



2019

# Sustainability Report



## CEO Letter

It's never been more important and urgent to focus on sustainability than now. How Hexion thinks about sustainability drives our strategic decision-making process, provides the guidepost for our Company, and sets the foundation for relationships we build with our communities in which we live and work, valued customers and suppliers.

We stand in this sustainability effort together. Everyone must be engaged and involved, from our work colleagues to our families, and from our communities to our partnerships with like-minded organizations and individuals. We cannot accomplish our goals alone, but together, we will achieve great things.

Meaningful impact is driven by action more than intent. We must maintain a persistent and resolute focus on all we do from safety, operational excellence, market innovation, and social responsibility. Our sustainability mindset and culture bring a focus to the solutions we bring to the Adhesives and Coatings and Composites market.

To get the results we want and drive continuous improvement, we must be persistent over time. As an example, in 2013 Hexion initiated a multi-faceted program to heighten awareness of Severe Incident Factors (SIFs), which are inherently higher risk activities that have historically accounted for the majority of safety incidents. As a result, we reduced SIF injuries between 2013 and 2019 by 85 percent. While our goal is zero SIF incidents, a multi-year approach has driven a significant reduction. All Hexion associates and contractors are committed to our "Get Zero - Get Home" safety initiative every day in the workplace, and with our families, friends and neighbors, ultimately benefiting our communities.

Sustainability is at the core of who we are and what we do. I am proud of what our collective efforts accomplished in 2019 and look forward to seeing the fruits of our efforts in 2020 and beyond. Whether it be delivering new bio-based adhesive solutions or driving innovation for lighter and more efficient composite materials, our work towards increased sustainability is a critical and real path to a brighter future.

It takes all of us, all the time, over time to make a difference...  
and we remain committed to creating a more sustainable future.

Thank you,

Craig Rogerson

Chairman, President and CEO



## Our Sustainability Journey

Hexion delivers innovative solutions to customers and prioritizes its product offerings to address various global megatrends, such as continued population growth and global resource scarcity which creates an urgent need for more sustainable products and processes.

Science and chemistry are a key in addressing these life changing challenges. Our commitment to safe manufacturing and community involvement power our ability to create and shape the future, today. This is the responsible path forward and what we call “Responsible Chemistry.”

Addressing climate change starts with Responsible Chemistry. From the demand for energy efficiency to creating bio-based and circular products, science and chemistry play an important role in addressing climate change as we positively address our carbon footprint.

Looking forward, our journey includes performing a materiality assessment in 2020. The results of this effort will set goals and shape Hexion’s ongoing sustainability strategy and planning initiatives.



