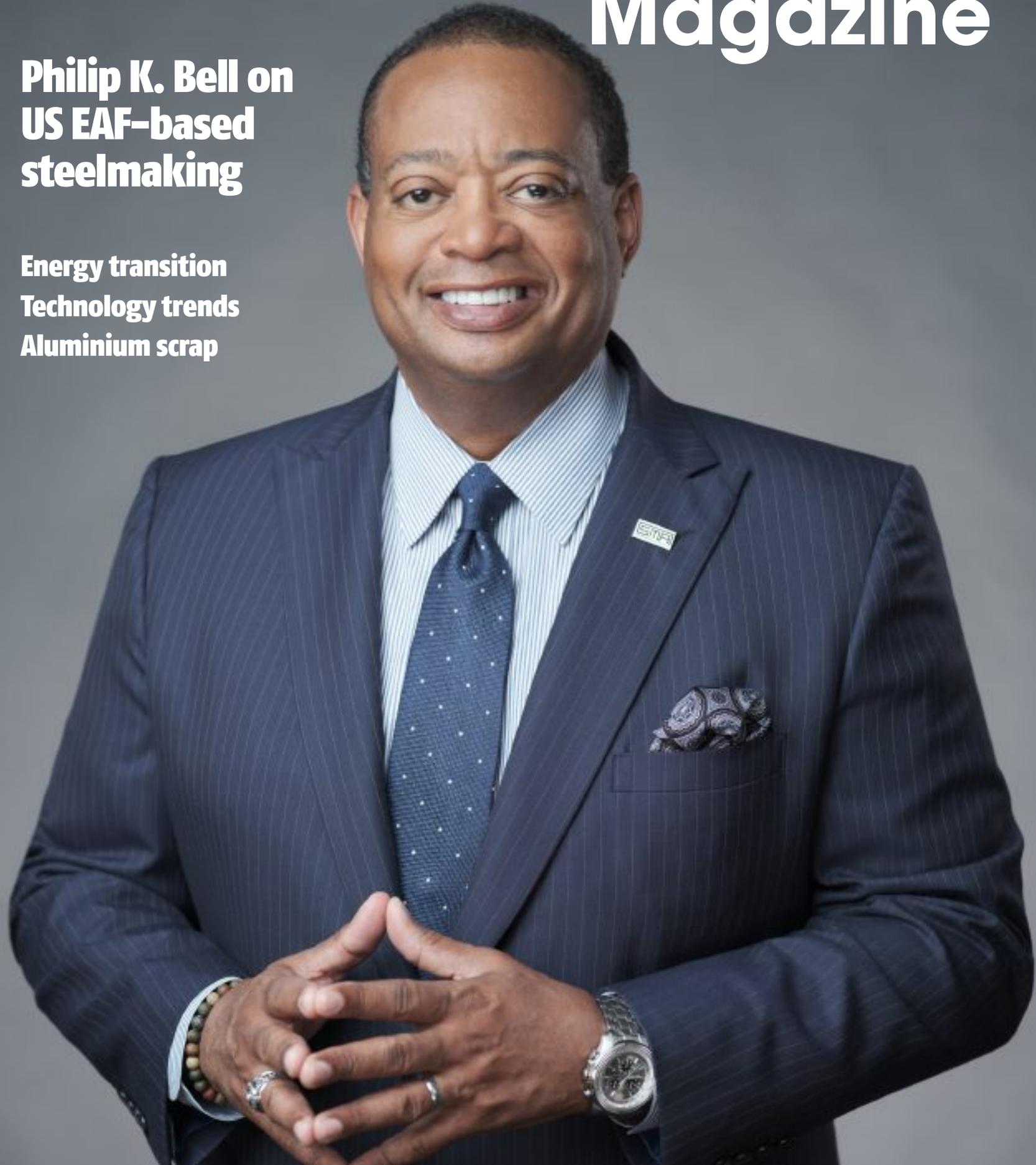


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# Metal Market Magazine

**Philip K. Bell on  
US EAF-based  
steelmaking**

**Energy transition  
Technology trends  
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# Philip K. Bell

## 'EAF steel production is the dominant, green way of making steel'

Philip K. Bell, president of the Steel Manufacturers Association (SMA) in the United States, is a passionate advocate of EAF-based steel production. He explained why to Jo Isenberg-O'Loughlin, highlighting the opportunities and outlook for the sector today

Is a bird in hand truly worth two in the bush? Certainly, and especially if you are sitting in what many consider the catbird's seat, or an enviable position, when it comes to clean, green steelmaking, and are leading the global steel industry's collective charge toward carbon neutrality.

