



Date: January 14, 2021

TO:

Environmental Quality Board

P.O. Box 8477

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Independent Regulatory Review Commission

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BY:

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RE: Public Comments on the proposed **CO₂ Budget Trading Program (RGGI)**

CORPORATE PROFILE:

United States Steel Corporation ("U. S. Steel," "the company," "we," "our," or "us") is a leading manufacturer of value-added flat-rolled (sheet) and tubular steel products that primarily serve the automotive, appliance, container, construction, and energy industries. We are headquartered in Pittsburgh, Pennsylvania, and operate major production facilities in the United States as well as one in the Slovak Republic (U. S. Steel Košice, "USSK"). We are also engaged in several other business activities including coke and iron ore pellet production to primarily support our flat-rolled operations, railroad services, and real estate.

U. S. Steel has been making steel since 1901. U. S. Steel has endured as a leader in the global steel industry throughout decades of change that claimed numerous competitors. While the specific products we make have changed over the past 119 years, what we make and why we do it are no less important. Steel surrounds us. It makes daily life safer, easier, better, and sustainable. And steel's possibilities for the future are endless. Today we continue to transform our company with a vision that strategically positions us for the future. We aim to achieve this vision by successfully executing our world-competitive, "best of both" strategy. By bringing together the best of the integrated steelmaking model with the best of the mini mill steelmaking model, we will transform our business to drive sustainable steelmaking and value for our stakeholders. Our vision is about more than our company; it is about the critical role steel plays in ensuring the United States maintains a strong domestic manufacturing base. Without this capability, our society cannot achieve the most basic level in Abraham Maslow's hierarchy of needs of safety, security and self-reliance.

INTEGRATED STEEL PRODUCTION IN PENNSYLVANIA / MON VALLEY WORKS:

An integrated steel producer uses iron ore and coke as primary raw materials for steel production. U. S. Steel has annual raw steel production capability of 22.9 million net tons (17.0 million tons in the United States and 5.0 million tons in Europe). U. S. Steel supplies customers throughout the world primarily in the automotive, consumer, industrial and oil country tubular goods (OCTG) markets.

United States Steel remains among Pennsylvania's largest manufacturers with a presence that includes a corporate headquarters, research center and Mon Valley Works, consisting of three integrated manufacturing locations, the Clairton Coke Plant, Edgar Thomson Plant and the Irvin Plant, all three located in Allegheny County. As part of Mon Valley Works, the company also operates a galvanizing line at the Fairless Hills Plant in Bucks County.

The 3,000 steelworkers employed at the Mon Valley Works support an additional 10,500 jobs throughout southwestern Pennsylvania. This captures U.S. Steel's supply chain and other businesses that benefit from spending by the company's workforce. Among these are wholesalers, railroads, trucking companies, utilities, banks, housing and restaurants. In 2018, the Mon Valley Works generated \$4.6 billion in economic output throughout the region, roughly half of which is generated directly by the operations. (* Source: Allegheny Conference on Community Development.)

The Clairton Coke Plant, a key plant within the integrated Mon Valley Works complex, is North America's largest producer of high-quality blast furnace coke used by U. S. Steel facilities and other steel producers across the United States. The Clairton Plant employs roughly 1,200 hard working men and women in the coke manufacturing process.

The Clairton Plant's raw material is metallurgical coal. The company, in 2019, purchased more than \$300 million in Pennsylvania mined coal for the Clairton Plant. The Clairton Plant was specifically designed to take coal via the inland waterways system. The Clairton Plant receives approximately 6.0 million tons of metallurgical coal by barge annually. This is almost 16,500 tons of coal each day of the year. The Clairton Plant is fully integrated with the company's Mon Valley Works.

U. S. Steel has completed many pollution controls projects at the Mon Valley Works. These projects will further improve the already improving air quality in the region. U. S. Steel's efforts have also resulted in unprecedented environmental compliance at the Clairton Plant, including, Federal NESHAP/MACT

compliance that has remained at 100% for the past several years, and Battery stack compliance of 99.9% for the first six months of 2020.

WHY SUSTAINABILITY MATTERS TO U. S. STEEL:

There is no getting around the fact that the process of manufacturing steel is energy intensive. What is often overlooked, though, is that the highly competitive nature of our industry drives us to continuously improve and seek opportunities to reduce our emissions and recycle, reuse, and repurpose to maximize the value to our stakeholders. Recognizing the need to move down the carbon curve, in 2019 U. S. Steel announced an aggressive commitment to reduce the GHG emissions intensity across its global footprint. In November 2019, we announced a goal to reduce our GHG emissions intensity by 20%, as measured by the rate of carbon dioxide (CO₂) equivalents emitted per ton of raw steel produced, by 2030 based on 2018 baseline levels. Just as we have led the industry with innovations for over 100 years, we are now setting the standards required to lead steel manufacturing into a sustainable future.