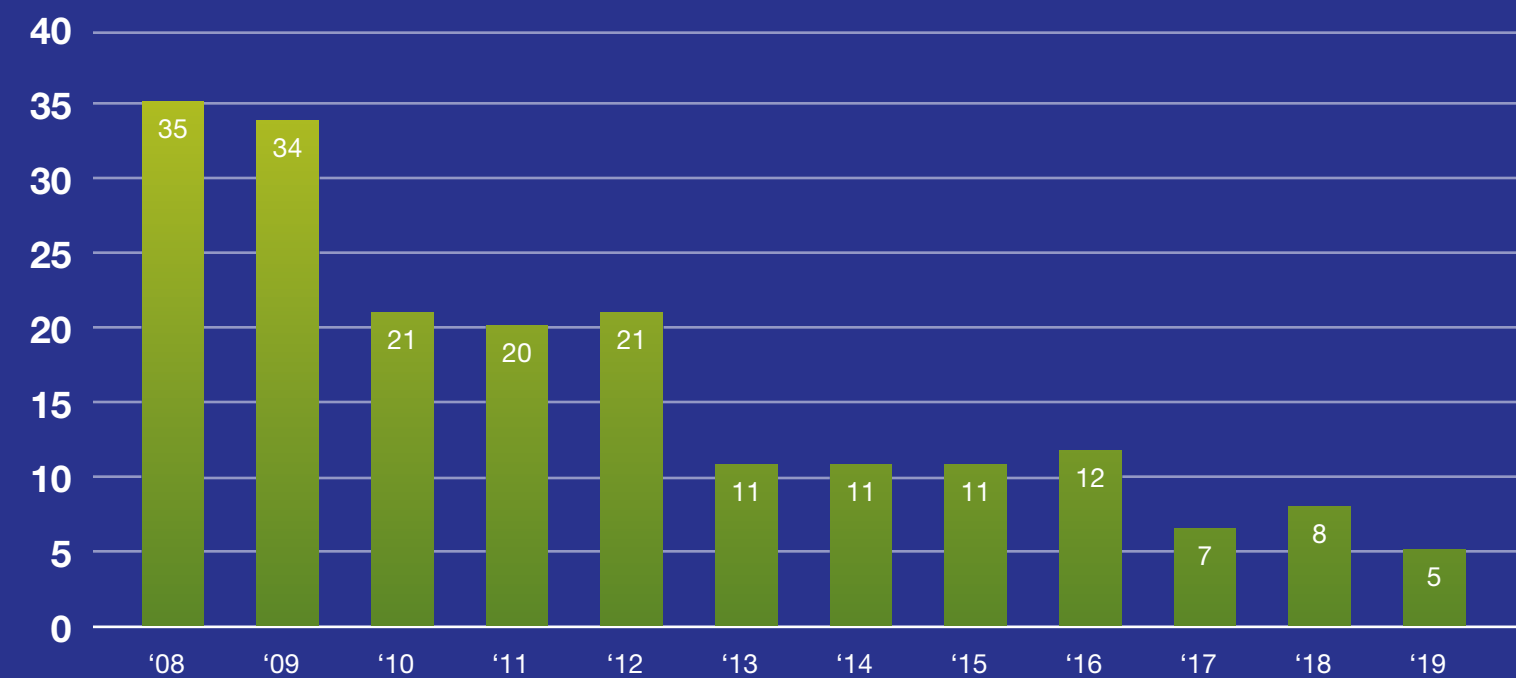
## Operational Excellence

Placing sustainability at the core of our business means building from the inside out. It gives us the values that guide us and extends to how we operate in every facility, every day.

### Environmental Events

Through focused efforts to reduce spills and releases, and improved permit compliance, the Environmental Events metric has steadily declined and held steady in recent years with a 10-year reduction of over 85 percent.

#### Environmental Events



## Continual Improvement

In 2019, with the formation of the Global Operations organization, Manufacturing Excellence and Six Sigma were combined to form one unified Continual Improvement organization dedicated to the coordinated support of manufacturing sites and businesses to:

- Establish effective processes to standardize and measure performance at all levels of the organization to quickly identify issues or improvement opportunities,
- Build problem solving skills within the organization to address identified issues or to improve processes and
- Engage associates at all levels of the organization to drive and sustain improvements.

The Continual Improvement group is structured for both regional and global manufacturing supporting seven business units. In addition, we formed a Global Operations Productivity (GO PRO) team of subject matter experts for yield, supply chain, waste/utilities and more to benchmark internally and externally. Together the Continual Improvement and GO PRO teams help identify and drive improvements throughout the organization.



## Front-Line Leader Development Program

Hexion continued to refine and expand its three-year Front-Line Leader Development Program in 2019. This program includes face-to-face workshops to enhance the capabilities of coaches and front-line leaders in operational roles. Each annual workshop is scheduled for three days and is designed to meet the associates “where they are.” The topics are progressive and interconnected year to year. Topics include giving and receiving feedback, conflict management, situational leadership, the “GROW coaching model,” and “Leading at the Speed of Trust.”

The program began in North America in 2017. The program has expanded to include attendees from all 23 North American sites. It is also being rolled out in Europe and Latin America.

We completed 90 percent of our workshops in the second year of the Front-Line Leader Development Program and now have:

- 240 Front-Line Leaders and 50 coaches in North America,
- 170 Front Line Leaders and 65 coaches and Europe; and,
- 15 Coaches in Latin America with Front-Line Leaders being trained in 2020.

## ACC Responsible Care Awards

Two programs and 13 facilities at Hexion were named Responsible Care® award winners and honored in 2019 for excellence in waste minimization and energy efficiency by the American Chemistry Council (ACC).

The ACC announced the Hexion awards at its virtual 2020 Responsible Care Conference & Expo. These awards relate to the following projects:

**Waste Minimization Category: Springfield, Oregon:** In 2019, Hexion’s Springfield site was able to reduce wash water disposal (and freshwater usage) by 95 percent of disposal volumes over the previous year. After analyzing water usage, the facility identified all sources of wash water, potential receptors for wash water and efficiencies to consume wash water. Once identified, designs and modifications were implemented to existing process equipment to store, blend and beneficially use wash water as a raw material to partially replace freshwater makeup.

**Energy Efficiency Award: Morganton, North Carolina:** Hexion’s Morganton facility upgraded its process unit for air pollution control (thermal oxidizer) in 2017. The facility did not experience the expected increase in natural gas usage efficiency. As a result, a team was assembled to troubleshoot the issue with the objective of reducing natural gas consumption. The team used a combination of engineering fundamentals, statistical data analysis, mechanical knowledge, and supplier application support to reduce natural gas consumption and improved total site gas efficiency by 13.8 percent per million BTU/pound compared to the previous year.

**Facility Safety Award – ACC presents these awards to member companies with significant achievements in employee health and safety performance. In total, 13 of the Company’s sites received the ‘Excellent’ distinction: Acme NC, Alexandria LA, Argo IL, Deer Park TX, Diboll TX, Fayetteville NC, Geismar TX, Hope AR, La Grande OR, Louisville KY, Missoula MO, Moreau NY, Springfield OR.**



