Good morning. On behalf of the United Steelworkers, I would like to thank this committee for the opportunity to discuss the challenges and opportunities for the industrial sector in the development of policies to address the climate crisis. My name is Tom Conway, and I am the International President of the United Steelworkers. The members of our union, the largest manufacturing union in North America, supply almost every sector of the economy, and produce a wide array of products, including paper, glass, ceramics, cement, chemicals, aluminum, rubber, and, of course, steel. I come out of a steel mill and have a true appreciation for the hard work that our members do every day.

Steelworker members, across all of our industries, have been leading the way in the development and production of the next generation of clean, environmentally friendly products for years. They make tires that have been designed for greater fuel efficiency, paper products from recycled materials, bearings for wind turbines, and steel pipe to replace leaky ones. Manufacturing workers are the key to meeting our shared goals of generating economic growth and solving the climate crisis. But because their jobs and industries are uniquely at risk from poorly designed climate policies, it is crucial for policymakers to understand the challenges facing the energy-intensive, trade-exposed industries, and craft policies to help those industries further decarbonize in a structured, responsible way.
State of Industry in the United States

As you are aware, the industrial sector is a major source of greenhouse gas emissions, both in the United States and around the world. In the U.S., the direct emissions of the industrial sector account for 22 percent of total emissions, the third-largest source behind only transportation and electricity generation. This, if anything, understates the impact that the industrial sector has on total U.S. emissions, since industrials are also large consumers of electricity. Total direct and indirect emissions of the industrial sector, taken together, are larger than for any other part of the economy.

With the industrial sector representing such a large share of U.S. emissions, any economywide decarbonization initiative sufficient to reach our goal of net zero emissions by 2050 must involve decarbonization of the industrial sector. This is obvious, but also very difficult given the pressures already facing the U.S. manufacturing sector.

Even before we experienced COVID-19 and got a glimpse of the still-unfolding economic crisis, business as usual was precarious for manufacturing workers. U.S. industrial products compete in a globalized economy in which they are constantly under assault from often unfairly-traded imports made under regimes with far less stringent labor and environmental standards. These imports, quite often illegally dumped and/or subsidized from China, put a tremendous cost pressure on domestic producers who are fighting to keep their heads above water.

It is precisely because of these external pressures that the industrial sector looks warily upon climate policy solutions. Industrial processes are difficult and costly to decarbonize, if it is even possible to totally decarbonize them. And given the tight margins under which U.S. industry already works, additional costs that are not mitigated elsewhere have the potential to produce a wipeout of U.S. industry in a short period of time. Individual facilities fight for capital investments inside their corporations. When significant capital investments are made, major process equipment costs tens of millions of dollars and is expected to last several decades.

COVID-19 Impacts

It should go without saying that manufacturing has been hard hit by the economic consequences of the COVID-19 pandemic. Over 1 million manufacturing workers are out of work, and it is unclear how many of those might go back to work in the near future.

We are feeling the impacts within our union. While most of our members continued to go to work through stay-at-home orders, the lack of demand in the economy is causing employers across industries to shut their doors temporarily and permanently. Here is a small snapshot of the depth and breadth of what we are seeing: Most USW-represented
steel mills are running at reduced capacity or are shut entirely; paper mills are stopping operations including two Verso mills that employ nearly 1000 Steelworkers in Wisconsin and Minnesota; Goodyear recently announced plans to eliminate over 500 jobs when it closes its 100-year-old facility in Alabama; and Libbey glass just filed for bankruptcy, which will impact two USW-represented facilities.

Manufacturing facilities across industries and across geographies are feeling the impacts. We need policymakers to ensure that we have robust economic stimulus that brings back demand to make sure these businesses not only survive, but thrive. This crisis has highlighted for many across the country the need for industrial policy to boost domestic manufacturing of drugs and medical equipment, but also of other products that are critical to our everyday lives and national security.

Perhaps the picture is bleak today, but it does present us with an opportunity as a nation – an opportunity to invest in American manufacturing that sets us up to be more globally competitive.

A Pathway Forward for American Industry

The redevelopment and retooling of the American manufacturing sector is critical to the U.S. economy and jobs, as well as our ability to avert the worst effects of climate change. We can and must transform our manufacturing sector to become the cleanest, most efficient, most technologically advanced manufacturing in the world. Our goal should be to accomplish that mission without displacing a single worker. While the men and women of America’s manufacturing workforce are ready to lead the way, the realities of these industries require substantial help from policymakers for American manufacturers facing two challenges.

