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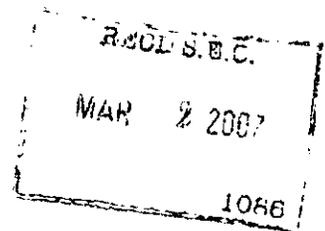
# NCX

NOVA Chemicals: A Plastics and Chemical Company

2006  
Annual  
Report



07045785



# FINANCIAL HIGHLIGHTS

## NOVA Chemicals Highlights

(millions of U.S. dollars, except per share amounts and ratios)

	2006	2005 <sup>(1)</sup>	2004 <sup>(1)</sup>
Revenue	\$ 6,519	\$ 5,616	\$ 5,270
Net Income (Loss)	\$ (703)	\$ (101)	\$ 253
Net Income (Loss) per Common Share <sup>(2)</sup>			
— Basic	\$ (8.52)	\$ (1.22)	\$ 2.92
— Diluted	\$ (8.52)	\$ (1.22)	\$ 2.72
Cash Provided by Operating Activities	\$ 324	\$ 219	\$ 335
Plant, Property and Equipment Additions	\$ 198	\$ 419	\$ 242
Total Assets	\$ 4,155	\$ 5,217	\$ 5,047
Net Debt to Total Capitalization	76.0%	59.7%	48.5%
Return (Loss) on Average Common Equity <sup>(3)</sup>	(55.6)%	(7.5)%	19.2%
Closing Share Price			
— NYSE (U.S. \$)	\$ 27.90	\$ 33.40	\$ 47.30
— TSX (Canadian \$)	\$ 32.50	\$ 38.81	\$ 56.70

(1) 2005 and 2004 have been retrospectively adjusted due to a change in accounting policy (see Note 2 in Notes to Consolidated Financial Statements).

(2) There were 83 million weighted-average basic and diluted common shares outstanding in 2006 and in 2005, 87 million weighted-average basic and 95 million diluted common shares outstanding in 2004.

(3) Net income (loss) divided by average common equity

## Summarized Quarterly Financial Information

three months ended (millions of U.S. dollars, except where noted)

	2006 <sup>(1)</sup>				2005 <sup>(1)</sup>			
	Dec 31	Sept 30	Jun 30	Mar 31	Dec 31	Sept 30	Jun 30	Mar 31
Revenue	\$ 1,635	1,712	1,619	1,553	\$ 1,433	1,366	1,329	1,488
Operating Income (Loss)	\$ (837)	13	107	37	\$ (76)	(98)	5	172
Net Income (Loss) <sup>(1)</sup>	\$ (781)	(24)	106	(4)	\$ (66)	(107)	(22)	94
Net Income (Loss) per Common Share								
— Basic (U.S. dollars per share)	\$ (9.46)	(0.29)	1.28	(0.05)	\$ (0.80)	(1.29)	(0.27)	1.12
— Diluted (U.S. dollars per share)	\$ (9.46)	(0.29)	1.27	(0.05)	\$ (0.80)	(1.29)	(0.27)	1.06
Weighted-Average Common Shares Outstanding								
— Basic (millions)	82.6	82.6	82.5	82.5	82.4	82.3	82.3	83.2
— Diluted (millions)	82.6	82.6	83.2	82.5	82.4	82.3	82.3	90.0

(1) Quarters within 2006 and 2005 have been retrospectively adjusted due to a change in accounting policy (see Note 2 in Notes to Consolidated Financial Statements)

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# FELLOW SHAREHOLDERS,

The past year was a very important one for our company. We clearly demonstrated the exceptional quality and profit-growth potential of our Olefins/Polyolefins business and completed the largest phase of capital and market development investment for our Performance Products and new downstream businesses. We also restructured our company in an effort to maximize value for shareholders.

## Restructuring

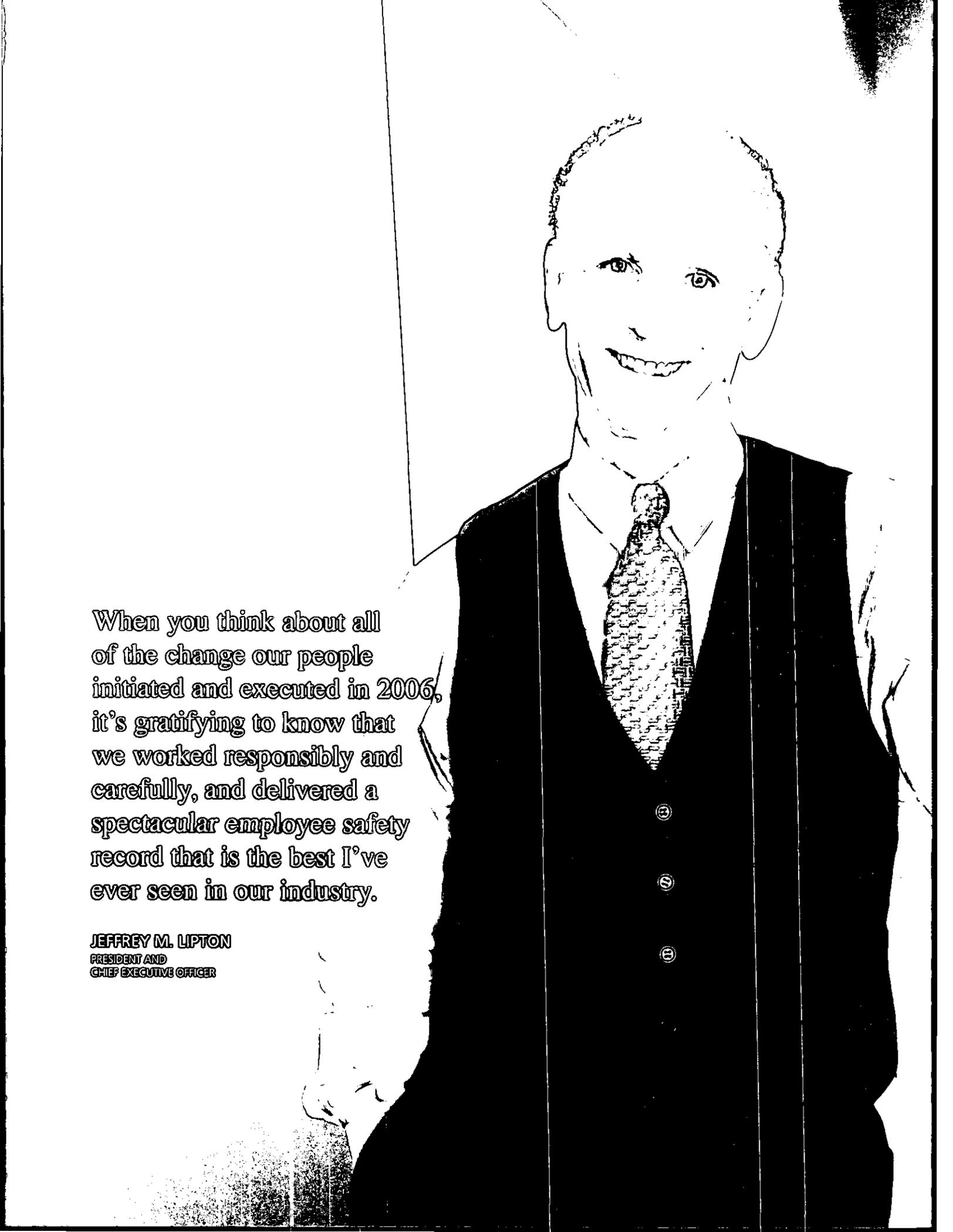
Early in 2006, it became clear that the styrene monomer and solid polystyrene portions of our portfolio were not likely to strengthen soon enough to keep them from offsetting the results of our truly superior olefins and polyolefins product chain. As a result, we restructured the company to unlock the value of our core business.

In the second quarter, we created a STYRENIX unit that could operate independently and rapidly reduce costs by streamlining business processes and closing higher-cost facilities. The new unit is able to stand on its own and is well-positioned to play an important role in the necessary consolidation of our industry through a joint venture, sale or spin-off.

STYRENIX includes our North American styrene and solid polystyrene assets and our share of the European styrenic polymers joint venture with INEOS. These businesses lost an average of \$60 million in EBITDA per year during the past six years. Our actions were designed to reach EBITDA break-even by the start of 2007. So far, we have exceeded our expectations.

As we start the new year, company costs are down \$127 million per year, and STYRENIX asset values have been written down by \$772 million after-tax. We expect our STYRENIX unit to generate positive EBITDA and operating income beginning in the first quarter of 2007 – without market improvement. For 2008, annual operating costs and depreciation will be down approximately \$220 million.

We have cleared the decks for value-adding action. We have done all of the difficult things necessary to make STYRENIX an excellent vehicle for the consolidation needed to help bring supply and demand in the styrenics industry into balance.



When you think about all of the change our people initiated and executed in 2006, it's gratifying to know that we worked responsibly and carefully, and delivered a spectacular employee safety record that is the best I've ever seen in our industry.

**JEFFREY M. LIPTON**  
PRESIDENT AND  
CHIEF EXECUTIVE OFFICER

## **NOVA Chemicals' 2006 Results**

Olefins and polyolefins markets worldwide were solid during the year and the consensus of most observers is that this business has a long, strong earnings period ahead. Looking back on 2006, NOVA Chemicals began the year recovering from the pain of the long and expensive period of Corunna project start-up problems following the modernization and expansion of the facility. After a better second quarter, we delivered a record third quarter for our Olefins/Polyolefins business unit. However, in the fourth quarter, North American polyethylene customers worked off excess inventories, and the result was a sudden and sharp downdraft in margins. Operating income for the year in the Olefins/Polyolefins business unit was \$577 million, up from \$430 million in 2005. In a highly volatile year, this unit generated an 18.6% after-tax return on capital employed.

Performance Styrenics is a small, newly created, entrepreneurial business unit, and its results today are heavily influenced by our commodity expandable polystyrene (EPS) business, which provides the base technology for most of the unit's Performance Products and ventures. Future growth in this unit will be led by ARCEL®, ZYLAR® and DYLARK® Performance Products and new downstream ventures. The operating loss for Performance Styrenics, including all research and market development activity, was \$36 million in 2006 versus \$18 million in 2005.

In the STYRENIX unit, cost-cutting had a significant positive impact this year. The operating loss in 2006 was \$182 million, a \$72 million improvement over 2005.

In the fourth quarter, our European joint venture with INEOS reported its first positive EBITDA results. Europe had been responsible for about half of the historical losses of NOVA Chemicals' styrene and polystyrene businesses. The joint venture was launched just over a year ago, in the fourth quarter of 2005. It has benefited from rapid cost reduction and the consolidation of facilities to bring better supply/demand balance to the European region.

## **Performance Products and New Ventures**

We introduced new products, added capacity and began to penetrate new markets with our Performance Products during 2006. Our efforts during the past year involved a lot of creativity and hard work, but we fell short of our financial objectives, due mainly to a quality issue in polyethylene and an over-reliance on ARCEL sales to one customer that converted to our material more slowly than expected. Both issues have been fully resolved, and I'm confident that we will be back on course in 2007 and will hit our 2008 target of \$240 to \$300 million in total EBITDA contributed by Performance Products.

Sales of Polyethylene Performance Products were up 17% year-over-year and totaled 88% of capacity at Joffre's Advanced SCLAIRTECH™ plant in December. We sold 854 million pounds of resin from this facility in 2006, matching the plant's capacity rating. Our work is now focused on improving the mix of polyethylene Performance Products in order to get the most value from our technology. Given the strong and speedy market acceptance for our unique resins, we plan to debottleneck the plant to around one billion pounds of annual capacity in 2008, with very little capital.

In our Performance Styrenics unit, sales of ARCEL resins, an exceptionally durable packaging foam, continue to grow. Including new finishing operations added with a strategic partner in China, we have manufacturing capacity for 70 million pounds of ARCEL resins – and another simple finishing addition will take that capacity to 100 million pounds. Our global market focus on electronics packaging resulted in new ARCEL business for protective packaging of LCD and plasma screen televisions made in Mexico, printers made in China and the U.S., and data servers made in Hungary. The list of active development partners is long and exciting, and we feel we're just scratching the surface of the potential that exists for our highly profitable ARCEL resins.

Many of our new business development ventures are starting to make the transition from innovative concepts to real profitability. For example, late in 2006 we received our first commercial order from a restaurant chain in the U.S. for our IMx™ technology cups that feature outstanding graphics and insulation performance for both hot and cold drinks. In addition to the sales of expandable polystyrene for the application, NOVA Chemicals receives a royalty for every cup sold. These cups are also being trialed in Europe and Asia for both hot and cold drinks.

I'm particularly excited by the potential to leverage our polymer technology and related applications in the building and construction industry, a rapidly growing market that is hungry for innovation. With our strategic partners, we have developed an array of value-adding, EPS-based products including lightweight concrete, insulating concrete forms, and steel-and-polymer composite wall systems. All of these ventures are based on proprietary technology and can grow rapidly with small amounts of capital.

### **Long-Term Competitive Advantage**

The foundation of our company is the advantaged cash-cost position of our ethylene and polyethylene assets in Western Canada, known as the Alberta Advantage. A full description of the components of the Advantage can be found on page 37 of this report. In 2006, we enjoyed a record Advantage of 17¢ per pound in the third quarter and an average for the year of 11¢ per pound. For the past three years, the average Alberta Advantage was 8¢ per pound.

The prospect of future gas flows from the Canadian Arctic and Alaska through the Alberta Hub, along with recent policy actions of the Alberta government, support expansion of ethane feedstock availability and buttress the long-term Advantage. We strongly believe that we'll see a powerful Advantage for years to come, which will help fuel growth in the chemical industry in Alberta and deliver both outstanding operating returns and profitable growth through the coming decades.