GREENHOUSE GAS (GHG) AND ENERGY:

Production of steel is a carbon intensive process, particularly for steel made through the integrated route, as is the case at the company's Mon Valley Works in Allegheny County. Approximately seventy-five percent of the carbon dioxide emissions from integrated steelmaking are associated with the use of carbon, in the form of coke and coal, to reduce iron ore into metallic iron. There are very few viable technological alternatives for the reduction of iron ore, and none are as energy efficient.

Alternatively, steel can be produced with a significantly smaller carbon footprint by melting recycled scrap using electricity in an electric arc furnace through what is referred to as the mini mill route. However, there is an insufficient supply of steel scrap to meet the world's demand for new steel. Based on data from the World Steel Association (worldsteel), the supply of scrap is currently enough to produce 30 percent of the world's steel. The scrap supply is projected to grow to about 50 percent by 2050. Additionally, certain steels can only be made through the integrated route, further complicating the journey towards sustainable steelmaking.

At U. S. Steel we have started our journey down the carbon curve and towards sustainable carbon free steel production by making a pledge to be the "best of both." U. S. Steel is an historic innovator and leader in the energy efficient production of steel using blast furnaces to generate the molten iron needed for the integrated steelmaking route. Recognizing synergies between the integrated and mini mill steelmaking routes that will allow us to reduce our carbon footprint, U. S. Steel has committed to incorporating mini mills into our production footprint. In addition to these synergies, U. S. Steel will be able to take advantage of available scrap and carbon free electricity to make further reductions in its carbon intensity. This strategy also includes pursuing breakthrough technology innovations that will allow us to drive down the carbon emissions produced at our blast furnaces towards zero. Our engineers are at the forefront of investigating breakthroughs associated with circular carbon technologies and the use of hydrogen as a reductant. U. S. Steel is prepared to invest and capitalize on such developments.

Towards becoming the best of both and a leader in sustainable steelmaking, U. S. Steel established a global GHG reduction goal in 2019 that recognizes the need to achieve GHG emissions reductions using mini mills, energy efficiency initiatives, and through continuous improvement to our integrated steelmaking facilities. As quoted by U. S. Steel President and Chief Executive Officer David B. Burritt:

“Committing to a global greenhouse gas intensity reduction target is central to U. S. Steel’s strategy to become a world-competitive ‘best of both’ integrated and mini mill steel company” Furthermore, “By creating targeted carbon reduction initiatives to accelerate our transformation toward a future of sustainable steel, we create value for all stakeholders.”

To establish our GHG reduction goal we evaluated our Scope 1 direct and Scope 2 indirect GHG emissions at each of our production operations, from the mining of iron ore through the production of finished steel products, on both an absolute and intensity basis dating back to the year 2005. In addition, various methodologies used to calculate GHG emissions were considered, including the World Resources Council GHG Protocol (GHG Protocol), United States Environment Protection Agency Mandatory Reporting Rule for GHG (USEPA MRR), European Union Emissions Trading System (EU ETS), and worldsteel CO2 International Standard ISO 14404:2013. A leading sustainability consulting firm was also brought in for technical oversight and to ensure that an appropriate, aggressive, and achievable GHG reduction strategy and goal would be developed.

Based on our evaluations, U. S. Steel decided to take a progressive approach in establishing its own GHG reduction goal. Rather than establishing a goal based on the year with our greatest total absolute or intensity based GHG emissions, we chose to base our goal on the most recent year of operation. In addition, we have chosen an intensity-based goal, which allows for encompassing overall production efficiency into the goal. Lastly, we have chosen a global goal that includes all our production operations and thus is not limited to a specific sector or region.

Specifically, U. S. Steel has set a goal to reduce its global GHG emissions intensity by 20 percent, as measured by the rate of carbon dioxide (CO₂) equivalents emitted per ton of raw steel production, by 2030 based on 2018 baseline levels.

The proposed CO₂ Budget Trading Program:

United States Steel, as detailed above, supports sustainability and GHG reduction goals and continues to take steps to reduce our GHG emissions in a manner that ensures our plants remain competitive with plants in other states. The ultimate goal of these efforts is to address climate change. Accordingly, the most effective way to achieve such goals should be through the consideration and application of greenhouse reduction policies on a national and, more appropriately, a global basis. Specific and limited state or local proposals to address climate change could ultimately lead to the unintended consequences of competitive disadvantages for major carbon-based industries located in targeted states, and large electricity consumers, like United States Steel.