First, many of these industries are inherently more difficult to decarbonize than other parts of the economy. For example, it is possible to imagine a scenario in which the world quickly and completely decarbonizes the electricity system. This is not a particularly realistic scenario in the short term, but low and no-carbon sources of energy, like wind and solar, do exist and the calculus of decarbonizing electricity is one of resource allocation and speed with which these investments can be made. Plotting out a path to decarbonization in those sectors is difficult, but it is nothing compared to figuring out how to strip oxygen off iron in order to make steel without that oxygen taking some carbon with it. Many industries face similar issues in that there are simply some emissions that are inherent to the making of products. These can be minimized, but in some cases never completely eliminated. Additionally, many industries are very energy intensive and need very high heat to operate. There are currently no substitutes for fossil fuels to produce process heat. Long-term research and expense for minimizing emissions is something that few domestic industries can undertake on their own.

The second broad challenge facing American industry is the unrelenting pressure that domestic manufacturers face from imports, particularly from China. Decades of our
trade laws only being sporadically enforced, plus the constant innovation of our rivals in pursuit of market share, have left those U.S. manufacturers that have survived this long with razor-thin margins and no fiscal space to undertake the sort of transformative changes necessary. Additionally, other governments are investing heavily in innovation and transforming their domestic industries to respond to global market demands for products that address climate change.

Comprehensive climate policy must enable the American manufacturing sector to lead the world in the fight against the climate crisis by providing the sector the resources necessary to make the transformative changes necessary while also enacting competitiveness policies that will give them the space necessary to rebuild without being wiped out. Many of these policies could be advanced now as Congress works to respond to COVID-19 and prop up the economy with stimulus measures.

**Investing at Scale in Manufacturing**

Domestic manufacturers have already, in recent years, made huge strides in improving their efficiency. As I discussed earlier, decarbonizing many energy-intensive industries is very difficult, but increased adoption of efficiency systems like Combined Heat and Power (CHP) and Waste Heat to Energy (WHP) are some ways to use technology that exists to significantly reduce emissions.

In many cases, improvements have been made possible by the array of loan, grant, and tax programs that already exist in various agencies. These programs include the Advanced Technology Vehicle Manufacturing Loan program and the section 45Q tax credit for carbon capture, utilization, and sequestration. They are important, but not sufficient, and more programs are necessary.

A key initiative that would help fill in the gaps that exist in our current clean technology manufacturing policy regime is the development and enactment of a robust and well-funded industrial transformation bank or revolving loan fund. In the current economic climate caused by the pandemic, businesses are struggling just to keep the lights on, let alone making transformative investments. The industrial transformation bank or revolving loan fund would provide low-cost loans or other financing to industrial entities of all sizes.

Another initiative that policymakers should prioritize is the renewal or enactment of tax incentives and grants, coupled with enhanced technical and deployment assistance, to drive adoption of industrial energy efficiency systems such as combined heat and power (CHP) and waste heat to energy (WHP). As I discussed earlier, decarbonizing many energy-intensive industries is very difficult, but increased adoption of efficiency systems like CHP and WHP are some ways to use technology that exists to significantly reduce emissions. There are, however, barriers to entry to using these systems that can and must be overcome with both monetary and technical assistance.
These are just a few programs that would be part of a successful industrial investment strategy to drive the development and transformation of the American manufacturing sector into the world leader in clean manufacturing. We also fully support renewing and enhancing funding for the 48C Manufacturing Tax Credit and boosting funding for a number of existing grant programs at the Department of Energy. The 48C tax credit was a very successful program during the Great Recession and should be renewed long-term to apply not just to end products but to entire supply chains. A more comprehensive list of the programs which should be expanded and created is detailed in the BlueGreen Alliance *Manufacturing Agenda – A National Blueprint for Clean Technology Manufacturing Leadership and Industrial Transformation*¹, which we publicly released last week jointly with our union and environmental partners. I am submitting a copy of that document as an appendix to my testimony.

**Acting Now on Innovation and RD&D**

As I have already discussed, dramatically reducing emissions in the industrial sectors is difficult and costly. We do not have affordable technology that is commercially available to do this rapidly. Further, one size does not fit all. Reducing emissions in a steel mill looks a lot different from reducing emissions in a paper mill or a chemical plant or a tire factory.

The United States is under-investing in the research necessary to reach our goals, which presents a risk to our domestic industry’s ability to remain globally competitive.

We strongly urge the establishment of a new effort at the Department of Energy within the Advanced Manufacturing Office that tasks the office with coordinating industrial energy efficiency, advanced manufacturing, and industrial emissions reduction strategies. In the near term, this research must include industrial carbon capture, utilization, and storage (CCUS); carbon dioxide removal and direct air capture (DAC), and alternative fuels like hydrogen for process heat. Long-term, there will likely be technologies and opportunities that we have yet to conceptualize.