### **Ethylene/Polyethylene Market Dynamics**

Given our tight focus on ethylene and polyethylene, it is critically important that we, and our investors, fully comprehend the market fundamentals for this chain. It is important to understand both the short-term dynamics for our products and the prospects for the next four to five years and beyond.

The balance of supply and demand is the key to profitability in our industry; however, the supply/demand balance for ethylene is not as important for NOVA Chemicals as the balance for polyethylene. Tight ethylene markets are always positive for polyethylene, but long ethylene markets do not always lead to weaker polyethylene chain margins, in part because ethylene is expensive and difficult to transport beyond local markets.

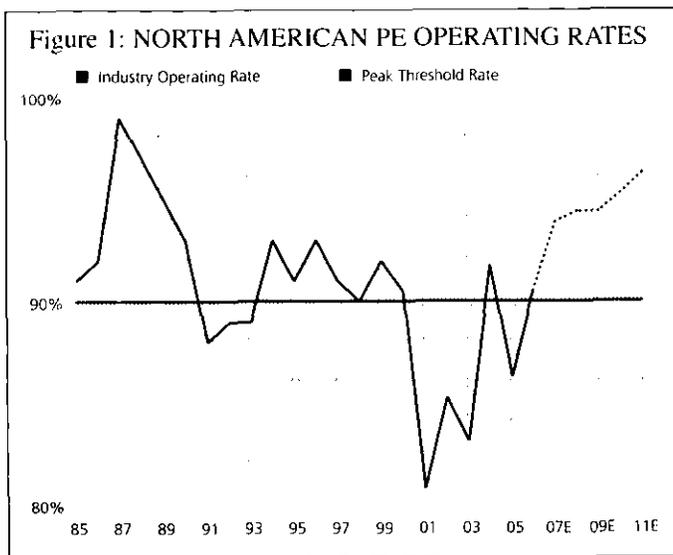
For investors, short-term volatility in polyethylene markets creates uncertainty about the prospects for our industry and 2006 was a prime example of that volatility. The North American polyethylene price fell by about 17¢ per pound from a high in August to the low in December. Customers clearly stocked up in anticipation of U.S. Gulf Coast hurricanes that did not occur. Demand softened as they consumed inventory, causing prices to fall.

### The “Perils” of Polyethylene

In my youth, I saw some episodes of what is considered to be the most famous serial in cinema history – “The Perils of Pauline.” In each episode, the heroine, Pauline, successfully faced one life-threatening “peril” after another. She was always in trouble, and somehow always escaped.

The last few years in the North American markets have seemed like “The Perils of Polyethylene,” but I’m convinced we’ll wind up the same way Pauline did in each episode – safe and strong.

Let me start with the fundamental, long-term story – Figure 1 shows the North American supply/demand balance for the next four years. It assumes 3% Gross Domestic Product (GDP) growth as forecast by Global Insight and we assume that polyethylene demand growth will be at only GDP growth rates. Very little new capacity has been announced for North America. The net result will be a very strong supply/demand balance.

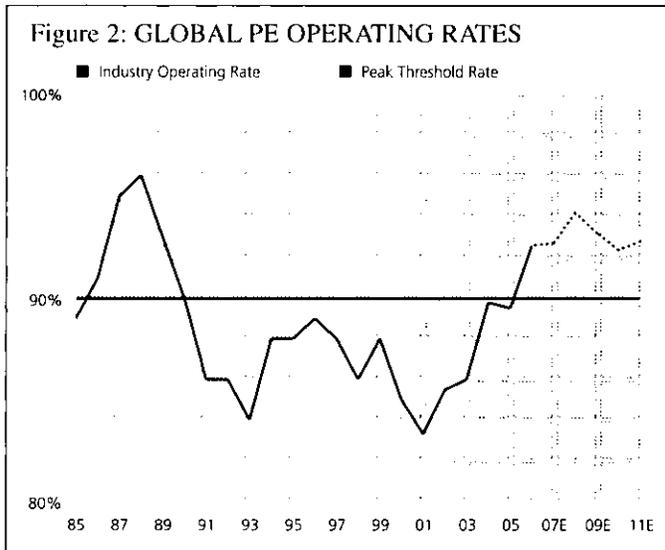


The global picture as shown in Figure 2 is also very strong, based on similar assumptions. The global polyethylene industry has never been able to operate at a rate approaching 90% of utilization for any sustained period. As a consequence, we are very confident about the basic health of the polyethylene market for the next four years, and perhaps even longer.

### Managing Inventory

Why, then, are we experiencing so much volatility in North American polyethylene markets? In my view, it’s all about polyethylene producers’ operating philosophies and our customers’ approach to using inventory to fight off price increases.

Our customers and their customers have driven polyethylene and related product inventories down to protect themselves from risks associated with energy price swings and the related volatility of polyethylene prices. In general, our customers have sharply reduced overall chain inventory levels. This has left room for them to aggressively build inventory when prices are relatively low, energy prices are expected to rise, or supply disruptions become a threat. Once they have built an inventory buffer, and expect energy prices to fall, they stop buying and consume inventory.



Our industry enables customers to do that, since many producers ignore available inventory data and continue to produce at maximum rates under all conditions – assuming that high production rates are necessary to maximize profit margins. NOVA Chemicals’ operating approach is very different. We study real-time inventory data and reduce production whenever it is necessary to control inventories. This reduces the pressure on our company to sell heavy volumes into low-margin markets. For the last five years, the North American polyethylene industry has averaged 43 days sales of polymer inventory; NOVA Chemicals has averaged 24 days during the same period.

I believe investors who study longer-term supply/demand fundamentals should have great confidence in our industry. They can expect that the polyethylene market will face – and overcome – frequent, short-term challenges. There simply will not be enough capacity to match demand growth and, unless we are hit with a global recession, short-term downturns will not last long. Further, the continued tightening of North American and global supply/demand balances will make it harder and harder for our customers to build inventories, even if polyethylene producers don’t change their operating tactics. When customers can’t build excess inventory, they can’t use inventory to push down prices.

I think the indicators of this underlying market strength are there to see. In the fourth quarter of 2006, although there was a rapid price fall in North America, the European and Asian polyethylene markets remained stable and strong. That enabled North American producers to export profitably, which in turn made the downturn relatively brief.

I also think many observers are overestimating the impact and timing of capacity additions planned for the Middle East. Construction delays appear to be getting worse, not better, and the impact of planned new capacity continues to slide into the future. We have done some interesting work on start-up timing and our supply/demand balance projections are, we believe, the most accurate available.

Investors who understand that volatility is not necessarily an indicator of a weak industry will be able to take advantage of the short-term “perils” of product and share price volatility. They can be part of an industry that can look forward to years of continued supply/demand balance improvement and strong cash-flow generation.

### Safe Operations

The part of NOVA Chemicals’ 2006 performance that I am most proud of is our Responsible Care® record. Responsible Care is the chemical industry’s management system for health, safety, security and the environment. This initiative has historically delivered results far better than any other manufacturing industry.

When you think about all of the change our people initiated and executed in 2006, it's gratifying to know that we worked responsibly and carefully, and delivered a spectacular employee safety record that is the best I've ever seen in our industry. NOVA Chemicals won the prestigious American Chemistry Council Responsible Care Leadership Award for medium-sized companies as a result of our 2005 record for safety, security and environmental performance, as well as our innovations, particularly around fire prevention. And our record for 2006 was far better than in 2005.

More information about our safety performance can be found on page 20 of this report. I hope you see this performance, as I do, as an indicator of the culture, operating strength and professionalism of our organization.

### **Moving Forward**

We remain committed to our focus on our powerful Olefins/Polyolefins business and very promising Performance Products. We are also optimistic about a STYRENIX pathway that will add value for shareholders since there is strong interest in consolidation across the industry.

We're making significant strides in our efforts to maximize value for shareholders. As I say to our employees, we must be focused – not on selling more and more little plastic pellets, but on delivering real value to our shareholders, despite the volatility of our marketplace and quarter-to-quarter results.

To close, I would like to offer my very sincere thanks and appreciation to all of the people who worked with and for NOVA Chemicals in 2006. We felt it was important to treat the employees who left us fairly and with respect. I am grateful to those who remain for their hard work, dedication and focus on things we can control like our costs, new product and business development, and Responsible Care.

I would like to offer a special note of appreciation to the members of our Board of Directors, who have been able to see through the volatile nature of commodity product markets and support our need for rapid action and creativity.

In particular, I want to thank Ted Newall who has been the non-executive Chairman of our Board since NOVA Chemicals started up in July 1998. Ted has utilized his long experience in the chemical industry and combined it with practical, supportive thought and action to help us deal with the many challenges a new, tightly focused and entrepreneurial company has faced.

Ted will not be standing for election to our Board at the next Annual General Meeting. While we will miss his leadership, we firmly believe he has helped position us for long-term success at the Board, management and operating levels of the company. We look forward to delivering on Ted's expectations and those of all of our other shareholders in the coming year.



**JEFFREY M. LIPTON**  
PRESIDENT AND CHIEF EXECUTIVE OFFICER  
FEBRUARY 8, 2007

# FOCUSED ON SHAREHOLDER VALUE

In 2006, NOVA Chemicals sharpened its focus, significantly reduced costs, and restructured to unlock shareholder value. Today, the company is smaller, stronger and positioned to be more profitable. We deliver results in our core business by leveraging our strengths:

## FEEDSTOCK ADVANTAGE

Long-term access  
to low-cost ethane

## WORLD-CLASS ASSETS

Efficient, flexible  
and globally competitive  
ethylene and polymer facilities

## MARKET-DRIVEN TECHNOLOGY

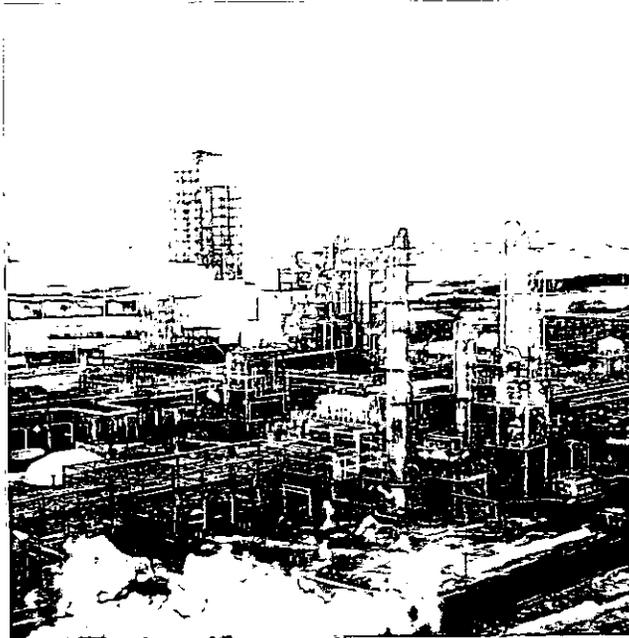
Performance Products  
and a valuable technology  
licensing business

## BREAKTHROUGH SOLUTIONS

Innovations that expand markets  
for our products and capture  
downstream value

"Our feedstock position, and the scale and energy efficiency of our assets, clearly differentiate NOVA Chemicals' ethylene/polyethylene business from our North American competitors. We are committed to improving and maximizing the value of our advantage."

CHRIS PAPPAS  
CHIEF OPERATING OFFICER



< JOFFRE, ALBERTA,  
CANADA FACILITY



"We expect that the Alberta government's new Incremental Ethane Extraction Policy will help to maintain the Alberta Advantage for years to come. A sustainable, low-cost feedstock position is critical for an asset-intensive business like ours."

JACK MUSTOE  
CHIEF LEGAL OFFICER

## THE ALBERTA ADVANTAGE

Cost-advantaged raw materials are the cornerstone of NOVA Chemicals' long-term competitiveness and a key driver of our profitability.

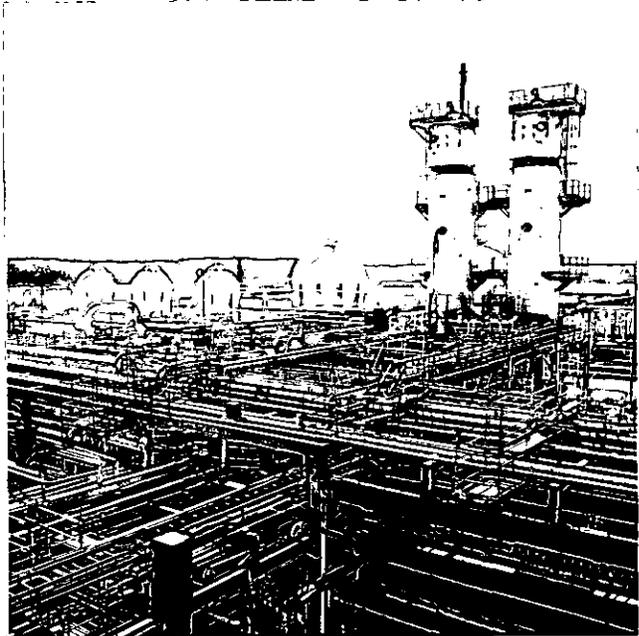
The Company's manufacturing facility in Joffre, Alberta, Canada, benefits from the region's structural cost advantages for the production of ethylene and polyethylene. The "Alberta Advantage" enjoyed by the Joffre site historically represents an average cost advantage of 7¢ per pound on the cash cost of ethylene production compared to similar crackers on the U.S. Gulf Coast. In 2006, the Alberta Advantage reached a record quarterly differential of 17¢ per pound on the cash cost of ethylene production and averaged 11¢ per pound for the year, bringing the average for the last three years to 8¢ per pound.

