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SUSTAINABLE STEEL

Metallurgist and steel industry veteran **Randy Charles** talks with *Modern Metals* about effective GHG emissions reduction strategy

Q: Why is it important to have a greenhouse gas emissions reduction strategy?

A: The metals industry is intensely focused on sustainability, with producing mills investing billions of dollars and manufacturers striving to meet a market for green products. The SEC has proposed disclosure requirements regarding emissions, and the Biden administration has proposed disclosure requirements for federal contracting companies. Both the U.S. and European Union continue to negotiate a global steel and aluminum trading scheme based on emissions, and the EU has implemented a carbon border adjustment mechanism. Within the metals industry and supply chain for metals products, emissions will be part of future discussions. The good news is that on a very fundamental basis, measuring and calculating an organization's carbon footprint is just a laser focus on energy consumption. Having an emissions reduction strategy is also an energy consumption reduction strategy.

Q: Where does one start?

A: Companies should know their footprints and become familiar with the Greenhouse Gas Protocol, which describes emissions as both direct and indirect and references Scopes 1 through 3. Scopes 1 and 2 are direct emissions. Consumption of natural gas for heating facilities; electricity for operating equipment; and diesel, gasoline and propane for mobile equipment are all examples of Scope 1 and 2 emissions. Scope 3 can become more complicated because it describes emissions generated throughout the upstream and downstream supply chain. There are 15 categories of Scope 3 emissions. Emissions associated with purchased goods and transportation and logistics will make up the bulk of Scope 3 emissions and are a good place to start.

Before considering carbon offsets and renewable energy certificates (RECs), an organization will want to first focus on internal opportunities to reduce emissions. In other words, reduce energy consumption. It is no surprise that the world's most efficient steel producers, many of which are located in the United States, also have global leading low emission profiles.

Q: Is developing a strategy complicated?

A: GHG emissions result from combustion of fossil fuels. Know where fuel is being consumed, know the quantities and cross reference these fuels with the appropriate emissions factor. There are intricacies relative to accounting to take into consideration, As an example, how leasing arrangements are handled depends on the type of arrangement. Additionally, certain circumstances when accounting for utilities may require a custom, location-based emissions factor versus a grid average emissions factor associated with kWh power purchases.

There is something else to keep in mind relative to having ready access to necessary data. Often, accounting records are saved in dollars spent—monthly spend for power, for example. So save this information by quantity: kWh for power, ccf for natural gas and gallons for fuel.

Q: How do companies avoid a "greenwashing" label?

A: After implementing internal processes to help reduce energy consumption and associated emissions, almost all organizations will still have remaining emissions. If necessary, these can be compensated for through use of offsets or RECs. Will this be considered "greenwashing"? High-quality carbon offsets will directly result in the reduction of global emissions. Power purchase agreements (PPAs) and virtual power purchase agreements (VPPAs) will directly result in new renewable energy projects for which an organization can receive credit through RECs. These truly can be meaningful investments and are being used today by leading steel producers.

Q: Is it necessary to provide targets?

A: This largely depends on the strategy's objectives. The current administration proposal for federal contractors may require both targets aligned with Science-Based Target initiatives (SBTi) and reporting through the Climate Disclosure Project. At same time, utility providers and suppliers of purchased goods also may have targets already established. Many large public companies have been communicating their targets through sustainability reporting. Targets are being established for 2030 and 2050, but a lot can happen between now and then. Regardless, starting with an understanding of your organization's footprint is the first order of business before targets can be considered.

Q: Anything else to consider?

A: A side benefit may be the ability to hire conscientious people. Surveys provide perspective on different age groups and their thoughts relative to sustainability and climate. These comments are worth considering as an organization reaches out to recruit professionals new to their careers. When comparing prospective opportunities and employers, potential employees may consider a company that is clearer on communicating its objectives around sustainability and GHG emissions strategy to be more favorable. ■

Randy Charles founded Greenway Steel in support of the metals industry supply chain and manufacturers' long-term sustainability objectives.

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