



NLA SUSTAINABILITY POSITION STATEMENT

What Is Sustainability?

The National Lime Association (NLA), on behalf of the lime industry, believes that sustainability should be understood in broad terms, encompassing preservation of the environment, good stewardship of resources, worker health and safety, economic vitality, and health and development of families and communities, not only for those working in the lime industry today, but for generations to come. A critical component of sustainability for the lime industry is reducing the industry's carbon footprint. Addressing the issue is challenging, and will require actions by governments, industry, non-profit partners, and the public. NLA and the lime industry are committed to pursuing this important goal.

The Lime Industry and Sustainability

As an industry that depends directly on natural resources to manufacture its product—lime is made by processing limestone—stewardship of resources and the avoidance of waste have been part of the lime industry from its beginnings. In recent years, a broader understanding of sustainability has emerged throughout the industry, including not only management of natural resources, but also worker safety, environmental protection, energy efficiency, community engagement and development, and more. NLA has a long-standing Environmental Committee, dedicated to assisting members with the complex legislative and regulatory environmental issues they face, as well as a Health and Safety Committee, which helps members protect the well-being of their employees and their families. More recently, NLA has launched a Sustainability Committee to study and develop steps the lime industry can take to further promote sustainable lime manufacturing in general, and to address the issue of carbon emissions in particular. All three committees work closely with the NLA Board and the NLA staff to share information and to develop action items. NLA's member companies are also working to seek additional creative and innovative ways to make their own operations more energy efficient and sustainable in all respects.

The Lime Industry and Carbon

The lime industry faces a particular challenge in addressing greenhouse gas emissions, because of emissions of carbon dioxide (a greenhouse gas) from lime manufacturing processes. Lime plants, like many other industrial processes, require energy to produce lime from limestone. Lime is produced in large kilns that are primarily powered by fossil fuels, which produce carbon dioxide when combusted. The lime industry has long been pursuing methods of increasing energy efficiency, and while substantial progress has been made in this area, efforts to do even more are continuing.

In addition to fuel-based emissions, however, the lime industry also generates carbon dioxide from the basic chemistry of its manufacturing process. When limestone (calcium carbonate) is heated in a kiln, the result is quicklime (calcium oxide) and carbon dioxide. These “process emissions” are inherent to the production of lime, and cannot be altered through efficiency measures. As partial offset, many lime products eventually reabsorb the carbon dioxide lost during processing, converting back to calcium carbonate. As a result, these emissions cannot be addressed in the same manner as energy-related emissions.

Sustainable Lime – Working Together

Reducing carbon dioxide emissions from lime manufacturing is challenging, and will require actions by technology and research partners, our customers, and legislators and regulators.

Today, technical solutions to approach carbon neutrality are in their infancy and will only become commercially viable through innovative partnerships with technology providers, universities, and government research centers. Such partnerships must be bold and go beyond current practices. In addition, achieving reductions in carbon dioxide emissions across manufacturing and society overall will require significant public/private funding. For example, the development and implementation of carbon capture, sequestration, and utilization technology that can be scaled for large and small emitters is beyond the capability of individual industries and will require investment by and coordination between governments and industry.

The Lime Industry and Carbon Legislation and Regulation

Careful crafting of carbon emission legislation and regulations will be necessary to obtain environmental benefits while minimizing economic disruption. The lime industry believes that the following considerations will be essential:

1. Regulations must be fair, and must create a level playing field for industry, both domestically and internationally. The lime industry is “trade-exposed,” which means that if restrictions imposed on the industry are too costly, it could be subject to unfair competition from lime imports from countries with weaker restrictions. This not only hurts US business but results in higher carbon emissions overall. Legislation must take into account impacts on energy-intensive trade-exposed industries to avoid this so-called carbon “leakage” through imports.

2. Regulations should build in credit for actions already taken by industries to reduce their GHG intensity and emissions, such as by increasing energy efficiency or investing in new technology. Businesses should be rewarded (and not penalized) for being ahead of the curve on addressing emissions.
3. Legislation and regulations should treat carbon emissions inherent to industrial processes (such as lime production) differently from combustion emissions that can be reduced by efficiency measures or fuel switching.
4. In regulating emissions from an industry, the full life cycle of the relevant products must be considered. For example, much of the carbon dioxide emitted during the production of lime is later reabsorbed in many of the applications of the product, and this fact should be recognized in regulations.
5. Regulations must link innovation and financial tools, such as carbon offsets. There is not one solution to achieve carbon neutrality; it will take a wide range of solutions, and regulations must promote the innovative and entrepreneurial capabilities of American workers.
6. Emissions legislation and regulations will be complex, and will have cascading effects throughout the economy and society. These must be carefully considered and fully understood in the development of these approaches, and the voices of all potentially affected parties must be heard in the process. Policymakers must take into account the critical importance of lime as a raw material in manufacturing, as well as the value of lime in abating air and water pollution from other industries and its importance in creating safe drinking water.

The Lime Industry's Commitment

NLA and the lime industry are committed to continued reduction of the industry's carbon footprint in a responsible and sustainable manner. The industry stands ready to work with government, industry, and non-profit partners to achieve this important goal.

NLA and the Lime Industry

NLA is the trade association for manufacturers of high calcium quicklime, dolomitic quicklime, and hydrated lime, collectively referred to as "lime." The lime industry represented by NLA directly employs over four thousand workers in thirty-one U.S. states and six Canadian provinces. Many more workers are supported indirectly by the industry, including vendors, suppliers, customers, contractors, and many more, as well as the families and local communities that depend on the industry.

Lime is an important ingredient in many manufacturing processes and industries. It is used in the steel manufacturing process, road building, agriculture, mining, and the creation of other building products like mortar and plaster. Lime is also a critical component in environmental

compliance for many industries, as it is used to purify drinking water, neutralize hazardous waste streams, and scrub air pollutants from stack emissions. It is used in manufacturing many different products, including paper, personal protective equipment (such as latex for gloves), and food products.