to produce a myriad of clean-energy related products needed to achieve GHG emission commitments and goals. Production of these products, most of which are energy-intensive, will require increased use of natural gas by manufacturing facilities.

Manufacturing companies produce many consumer products, including plastics, paper, steel, aluminum, cement, wallboard, agricultural inputs, chemicals, glass, food processing, cars and trucks. Consumers benefit from the manufacturing of these products and the processes which require natural gas. Natural gas is used as both a fuel and as a feedstock and there is no practical or economical substitute.

⁶ U.S. EIA, 2018 Manufacturing Energy Consumption Survey, Slide 3, available at <https://www.eia.gov/consumption/manufacturing/pdf/MECS%202018%20Results%20Flipbook.pdf>.

⁷ U.S. EIA, 2018 Manufacturing Energy Consumption Survey, Slide 14, available at <https://www.eia.gov/consumption/manufacturing/pdf/MECS%202018%20Results%20Flipbook.pdf>.

IECA members plants are large employers and provide economic benefits to communities in terms of employment opportunities and support for local businesses and jobs. Having access to an abundant and low-cost fuel and feedstock supply is critical to manufacturing companies continued growth and viability and to the opportunities and support that they provide to various U.S. communities. IECA members provide economic benefits to the communities where they are located in terms of jobs and often associated benefits such as tax revenues and support for local businesses and jobs.

As stated above, natural gas serves as both a fuel and feedstock. The OMB must consider that for most manufacturing, there is no substitute for the use of natural gas as a fuel or feedstock. Also, natural gas is used to produce combined heat and power electricity for use in our facilities, which is essential for the generation of thermal energy in thousands of facilities and can operate at up to 80-percent energy efficiently and are extremely environmentally friendly.⁸ Producing our own electricity and steam energy reduces costs and increases competitiveness. Natural gas is also used to fuel industrial boilers, which are also used to generate steam (thermal energy) to operate the facilities economically.

Natural gas-fired electric generation is the primary baseload dispatchable source of power for intermediate and peaking services for the country and is absolutely essential for accommodating growing volumes of intermittent wind and solar power generation.⁹ We cannot have electric grid reliability and resilience without use of natural gas and the necessary pipeline capacity.

PRESIDENT BIDEN’S AMERICAN JOBS PLAN REQUIRES MORE U.S. MANUFACTURING OUTPUT WHICH MAY INCREASE DOMESTIC ENERGY USE - AND IMPORT LESS PRODUCTS THAT ARE MORE GHG INTENSIVE

The below quotes are from President Biden’s “American Jobs Plan” that emphasizes his support to increase domestic manufacturing.

Revitalize manufacturing, secure U.S. supply chains, invest in R&D, and train Americans for the jobs of the future.

President Biden’s plan will ensure that the best, diverse minds in America are put to work creating the innovations of the future while creating hundreds of thousands of quality jobs today. Our workers will build and make things in every part of America, and they will be trained for well-paying, middle-class jobs.

Invest in R&D, revitalize manufacturing and small businesses, and train Americans for the Jobs of the future

Half the jobs in our high growth, high wage sectors are concentrated in just 41 counties, locking millions of Americans out of a shot at a middle-class job. President Biden

⁸ U.S. EPA, *Combined Heat and Power (CHP) Partnership*, available at <https://www.epa.gov/chp/chp-benefits>.

⁹ See, e.g., U.S. EIA, *Natural Gas Consumption by End Use*, available at https://www.eia.gov/dnav/ng/ng_cons_sum_dcunus_m.htm.

believes that, even in the face of automation and globalization, America can and must retain well-paid union jobs and create more of them all across the country. U.S. manufacturing was the Arsenal of Democracy in World War II and must be part of the Arsenal of American Prosperity today, helping fuel an economic recovery for working families. From the invention of the semiconductor to the creation

Strengthen manufacturing supply chains for critical goods. President Biden believes we must produce, here at home, the technologies and goods that meet today's challenges and seize tomorrow's opportunities. President Biden is calling on Congress to invest \$50 billion to create a new office at the Department of Commerce dedicated to monitoring domestic industrial capacity and funding investments to support production of critical goods. The President also is calling on Congress to invest \$50 billion in semiconductor manufacturing and research, as called for in the bipartisan CHIPS Act.

Increase access to capital for domestic manufacturers. America's manufacturing industry needs to innovate, adapt, and scale to win the industries of the future. President Biden is calling on Congress to invest more than \$52 billion in domestic manufacturers. The President is calling on Congress to invest in existing capital access programs with a proven track record of success, with a focus on supporting rural manufacturing and clean energy. The President's plan also includes specific supports for modernizing supply chains, including in the auto sector, like extending the 48C tax credit program. He also will call for the creation of a new financing program to support debt and equity investments for manufacturing to strengthen the resilience of America's supply chains.

PRODUCING MORE PRODUCTS IN THE U.S. AND IMPORTING LESS, REDUCES GLOBAL GHG EMISSIONS. USE OF THE SCC IS INCONSISTENT WITH PRODUCING MORE PRODUCTS IN THE U.S.