## Safety

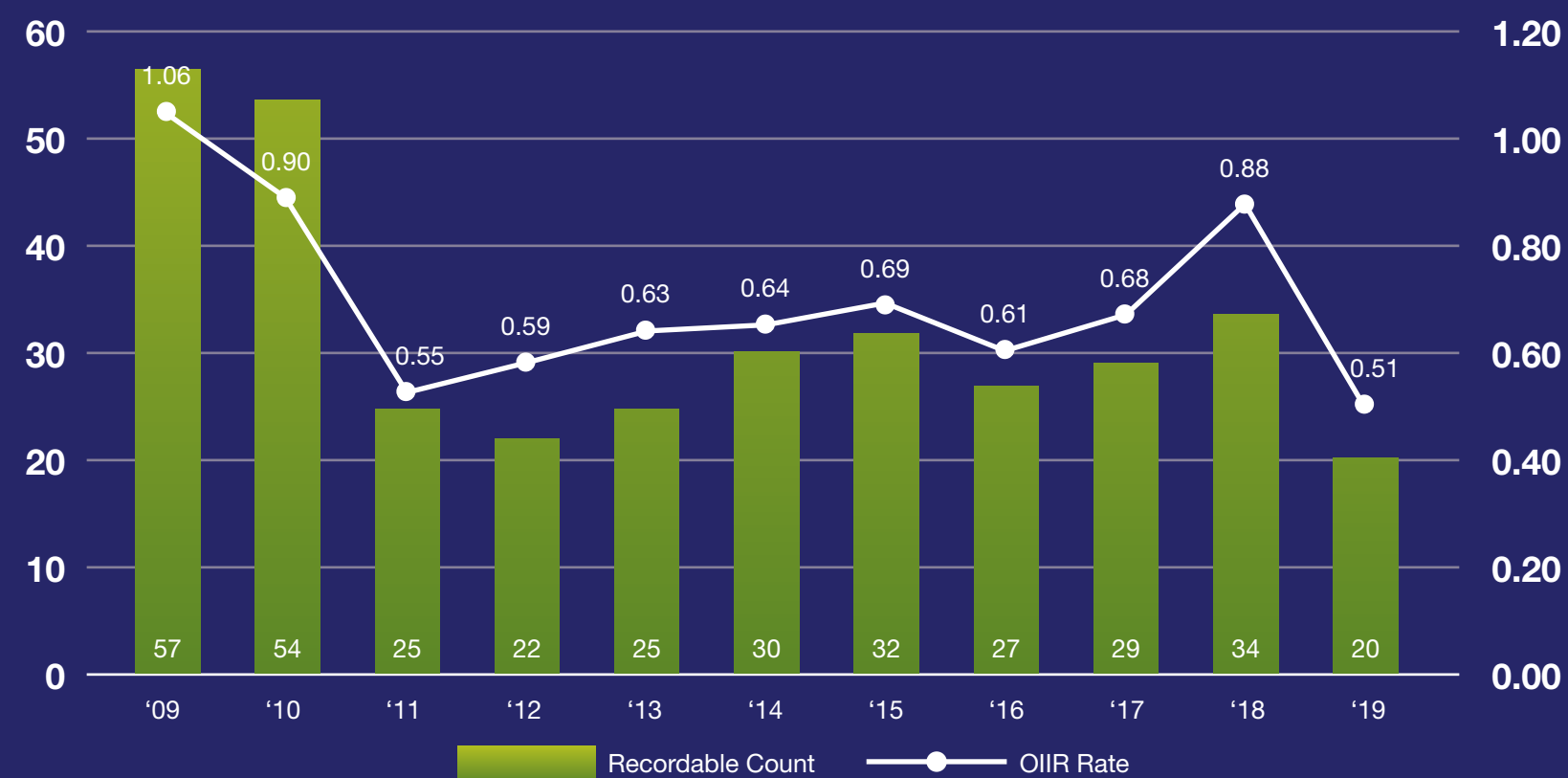
Since Hexion began training and tracking Severe Incident Factors (SIF's) in 2013, the Company has decreased SIF injuries by 85 percent between 2013 and 2019. This means that our associates and contractors are experiencing significantly fewer incidents that carry the potential to cause serious or permanent harm. Hexion is very proud of our associates and their commitment to a safety mindset. Our associates are the ones that have made continual improvements in safety possible while striving for zero incidents.

Ensuring the health and safety of our associates, customers, communities, and stakeholders is a minimum expectation from our value chain and considered our “social” license to operate. We are excited to report that our Occupational Illness and Injuries Rate (OIIR) dropped to 0.51 in 2019 compared to 0.88 in 2018 and our lowest rate in 10 years. This is another indicator of our continued focus and success in addressing safety.

Policies, standards and guidelines are just words – words that instruct us on what to do and what not to do; but a safety mindset is what turns safety policies into a reality. This means living this mindset and attitude, every minute of every day.

We can have the best safety policies, procedures and equipment, but for us to operate in a manner that guarantees that every associate and contractor gets home in the same shape they arrived to work, and remains in that healthy and safe condition, everyone must adopt, commit and practice to living a mindset where safety is paramount 24/7.

OIIR Rate Over Year



## Energy Star Partner

Hexion joined the U.S. Environmental Protection Agency's (EPA's) ENERGY STAR program as a partner in 2019. We made a fundamental commitment to protecting the environment through continuous energy performance improvement in our operations. This is where the GO-PRO (Global Operations Productivity Program) team showed its strength.