With more than 70% of the steel produced in the United States melted in and tapped out of electric arc furnaces (EAFs), American EAF-based steelmakers enjoy a green advantage over their blast furnace (BF)/basic oxygen furnace (BOF) counterparts around the world.

"The American steel industry is the cleanest, greenest, most sustainable steel industry in the world," declared Philip K. Bell, president of the Washington, DC-based Steel Manufacturers Association (SMA). He does not mince words when it comes to ranking the international field of participants in the high-stakes decarbonization race.

"We produce steel at CO<sub>2</sub> intensity levels that other countries can only aspire to," said Bell, who took the reins of the SMA just shy of nine years ago. "Other regions

can say what they are going to do," he allowed. "But we can show what we are doing. And we have been doing it for years."

The "we" Bell referred to are the many dozens of producer member companies and associate member companies of the SMA, which describes itself as the largest North American steel industry trade association in terms of membership, tonnage produced, number of facilities and as the primary trade association for EAF-based steel producers.

Bell, whose resume before SMA includes work at the former Qualitech Steel SBQ LLC, graphite-electrode supplier SGL Carbon Group, and what was previously known as Gerdau Ameristeel, is quick to credit SMA member companies with setting the worldwide pace in the sustainable production of clean, green, lower carbon steel.

### Increasing capacity

"When you look at other routes to a low-carbon future, many of them are costly, many of them are unproven, and many of them are at their nascent stage," Bell pointed out.

"In the US, we have a well-established, proven way to make lower carbon steel and that's via the EAF," he said. "Couple EAF production with renewable energy, the use of ore-based metalics, and that's a very compelling story to tell.

"And there is more coming down the pike," Bell promised. Between now and 2024, there will be between 15 and 16 million tons of new, sustainable EAF-based capacity coming on-line. "And I don't see that as a problem," he added, downplaying red flags raised by analysts warning of the potential for overcapacity and a shortfall of premium scrap grades.

"I see that [capacity addition] as a good thing because it represents the modernization, electrification and decarbonization of our steel industry," Bell said. And it is also being done by companies with their own money. "Rather than waiting for the government to try to solve this problem, SMA members are doing it on their own with their own money."

### A green agenda

Since the founding of the SMA in the late 1980s, the trade

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association's policy agenda has remained relatively steady, revolving mainly around international trade and competitiveness, raw materials sourcing and supply, and transportation and infrastructure.

A formal listing of policy priorities on the organization's website targets a total of nine areas, including workforce engagement, energy self-sufficiency, manufacturing agenda, environmental stewardship, Buy America, and competing materials in addition to the three core priorities cited above.

Although the list does not contain separate entries for climate change and global warming, both have exerted a measurable impact not only on the expansion of EAF-based steel production, but also on the low-carbon credentials major consumers now demand in the steel they source.

"We have seen over the past several years an increasingly important topic come to the forefront in domestic [US] steelmaking," Bell observed. "And it has to do with the world's lower carbon future and the decarbonization of the steel industry."

The ramifications of that rise, Bell predicts, promise to be far-reaching. "Trade continues to be a major issue as does raw material availability," he acknowledged. "And I think there is a relationship between trade, between climate and between raw materials. In many ways, those three policy priorities are intersectional."

## A matter of leverage

In support of that premise, Bell pointed to a study titled *Leveraging a Carbon Advantage: Impacts of a Border Carbon Adjustment and Carbon Fee in the US Steel Industry*, which takes a closer look at a set of conditions that, if met, would crisscross to create an intersectional relationship between trade, climate and raw materials.