A new initiative launched by the Alberta government should help to maintain the long-term competitiveness of Alberta ethane. In September 2006, the government announced the Incremental Ethane Extraction Policy, which encourages increased ethane extraction and infrastructure investments to bolster a strong and growing petrochemical industry in Alberta.

Building on the momentum generated by the Alberta government, NOVA Chemicals is working with partners to ensure we continue to benefit from long-term access to advantaged Alberta ethane.



CORUNNA, ONTARIO,  
CANADA FACILITY >



"At NOVA Chemicals, we leverage our flexible manufacturing assets to maximize profitability in a wide range of market conditions."

LARRY MACDONALD  
CHIEF FINANCIAL OFFICER

## WORLD-SCALE, EFFICIENT ASSETS

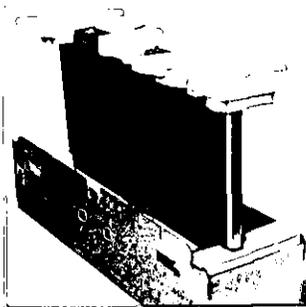
NOVA Chemicals benefits from large, flexible manufacturing assets that can quickly adjust feedstock mix, in order to optimize margins in response to price and supply volatility in global energy markets.

Our Corunna, Ontario, ethylene flexi-cracker and crude oil processing unit constantly adjust their feedstock mix between “heavy feeds” such as crude oil or naphtha and “light feeds” such as propane or butane. The flexibility of this facility is rare among ethylene crackers worldwide, and it enables margin optimization based on the relative value of feedstock costs and product selling prices. As a result, NOVA Chemicals can benefit from increasingly volatile market conditions that are more challenging for the industry’s less flexible facilities.

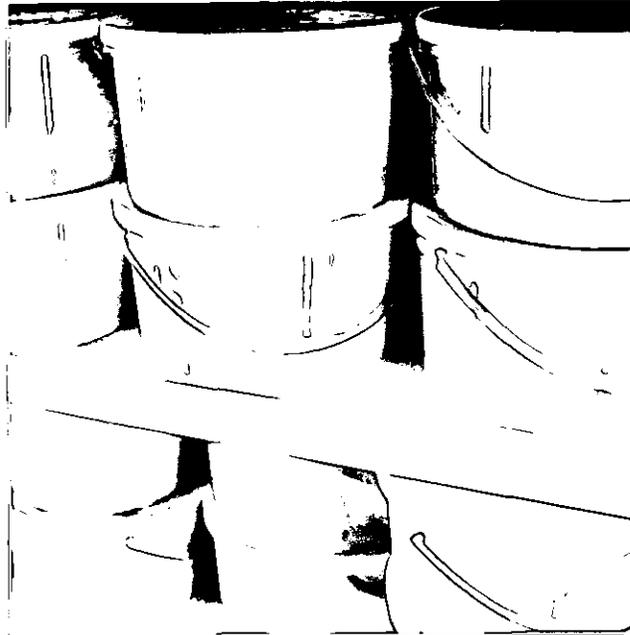
NOVA Chemicals significantly expanded the competitive advantages of our Corunna flexi-cracker through a modernization project that was largely completed in 2006. This project further enhanced feedstock flexibility, expanded capacity, and improved energy efficiency by up to 15 percent.

The Corunna facility also capitalizes on its strategic location in the Sarnia, Ontario, region, which provides convenient access to raw materials and to our customers. The facility is positioned to receive feedstocks from pipelines from Western Canada and Eastern seaboard ports, and via rail and truck. In addition, it is centrally located within the largest market for our Company’s products.

In Western Canada, NOVA Chemicals’ Joffre manufacturing facility also benefits from scale and feedstock flexibility. As the largest ethylene/polyethylene complex in the world, the facility’s scale represents an important component of the Alberta Advantage. The Joffre ethylene crackers also have the flexibility to adjust feedstock mix to include propane. This capability, enhanced by a new pipeline connection to a regional storage hub, gives NOVA Chemicals an added cost advantage, along with feedstock supply options during seasonal propane surpluses. Longer-term, this pipeline positions NOVA Chemicals to benefit from new sources of feedstocks from the Alberta oil sands and potential northern gas supplies.



△ ARCEL® RESINS FOR PROTECTIVE PACKAGING



< SURPASS® RESINS FOR FROZEN FOOD PACKAGING



"We apply our proprietary technologies to create products that deliver real-world advantages. By using our materials and technologies, our customers have the ability to take innovative solutions into their markets. And that makes us a unique resin partner."

**BETH ECKENRODE**

VICE PRESIDENT, ADVANCED SCLAIRTECH BUSINESS

# DIFFERENTIATED PRODUCTS AND TECHNOLOGIES

Based on proprietary formulas and processing technologies, NOVA Chemicals' Performance Products provide significant benefits in end-use applications and can command higher margins versus standard, commodity resins. NOVA Chemicals continues to pursue aggressive growth targets and expand sales of Performance Products in both Olefins/Polyolefins and Performance Styrenics.

The polyethylene marketplace has been rapidly converting to our newest polyethylene Performance Products. In fact, resins introduced during the last two years now account for more than 20% of polyethylene Performance Products sales. In 2006, NOVA Chemicals delivered record sales of SURPASS® performance polyethylene resins, with year-over-year sales growth of 17% over 2005 and improved profitability despite volatile market conditions for the polyethylene industry. Growth in SURPASS resin sales contributed to the sold-out position of the Company's 850 million-pound Advanced SCLAIRTECH™ technology facility in 2006.

As a result of the Company's 2006 restructuring, the Performance Styrenics business is more leveraged to the strengths of its differentiated polymers and to related, high-value consumer applications. This business unit includes Performance Products such as ARCEL® resins for protective foam packaging and DYLARK® FG resins for microwavable food packaging; a growing suite of building and construction products and ventures; as well as expandable polystyrene (EPS) resins, which are used in applications ranging from home insulation to beverage cups.

Following the 2006 startup of an ARCEL resin finishing facility with a strategic partner in Ningbo, China, the global ARCEL business is well positioned to serve growing Asian markets. The unique cushioning properties of packaging made from ARCEL protect damage-sensitive goods such as electronics and furniture during shipping and handling. Plus, the superior resilience of packaging made from ARCEL resin enables significant reductions in package sizes – in turn reducing overall logistics costs. ARCEL also helps customers meet sustainability objectives by reducing packaging waste by nearly 25%.

NOVA Chemicals also capitalizes on its strong technology position through its licensing business. In India, three major polyethylene facilities – two owned by Reliance Industries and one by GAIL (India) Ltd. – use NOVA Chemicals' proprietary SCLAIRTECH™ processing technology. A fourth is under construction by Indian Oil Corporation Ltd. (IOCL). Today, nearly 40% of India's total polyethylene production uses NOVA Chemicals' SCLAIRTECH technology, making it the most practiced polyethylene production technology in one of the world's fastest growing plastics markets.



< ACCELERATED BUILDING TECHNOLOGIES, LLC – WALL PANEL & FINISHED HOME (FAR LEFT) FEATURING THIS TECHNOLOGY

✓ BEVERAGE CUP MADE WITH IMx™ TECHNOLOGY



“We are increasing the overall value of EPS and other styrenic polymers by acquiring and developing new applications and conversion technologies. We’re always looking for the best available solutions to meet market opportunities – wherever we find them.”

**TONY TORRES**

VICE PRESIDENT, STYRENICS BUSINESS DEVELOPMENT

# INNOVATIONS FOR GROWING MARKETS

NOVA Chemicals' growth strategy includes initiatives that go beyond the sale of polymers. We are producing new industrial applications and consumer products that are made possible through our plastics, market expertise, and technologies. This approach not only helps to grow markets for our resins, but also positions us to create and capture more of the value associated with unique applications.

For example, the waste industry is responding enthusiastically to a new, all-polyethylene commercial waste container that offers a superior alternative to heavy, noisy and rusty steel dumpsters. This new dumpster is made exclusively with NOVA Chemicals' SURPASS polyethylene resins, which provide industry-leading strength and processability that enable plastic to replace steel in this demanding application. Developed in cooperation with Nuwave Container, these durable containers are reaching markets quickly through NOVA Chemicals' Rotational Molding Network. Created to drive growth in the rotomolding industry, the Network is expanding markets for existing applications – and creating new applications that displace products currently made from materials such as metal or wood.

In the building and construction industry, NOVA Chemicals is delivering innovative, new products by exploiting the significant and relatively untapped advantages of EPS. In 2006, NOVA Chemicals partnered with a leader in the building and construction industry, Dietrich Metal Framing, LLC, to develop building products that combine the strength of steel with the energy-efficient, insulating qualities of EPS. The two companies formed a joint venture, Accelerated Building Technologies, LLC, which introduced a proprietary, composite wall panel in January 2007. In Mexico, NOVA Chemicals' joint venture with Grupo IDESA, called NOVIDESA, successfully entered the rapidly growing Mexican building and construction marketplace with advanced building materials: fabricated panels and insulating concrete forms (ICFs).

Our proprietary IMx™ technology for beverage cups and containers also reached consumers in 2006. NOVA Chemicals entered into licensing agreements for this technology – which produces premium cups with outstanding graphics and hot and cold insulation – in Malaysia and in Eastern and Western Europe. We also closed our first North American commercial sales of beverage cups made with IMx technology.

# NOVA CHEMICALS' BUSINESS SNAPSHOT

(capacities shown in millions of pounds - mmlbs)

## STYRENE MONOMER

Manufacturing Site	Capacity
STYRENIX	
Bayport, TX <sup>(1)</sup>	1,700
Sarnia, ON	950
<b>Total Capacity</b>	<b>2,650</b>
Performance Styrenics	
Channelview, TX <sup>(2)</sup>	400
<b>Total Capacity</b>	<b>400</b>

CRUDE OIL → NAPHTHA → BENZENE → STYRENE MONOMER

NATURAL GAS

ETHANE

ETHYLENE

CO-PRODUCTS

## ETHYLENE

Manufacturing Site	Capacity
Corunna, ON	1,850 <sup>(3)</sup>
Joffre, AB	
E1	1,600
E2	1,800
E3 <sup>(4)</sup>	1,400
<b>Total Capacity</b>	<b>6,650</b>

## CO-PRODUCTS

Manufacturing Site	Capacity <sup>(5)</sup>
Corunna, ON	4,700 <sup>(3)</sup>
Joffre, AB	830
<b>Total Capacity</b>	<b>5,530</b>

## EXPANDABLE POLYSTYRENE

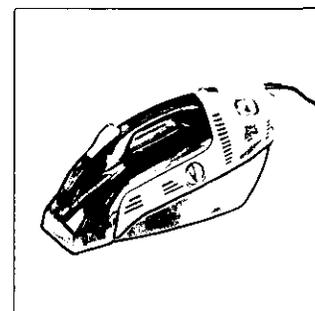
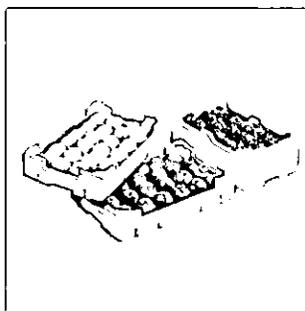
Manufacturing Site	Capacity
Performance Styrenics	
Monaca (Beaver Valley), PA	285
Painesville, OH	85
<b>Total Capacity</b>	<b>370</b>
NOVA Innovene <sup>(6)</sup>	
Breda, The Netherlands	198
Marl, Germany	187
Ribécourt, France	198
Wingles, France	187
<b>Total Capacity</b>	<b>770</b>

## POLYSTYRENE

Manufacturing Site	Capacity	Performance <sup>(7)</sup>
STYRENIX		
Decatur, AL	425	
Montréal, PQ	120	
Springfield, MA	330	
Performance Styrenics		
Belpre, OH <sup>(8)</sup>	220	105
Monaca (Beaver Valley), PA		158
<b>Total Capacity</b>	<b>1,095</b>	<b>263</b>
NOVA Innovene <sup>(6)</sup>		
Breda, The Netherlands	198	
Marl, Germany	397	
Trelleborg, Sweden	187	
Wingles, France	408	
<b>Total Capacity</b>	<b>1,190</b>	

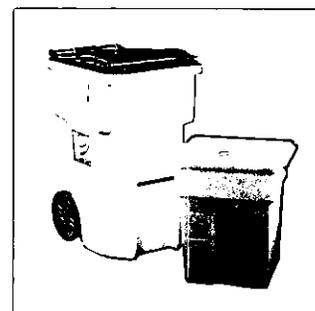
### STYRENIC POLYMERS

Solid Polystyrene (SPS)  
Expandable Polystyrene (EPS)  
Performance Products



### POLYETHYLENE

Linear Low-Density (LLDPE)  
High-Density (HDPE) • Low-Density (LDPE)  
Performance Products



## POLYETHYLENE

Manufacturing Site	Capacity			
	LLDPE	LDPE	HDPE	Performance <sup>(9)</sup>
Joffre, AB				
PE1	1,400 <sup>(10)</sup>	—	—	—
PE2	—	—	—	850
Mooretown, ON	—	325	505	—
St. Clair River, ON	—	—	395	—
<b>Total Capacity</b>	<b>1,400</b>	<b>325</b>	<b>900</b>	<b>850</b>

(1) Approximately 220 mmbs per year is committed to BASF as part of a capacity reservation agreement

(2) Represents NOVA Chemicals' interest in the Lyondell Channelview facility

(3) Ethylene capacity is expected to increase to 1850 mmbs per year and propylene capacity to 900 mmbs per year after the last phase of the Corunna modernization project is complete in early 2007. Capacity increases are dependent on feedstock mix.