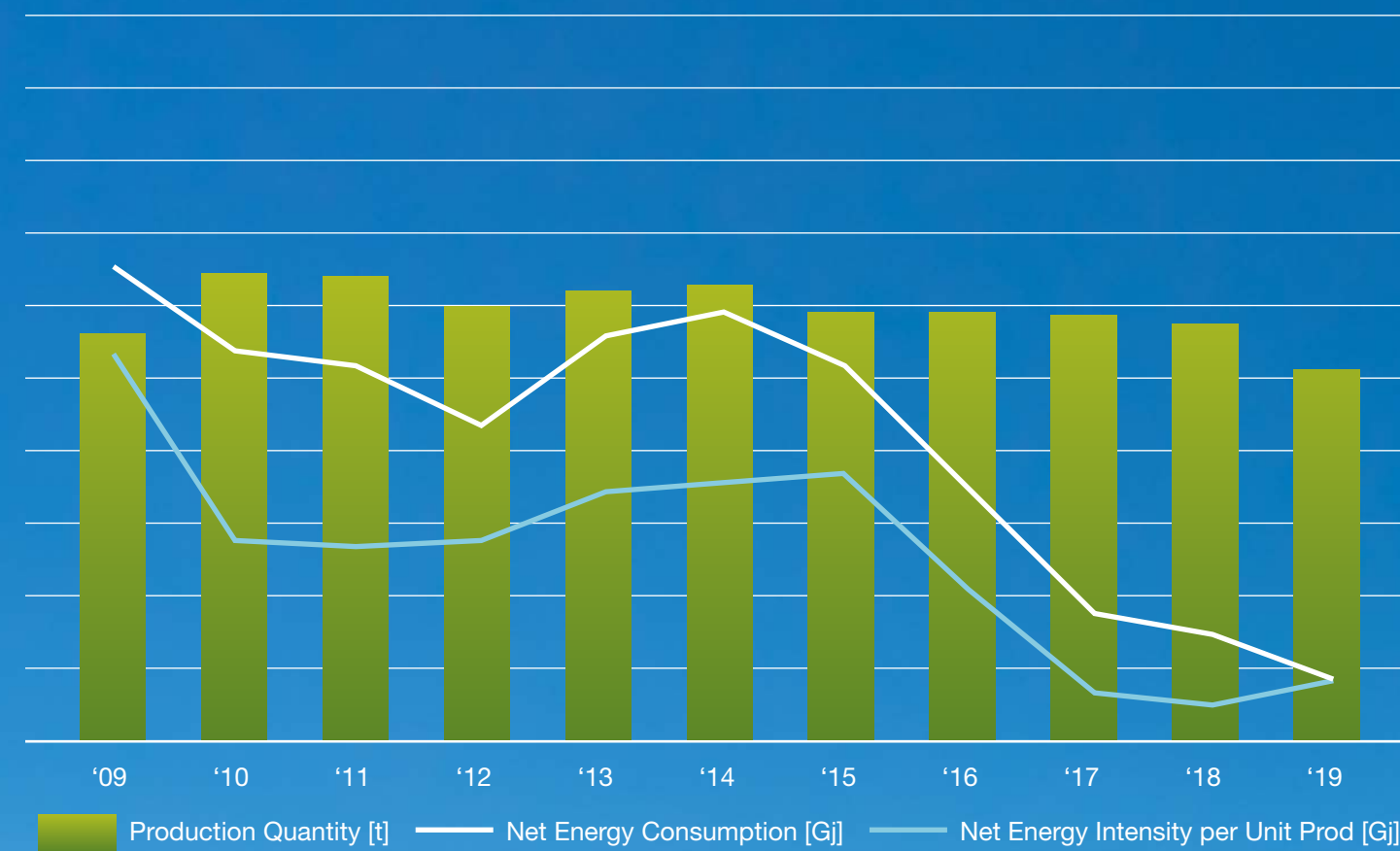
Early projects are already seeing results:

- Boiler and steam system upgrades at one facility will reduce natural gas consumption by 30 percent;
- A facility's process cooling systems is being upgraded to reduce water consumption by more than 60 percent; and
- Modifying a plant process is designed to reduce facility electrical consumption by over 20 percent.