The study, which was commissioned by the Washington, DC-based Climate Leadership Council draws five key conclusions, the first of which is the US steel industry has a major carbon advantage.

The study, which was first

published just over a year ago, states the US steel industry is 75% to 320% more carbon efficient than global producers, depending on the product segment. It points out, however, that under existing rules of climate and trade, US manufacturers get no credit for their cleaner operations.

If a policy to account for carbon emissions were to be implemented, the study projects US steel sales would increase by 7% to 9%, industry value-add would rise by \$2.8 billion in the first year, and steel imports would drop by about 50%.

It goes on to suggest that were the rules to change, steel produced in some of the least carbon-efficient markets, such as China, would be further reduced or pushed out of the US market altogether.

The study also predicted the implementation of a Border Carbon Adjustment (BCA) and carbon fee would accrue benefits across the US as well as extend America's carbon advantage across the economy. According to the study, goods manufactured in the US are 40% more carbon efficient than the world average and 75% of US imports come from less carbon-efficient countries.

## Taking care of business

If a BCA and carbon fee ever were to be implemented, their adoption would have a profound effect on global steel trade. Until then and for the foreseeable future, however, Bell and the SMA's member companies will continue to actively engage in the every-day dynamics of steel trade and industry-related developments as they arise.

One of the most recent of these saw the signing of trade agreements with the EU, Japan and the United Kingdom that effectively replaced Trump Administration Section 232 tariffs with Tariff Rate Quota (TRQ) trade agreements.

"The fact that the Biden Administration took a very careful and methodical approach to get to the TRQs is a good thing," Bell observed. "Because I think that prevented confusion as well as market disruptions and distortions."

"I also think that by having a Tariff Rate Quota, the 232, is, in many respects, still in place. Because if you

don't subscribe to the volumes that are allotted through the quota, guess what? The Section 232 tariffs come back in force.

"I am also pleased that these deals were struck with our major allies at a time of all this geopolitical uncertainty," Bell made it a point to note. "To have a trade agreement with the EU, Japan and the United Kingdom that involves Tariff Rate Quotas is probably the best way we can go."

Bell also feels strongly that the quotas assigned Brazil, Argentina, and South Korea, which were exempted from the 232 tariffs, should remain in place. "And they should remain in place for a very important reason," he emphasized. "They're working!"

## Abusing 'exclusions'

For all the high drama the Section 232 tariffs visited on the global steel industry, an analysis conducted by the SMA and a DC-based law firm found after weighing steel trade-related factors and events dating back to 2018 – including the signing of the USMCA (United States-Mexico-Canada Agreement), the aforementioned quotas on Brazil, Argentina and South Korea and "millions of tons of exclusions that were granted to various steel products" – that only an estimated 15-20% of steel imports were ever subject to the 232 tariffs.

In a five-page letter dated March 28, 2022, submitted to the US Department of Commerce in response to a request for public comment on the exclusion process, and signed by Bell, the SMA noted that as of March 10, 2022, "over 210,000 exclusion requests have been granted. When these exclusions are considered," the letter goes on to state, "85% of imports are no longer subject to Section 232 tariffs."

"The exclusions process needs to be looked at very closely. It's a real issue and it is something we need to work on," Bell acknowledged in the interview for *Metal Market Magazine* conducted in late-May of this year.

"There was a lot of gaming of the system," Bell contends. "Hundreds or even thousands of exclusion requests were filed on the same

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product in the hope that maybe one analyst who didn't approve the request six months earlier would turn around and approve it later. There were folks requesting volumes that far exceeded the demand for various products," he claims. "We've had that happen to our members."

### **Made in America**

On January 25, 2021, President Biden signed an Executive Order setting in motion a government-wide drive to help strengthen the use of Federal procurement and financial assistance to support American manufacturing.

As part of that initiative, the order founded the first-ever Made in America Office (MIAO) within the Office of Management and Budget (OMB).

Its mission? To ensure that any waivers from Made in America laws are applied clearly, consistently, and transparently across some 25 government agencies, including the Department of Defense, Department of Transportation, and Department of Energy.