It is important to note that consumer demand for our products continues to increase because they are essential for economic growth, public welfare, and quality of life. These products will either be manufactured in the U.S. or imported. If they are imported, there is a possibility that they are produced with greater GHG intensity than U.S. produced products, thereby contributing to GHG emissions.

In September 2020, the Climate Leadership Council released a study entitled, "America's Carbon Advantage."¹⁰ The report highlights that goods manufactured in the U.S. are 80 percent more carbon efficient than the world average and that the U.S. imports 75 percent of its goods from less carbon efficient countries. Therefore, U.S. climate policies should support increased manufacturing production. When we import less, especially from China, we reduce global emissions.

On May 6, 2021, the Rhodium Group released a report that stated that in 2019 stated China's GHG emissions exceeded the combined U.S. and developed countries GHG emissions.¹¹ And, this growth is not going to change anytime soon. A World Energy Investment report published on

¹⁰ "America's Carbon Advantage," Climate Leadership Council, www.clcouncil.org.

¹¹ [China's greenhouse gas emissions exceed U.S., developed world: Report \(cnbc.com\)](https://www.cnbc.com)

June 2, 2021, found that China approved 13 GW of coal-fired plants in 2020, an increase of 45 percent compared to 2019. Globally a total of 20 GW of coal-fired plants were granted approval for investment, up from around 18 GW in 2019. Cambodia, Indonesia, and Pakistan approved almost 5 GW of new coal-fired power plants.¹²

The International Energy Agency's Global Energy Review of CO₂ Emissions notes that even in 2020, China, the world's largest CO₂ emitter, and the first country to be impacted by the Covid-19 pandemic, experienced an increase in GHG emissions from 2019 levels starting in April of 2020.¹³ For the remainder of the year, emissions in China were on average 5 percent higher in 2020 than 2019 levels. The latest annual figures indicate that the country's overall CO₂ emissions in 2020 were 0.8 percent (or 75 Mt CO₂) above the levels assessed at the end of 2019.¹⁴

IECA OPPOSES THE USE OF THE SCC, NOT BECAUSE WE OPPOSE GHG REDUCTIONS, BUT BECAUSE IT WILL RESULT IN INDUSTRIAL GHG LEAKAGE AND THE LOSS OF JOBS. THE SCC IS THE WRONG CLIMATE POLICY FOR THE MANUFACTURING SECTOR. THE UNCERTAINTIES SURROUNDING THE SCC ARE VERY HIGH, BUT THE COMPETITIVE DAMAGE TO THE U.S. MANUFACTURING SECTOR IS CERTAIN.

We do not believe that the OMB has the statutory authority to include cost impacts outside of the U.S. There are substantial uncertainties with SCC calculations in that the calculations are not based upon scientific evidence. Also, IECA believes that calculating global avoided costs is extremely difficult and that the margin of error is very high. There is no consensus on the accuracy of economic modeling of the costs that should be included or how to calculate avoided costs, or the proper discount rate to be applied. Therefore, there are uncertain benefits from using SCC.

To our knowledge, no other country in the world is using a SCC and global climate costs in domestic policy decision making. Therefore, the uncertainties surrounding the SCC are very high, but the competitive damage to the U.S. manufacturing sector is certain.

The SCC considers and adds in global costs of climate change.¹⁵ The combined costs tip the scale against the U.S. manufacturing sector which needs fossil energy and that must compete with global competitors. Our competitors do not face the same costs. Therefore, using the SCC can negatively impacts our competitiveness. We can also be impacted indirectly. For example, if the SCC is used, for example, for adjudicating natural gas pipeline certificate applications, and the pipeline's SCC is too high and its application is denied, it is the manufacturing sector and its jobs that actually are penalized. Without increased natural gas pipeline capacity, we cannot invest in new facilities, which means we cannot create new jobs and there is lost in economic growth.

¹² [China drives rise in coal-fired power plants as IEA warns countries must spend more on clean energy \(yahoo.com\)](https://www.yahoo.com/news/china-drives-rise-coal-fired-power-plants-120000000.html)

¹³ International Energy Agency, *Global Energy Review: CO₂ Emissions in 2020*, available at <https://www.iea.org/articles/global-energy-review-co2-emissions-in-2020>

¹⁴ *Id.*

¹⁵ See, e.g., Interagency Working Group on Social Cost of Greenhouse Gases, *Technical Support Document: Social Cost of Carbon, Methane, and Nitrous Oxide Interim Estimates under Executive Order 13990* at 14-16, available at https://www.whitehouse.gov/wp-content/uploads/2021/02/TechnicalSupportDocument_SocialCostofCarbonMethaneNitrousOxide.pdf.

The above illustrates the difficulty in trying to apply the SCC tool to estimate the actual effects of a particular regulation and would result in arbitrary and capricious decisions due to the subjective nature of the estimates and choices of discount rates.

Thank you for the opportunity to comment.

Sincerely,

Paul N. Cicio

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President & CEO

The Industrial Energy Consumers of America is a nonpartisan association of leading manufacturing companies with \$1.1 trillion in annual sales, over 4,200 facilities nationwide, and with more than 1.8 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: chemicals, plastics, steel, iron ore, aluminum, paper, food processing, fertilizer, insulation, glass, industrial gases, pharmaceutical, building products, automotive, brewing, independent oil refining, and cement.