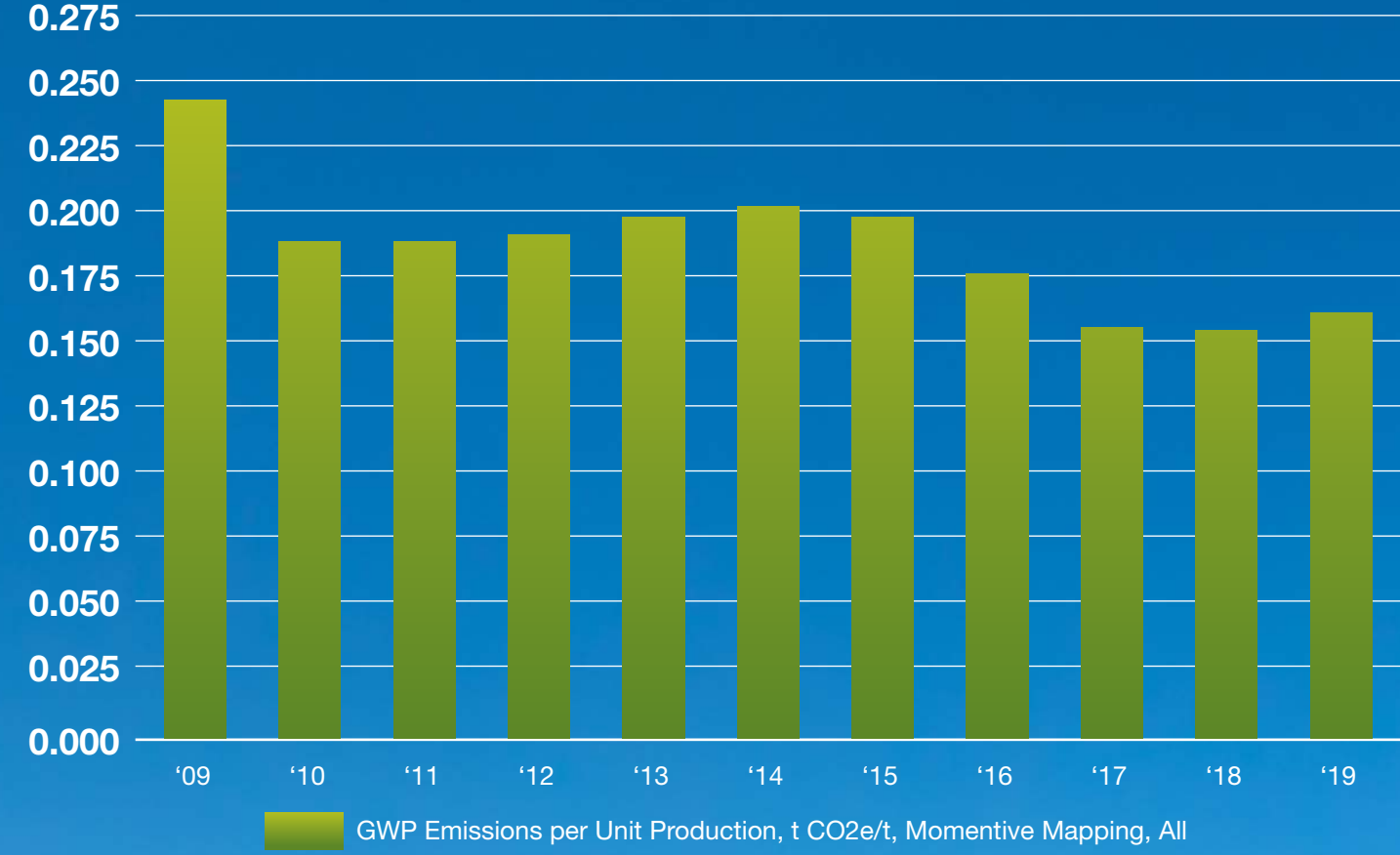
Measuring our progress and success is fundamental at Hexion. Below are our performance markers, with a focus on operational excellence and EH&S.

- Net Energy & Production
- Energy & Global Warming Potential (GWP)
- GHG Intensity
- Safety Performance

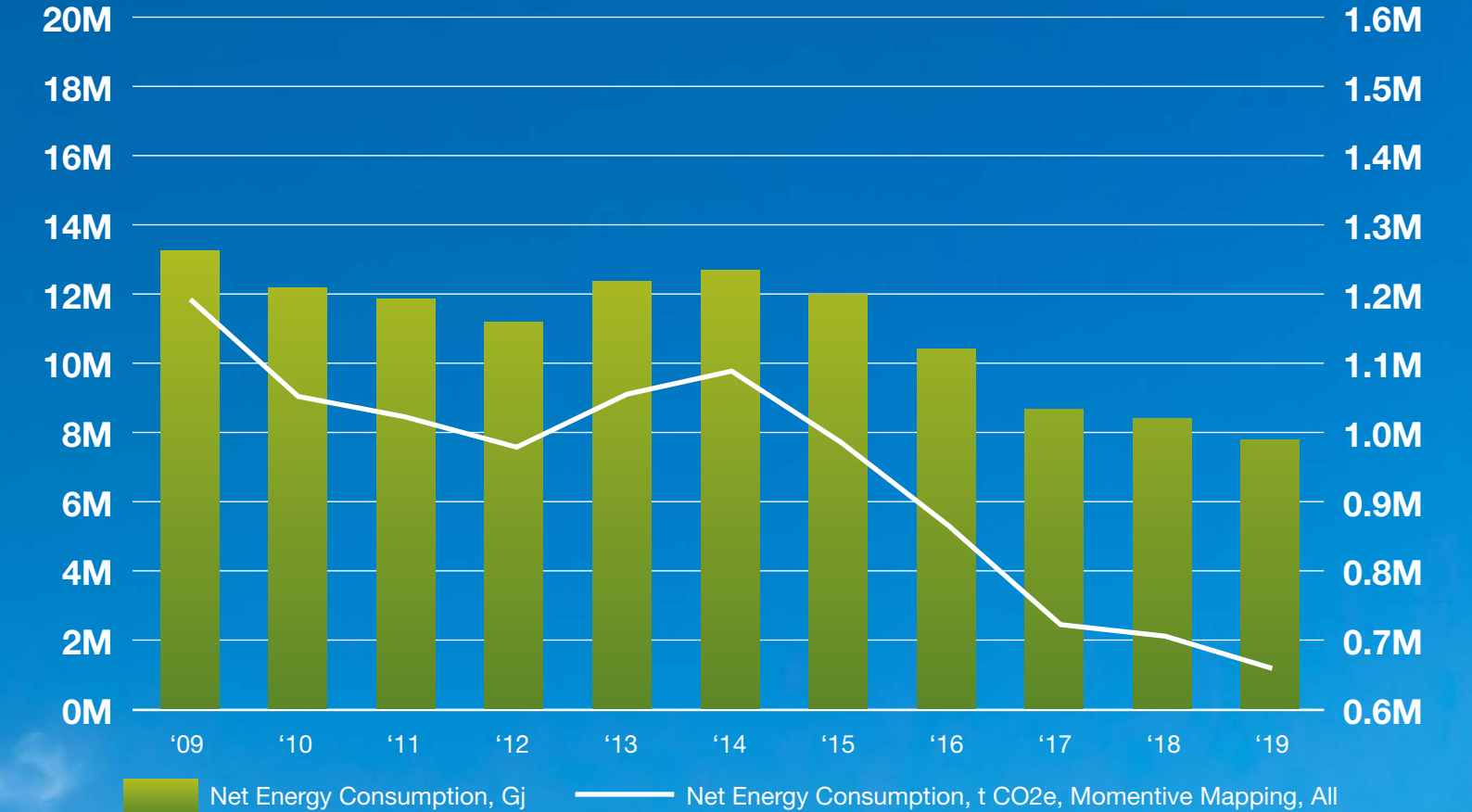
### Net Energy Consumption and Production