Fast forward to May 24-26, 2022 when Celeste Drake, director of the MIAO, was in attendance and on the program of the Steel Manufacturers Association's 2022 Annual Members Conference. From all indications, she was well received.

"The goal of that relatively new office is to provide guidance and oversight for making sure that Buy America, Buy American policies are adhered to, to promote domestic procurement preferences for steel and other manufactured goods," Bell elaborated. "And Celeste has a very hardworking and capable team."

Progress to date? "It appears that the cooperation among the various government agencies that buy millions of dollars and tons of products is going pretty well," said Bell. "It seems like the collaboration and interagency communication are there. I am very confident the Made in America Office will play an important role in making sure that the steel we use in our nation's infrastructure is made by Americans for Americans."

### **Friends and foes**

A long-time ally of both the SMA and AISI, the support of the

## **'You are also seeing the emergence of a new marketing strategy where many EAF producers are branding their steel products in a way that amplifies the low-carbon nature of their offerings'**

Congressional Steel Caucus is also recognized by Bell and the SMA. Given the partisan gridlock that has become common in Washington, DC, in recent years, it stands as a welcome exception.

"The Congressional Steel Caucus is higher profile than they have ever been," Bell said without hesitation "The members played a very instrumental role in supporting provisions in the America Competes Act that helps domestic steelmakers."

"They have done a tremendous job being available to SMA members and CEOs to discuss the importance of issues related to steel," he added. "And they have done a lot of work, whether that's through Steel Caucus letters to the Administration, through testifying at the International Trade Commission or their pro-Steel voting records."

The SMA executive is decidedly less upbeat, however, when it comes to reporting progress in the Rail Customer Coalition's very long and ongoing battle to win Surface Transportation Board reforms keyed to deliver more access to competitive freight service, and affordable service to transport their products to market.

"What we are concerned about is that there is not only cost escalation, but there is service degradation on the part of the rail service, which is not solely the result of Covid," Bell said. "We are seeing some appointees to the Surface Transportation Board that we support, who understand the plight of shippers," he added. "So, I'm optimistic."

"Change sometimes comes slowly," he said philosophically. "But you don't give in because progress is slow. We'll keep fighting the fight," Bell pledged. "We aren't ever going to give up on this front."

### **Green and growing**

Ask Bell if, after a half a century of rapid growth and seeding a technological revolution in flat-rolled steelmaking along the way, the US EAF steel sector has topped out, he will tell you that although the EAF industry has had a "great run" over the nine years he has been president of the SMA, it has not peaked.

"Time and again, the EAF sector has shown that it can do things people thought were undoable just a decade, or even five short years ago," he said, pointing to a recent announcement by member company Big River Steel that it would begin producing grain-oriented electrical steel at its facilities in Arkansas by 2023.

"And we continue to see EAFs make in-roads into the automotive market. Twenty years ago, that was unheard of," Bell recalled. "You are also seeing the emergence of a new marketing strategy where many EAF producers are branding their steel products in a way that amplifies the low-carbon nature of their offerings," he noted.

The launch by Nucor Corp. late last year of a line of net-zero, carbon steel products dubbed Econiq™ is an example. At the time of the launch, Nucor disclosed that General Motors would be its first customer for Econiq beginning in the first quarter of this year. It was projected that all steel purchased by GM from Nucor will be net carbon neutral by the end of 2022.

In the meantime, the Charlotte-, North Carolina, based steelmaker is taking steps that could turn it an even deeper shade of green. In April, Nucor announced that it was partnering with the University of Kentucky Research Foundation to test an innovative carbon dioxide capture system at its Nucor Steel Gallatin facility in Kentucky.

Earlier that same month, Nucor disclosed that it was investing \$15 million in NuScale Power, a developer of small modular reactor (SMR) nuclear plants.

Looking ahead, Bell is unabashedly upbeat. "I am actually very bullish and optimistic about the prospects for the industry short term," he said. "By the next decade, some analysts estimate EAFs will account for between 80 and 85% of steel produced in the US."

"No one is saying integrated steel production is going to go away," Bell emphasized. "Quite the opposite."

"What I am saying is EAF steel production is the dominant, green way of making steel. And it is going to be so for years and years to come."