



## About NOVA Chemicals

NOVA Chemicals is a leading producer of plastics and chemicals that make everyday life healthier, easier and safer. We are guided by a singular purpose to shape a world where the plastic products vital to our health and happiness are better tomorrow than they are today.

We have a bold ambition to create a plastics circular economy and work collaboratively toward a low carbon, zero plastic waste future. Plastics are made to be remade. The North American plastic industry is committed to 100 percent of plastic packaging being recyclable or recoverable by 2030 and reused, recycled, or recovered by 2040. NOVA Chemicals supports these industry goals.

NOVA Chemicals' portfolio of virgin and recycled resins, along with best-in-class technical expertise, is what sets us apart. Our customers use the chemicals and plastic resins we manufacture in applications ranging from packaging for food, water and medical supplies to e-commerce and recreational equipment. Plastic is and will continue to be a valuable material that enhances modern life. We recognize that how we take care of people and the environment is more important than ever, so how plastics are manufactured, used, recycled and recovered is also part of what we do.

Our success is dependent on living our values: be responsible, be passionate, innovate, collaborate.

# SHAPING A BETTER WORLD





## What We Make

### Ethylene and Co-products

*Produced in Alberta, Ontario, and Louisiana*

### Polyethylene

HDPE, MDPE, LDPE & LLDPE; butene, hexene and octene co-monomer

*Produced in Alberta and Ontario*

## What We Do

Our polyethylene (PE) is used in a wide range of products that consumers use every day. Packaging applications include food packaging, heavy duty sacks, hygiene films, shrink and stretch wrap, e-commerce protective packaging, medical device and vaccine packaging, and caps and closures. Our PE is also found in rigid and durable goods like industrial drums and other containers, toys, recreational equipment, waste containers, and artificial turf.

Our post-consumer resin (PCR) business is growing rapidly to help meet converter, brand owner and retailer packaging sustainability targets.

## Responsible Care

NOVA Chemicals' Responsible Care® program and codes of practice are based on the Chemistry Industry Association of Canada's (CIAC) Responsible Care® Ethics & Principles for Sustainability, which guides how we manage issues relating to health and safety, environment, and social responsibility. The Responsible Care® initiative is recognized by the United Nations and has been adopted by the global chemical industry. The Responsible Care® program is core to our sustainability and ESG efforts.



## Fast Facts

(year ending 12/31/2021)

### EMPLOYEES:

2,400 worldwide

### LEADERSHIP:

Luis Sierra, President and CEO

### SAFETY:

Total Recordable Case Rate: 0.27

## Financials

### ANNUAL SALES:

\$5 Billion (USD)

### EBITDA:

\$2.3 Billion (USD)

### CAPITAL EXPENDITURES:

\$783 Million (USD)



### World-class Manufacturing, Innovation & Technology

NOVA Chemicals develops and manufactures chemicals and plastic resins, with a focus on research and development to enable plastic products that are better tomorrow than they are today.

#### Joffre, Alberta

Our Joffre petrochemical manufacturing site has been in operation for more than 40 years. It is one of the largest ethylene and polyethylene production complexes in the world with five manufacturing facilities: three for ethylene production and two for polyethylene production. Ethane, a component of natural gas, is the primary feedstock for ethylene production at Joffre. The Joffre Site produces 2.2 billion pounds of polyethylene each year along with energy products and co-products, totaling about 830 million pounds per year. NOVA Chemicals also operates pipeline systems that support the transportation of feedstocks and products invaluable to our facility operations.

#### Operational Excellence

NOVA Chemicals modernized eight furnaces at our Ethylene 2 facility in Alberta. To date, the improved performance of new burners reduced NOx emissions by 30 percent. The increased thermal efficiency resulted in approximately 60,000 tonnes decrease in GHG emissions for E2.

NOVA Chemicals is the largest polyethylene producer in Canada. We are committed to promoting sustainable practices and to proactively and responsibly managing our operational impacts to air, water, land, and biodiversity.



NOVA Chemicals' Innovation group employs approximately 200 scientists, engineers and technologists, 50 with PhDs and 15+ with Masters degrees. Together, our two Calgary Innovation Centres make up the largest private research facilities in Western Canada.



## Sarnia-Lambton, Ontario

NOVA Chemicals has been operating in Ontario for over 35 years with three manufacturing facilities and one corporate office in the Sarnia-Lambton region. The Corunna Site produces 1.8 billion pounds of ethylene and about 700 million pounds of co-products annually. Corunna provides feedstock to our Moore and St. Clair River Sites where ethylene is converted into up to 1.3 billion pounds of polyethylene.