### GHG Intensity



### Energy & Global Warming Potential (GWP)



## Market Innovation

We are committed to leveraging the power of chemistry in a way that makes this world better, safer and cleaner. It takes innovation. Innovation is a key to Responsible Chemistry. In new product development, we look beyond chemical make up toward application and end-use priorities.

Associates across the company focus on innovation, whether they are in Commercial or Research Development leadership roles, Hexion associates have a deep understanding of the technical requirements and insights for potential adhesive, coatings and composite solutions. But their expertise goes beyond that to understanding the needs of various stakeholders from supplier to regulator to end user – which is called lifecycle thinking. The benefits of lifecycle thinking in the context of product innovation are essential to ensure one “more sustainable” attribute is not achieved at the expense of another.

Hexion implemented a Sustainability Impact Assessment for all new products we develop. New product approaches are evaluated at the concept stage based on sustainability criteria throughout the value chain from energy efficiency to societal benefits. Using this discipline, we better ensure new technologies and products improve on the life cycle impacts of existing products for a given application. In addition, Product Stewardship is involved in the early stages of new product development so that regulatory and safety considerations are integrated into the design and development process.

A Regulatory Bulletin is available for priority substances with the intention to inform product teams and reduce, minimize or even formulate out these substances where alternatives may exist. Hexion is working to create a set of advanced metrics that would demonstrate progress in this area.

## Wood is “In” Again

Wood has long been a material of choice for building and construction due to its beauty, strength, carbon sequestration and renewable attributes. For more than 80 years, Hexion has provided the enabling resin technology for engineered wood products that makes it possible to use up to 99 percent of plantation grown timber.<sup>1</sup>

Residential buildings have long used engineered wood, but the future is now with multi-story office and residential structures being constructed out of wood. Hexion’s versatile adhesives for the high-volume manufacture of glue laminated beams (glulam) and cross-laminated timber (CLT) can be found in some of the biggest projects on the market. This market will continue to grow and provide another way to reduce embodied carbon in building and construction and support the future of circularity with performance and waste utilization.

In 2019 Hexion announced that its versatile EcoBind™ adhesives for structural engineered wood products completed all independent laboratory testing required by the American National Standards Institute (ANSI) and was certified for the high-volume manufacture of glulam and CLT. This newly certified adhesive system improves the utilization of adhesive and can reduce waste by 80 to 90 percent, which can result in cost savings and a lower impact on our environment.

<sup>1</sup> Dovetail Report







## Waterborne Technology and Carbon Footprint Ties Climate Change Impact

The use and manufacture of waterborne resins provides sustainability benefits to Hexion and throughout the value chain. By manufacturing lower volatile organic compound (VOC) products, Hexion reduces hazardous waste output and air emissions providing an overall reduction in global warming potential. Hexion's continued development of new waterborne resin technology demonstrates our commitment to more sustainable product offerings that reduce VOCs, regulatory burden, and potential for exposure to more hazardous substances, all while maintaining or improving performance.