In the case of Pennsylvania’s proposed CO₂ Budget Trading Program, United States Steel would be impacted as follows:

1. As one of the largest electricity consumers in the Commonwealth, the proposed regulation, if adopted in its current form, could lead to higher electricity costs;
2. The proposed regulation could impair the viability of a future cogeneration plant under consideration within the Mon Valley Works; and,
3. Based upon the current legal justification for the proposed regulation, it could pave the way for an economy-wide, Pennsylvania-specific carbon tax, which would directly and significantly impair the competitiveness of our Pennsylvania steel making operations and place Pennsylvania

steelmaking at a disadvantage with other major steel producing states, including Ohio, Indiana, Illinois and Arkansas, among others

United States Steel is one of the largest electricity users in Pennsylvania. The cost of electricity has a significant impact on our manufacturing operations in every state in which we operate. Even small percentage increases in electricity rates will impact our costs, and thus our competitiveness, associated with manufacturing steel. Based upon our review of modeling prepared for the Department of Environmental Protection, as well as, projections recently presented to the Department's Air Quality & Technical Advisory Committee (AQTAC) by PJM, Inc., we are concerned that the proposed CO₂ Budget Trading Program may lead to the loss of a significant amount of Pennsylvania generation only to be replaced by potentially more expensive generation from states that do not participate in the Program. Recently, the Industrial Energy Customers of Pennsylvania (IECPA) testified before the Senate Energy & Environmental Resources Committee and, based upon a review of DEP's modeling, concluded that all Pennsylvania electric customers would pay approximately \$2.6 billion more between now and 2030. Large industrial customers would bear the brunt of those costs if they materialize.

The proposed **CO₂ Budget Trading Program** would apply to coal fired power generation facilities and cogeneration plants that produce 25 MWs or higher of electricity in Pennsylvania, except for a few narrow exceptions. United States Steel currently generates a meaningful amount of electricity fueled by beneficially using processed coke oven gas, which as described above, comes from coal. We are also contemplating a major investment in the Mon Valley, which would result in a reduction in our environmental footprint and to expand dramatically our ability to self-generate electricity through cogeneration, which may require certain amounts to be sold to the electric grid. The proposed CO₂ Budget Trading Program would apply to all the electricity produced from a cogeneration plant, unless the plant operator can demonstrate at a minimum of 85 percent of the electricity is used by the on-site manufacturer. At this point, it is unclear whether United States Steel can make this determination and, as a result, the feasibility of the major project - which would also provide significant environmental benefits - could be impacted if subject to the proposed regulation.

In addition to the proposed CO₂ Budget Trading Program, the Environmental Quality Board is also considering the implementation of a much broader and impactful carbon tax that would apply to all CO₂ emitters in Pennsylvania. Manufacturers, like United States Steel, would be directly and negatively impacted should this economy wide carbon tax move forward. It is concerning that the legal basis for the economy wide carbon tax as outlined in the petition that brought this to the EQB bears a remarkable similarity to the legal basis outlined in the proposed CO₂ Budget Trading Program. The steel production process, as stated above, is energy intensive and generates CO₂ emissions. A future broader application to all CO₂ emissions by industry and manufacturing in Pennsylvania would have a dramatic negative impact on the ability of Pennsylvania manufacturers to compete with neighboring states, let alone fierce global competition. This situation would again be a major disincentive for any future capital investment and job growth in Pennsylvania.

Carbon based industries, such as integrated steel production, would certainly be placed at an economic competitive disadvantage to competing state operations within the United States. Pennsylvania continues to maintain a leadership role within America's steel industry. By placing additional costs and regulatory requirements on Pennsylvania based steel production, the proposed CO₂ Budget Trading Program or the economy wide carbon tax under consideration before the EQB would serve as a disincentive for future capital investment and job creation in Pennsylvania's steel industry. A better approach would include a more comprehensive national approach for addressing the issue of climate

change, where Pennsylvania's steel manufacturers would not be placed at a disadvantage with competing steel states and the already fierce global steel competition.

Companies like United States Steel that are successfully pursuing GHG reduction goals through sustainability programs, as described above, should be recognized in any proposed Pennsylvania CO₂ Budget Trading Program and credited for achievement and accomplishment. Any final CO₂ Budget Trading Program regulation should specifically identify Pennsylvania's steel producers as exempt from the proposal, including self-generation and cogeneration operations that support the steel production operations.

Thank you.

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