Given the challenges and extended timelines for capital investments at manufacturing facilities, Congress should direct and fund this research, development, and deployment now to make sure facilities are able to retool over the coming decades to meet our climate goals.

**Keeping U.S. Industry Globally Competitive**

As important as all the investment and innovation policies are, they will be useless if American manufacturers are wiped out before the benefits of these transformative changes come to fruition. To that end, the investment portfolio must be coupled with a

suite of policies that prevent leakage and will ensure that American manufacturers are not victimized by dirtier, unfairly traded, dumped, and subsidized imports.

The first thing that policymakers should do is to ensure that America’s procurement policies fully match its clean economy ideals. For example, modern Buy America preferences have been successfully applied for almost 40 years, and the Buy American Act has covered direct federal procurement for almost 90 years. If the federal government is going to push or mandate domestic industry to reduce emissions, providing a commonsense preference to the products that result from the very industries making this effort is simply the right thing to do. While Buy America preferences are already applied to many federal assistance programs, they are not universal and their application should be strengthened, particularly as a stimulus measure.

First, Buy America should be applied to every existing program, and strengthened where it already exists. Second, any new funding mechanism created through a climate investment package or any other vehicle must include a specific Buy America preference, clearly and strongly construed to provide a preference to all iron, steel, and manufactured goods produced in the United States. It should encourage full enforcement of the manufactured goods language, and implement a strong standard for “produced in the United States” that in order for businesses to receive the preference, all manufacturing processes must occur in the United States. This ensures that the benefit of this preference will be maximally felt throughout the supply chain, and will secure the robustness and sustainability of those supply chains.

Further, in addition to Buy America, federal procurement and federal assistance programs should adopt Buy Clean provisions to address embodied carbon. Buy Clean calls for federal procurement to seek materials produced in the cleanest, most efficient, and most climate-friendly manner possible. This policy would create a market for products made by companies that invest in reducing emissions from their facilities and processes. Buying Clean and Buying American are already often one in the same, and this convergence will increase over time under the comprehensive policy portfolio we envision as domestic manufacturers get cleaner and more efficient.

Another critical policy that must be part of any energy and climate package is a strong, comprehensive, and timely border adjustment mechanism to ensure that all products consumed in the United States are reflective of our commitment to reducing emissions. No matter how much investment we put into achieving industrial transformation and reducing emissions, there will be some cost to these companies to upend their processes and retool for the future. This is even more acute if the package includes the imposition of a carbon price.

As long as domestic manufacturers are bearing any cost of reducing emissions that is not borne by foreign competitors, they will be at a massive disadvantage in the marketplace. Demand-side policies like Buy America and Buy Clean are helpful and crucial, but cannot on their own prevent the decimation of the domestic manufacturing sector, especially in non-federally-funded markets. If the government imposes these
costs on domestic manufacturers, it is incumbent upon the government to ensure that they do not put domestic firms at a competitive disadvantage. A strong border adjustment, which ensures that products imported from countries are assessed at a cost equivalent to what domestic producers pay, is commonsense and crucial.

The development of the border adjustment will not be easy, but it is absolutely necessary and there is not a path forward without it. It must be strong, it must fully eliminate the cost disadvantage of compliance that U.S. producers bear, and it must be in place as soon as these marginal costs are applied to U.S. producers. This may require delaying the application of climate costs on U.S. manufacturers or subsidizing those costs in another way. This must be done because in commodity-based industries, even a brief delay when costs are not even will result in a wave of bankruptcies, layoffs, and devastated American communities.

Conclusion

Throughout this testimony, I have painted an often grim picture of the current economic crisis and the dangers that addressing the climate crisis poses to American manufacturing. But we absolutely should rise to meet these challenges. For decades, our union has been a leader in the labor movement in pushing for an economic and industrial transformation in this country that will create and maintain good jobs in manufacturing while positioning America as the global leader in clean manufacturing, employing millions of Americans and taking on the climate crisis head on.

We are honest brokers in this, willing to endorse policies that meet our shared goals of reducing emissions while retaining and creating jobs. But as part of that, we must be honest that the decarbonization of the industrial sector will be a crucial, massive, and difficult undertaking. Accomplishing it will take massive support from government and industry. It will take a huge investment in rehabilitating our national infrastructure and improving our resiliency. We must prevent emissions leakage, and we must, above all, ensure that American workers are the leaders of this charge, not the victims of it.

Thank you again for the opportunity to testify before you today. As I mentioned earlier, I am also submitting the BlueGreen Alliance Manufacturing Agenda as an appendix to this testimony. I look forward to answering any questions you might have and continuing to work together.