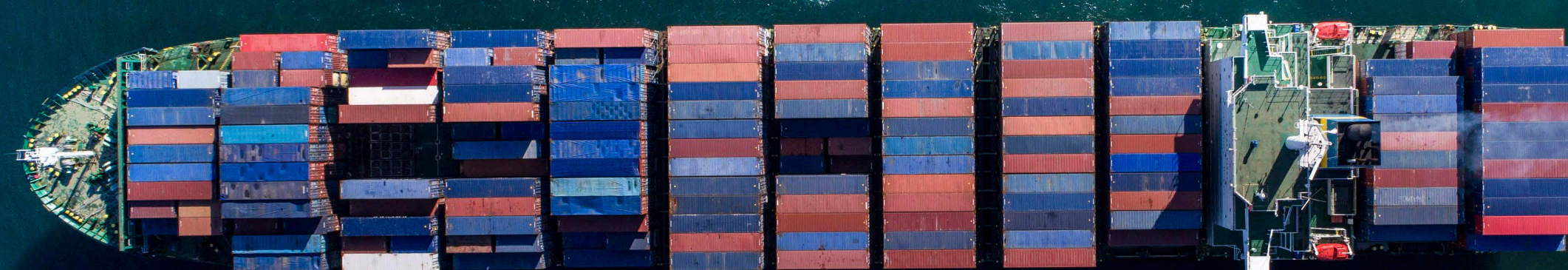
By selecting Hexion's waterborne epoxy resin systems our customers lower the risk of fire by eliminating the flammable solvents used in solvent-based coatings. Waterborne systems also improve the working environment for employees with decreased odor, easier and safer clean-up, and lower emissions. They also decrease the users' regulatory burden by using a more sustainable resin and curing agent system and reducing the solvent content of finished coatings.

Although higher performance waterborne epoxy technology has been around for years, early generations had higher levels of volatile co-solvent and the resulting coating formulations contained VOC levels of 150 – 250g/L. One of Hexion's long-term customers became an early adopter of the waterborne epoxy system. A few years ago, this same customer asked Hexion to help them meet the stricter regulatory level of less than <50 g/L VOC. By working together, we developed a new waterborne epoxy system that allowed our customer to achieve significantly less than 50 g/L VOC with improved performance compared to the earlier material.

## Fire Suppression Technology Positively Affecting Climate Change

In 2019, Hexion further enhanced and developed its fire suppression products. Our wide range of technologies and chemistries protect millions of people each day from fire whether it be in the buildings they live in or the modes of transportation they use.

Whether it is building materials that suppress fire or mass transit and aerospace composites that produce potentially less toxic smoke when burned, Hexion continues to develop new products to protect life, property, and valuable infrastructure.



## Awards and Recognition

Hexion's collaborative approach with its partners and stakeholders led to several recent external recognitions:

- Owens Corning presented Hexion with its Spirit of Partnership Award 2018 which recognizes a dedication to partnership and Hexion's "deep and passionate interest in mutual growth and profitability."
- Sunrui Blade Company presented Hexion with its Spirit of Partnership Award as the Best Supplier of the Year
- Hexion was named as the "Leading International Coating Enterprise" in China by Paints and Coatings Industry magazine
- Hexion was recently named Top Privately Held Company in Columbus, OH by Columbus CEO Magazine
- Hexion received the Health and Safety Award at Composites UK Advanced Engineering Show 2018. Hexion's Phenolic Specialty Resins business unit developed a series of low free formaldehyde (less than 0.1%) phenol resins (Cellobond™) for the composite industry while maintaining inherent flame, smoke toxicity properties.
- In 2019, Hexion received its Responsible Care® recertification after an independent audit of four manufacturing sites and its headquarters. Each site participated in a comprehensive review that demonstrated compliance with the Responsible Care Management System, which included environmental management, safety procedures, regulatory compliance, product safety, security measures, emergency response plans and community/stakeholder engagement.

## Growth

### Shanghai Application Development Center

Hexion continues to invest in research and development infrastructure, expansion and growth to meet market demands for innovative products. In Nov 2019, we moved into a newly constructed Application Development Center (ADC) in Shanghai, China to strengthen its R&D presence in this important growth region. The new 4,800 m2 ADC will support new product development and customer collaboration to accelerate growth in waterborne coatings and composite applications.

The new ADC will strengthen our market leading position in China for more sustainable products in wind energy. It also will serve the electric powered vehicles industry by creating innovative products for lightweight auto composite components, helping our customers build cars with improved fuel efficiency and reduced emissions, without sacrificing performance.

### Additional Capacity for Phenolic Adhesives in Brimbank, Australia

In 2019, Hexion announced its intention to add phenolic resin capacity as the latest expansion of its adhesives and binders business at our Brimbank, Australia site. This new capacity will help Hexion meet the growing demand for phenolic resins that serve a variety of applications, including as a component in fire-resistant cladding material for commercial, institutional and residential applications. By developing adhesive solutions with lower fire, smoke and toxicity (FST) properties, the investment is aligned with our ongoing commitment of providing more sustainable products that are designed to improve safety in building materials.

Construction of the new reactor and associated infrastructure is expected to begin in early 2020 and is expected to come online in the first quarter of 2021.



## Social Responsibility

Associate engagement is important. Engaged associates serve customers better. They find solutions and innovate not for reward, but because it's rewarding. Creating a creative, engaging environment is a core value at Hexion and several initiatives helped to improve associate engagement.