(4) The annual capacity of E3 is 2.8 Bbls and is divided equally between NOVA Chemicals and Dow

(5) Co-products include energy co-products such as vacuum gas oil and distillates and chemical co-products such as propylene, aromatics, crude C4 hydrocarbons, C5 dienes, dicyclopentadiene, C9 resin oils, and hydrogen

(6) NOVA Chemicals holds a 50% interest in NOVA Innovene, our European Styrenics joint venture. Capacities shown are for the joint venture

(7) Styrenic Performance Products includes ARCEL, DYLLARK and ZYLAR resins. Data includes finishing capacities available at third-party toll manufacturers

(8) Belpre, Ohio site toll processes solid polystyrene for the STYRENIX business unit

(9) Performance Polyethylene includes SURPASS and SCLAIR resin grades

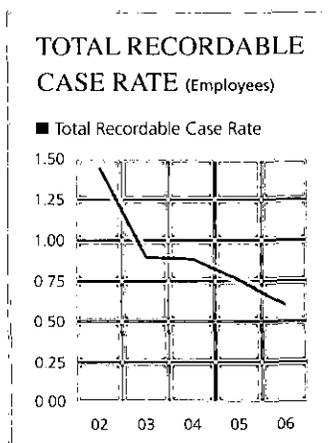
(10) PE1 capacity increased from 1,310 mmbs at Dec 1, 2005 to 1,400 mmbs at year-end 2006 due to operational improvements. An increase to 1,450 mmbs is expected by early 2008

# CORPORATE SOCIAL RESPONSIBILITY

**"We believe that good corporate citizenship calls for continuous performance improvement as well as dialogue with our stakeholders. We are committed to both."**

*– Jack Mustoe, Chief Legal Officer*

A successful, sustainable business is a socially responsible business. NOVA Chemicals' goal is to conduct our business in a way that enables us to contribute profitably to the economy and our communities, exhibit high standards of corporate social responsibility, protect the health and safety of our employees, and act as good stewards of the environment and our natural resources. We work to maintain open, long-term relationships with our stakeholders, including customers, neighbors, employees, elected officials and investors. We are proud of our record; however, we strive at all times to improve our performance.



**Total Recordable Case Rate:**  
The number of away from work cases, medical treatment cases or restricted work cases (where the work routine is restricted due to the work-related injury or illness) as a rate per 200,000 hours worked.

## Health, Safety, Environment and Security

**"We built our company's culture around Responsible Care and we are committed to its principles and standards."**

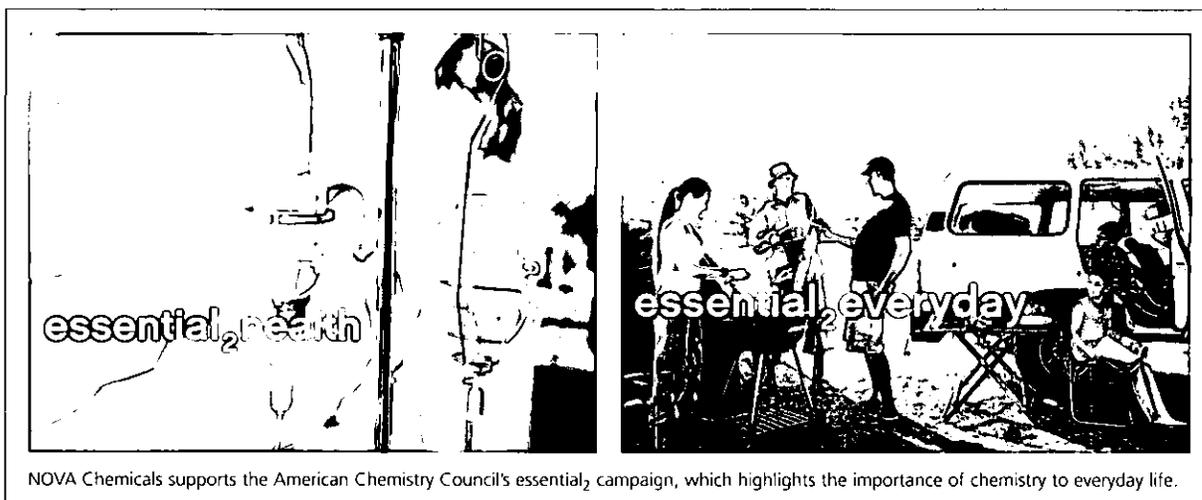
*– Jeffrey M. Lipton, President and CEO*

Responsible Care® is a voluntary, global chemical industry performance initiative that helps member companies continuously improve in the critical areas of health, safety, security, and environmental protection. NOVA Chemicals was a charter member of Responsible Care when it was introduced in Canada more than 20 years ago and we continue to maintain our strong commitment to this initiative.

## Award-Winning Performance

In 2006, we received the American Chemistry Council Leadership Award for our outstanding performance and industry leadership in Responsible Care. NOVA Chemicals' employees all share credit for their daily commitment to Responsible Care, which made this recognition possible.

A key measurement of our Responsible Care performance is the safety of our operations for employees. In 2006, we reduced our "Total Recordable Case Rate" for the fourth straight year, an improvement of 60% from 2002 to 2006.



Worker safety is one focus area among many in our drive toward ongoing improvement. We track, measure and report our performance in all key areas of Responsible Care. Our Responsible Care Review provides a current overview of our programs and performance in the areas of environmental protection, product stewardship, health and safety, emergency preparedness and security. The report is available through our website at [www.novachemicals.com](http://www.novachemicals.com).

### Community Outreach

**“NOVA Chemicals demonstrates continuous improvement consistent with the expectations of company stakeholders, employees, peers and governments.”**

*– Responsible Care third-party “compliance re-verification” team report*

Business success demands positive and open relationships with our neighbors and our communities. We reach out to our communities to help them understand our facilities, operations and products. As part of our commitment to ongoing dialogue, we work to understand and respond to community concerns and seek input through community advisory panels and other forums.

In 2006, an independent, third-party auditor evaluated NOVA Chemicals’ Canadian operations. The audit team verified that our Responsible Care management systems were in compliance with industry standards. This external team also identified several best practices involving community collaboration in both our Eastern and Western Canadian manufacturing facilities.

### **essential<sub>2</sub><sup>®</sup>**

NOVA Chemicals continues to support the American Chemistry Council’s public education program called essential<sub>2</sub>, which explains the essential role our industry plays in people’s everyday lives. The program helps our stakeholders better understand the risks of our products and operations relative to their value to society. The campaign includes community events, employee communications, and television, online and print advertisements that illustrate the contributions of chemistry to contemporary life.

In 2006 surveys, the essential<sub>2</sub> program began to show results as respondents showed growing support for our industry. We believe essential<sub>2</sub> is helping people draw connections between our industry and the chemistry-based innovations that people now take for granted – such as medical devices and safety gear. For more information, visit [americanchemistry.com](http://americanchemistry.com)<sup>SM</sup>.

# EXECUTIVE LEADERSHIP TEAM

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## **JEFFREY M. LIPTON**

PRESIDENT AND CHIEF EXECUTIVE OFFICER, 64

Jeff joined NOVA Corporation in 1994 as Senior Vice President and Chief Financial Officer and assumed his current position as President and Chief Executive Officer of NOVA Chemicals in 1998. Jeff serves as Chairman of the Board of Trimeris, Inc., and he is also a director of U.S. Steel Corporation and Hercules Incorporated. Jeff is Past Chairman of the Board of the American Chemistry Council and the Society of Chemical Industry, America Section. He is also a member of the Board of the Canadian Council of Chief Executives. Jeff worked with E.I. duPont for almost three decades, prior to joining NOVA Chemicals. He graduated from the Rensselaer Polytechnic Institute with a Bachelor of Chemical Engineering degree and obtained an MBA from Harvard University.

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## **LARRY A. MACDONALD**

SENIOR VICE PRESIDENT AND CHIEF FINANCIAL OFFICER, 55

Larry joined Petrosar, a predecessor company of NOVA Corporation of Alberta, in 1979 as an internal auditor. He progressed through several financial, information technology, and merger and acquisition positions within NOVA Corporation and NOVA Corporation of Alberta before assuming the role of Senior Vice President, Manufacturing East for NOVA Chemicals in 1999. He assumed his current role in December 2001. Larry is Chairman of the Board of the Canadian Chemical Producers Association. He graduated from the University of Windsor with a Bachelor of Commerce degree and is a Chartered Accountant.



From left: Larry MacDonald, Jeff Lipton, Chris Pappas, and Jack Mustoe.

### **JACK S. MUSTOE**

SENIOR VICE PRESIDENT, CHIEF LEGAL OFFICER AND CORPORATE SECRETARY, 59

Jack joined NOVA Corporation of Alberta in 1988 as Vice President, General Counsel and Corporate Secretary and was named Senior Vice President, General Counsel and Corporate Environmental Officer of NOVA Corporation in 1994. In 1998, he was named Senior Vice President, Legal and General Counsel for NOVA Chemicals, and added the responsibility of Corporate Secretary in 2004. In October 2006, he assumed his current role of Chief Legal Officer. Jack is also responsible for NOVA Chemicals' Investor Relations and Public & Government Affairs functions and is Chief Compliance Officer. Prior to 1988, he served as Senior Legal Counsel for Dome Petroleum Ltd. and as Assistant General Counsel for Norcen Energy Resources Ltd. Jack is a director of Heritage Valley Health System. He graduated from the University of Western Ontario with a Bachelor of Laws degree and is a member of the Ontario and Alberta Bars.

### **CHRISTOPHER D. PAPPAS**

SENIOR VICE PRESIDENT AND CHIEF OPERATING OFFICER, 51

Chris joined NOVA Chemicals as Senior Vice President and President, Styrenics in July 2000 and assumed his current role in October 2006. Chris was President and Chief Executive Officer of Paint and Coatings.com prior to joining NOVA Chemicals. From 1996 until 1998, Chris led the ethylene elastomers business of DuPont Dow Elastomers, Inc. as Vice President, and was later named Commercial Vice President. He began his career with Dow Chemical in 1978, where he held a variety of sales and managerial positions through 1995. Chris is Chairman of the Communication Committee and a member of the Finance & Audit Committee of the American Chemistry Council. He is a director of WQED Public Television and a member of the Board of Trustees at Sewickley Academy. Chris has a Bachelor of Science degree in Civil Engineering from The Georgia Institute of Technology and an MBA from The Wharton School of Business at The University of Pennsylvania.

# BOARD OF DIRECTORS

**J. E. (TED) NEWALL, O.C.**, is Chairman of the Board of Directors of NOVA Chemicals and, prior to July 1998, was Vice Chairman and Chief Executive Officer of NOVA Corporation. He has been a director of NOVA Chemicals, or its predecessor companies, NOVA Corporation and NOVA Corporation of Alberta, since August 1991. He is Chairman Emeritus of the Board of Canadian Pacific Railway and is a director and member of the Human Resources and Corporate Governance committees of Maple Leaf Foods Inc. He is also a director of McCain Capital Corporation and Lawrence & Co. Mr. Newall resides in Calgary, Alberta.

**JERALD A. BLUMBERG**, has been a director of NOVA Chemicals since February 2000. He is a retired Executive Vice President of E.I. duPont de Nemours and Company. He is a director of The Lubrizol Corporation and iServiceX, Inc. Mr. Blumberg resides in Durango, Colorado.

**DR. F. PETER BOER**, has been a director of NOVA Chemicals, or its predecessor companies, NOVA Corporation and NOVA Corporation of Alberta, since February 1991. He is President and Chief Executive Officer of Tiger Scientific Inc., a firm specializing in science and technology consulting and investments. He is a director of Rhodes Technologies, and a director and Audit committee Chairman of ENSCO, Inc. Dr. Boer holds an AB in Physics from Princeton University and a PhD in Chemical Physics from Harvard University. Dr. Boer is also a member of the National Academy of Engineering. He resides in Boynton Beach, Florida.

**JACQUES BOUGIE, O.C.**, has been a director of NOVA Chemicals since June 2001. He is Past President and Chief Executive Officer of Alcan Inc. Mr. Bougie currently serves on the board of Abitibi-Consolidated Inc. and McCain Foods Ltd. Mr. Bougie resides in Montréal, Québec.

**DR. JOANNE V. CREIGHTON**, has been a director of NOVA Chemicals since June 2001. She is President and Professor of English of Mount Holyoke College. Prior to January 1996, Dr. Creighton was Interim President, Vice President for Academic Affairs, and Professor of English of Wesleyan University. She is a director of Five Colleges, Inc., a director and Chair of the Women's College Coalition, and a director of the Economic Development Council of Western Massachusetts. Dr. Creighton resides in South Hadley, Massachusetts.

**ROBERT E. DINEEN, JR.**, has been a director of NOVA Chemicals since July 1998. He is of counsel at Shearman & Sterling, LLP Attorneys-at-Law, New York, New York, having previously served as a partner of the firm since 1974. Mr. Dineen is a director and member of the Audit committee of Manulife Financial Corporation. Mr. Dineen resides in New York, New York.

**L. YVES FORTIER, C.C., Q.C.**, has been a director of NOVA Chemicals since July 1998. He is Chairman and a senior partner of Ogilvy Renault, Barristers and Solicitors, Montréal, Québec. He is a former Governor and director of Hudson's Bay Company and Chairman of the Board of Alcan Inc. Mr. Fortier resides in Westmount, Québec.

**KERRY L. HAWKINS**, has been a director of NOVA Chemicals since July 1998. In December 2005, he retired from his position as President of Cargill Ltd., and Chief Executive Officer of Canadian Operations for Cargill. He is a director of TransCanada Corporation, TransCanada Pipelines Limited and Shell Canada Limited. Mr. Hawkins resides in Winnipeg, Manitoba.