We are expanding our operations to bring Canadian ingenuity to North America and the global marketplace with an expected one billion pounds of new, premium value resins for high-performance recyclable packaging each year. We are more than 85 percent complete with the construction of a second proprietary Advanced SCLAIRTECH™ technology (AST) manufacturing facility and the third phase of the Corunna Cracker Expansion Project. Both projects will commence full start-up activities by the end of 2022. Our growth in Ontario represents a \$2.5 billion (CAD) investment bringing cutting edge technology, high-paying jobs and long-term viability to the region.



**Feedstock Conversion:** NOVA Chemicals converted its Corunna, Ontario manufacturing facility to use 100 percent natural gas liquids (NGLs), primarily ethane, as feedstock in 2010. The conversion has resulted in a 33 percent reduction in GHG emissions for our Ontario facilities; a 13 percent reduction for the company.

## Responsible Care® Indigenous Communities Codes

NOVA engages with our Indigenous neighbours with respect for their unique history, cultural, and traditional rights. We proactively identify opportunities to engage in meaningful and effective communication, learning, and consultation in a timely and respectful manner, provide support to Indigenous community members when engaging with our organization, and offer equitable access to employment and contracting opportunities.



## Being a Good Neighbour

Our goal is to be a sought-after employer and neighbour. To do this, we collaborate with our communities and invest in projects that address their needs and concerns. We seek to build a social connection with our Indigenous neighbours through trust, empathy, and understanding. We support multiple organizations dedicated to removing barriers for the most vulnerable populations in our communities. We support initiatives focused on three core areas that back our business strategy: Science and Education, Health and Community Services, and the Arts.

### THROUGHOUT THE PANDEMIC

NOVA Chemicals and its employees donated more than

**\$300,000**

**\$60,000**

initial direct donations to organizations that provide immediate help

**\$125,000**

donation to food banks

### UNITED WAY® GIVING

NOVA Chemicals employees, retirees, and the company collectively raised nearly

**\$1.7 MILLION**

in pledges, matching and additional donations, acknowledging a challenging year

**\$2 MILLION**  
**2,300** volunteer hours\*

\*Reduced volunteerism due to COVID.



## Alliance to End Plastic Waste

Ending plastic waste is ambitious. But it is through collaboration and collective action that this complex problem can be solved.

NOVA Chemicals has been a member of the Alliance to End Plastic Waste (AEPW) since its inception in 2019. We are proud to be a Founding Member of a network of over 90 companies, project partners, allies, and supporters that hold one another accountable in the bold ambition of ending plastic waste in our lifetime.



## Our ESG Priorities

At NOVA Chemicals, we are innovators and leaders in the plastics circular economy, and we will continue to take action to support the transition to a low-carbon economy. Our Environment, Social and Governance (ESG) priorities include: Plastics Circular Economy, Climate Care and Inclusion and Diversity.

## Plastics Circular Economy

Our bold vision is to enable a circular economy that recaptures the value of materials at end of life to help create a world free of plastic pollution. A plastics circular economy transforms the lifecycle of plastic, helping to eliminate plastic waste and minimize new resource use. It also contributes to the long-term success of our business, the viability of our industry, and a thriving society. At NOVA Chemicals, we are developing innovative new solutions and products that help retain the value of plastics in the economy through reuse, recycling and recovery.



## Climate Care

NOVA Chemicals is committed to reducing GHG emissions from our operations. Equipment upgrades, process improvements and cogeneration are just some of the ways we improve our energy efficiency and lower GHG emissions today. We have achieved a more than 30 percent improvement in GHG emissions intensity since 1999 through investment and growth.

## Inclusion and Diversity

Our vision is to be an agile, high-performing, and engaged team of employees who feel they belong and who are proud to represent their communities in their workplace.

In addition to being the right thing to do, promoting an inclusive and diverse workplace can help NOVA Chemicals be a more desirable place to work, help attract and retain top talent, and improve overall company performance.



NOVA Chemicals has announced three long-term post-consumer resin supply agreements for a portfolio of offerings that are used for a range of rigid and flexible application needs. We are working with our customers and throughout the value chain to help brand owners and retailers bring new lightweight, recyclable, and recycled-content plastic packaging – in high-value applications like collation shrink, mulch bags and e-commerce packaging – to market.