

LITHIUM

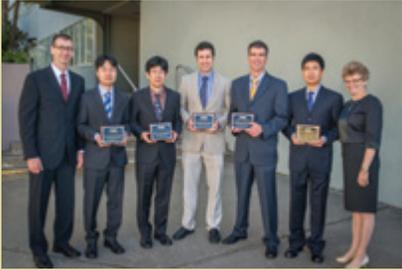
We are at the forefront of innovation with breakthroughs that extend EV driving range and battery longevity.



SOLUTION MINING

FMC's patented directional drilling technique for solution mining allows for greater resource cultivation while reducing greenhouse gas emissions. There are also water resources savings throughout the solution mining process.

GIVING EVs THE CHARGE THEY NEED



FMC participated in a multi-year project to study how Stabilized Lithium Metal Powder (SLMP) in lithium ion batteries could reduce costs and increase energy density. Lithium ion batteries are used in most of today's hybrid, plug-in hybrid and all-electric vehicles (EVs). The research was conducted as part of the Integrated Laboratory Research Program sponsored by the Department of Energy Vehicle Technology Office in partnership with two national laboratories – Lawrence Berkeley National Laboratory and Argonne National Laboratory – and SAFT, a lithium battery manufacturer. The team found that incorporating SLMP into lithium batteries enhanced performance, increased capacity and would be able to meet requirements for EV batteries in the future. Both labs have been recognized in 2014 for their significant contributions to SLMP research and accelerating integration of SLMP into the commercial production of lithium ion batteries. Future research will focus on validation and commercial application of the technology.

Influencing the Future of Transportation

Currently 3.5 percent of all automobiles are electrified in some way and use lithium ion batteries. Although electric vehicles (EVs) show great promise in the battle to cut carbon emissions worldwide, consumer adoption is slower than anticipated. Nonetheless, leading EV manufacturers and some industry analysts believe that EVs' environmental and economic advantages eventually will accelerate consumer adoption. ²³

As one of the world's largest and most innovative lithium suppliers, FMC is an active participant in the effort to encourage EV use. We have a leading market share in advanced technologies for EVs and remain at the forefront of innovation with breakthroughs that extend EV driving range and battery longevity.

In addition to helping power EVs, FMC's lithium solutions are used to make synthetic rubber for more fuel-efficient "green" tires. Although these tires have better gas mileage performance, we are challenged by the significant amount of waste generated in the production process. We have made marginal improvements in this area and continue to explore waste reduction opportunities.

Measuring and Reducing Impact

Life Cycle Analysis

To gain greater awareness of the impacts caused by production of specific FMC products, we initiated a life cycle analysis (LCA) program. An LCA quantifies a specific product's environmental impacts throughout the resource chain.

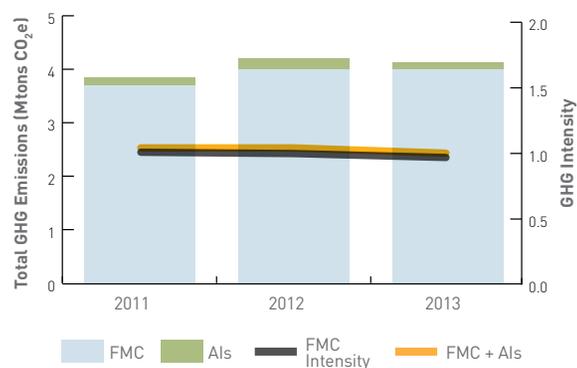
In 2013, FMC performed an LCA of SeaGel® capsule technology from our Health and Nutrition business, and clomazone, one of our key active herbicide ingredients from Agricultural Solutions. Results are being used to understand at what stages in the development and manufacturing process our products have the largest opportunity for impact.

Process Innovation

Discovering innovative ways to make our operations more environmentally friendly and cost effective are high priorities. This is especially true in mining, where FMC is deriving significant

GLOBAL GHG EMISSIONS

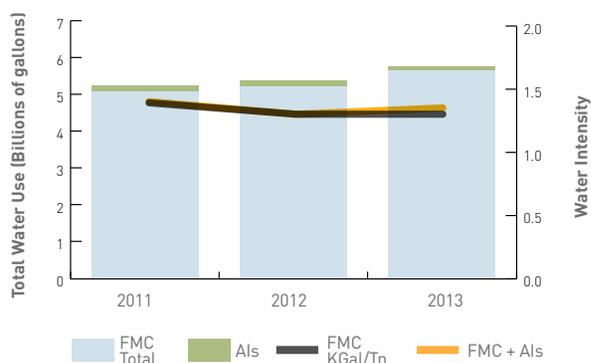
(includes both direct and indirect emissions)



Greenhouse gas intensity decreased 3 percent primarily due to decreased process emissions at our Green River facility.

GLOBAL WATER USAGE

(excludes once-thru cooling water)



FMC's water intensity increased 5 percent. The increase was driven by drought conditions at our Green River site which necessitated increased water intake to maintain the proper water level in its containment lake.

RENEWABLE ENERGY POWERS FMC SITES

Renewable energy is a key source of power at our Argentina and Iceland facilities. The Minera del Altiplano site high in the Andes Mountains uses solar evaporation ponds as a primary part of its lithium production process. The Iceland seaweed processing facility (below) capitalizes on the heat generated from geothermal underground pools for 100 percent of its energy.



In 2013, the cross-functional EMCOE team and third-party experts completed audits of two manufacturing sites: Rockland, Maine, and Milazzo, Italy. These sites were selected for pilot analyses because they are at different stages of energy monitoring and management, and as such, the results could provide information on the range of energy savings that might exist across FMC. Based on the audit results and cost/benefit assessments, we began implementation of several projects including repair of compressed air leaks and the installation of three heat recovery boilers, variable-frequency drives, piping and tank insulation, and programmable controls. The next audit will be conducted in 2014 at our largest operation and energy consuming facility in Green River, Wyoming.

Greenhouse Gas Emissions

Our natural soda ash mining and processing operation in Green River consumes the largest share of FMC's energy usage and generates the most greenhouse gas emissions (GHG). Our GHG emissions include both those occurring from fuel use, as well as process emissions – naturally occurring emissions released during the mining and processing of natural soda ash. FMC's 2013 GHG emission intensity decreased 3 percent due to lower process emissions at this facility.

We will conduct an EMCOE audit in 2014 to find new ways to decrease Green River's energy and greenhouse gas emissions. However, it is important to note that production of natural soda ash from our Wyoming site already uses 40 percent less energy and produces about 40 percent less GHG than production of the alternative synthetic soda ash. **25**

Water Management

In 2013, FMC's water intensity increased 5 percent versus 2012. The Green River site is our largest consumer of water, where in addition to use in solution mining, water sources are used to remove naturally occurring impurities that enter our process with the trona ore. We collect this process water in a containment lake, allowing us to recover any remaining soda ash value. Process water from the containment lake is also used as an extremely energy-efficient