**JEFFREY M. LIPTON**, has been a director of NOVA Chemicals, or its predecessor company, NOVA Corporation, since April 1996. He is President and Chief Executive Officer of NOVA Chemicals. Mr. Lipton serves as Chairman of the Board of Trimeris, Inc., and is also a director of U.S. Steel Corporation and Hercules Incorporated. Mr. Lipton is Past Chairman of the Board of the American Chemistry Council and the Society of Chemical Industry, America Section. He is also a member of the board of the Canadian Council of Chief Executives. Mr. Lipton resides in Sewickley, Pennsylvania.

**ARNOLD M. LUDWICK**, has been a director of NOVA Chemicals since February 2000. Until December 2002, he was Deputy Chairman of Claridge Inc. and prior to 1999 was President and Chief Executive Officer of Claridge and a Vice President of The Seagram Company Ltd. Mr. Ludwick resides in Montréal, Québec.

**JANICE G. RENNIE, F.C.A.**, returned as a director of NOVA Chemicals in January 2006, after a 13-month absence. Prior to this, Mrs. Rennie was a director of NOVA Chemicals, and its predecessor companies, NOVA Corporation and NOVA Corporation of Alberta, since April 1991. She is currently an independent investor, director and business advisor. Mrs. Rennie is a trustee of Canadian Hotel Income Properties Real Estate Investment Trust, and is also a director of West Fraser Timber Co. Ltd., Matrikon Inc., Methanex Corporation, and Greystone Capital Management Inc. Mrs. Rennie resides in Edmonton, Alberta.

**JAMES M. STANFORD, O.C.**, has been a director of NOVA Chemicals since December 1999. He is President of Stanford Resource Management, Inc., and retired President, Chief Executive Officer and director of Petro-Canada (1993-2000) and President, Chief Operating Officer and Director (1990-1993). Mr. Stanford is a director of EnCana Corporation and Kinder Morgan Inc., and serves as Chairman of the Board of OPTI Canada Inc. and the Canada Foundation for Sustainable Development Technology. Mr. Stanford resides in Calgary, Alberta.

# CORPORATE GOVERNANCE

NOVA Chemicals has had a broad plan for corporate governance since 1991, and we continually improve it to manage the growth and change of our company and the global business environment.

NOVA Chemicals is subject to a variety of corporate governance guidelines and requirements mandated by the securities administrators in Canada and the United States and the New York Stock Exchange. NOVA Chemicals complies with all material corporate governance disclosure rules and guidelines of the Canadian securities administrators. The company also complies with the New York Stock Exchange rules applicable to it as a foreign private issuer, as well as with applicable corporate governance rules of the U.S. Securities and Exchange Commission. The corporate governance practices followed by NOVA Chemicals are substantially the same as the corporate governance practices required to be followed by U.S. domestic companies under the New York Stock Exchange rules, with the exception of certain specific requirements for shareholder approval with respect to equity compensation plans.

The Board of Directors is responsible for the overall stewardship of NOVA Chemicals, including overseeing the development of both our strategic direction and policy framework. The Board is also responsible for the corporate governance of NOVA Chemicals and primarily discharges its responsibilities through its four committees. NOVA Chemicals' Executive Leadership Team works under the supervision of the Board to ensure corporate governance issues are appropriately addressed.

The Board of Directors and the committees of the Board meet on a regularly scheduled basis. The directors are informed of NOVA Chemicals' operations via meetings, as well as through reports prepared by and discussed with management. Communications between the directors and management also occur apart from regularly scheduled Board and committee meetings. Non-management and independent directors meet at regularly scheduled in-camera sessions without management present. The Board designates at least one meeting per year as a substantial strategic planning session, which takes into account, among other things, the opportunities and risks of the business. In 2006, NOVA Chemicals' Board of Directors held eight meetings.

All directors, officers and employees of NOVA Chemicals must act in accordance with NOVA Chemicals' Business Conduct Policy, a comprehensive set of expectations, obligations and responsibilities relating to ethical conduct, conflicts of interest and compliance with law. In addition, NOVA Chemicals has adopted a Code of Ethics for its Chief Executive Officer and senior financial officers, which establishes additional expectations, obligations and responsibilities for these officers. The Business Conduct Policy and the Code of Ethics can be accessed on NOVA Chemicals' website at [www.novachemicals.com](http://www.novachemicals.com).

The four committees of the Board have been delegated responsibility for select NOVA Chemicals' corporate governance responsibilities. These committees, described below, are the Audit, Finance and Risk Committee, the Corporate Governance Committee, the Human Resources Committee and the Public Policy and Responsible Care Committee. The mandate for each committee is also available on NOVA Chemicals' website.

### **Audit, Finance and Risk Committee**

This committee reviews and inquires into matters affecting the financial reporting of NOVA Chemicals, its system of internal accounting and financial controls and procedures, and its financial audit procedures and plans; recommends the approval of the issuance of debt and equity securities; oversees the policies and practices of NOVA Chemicals relating to corporate compliance and risk management strategies; recommends to the Board the appointment and remuneration of the external auditors and approves the mandate and appointment of internal auditors; oversees the funding, administration and investment of the trust funds associated with NOVA Chemicals' savings and profit sharing plans and pension plans; and reviews with management and reports to the Board on the financing plans and objectives of NOVA Chemicals.

In consultation with management, the Board has identified the principal risks facing NOVA Chemicals and has established committees to monitor systems put in place to address these risks. The Audit, Finance and Risk Committee has primary responsibility to monitor the risk management systems and reviews them regularly with the internal and external auditors. Members of the committee, all of whom are independent for purposes of applicable corporate governance rules, are: Messrs. Hawkins (Chairman), Bougie, Dineen, and Ludwick and Mrs. Rennie. In 2006, the Audit, Finance and Risk Committee held eight meetings.

### **Corporate Governance Committee**

This committee is responsible for the composition, compensation and governance of the Board of Directors of NOVA Chemicals and recommends nominees for election or appointment as directors. This committee reviews and recommends, to the Board, corporate governance initiatives, which assist the Board in developing its corporate governance policies and practices. The committee is also responsible for maintaining an effective working relationship between the Board of Directors and NOVA Chemicals' management.

Members of the committee are: Messrs. Newall (Chairman), Blumberg, Dineen, Fortier and Stanford. In 2006, the Corporate Governance Committee held three meetings.

### **Human Resources Committee**

This committee oversees the policies and practices of NOVA Chemicals with respect to human resources. It reviews recommendations for senior executive appointments and considers the terms and conditions of their employment, as well as succession planning and compensation. It recommends awards under NOVA Chemicals' Management Incentive Plan, the Equity Appreciation Plan, the Option Plan, the Restricted Stock Unit Plan and the Deferred Share Unit Plans. It is also responsible for the proper and orderly administration of NOVA Chemicals' savings, profit sharing and pension plans, other than matters relating to the funding and investment of the plans' trust funds.

The Board is responsible for the appointment and succession of the Chief Executive Officer, appointing senior management and monitoring their performance. The Human Resources Committee annually reviews and reports on organizational structure, recruitment, training and succession planning matters. NOVA Chemicals uses management by objectives to monitor the performance of the Chief Executive Officer and senior management. Moreover, the elements of the Board-approved strategic plan are embedded in the written objectives of the senior executives and are reviewed annually by the Human Resources Committee and the Board.

Members of the committee are: Mr. Stanford (Chairman), Drs. Boer and Creighton, Messrs. Blumberg and Hawkins and Mrs. Rennie. In 2006, the Human Resources Committee held three meetings.

### **Public Policy and Responsible Care Committee**

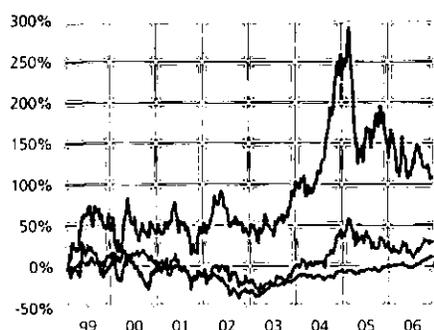
This committee is responsible for overseeing public policy matters, corporate contributions and communications, as well as policies and practices relating to NOVA Chemicals' Responsible Care management systems and performance, including the environment, occupational health and safety, security, and NOVA Chemicals' relationship with all of its stakeholders.

Members of the committee are: Dr. Boer (Chairman) and Messrs. Bougie, Fortier and Ludwick and Dr. Creighton. In 2006, the Public Policy and Responsible Care Committee held four meetings.

# SHAREHOLDER VALUE

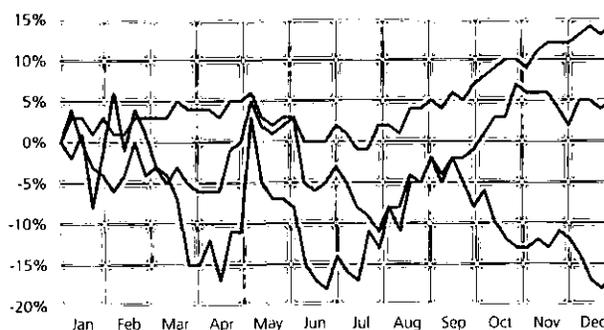
SHARE PRICE PERFORMANCE:

1999-2006 ■ NCX ■ Peers<sup>(1)</sup> ■ S&P500



SHARE PRICE PERFORMANCE: 2006

■ NCX ■ Peers<sup>(1)</sup> ■ S&P500



(1) NCX peers include DOW, LYO, EMN

## Share Price Performance: 1999-2006

From January 1, 1999, through December 31, 2006, NOVA Chemicals' share price increased 114% on the New York Stock Exchange. This compares to an average increase of 34% in peer chemical companies' share prices, and a 15% increase in the S&P 500.

## Share Price Performance: 2006

NOVA Chemicals' share price decreased 16% on the New York Stock Exchange. This compares to an average increase of 5% in peer chemical companies' share prices and a 14% increase in the S&P 500.

## NOVA Chemicals' Share History

	2006	2005	2004	2003
Dividends paid (Canadian \$)	\$ 0.40	\$ 0.40	\$ 0.40	\$ 0.40
Market price (NYSE) (U.S. \$)				
High	\$ 36.01	\$ 52.20	\$ 47.80	\$ 27.04
Low	\$ 26.61	\$ 29.07	\$ 23.67	\$ 16.80
Close	\$ 27.90	\$ 33.40	\$ 47.30	\$ 26.95
Market price (TSX) (Canadian \$)				
High	\$ 41.25	\$ 64.25	\$ 58.75	\$ 35.05
Low	\$ 29.50	\$ 36.65	\$ 31.71	\$ 24.65
Close	\$ 32.50	\$ 38.81	\$ 56.70	\$ 35.04
Common dividend yield	1.2%	1.0%	0.7%	1.1%
Shares outstanding				
Year-end (millions)	83	82	84	87
Average (millions)	83	83	87	87
Registered shareholders at year end (thousands) <sup>(1)</sup>	11	12	13	14

(1) NOVA Chemicals estimates that 85% of its outstanding common shares are managed by institutional investors and 15% are owned directly by individual investors, including approximately 1.1% owned by insiders.

# Disclosure Regarding Forward-Looking Statements

This Annual Report contains forward-looking statements with respect to NOVA Chemicals. By their nature, forward-looking statements require us to make assumptions and are subject to inherent risks and uncertainties. There is significant risk that predictions, forecasts, conclusions and projections will not prove to be accurate, that our assumptions may not be correct and that actual results may differ materially from such predictions, forecasts, conclusions or projections. Forward-looking statements for the time periods beyond 2007 involve longer-term assumptions and estimates than forward-looking statements for 2007 and are consequently subject to greater uncertainty. We advise readers of this Annual Report not to place undue reliance on our forward-looking statements as a number of factors could cause actual results, conditions, actions or events to differ materially from the targets, expectations, estimates or intentions expressed in the forward-looking statements.

The words "believe," "expect," "plan," "intend," "estimate", or "anticipate" and similar expressions, as well as future or conditional verbs such as "will," "should," "would," and "could" often identify forward-looking statements. Specific forward-looking statements contained in this Annual Report include, among others, statements regarding: our expected financial performance in future periods; our cost savings and potential benefits related to the 2006 restructuring and other cost-reduction initiatives and NOVA Innovene's restructuring; savings related to the expiration of styrene monomer contracts; our expectations regarding the strategic options available to us relating to our non-core STYRENIX business unit; our expectations regarding future improvements in underlying EBITDA from our Olefins/Polyolefins and Performance Styrenics businesses due to our Performance Products; forecast growth in North American and global Gross Domestic Product rates; NOVA Chemicals' expectations of favorable market conditions in the future and our ability to benefit from those conditions; our expectations of the supply/demand balance and global and North American operating capacity and rates in future periods; changes in the demand for our products; expected sales volume and revenue growth of our standard and Performance Products; how changes in various factors could affect NOVA Chemicals' profitability; our expectations for new end-use applications for our products; changes in our historical average cost advantage for ethylene produced at our Joffre, Alberta site and our ability to maintain our Alberta Advantage at the historical average over the long-term; changes in pricing policies by us or our competitors; our competitive advantages, including our belief that our Performance Products will generate higher, more sustainable margins and enhanced earnings stability throughout the chemical cycle; our ability to compete successfully; our plans to increase our production capacity, including our capacity to manufacture Performance Products; our beliefs concerning capturing value from our downstream business ventures and licensing opportunities; the impact of Canadian tax rate and public policy actions on our business; our belief that our reserves are adequate to cover any outstanding claims; our estimates for capital expenditures and funding for pension benefits for 2007; changes in the costs of energy and raw materials; our methods of raising capital; our level of debt; our intended quarterly dividend; and general economic conditions.