### Catalyst Hub

In February 2020, Hexion opened its new and highly anticipated Catalyst Hub, at its Columbus, Ohio headquarters. It creates a collaborative space where Hexion associates meet and come together, whether for business, lunch or socializing. It also provides healthy snack alternatives for associates. The Catalyst Hub serves as an inspirational space for Columbus-based associates as well as visitors and associates from all over the world.

### Women of Hexion

Women of Hexion is an associate-driven group which serves the purpose of promoting networking, mentoring/coaching, leadership development, discussion of topics of interest, and general fellowship among all of Hexion's associates.

The group's mission is to promote professional growth of associates and achievement of company objectives, including realizing Hexion's strategic outcome of "empowered, agile and diverse associates" and making Hexion an employer of choice for female associates. Participation is open to all Hexion Associates, regardless of gender.

In 2019, we kicked off the E.M.P.O.W.E.R (Embrace Change, Mission Impossible, Public Service, Own Your 20 Square Feet, Words Matter, Encourage Each Other, R Factor) series of 'Lunch and Learns' to inspire and empowerment. The objective of the series is to identify and use tools that help associates tap into their potential and gain insight through small group discussions. This series included topics such as "How to Manage and Handle Change," "Own Your 20 Square Feet," and "Encourage Each Other."

### Think Global, Act Local

Hexion achieved 95 percent site participation in 2019 with its community outreach activities with more than \$700,000 in charitable contributions and approximately 7,000 employee volunteer hours.

In 2019, we expanded our "Hexion Cares Day" throughout the United States. More than 250 Hexion associates spent the day volunteering with fellow colleagues to help make a difference in the communities where we operate by supporting nearly 20 national and local community organizations across the country including; Habitat for Humanity, The American Red Cross, The Mid-Ohio Foodbank, the South Side Learning Center, Columbus Early Learning Centers, Community Shelter Board, YWCA, United Way and the Homeless Families Foundation. Associates gave back to their communities by doing a myriad of projects from painting, building homes, installing smoke detectors, serving meals, organizing events for children and reading at after-school programs.

In addition to our Hexion Cares Day, our sites were active in big and small ways in community engagement around the world. Some examples include:

- Hexion served as the Start Line sponsor of 2019 American Heart Association ("AHA") Central Ohio Heart Walk in downtown Columbus. As the Start Line sponsor for the 11th straight year, Hexion has raised approximately \$185,000 for the AHA over the years at this event.
- Hexion associates have raised more than \$5.6 million for United Way of Central Ohio, more than \$500,000 for Pelotonia and more than \$185,000 for The American Heart Association.
- A group of associates based in the United Kingdom participated in the Welsh 3 Peaks Challenge raising money for a local hospice.
- The Louisville, Kentucky manufacturing site partnered with "TreesLouisville" as part of a city-wide initiative to help restore Louisville's tree canopy. Hexion began planting trees late in 2019, and over the 12-18-month project more than 80 trees will be planted as part of the project.
- The Moreau, New York facility adopted a family of 5 children from the Franklin Community Center in Saratoga Springs. In November the associates came together collecting books, toys, and clothing and for the holidays provided the family with all requested items on their Christmas list.
- The Columbus, Ohio office participated in the "Fill Holiday Store with Toys" by donating gifts and raising more than \$1,200 for the Homeless Families Foundation.

- Stafford, Texas supported the Salvation Army's Annual Angel Tree Program by adopting 30 children and 15 seniors in need.
- The global bee population is in serious decline, with an increasing number of beehives collapsing and many bee species becoming extinct or threatened. If this disturbing trend continues, it could lead to a global food crisis due to the vital pollination role that bees play. At the Louvain-la-Neuve site, Hexion associates wanted to make a difference, so they participated in a local Adopt-a-Beehive project through sponsoring two Hexion dedicated beehives placed on-site at the green surroundings of the Monnet Research Centre where Hexion is a tenant.
- A team of Hexion Deer Park, Texas associates participated in the Deer Park Strides for Schools Fun Run for the third year. This event supports the Deer Park Education Foundation, which is a non-profit organization that provides grants to Deer Park ISD teachers and students.
- Hexion continued to support mothers in need through the "No Show Mother's Day Gala" fundraiser for The Homeless Families Foundation (HFF) in Columbus. Hexion strongly supports HFF's belief that it is unacceptable for any person to be homeless. To prevent homelessness, HFF works to stabilize families, educate children and provide a supportive community for the most vulnerable among us.
- Hexion supported Columbus, Ohio's' local "Under One Roof" event which has been instrumental in raising \$1.2 million needed to help provide to those in need in Central Ohio.



## Sustainability Governance Structure

Sustainability is not a 'program' or a department. For the associates of Hexion, sustainability is a mindset that guides the decisions we make and how we operate. It is integrated into the core of our business, extends to the people we touch every day, and drives our commitment to Responsible Chemistry. Hexion's Board of Directors through its Environmental Health and Safety Committee provides direct oversight to the Company's global sustainability initiatives.

Hexion uses a "Committee" approach to its framework and corporate focus areas and our sustainability practitioners and champions are embedded in our business teams and functions to facilitate the integration of life-cycle thinking across all Hexion.