With respect to forward-looking statements contained in this Annual Report, we have made assumptions regarding, among other things: future crude oil, natural gas, natural gas liquids and benzene prices; our ability to obtain raw materials; our ability to market products successfully to our anticipated customers; our ability to obtain financing on acceptable terms; and the impact of increasing competition. Some of our assumptions are based upon internal estimates and analyses of current market conditions and trends, management plans and strategies, economic conditions and other factors and are necessarily subject to risks and uncertainties inherent in projecting future conditions and results.

Some of the risks that could affect our future results and could cause results to differ materially from those expressed in our forward-looking statements include: commodity chemicals price levels (which depend, among other things, on supply and demand for these products, capacity utilization and substitution rates between these products and competing products); feedstock availability and prices; operating costs, terms and availability of financing; technology developments; currency exchange rate fluctuations; starting up and operating facilities using new technology; realizing synergy and cost-savings targets; meeting time and budget targets for significant capital investments; avoiding unplanned facility shutdowns; safety, health, and environmental risks associated with the operation of chemical plants and marketing of chemical products, including transportation of these products; public perception of chemicals and chemical end-use products; the impact of competition; changes in customer demand, including customer acceptance of our Performance Products; changes in, or the introduction of new laws or regulations relating to our business, including environmental, competition and employment laws; loss of the services of any of our executive officers; uncertainties associated with the North American, South American, European, and Asian economies; terrorist attacks; severe weather events; and other risks detailed from time to time in the publicly filed disclosure documents and securities commission reports of NOVA Chemicals.

NOVA Chemicals' forward-looking statements are expressly qualified in their entirety by this cautionary statement. In addition, the forward-looking statements are made only as of the date of this Annual Report. We undertake no obligation to publicly update these forward-looking statements to reflect new information, subsequent events or otherwise, except as required by applicable law.

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# Management's Discussion & Analysis

The following discussion and analysis should be read in conjunction with information contained in the Consolidated Financial Statements and the notes thereto starting on page 73. This Management's Discussion and Analysis is based upon financial statements prepared in accordance with Canadian Generally Accepted Accounting Principles (GAAP). These accounting principles are different in some respects from those generally accepted in the United States, and the significant differences are described in Note 23 to the Consolidated Financial Statements. References may be made to several non-GAAP measures throughout this Management's Discussion and Analysis. These measures are discussed in Supplemental Measures on page 62. This Management's Discussion and Analysis is the responsibility of management. The Board of Directors carries out its responsibility for review of this disclosure principally through its Audit, Finance and Risk Committee comprised exclusively of independent directors. The Audit, Finance and Risk Committee reviews this disclosure and recommends its approval by the Board of Directors. This Management's Discussion and Analysis was prepared as of Feb. 8, 2007.

All references in this Annual Report, including the Management's Discussion and Analysis, to "NOVA Chemicals," the "Company," "we," "us" and similar terms refer to NOVA Chemicals Corporation alone or together with its consolidated subsidiaries and affiliates, depending on the context in which such terms are used. All amounts are presented in U.S. dollars unless otherwise noted.

## Plastics and Chemicals

NOVA Chemicals is a plastics and chemical company that operates three business units:

### **Core Business Units**

1. The **Olefins/Polyolefins** business unit manufactures and sells ethylene, co-products, and polyethylene (PE) resins.
2. The **Performance Styrenics** business unit manufactures and sells expandable polystyrene (EPS) and higher-value styrenic Performance Products. This business unit also has interests in joint ventures and downstream business developments for end-use consumer and industrial applications.

### **Non-Core Business Unit**

3. The **STYRENIX** business unit manufactures and sells styrene monomer and solid polystyrene (SPS). This business unit also holds NOVA Chemicals' interest in NOVA Innovene, the 50:50 European styrenic polymer joint venture with INEOS.

NOVA Chemicals' products are used in a wide variety of applications, including rigid and flexible packaging, industrial materials, electronics packaging, appliances and a variety of consumer goods.

In addition to producing standard, commodity plastic resins (standard products), NOVA Chemicals' Olefins/Polyolefins and Performance Styrenics business units have developed a range of Performance Products. These products have unique physical-property attributes that deliver higher value to customers, and therefore can earn a margin premium over standard products.

By its nature, profitability in the chemical industry is cyclical. NOVA Chemicals' low-cost position provides for earnings leverage during the peak of the commodity business cycle, while Performance Products deliver the prospect of enhanced earnings stability throughout the entire cycle.

### **Restructuring and Cost Reduction**

On June 26, 2006, NOVA Chemicals announced it would restructure its business in order to better align resources and reduce costs. The Company created a new business unit, STYRENIX, which includes its styrene monomer and SPS assets and its interest in NOVA Innovene, the 50:50 European joint venture with INEOS. STYRENIX is not part of NOVA Chemicals' core business. The restructuring allows NOVA Chemicals to operate its core businesses – Olefins/Polyolefins and Performance Styrenics – more efficiently and focus on its advantaged feedstock and manufacturing positions and its differentiated technologies.

The Company set a cost-reduction target of \$125 million per year to be achieved by the end of 2007. The total cost savings will be achieved by a combination of workforce reductions, the closure of the Chesapeake, Virginia SPS facility, the expiration of long-term styrene monomer contracts, and synergies related to the NOVA Innovene joint venture. NOVA Chemicals has already taken actions to achieve cost savings of \$127 million in 2007. In total, the Company expects to save \$140 million annually commencing in 2008. The table below summarizes the expected cost savings.

<i>(millions of U.S. dollars per year)</i>	Expected Annual Savings	
	2007	2008
STYRENIX – North American restructuring	\$ 12	\$ 12
NOVA Innovene improvements (NOVA Chemicals' share)	37	41
Styrene Monomer contract expiration	22	30
Total STYRENIX	\$ 71	\$ 83
Other company-wide cost savings	56	57
Total	\$127	\$140

### **Reportable Segments**

Based on the results of a routine, periodic review of NOVA Chemicals' financial statements by the U.S. Securities and Exchange Commission (SEC), NOVA Chemicals has increased the number of reportable business segments from three to seven.

These new reporting segments have been grouped according to NOVA Chemicals' business structure:

#### **Olefins/Polyolefins**

Joffre Olefins  
Corunna Olefins  
Polyethylene

#### **Performance Styrenics**

Performance Styrenics

#### **STYRENIX**

Styrene Monomer  
North American Solid Polystyrene  
NOVA Innovene European Joint Venture

This change increases the amount of detail disclosed but does not impact the operation of the business units or the previously reported financial position, results of operations or cash flows. Current and future financial reports will reflect this reporting structure. Prior periods have been restated accordingly.

### **Key Drivers of Financial Performance**

NOVA Chemicals' earnings and cash flow are primarily influenced by the margins earned on the products it manufactures. Margin, on a unit basis, is defined as the difference between the selling price of products and the direct cost to produce and distribute them. Margins are impacted by changes in the supply/demand balance, which drive the relationship between production cost, selling price, and sales volume.

#### **Supply/Demand Balance**

The supply/demand balance for NOVA Chemicals' products is best represented by industry operating rates. Peak conditions occur when operating rates are high. During peak conditions, prices and margins tend to increase rapidly as customers attempt to secure scarce supply to meet their production needs. Conversely, trough conditions exist when there is ample supply and operating rates are low. Margins tend to decrease in trough conditions.

Product supply in the chemical industry is primarily determined by the size and availability of manufacturing capacity. New capacity is typically added in large increments and generally requires significant capital as well as lead-time of four to six years to complete.

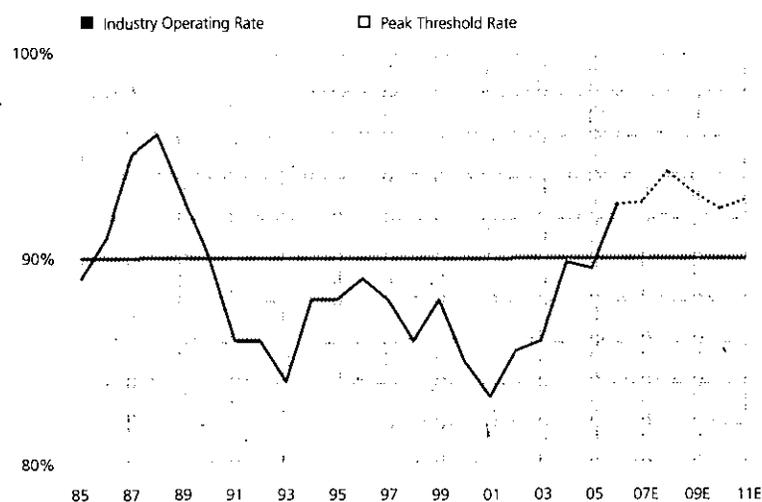
Demand is driven by economic growth and is principally related to Gross Domestic Product (GDP). Market demand for polyethylene and polystyrene typically has grown at multiples of one to two times GDP, depending on the region of the world. Sustained industry operating rates in excess of 90% for polyethylene and 92% for styrene monomer typically represent peak conditions that enable margin expansion for the industry and NOVA Chemicals.

In North America, Europe and Latin America, relatively little new capacity has been added in recent years, or is expected in the short- to medium-term. New capacity is primarily being added in the Middle East and Asia to meet growing demand for petrochemicals and plastics in developing nations such as China and India, as well as other Southeast Asian countries and South America.

Despite these capacity additions, NOVA Chemicals expects the supply/demand balance to remain relatively tight as the Chinese and Indian economies continue to register near double-digit growth rates for plastics and chemicals – and the economies of North America and Europe continue to grow at historical rates. In addition, some of these planned capacity expansions – particularly in the Middle East – are experiencing construction delays or cancellations due to shortages of skilled labor, increased lead times for fabricated components, and increased costs.

Global economic conditions are forecast to remain relatively healthy during the next five years. Economic consultant *Global Insight* forecasts average GDP growth rates of approximately 3% in North America and 3.5% globally during this period. Due to the combination of solid GDP growth, global new capacity delays, and little new domestic capacity, NOVA Chemicals expects both global and North American polyethylene operating rates to remain at peak levels through at least 2008.

**Figure 1. Global Polyethylene Operating Rates**



Source: Global Insight, NEXANT Chemsystems, Chemical Market Associates, Inc. and NOVA Chemicals.

### Price

Pricing for NOVA Chemicals' polymer products is based on the amount its customers are willing to pay for these products relative to the prices of competing products. Competing products include other polymers or other materials such as paper or metal. Prices can change quickly as a result of fluctuations in supply/demand balances and feedstock costs.

While feedstock costs heavily influence the price of NOVA Chemicals' products, the supply/demand balance drives margin and profitability.

### Volume

Sales volumes for plastics and chemical products are most heavily influenced by economic growth, a key driver of demand. Sales volumes may also be influenced by short-term changes in customer buying patterns, which are driven primarily by expectations of price volatility. Anticipation of higher prices or limited product availability may motivate customers to purchase beyond short-term needs and build inventories. Conversely, expectations of lower prices may motivate customers to delay purchases and consume inventories. While these short-term buying patterns may create quarterly earnings volatility for chemical producers, they are not necessarily representative of longer-term profitability.

NOVA Chemicals' market share is a result of the price, quality, performance properties, and terms of sale of its products versus those of competitors.

## Cost

Variable feedstock costs are the single largest component of NOVA Chemicals' costs and account for 60-80% of the total cost of its products. NOVA Chemicals' primary feedstocks include ethane, propane, butane, crude oil and benzene. Feedstock costs heavily influence the price of NOVA Chemicals' products and, in recent years, feedstock cost volatility has often led to rapid changes in product prices.

Fixed costs, which are costs that do not vary with production, consist of *plant operating and distribution costs*; selling, general and administrative costs (SG&A); and research and development costs (R&D). SG&A costs represent all direct and most indirect expenses incurred in directing and managing the Company. R&D costs relate to technical activities that support the development and commercialization of new products, technologies and applications.

The following table illustrates how changes in various factors could affect NOVA Chemicals' profitability, assuming all other factors are held constant. Changes in the opposite direction would have the opposite effect.

### Potential Impact to NOVA Chemicals' Profitability of:

	<i>(billions of pounds)</i>	<i>(millions of U.S. \$)</i>		
<i>(as of December 31, 2006)</i>	Annual Production Capacity <sup>(1)</sup>	Annual Before-Tax Income Increase	Annual After-Tax Income Increase <sup>(2)</sup>	Annual Earnings Per Share Increase <sup>(3)</sup>
Increase of U.S. 1¢ per pound in profit margin				
Ethylene <sup>(4)</sup>	5.0	\$50	\$34	\$0.41
Polyethylene	3.5	35	23	0.28
Styrene monomer <sup>(5)</sup>	3.3	33	22	0.27
Styrenic polymers - North America <sup>(6)</sup>	1.5	15	10	0.12
Styrenic polymers - Europe <sup>(7)</sup>	1.0	10	7	0.08
Decrease in natural gas cost by U.S. 10¢ per mMBTU <sup>(8)</sup>	—	12	8	0.10
Decrease in benzene cost by U.S. 5¢ per gallon	—	18	12	0.15
Decrease in Canadian dollar of 1¢ vs. U.S. dollar	—	11	7	0.08

(1) Estimate based on current production capacity assuming 100% utilization.

(2) Based on an assumed tax rate of 33%.

(3) Based on 82.6 million shares.

(4) Represents NOVA Chemicals' ethylene capacity of 6.65 billion pounds per year, less the 1.6 billion pounds ethylene capacity that is subject to toll and margin-sharing agreements.

(5) Includes up to 500 million pounds of long-term purchase agreements.

(6) Includes SPS and EPS, excludes Performance Products.

(7) Represents NOVA Chemicals' 50% share of NOVA Innovene production.

(8) Natural gas cost includes gas purchased for ethane extraction and gas consumed as fuel at production sites.

## 2006 Financial Overview

### NOVA Chemicals' Highlights

(millions of U.S. dollars, except per share amounts and where noted)

	2006	2005 <sup>(1)</sup>	2004 <sup>(1)</sup>
Total assets	\$4,155	\$5,217	\$5,047
Total long-term liabilities	\$2,420	\$2,726	\$2,673
Total revenue	\$6,519	\$5,616	\$5,270
Net income (loss)			
Olefins/Polyolefins			
Joffre Olefins	\$ 324	\$ 154	\$ 132
Corunna Olefins	25	2	56
Polyethylene	32	71	67
Eliminations	(2)	9	(7)
Total Olefins/Polyolefins	379	236	248
Performance Styrenics	(29)	(14)	(6)
STYRENIX			
Styrene Monomer	(61)	(81)	(12)
North American Solid Polystyrene	(44)	(33)	(16)
NOVA Innovene European Joint Venture	(47)	(92)	(44)
Eliminations	—	—	6
Total STYRENIX	(152)	(206)	(66)
Corporate and Other Items	(901)	(117)	77
Net income (loss)	\$ (703)	\$ (101)	\$ 253
Net income (loss) per common share			
Basic	\$ (8.52)	\$ (1.22)	\$ 2.92
Diluted	\$ (8.52)	\$ (1.22)	\$ 2.72
Dividends per share (in Canadian dollars)	\$ 0.40	\$ 0.40	\$ 0.40
Weighted-average common shares outstanding (millions)			
Basic	83	83	87
Diluted	83	83	95

(1) Restated – see Note 2 to the Consolidated Financial Statements.

### Changes in NOVA Chemicals' Net Income (Loss)

(millions of U.S. dollars)

	2006 vs. 2005	2005 vs. 2004 <sup>(1)</sup>
Higher net unit margin	\$ 60	\$ 11
Higher (lower) sales volumes	86	(193)
Higher (lower) operating margin <sup>(2)</sup>	146	(182)
(Higher) lower SG&A and R&D	(3)	73
Higher restructuring charges	(817)	(160)
(Higher) lower depreciation and amortization	(9)	7
Higher interest expense	(55)	(5)
Lower income tax expense	143	82
Lower other gains	(7)	(169)
Decrease in net income	\$ (602)	\$ (354)

(1) Restated – see Note 2 to the Consolidated Financial Statements.

(2) Operating margin equals revenue less feedstock and operating costs.

## Consolidated Financial Results of Operations

### 2006 versus 2005

**Net Loss.** During 2006, NOVA Chemicals reported a net loss of \$703 million, or \$8.52 per share loss, compared to a net loss of \$101 million, or \$1.22 per share loss, in 2005. NOVA Chemicals' results in 2006 were negatively impacted by a number of unusual events totaling \$847 million after-tax.

Unusual Events in 2006	Estimated after-tax impact (in millions)
STYRENIX non-cash asset write-down	\$(772)
Carrington, UK, plant closure	(46)
North American restructuring	(33)
Corunna facility start-up delay	(25)
Mutual insurance company wind-up costs	(13)
Chesapeake, Virginia, site closure accrual	(10)
Corunna facility outage (June)	(8)
Canadian tax-rate reduction benefit	60
Impact to 2006	\$(847)

**Revenue.** Revenue increased \$903 million, or 16%, from \$5,616 million in 2005 to \$6,519 million in 2006. The increase was primarily due to higher sales volumes due to improved operations at the Company's manufacturing sites in 2006, as well as higher product selling prices. In 2005, a series of planned and unplanned outages of the Joffre and Corunna ethylene and polyethylene assets limited production. In addition, weighted-average benchmark prices for NOVA Chemicals' products increased in 2006.

**Feedstock and Operating Costs.** Feedstock and operating costs increased \$757 million, or 15%, from \$4,906 million in 2005 to \$5,663 million in 2006. The increase was primarily attributed to higher feedstock consumption, driven by increased production at NOVA Chemicals' plants. In addition, higher crude oil and benzene prices increased the Company's total feedstock costs in 2006.

**Depreciation and Amortization.** Depreciation and amortization expense increased \$9 million, or 3%, from \$290 million in 2005 to \$299 million in 2006. Expenses were higher in 2006 as the Company began to depreciate new assets installed as part of the Corunna ethylene flexi-cracker and Bayport, Texas styrene monomer modernization projects. Expenses were also higher in 2006 as the Company began to amortize the costs of the Corunna maintenance turnaround that occurred in late 2005.

**Selling, General and Administrative.** SG&A costs increased \$2 million, or 1%, from \$199 million in 2005 to \$201 million in 2006. Costs were lower in 2005 due to a favorable mark-to-market impact related to stock-based compensation plans. The hedging of this exposure in November 2005 has mitigated this impact. Despite higher expenses in 2006, the Company realized savings in the fourth quarter related to its restructuring and cost-reduction efforts.

**Research and Development.** R&D costs increased \$1 million, or 2%, from \$50 million in 2005 to \$51 million in 2006. The increase was primarily related to ongoing development of Performance Products.

**Restructuring Charges.** Restructuring charges were \$985 million before-tax in 2006, up from \$168 million before-tax in 2005. The charges in 2006 were related to the write-down of STYRENIX assets; the North American restructuring announced on June 26; costs related to the shutdown of the Carrington, UK SPS facility; and severance costs related to the Chesapeake, Virginia SPS facility closure. Refer to Note 14 on page 96 for details related to NOVA Chemicals' restructuring charges.

**Interest Expense (Net).** Net interest expense increased \$55 million, or 49%, from \$113 million in 2005 to \$168 million in 2006. Interest expense was higher in 2006 than 2005 due to higher average debt levels and higher interest rates.

**Other Gains.** Other gains decreased \$7 million, or 88%, from \$8 million in 2005 to \$1 million in 2006. The 2005 gains primarily relate to a tax settlement with the U.S. Internal Revenue Service.

**Income Tax Recovery.** Income tax recovery increased \$143 million from a \$1 million recovery in 2005 to a \$144 million recovery in 2006. This increased recovery is largely the result of the tax recovery related to the write-down of STYRENIX assets in 2006.

### 2005 versus 2004

**Net Income (Loss).** During 2005, NOVA Chemicals reported a net loss of \$101 million, or \$1.22 per share loss, compared to net income of \$253 million, or \$2.72 per share diluted, in 2004. NOVA Chemicals' results in 2005 were negatively impacted by a series of unusual events that totaled \$240 million after-tax.

Unusual Events in 2005	Estimated after-tax impact (in millions)
NOVA Innovene joint venture plant closures and severance costs	\$ (79)
Delayed Corunna start-up	(55)
Non-cash write-down of Chesapeake, VA facility	(46)
Joffre ethane interruption	(24)
Power outage at Corunna	(21)
Insurance accrual	(15)
Impact to 2005	\$(240)

**Revenue.** Revenue increased \$346 million, or 7%, from \$5,270 million in 2004 to \$5,616 million in 2005. The increase was principally due to higher selling prices. Weighted-average benchmark prices for NOVA Chemicals' polymers increased throughout 2005. Total sales volumes in polyethylene and styrenic polymers declined due to scheduled maintenance turnarounds, unplanned outages and lower demand for styrenic polymers.

**Feedstock and Operating Costs.** Feedstock and operating costs increased \$528 million, or 12%, from \$4,378 million in 2004 to \$4,906 million in 2005. The increase was primarily attributed to rising feedstock costs. Prices of West Texas Intermediate (WTI) crude oil and natural gas increased 37% and 40%, respectively, from 2004 to 2005. From 2004 to 2005, average annual benzene prices remained relatively flat and ethylene prices increased 29%.

**Depreciation and Amortization.** Depreciation and amortization expense decreased \$7 million, or 2%, from \$297 million in 2004 to \$290 million in 2005, principally because NOVA Chemicals' second ethylene cracker at Joffre, Alberta was fully depreciated during the second quarter of 2004.

**Selling, General and Administrative.** SG&A costs decreased \$75 million, or 27%, from \$274 million in 2004 to \$199 million in 2005. The decrease in SG&A costs was primarily attributed to a reduction in stock-based compensation expenses due to a decrease in NOVA Chemicals' common stock price. In November 2005, NOVA Chemicals hedged this mark-to-market exposure to mitigate the impact going forward. This reduction was partially offset by a non-cash expense of \$22 million (\$15 million after-tax) related to its share of estimated incremental costs in the insurance pools in which it participated, and a \$14 million increase in insurance premiums due to losses sustained by the insurance industry.

**Research and Development.** R&D costs increased \$2 million, or 4%, from \$48 million in 2004 to \$50 million in 2005. This increase was primarily attributed to ongoing development of Performance Products.

**Restructuring Charges.** Restructuring charges in 2005 were \$168 million, primarily the result of a decision by NOVA Innovene to cease EPS production at its Berre, France facility and permanently shut down its SPS plant at Carrington, UK; and a decision by NOVA Chemicals to permanently close the Chesapeake, Virginia SPS plant. Restructuring charges incurred in 2004 were \$8 million.

**Interest Expense (Net).** Net interest expense in 2005 increased to \$113 million, compared to \$108 million in 2004. NOVA Chemicals issued \$400 million of senior notes in October 2005 that resulted in additional interest expense and repaid \$100 million of 7% notes that matured in September 2005.

**Other Gains.** NOVA Chemicals experienced \$8 million of other gains in 2005 primarily related to a tax settlement. Gains were \$177 million in 2004, related to the sale of NOVA Chemicals' interest in the Alberta Ethane Gathering System (AEGS) for a gain of \$53 million and income tax-related settlements for a gain of \$122 million.

**Income Tax Recovery (Expense).** Income tax expense decreased \$82 million from an \$81 million expense in 2004 to a \$1 million recovery in 2005. This decrease in income tax expense was primarily attributed to a decrease in earnings.

## Olefins/Polyolefins Business Unit

The Olefins/Polyolefins business unit manufactures and sells ethylene, co-products, and polyethylene resins and contains three reportable segments:

- 1) **Joffre Olefins**, which produces and sells ethylene and includes the Joffre, Alberta site's three ethylene crackers.
- 2) **Corunna Olefins**, which produces and sells ethylene and co-products and includes the Corunna, Ontario ethylene flexi-cracker.
- 3) **Polyethylene**, which produces and sells PE and includes both the Alberta- and Ontario-based PE assets. In addition, the Polyethylene segment licenses its proprietary process technology and catalysts.

### **Market Overview**

**Ethylene.** Ethylene is the most widely produced petrochemical in the world and is the primary feedstock used in the production of polyethylene. It is a key building block for a variety of polymers and other chemicals used to manufacture products such as packaging, containers, films and construction products. Ethylene is primarily transported via pipeline and is regionally traded. Ethylene margins typically reach peak conditions when operating rates are at or above 90% of nameplate capacity.

**Polyethylene.** Polyethylene (PE) is used to produce consumer end-use applications, such as packaging film, plastic bags, toys and bottles and is the most widely used plastic material in the world. Industrial applications include storage drums, industrial wrap, retail packaging, and building products. PE is a globally traded commodity with established merchant markets. PE margins typically reach peak conditions when operating rates exceed 90% of nameplate capacity.

**Co-products.** Co-products are produced in the ethylene manufacturing process and can be grouped into two categories: chemical co-products and energy co-products. Chemical co-products include propylene, benzene, and butadiene – building blocks that are used to make items such as tires, carpet and clothing fibers, or household goods. Energy co-products include gasoline additives and fuel oil. The profitability of co-products depends on energy prices and the supply/demand balance for each co-product. Feedstock mix determines the type and volume of co-products manufactured.

### **Business Overview**

NOVA Chemicals' largest-volume product is ethylene, which is central to the production of both PE and styrene monomer. NOVA Chemicals produces ethylene and co-products at its Joffre, Alberta and Corunna, Ontario manufacturing complexes, which are large, energy efficient, and among the lowest-cost in the world.

**Joffre Olefins.** The Joffre Olefins segment produces and sells ethylene and includes three world-scale ethylene crackers in Joffre, Alberta, where NOVA Chemicals owns and operates the largest ethylene and polyethylene complex in the world. Total ethylene production capacity at the Joffre site is 6.2 billion pounds per year. Excluding Dow's 50% interest in the Ethylene 3 (E3) cracker, NOVA Chemicals' share of production from the Joffre crackers is 4.8 billion pounds per year, representing approximately 75% of the Company's total ethylene production. Approximately 43% of NOVA Chemicals' ethylene production at Joffre supports PE production, while the remainder is sold to third parties.

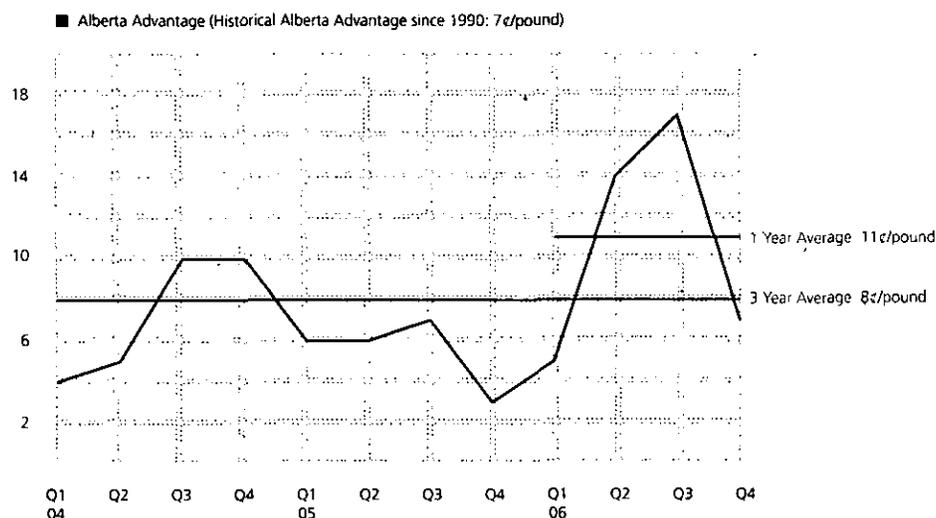
The ethylene crackers at Joffre use ethane as their primary feedstock. Ethane is extracted from natural gas by third-party extraction plant operators and delivered to the site via pipeline. Unlike its U.S. Gulf Coast (USGC) peers that pay market prices for ethane, NOVA Chemicals pays only for the heating value of ethane plus a fee for extraction and delivery. The Company also directly purchases ethane. The majority of ethane used at the Joffre site is extracted and delivered under medium- to long-term contracts. In addition to using ethane, NOVA Chemicals has the flexibility to use propane to meet a portion of its feedstock requirements. Propane is delivered to Joffre via pipeline and is used when the economics are favorable.

The Joffre site benefits from Alberta's historically lower-cost natural gas prices, large-scale ethane extraction plants and efficient natural gas infrastructure. In addition, the Joffre site has the lowest cost of production in North America due to the facility's scale and energy efficiency. Collectively referred to as the "Alberta Advantage," the combination of these factors has yielded an average cash-cost advantage for the past three years of 8¢ per pound of ethylene versus a typical USGC ethylene cracker. As a result of this strengthened advantage in recent years, the long-term historical Alberta Advantage has increased to 7¢ per pound.

In 2006, NOVA Chemicals realized an average cash-cost advantage of 11¢ per pound of ethylene, the highest in company history. The Alberta Advantage reached record levels in 2006 as strong demand for ethane on the USGC, coupled with high energy prices, pushed USGC ethane prices to near record levels. In comparison, Alberta ethane prices, which closely track natural gas prices, remained stable for most of the year. After reaching an all-time high of 17¢ per pound in the third quarter, the Alberta Advantage moderated to 7¢ per pound in the fourth quarter as USGC ethane demand fell and ethane costs in Alberta rose due to higher natural gas prices.

While this ethylene advantage will continue to fluctuate from year to year, NOVA Chemicals expects that the structural advantages associated with lower-cost natural gas in Alberta and the efficiency gained from its large-scale Joffre facility will enable the Company to maintain its Alberta Advantage at the average of 7¢ per pound for the long-term.

**Figure 2 – Historical Alberta Advantage** (cents per pound)



Source: NOVA Chemicals.

**Corunna Olefins.** The Corunna Olefins segment produces and sells ethylene, as well as co-products that result from the manufacture of ethylene and processing of crude oil and other feedstocks. This segment includes the Corunna ethylene flexi-cracker, which will have annual production capacity of 1.85 billion pounds of ethylene and 4.7 billion pounds of co-products following completion of an expansion and modernization project early in 2007. NOVA Chemicals' PE and styrene monomer assets in Sarnia, Ontario consume most of Corunna's ethylene production.

The Corunna facility has a number of advantages that allow NOVA Chemicals to enhance its profitability. The facility's location in the Sarnia, Ontario region gives it access to a large variety of feedstocks from both local and global sources. For example, Corunna can access NGLs such as ethane, propane, and butane from local producers, Western Canada, or the United States. The Corunna facility can also access crude oil and condensates from North American sources as well as from overseas locations via marine transportation and pipelines.

Corunna's manufacturing assets have the flexibility to process a large range of feedstocks and produce diverse chemical and energy co-products. The facility quickly adjusts its feedstock slate between crude oil, crude oil derivatives, and NGLs to maximize margins as market conditions fluctuate. Corunna's crude oil processing unit allows NOVA Chemicals, unlike most of its peers, to purchase crude oil and produce its own naphtha when it is economically favorable to do so – while most producers must purchase this feedstock. Finally, Corunna's location in the heart of major markets for both the U.S. and Canada greatly reduces freight costs as well as delivery times to customers.

In 2005, NOVA Chemicals initiated a modernization and expansion project of the Corunna facility, which will increase its annual ethylene and propylene production capacity by 250 million and 150 million pounds respectively, depending on feedstock mix, and improve the energy efficiency of the olefins unit by up to 15%. In addition, the project increased Corunna's feedstock flexibility. This expansion and modernization project was substantially completed in 2006, with final upgrades to be completed early in 2007.

**Polyethylene.** The Polyethylene segment produces and sells standard polyethylene products including linear low-density polyethylene (LLDPE), low-density polyethylene (LDPE), and high-density polyethylene (HDPE). NOVA Chemicals also manufactures and sells higher value PE Performance Products under the trade names SURPASS® and SCLAIR®, which are manufactured using Advanced SCLAIRTECH™ technology. SURPASS resins deliver a unique combination of properties not found in traditional PE resins and are used in film applications such as frozen food packaging; injection molding applications such as ice cream containers and packaging lids; and rotational molding applications such as dumpsters and industrial storage containers. SCLAIR resins are used in a variety of flexible packaging applications.

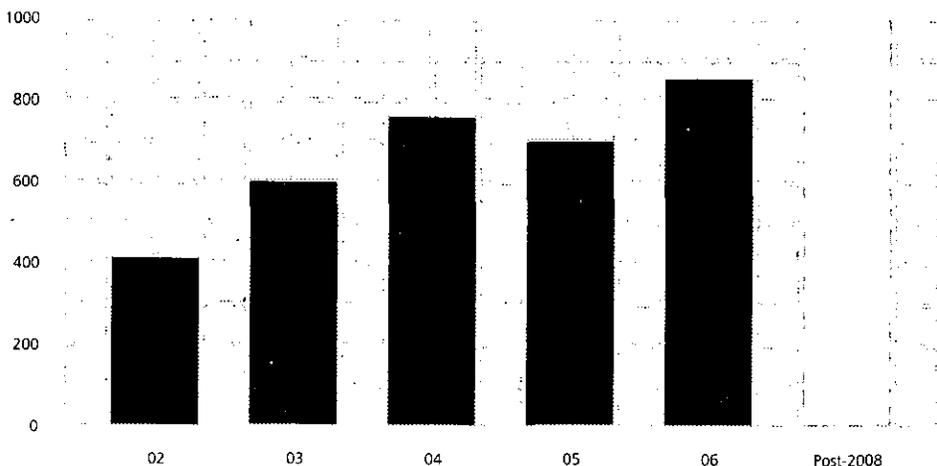
NOVA Chemicals has approximately 3.5 billion pounds of annual PE production capacity from its Mooretown and St. Clair River sites in Ontario and its two units in Joffre, Alberta, one of which – Polyethylene 2 (PE2) – utilizes Advanced SCLAIRTECH™ technology. NOVA Chemicals' Polyethylene segment sells primarily into North American markets. Approximately 10% to 15% of the Company's standard PE volume is sold in China, other Asian countries, and Europe.

NOVA Chemicals is one of only three polyethylene companies worldwide with independent, patented process and catalyst technologies that enable the Company to produce differentiated PE Performance Products. Made with patented Advanced SCLAIRTECH technology and proprietary single-site catalysts, NOVA Chemicals' PE Performance Products deliver enhanced value to customers and therefore are expected to generate higher, more sustainable margins throughout the chemical industry cycle.

In 2006, sales of PE products made with Advanced SCLAIRTECH technology totaled 854 million pounds, or 100% of the Joffre PE2 unit's capacity. Sales of Performance Products made from Advanced SCLAIRTECH technology grew to 60% of plant capacity, up from 52% in 2005. New grades commercialized during the past two years accounted for 20% of PE Performance Products sales in 2006.

During the year, NOVA Chemicals resolved a quality problem that previously restricted the pace of transition from standard PE products to Performance Products. This problem was resolved and there are no longer production barriers associated with transitioning sales to PE Performance Products. NOVA Chemicals plans to primarily sell PE Performance Product grades from the Joffre PE2 unit by the end of 2008.

**Figure 3. Advanced SCLAIRTECH Technology Polyethylene Sales Volume** (millions of pounds)



**Licensing.** NOVA Chemicals licenses its proprietary SCLAIRTECH technology and NOVACAT™ family of catalysts. The Company's SCLAIRTECH technology is now used in 11 licensed plants around the world. In India, one of the fastest growing economies in the world, NOVA Chemicals' SCLAIRTECH technology is now used in nearly 40% of the country's total polyethylene production.

NOVACAT catalysts are a series of advanced Ziegler-Natta catalysts designed specifically for gas-phase PE reactors. NOVACAT catalysts are capable of producing butene and hexene LLDPE with improved performance characteristics.

### Olefins/Polyolefins Financial Highlights

(millions of U.S. dollars, except as noted)

	2006	2005	2004
<b>Revenue</b>			
Joffre Olefins <sup>(1)</sup>	\$ 1,744	\$ 1,704	\$ 1,417
Corunna Olefins <sup>(1)</sup>	1,997	1,430	1,406
Polyethylene <sup>(3)</sup>	1,922	1,628	1,469
Eliminations	(1,382)	(1,176)	(1,062)
	<b>\$ 4,281</b>	<b>\$ 3,586</b>	<b>\$ 3,230</b>
<b>EBITDA<sup>(2)</sup></b>			
Joffre Olefins	\$ 558	\$ 313	\$ 300
Corunna Olefins	83	67	142
Polyethylene	120	202	188
Eliminations <sup>(3)</sup>	(5)	14	(8)
	<b>\$ 756</b>	<b>\$ 596</b>	<b>\$ 622</b>
<b>Operating income<sup>(4)</sup></b>			
Joffre Olefins	\$ 506	\$ 262	\$ 228
Corunna Olefins	24	17	93
Polyethylene	52	137	128
Eliminations <sup>(3)</sup>	(5)	14	(8)
	<b>\$ 577</b>	<b>\$ 430</b>	<b>\$ 441</b>
<b>Net Income</b>			
Joffre Olefins	\$ 324 <sup>(6)</sup>	\$ 154	\$ 132
Corunna Olefins	25 <sup>(6)</sup>	2	56
Polyethylene	32 <sup>(6)</sup>	71	67
Eliminations <sup>(3)</sup>	(2)	9	(7)
	<b>\$ 379</b>	<b>\$ 236</b>	<b>\$ 248</b>
<b>Sales Volumes (millions of pounds)</b>			
Polyethylene <sup>(5)</sup>			
Standard Products	2,726	2,403	2,996
Performance Products	513	438	289
	<b>3,239</b>	<b>2,841</b>	<b>3,285</b>

(1) Before inter-segment eliminations between the business units.

(2) See Supplemental Measures on Page 62.

(3) Represents inter-segment profit eliminations.

(4) To conform with changes in internal segment analysis and reporting, beginning with the first quarter of 2007, NOVA Chemicals will no longer allocate interest, taxes or corporate charges to the business segments and accordingly will only report segment results down to the operating income (loss) line.

(5) The Joffre site produces Standard Products as well as Performance Products, including SCLAIR and SURPASS resins that are produced using Advanced SCLAIRTECH technology. The other sites produce Standard Products.

(6) One-third of \$60 million benefit from Canadian tax-rate reductions was allocated to each reportable segment within the Olefins/Polyolefins business unit.

## Olefins/Polyolefins Operating Highlights

(U.S. dollars per pound, except where noted)	2006				Annual		
	Q1	Q2	Q3	Q4	2006	2005	2004
<b>Benchmark Principal Product Prices:<sup>(1)</sup></b>							
Ethylene <sup>(2)</sup>	\$ 0.50	\$ 0.47	\$ 0.51	\$ 0.45	\$ 0.48	\$ 0.44	\$ 0.34
Polyethylene – linear low-density butene liner <sup>(3)</sup>	0.69	0.63	0.69	0.58	0.65	0.60	0.48
Polyethylene – weighted-average benchmark <sup>(4)</sup>	0.70	0.66	0.71	0.61	0.67	0.63	0.50
<b>Benchmark Raw Material Prices:<sup>(1)</sup></b>							
AECO natural gas (dollars per mmBTU) <sup>(5)</sup>	6.54	5.35	5.03	6.07	5.75	7.25	5.02
NYMEX Natural Gas (dollars per mmBTU) <sup>(6)</sup>	9.07	6.82	6.53	6.62	7.26	8.55	6.09
WTI Crude Oil (dollars per barrel) <sup>(7)</sup>	63.48	70.69	70.48	60.21	66.21	56.56	41.41

(1) Average benchmark prices do not necessarily reflect actual prices realized by NOVA Chemicals or any other petrochemical company.

(2) Source: Chemical Market Associates, Inc. (CMAI) – USGC Net Transaction Price.

(3) LLDPE butene liner. Source: Townsend Polymer Services Information (TPSI).

(4) Benchmark prices weighted according to NOVA Chemicals' sales volume mix in North America. Source for benchmark prices: TPSI.

(5) Source: Canadian Gas Price Reporter, weighted-average daily spot gas prices, values in millions of British Thermal Units (mmBTU).

(6) Source: NYMEX Henry Hub 3-Day Average Close, values in mmBTU.

(7) Source: NYMEX WTI daily spot-settled price average for calendar month.

## Discussion of Financial Results

### Joffre Olefins, 2006 versus 2005

**Revenue.** Revenue from Joffre Olefins increased \$40 million to \$1,744 million in 2006 from \$1,704 million in 2005. Revenue increased as higher ethylene and co-product selling prices in 2006 more than offset lower sales volumes.

Weighted-average selling prices for ethylene and co-products were 6% higher in 2006. Total sales volumes were 4% lower in 2006 due to slightly weaker demand from third-party ethylene customers.

**Feedstocks and Operating Costs.** Feedstock and operating costs decreased \$207 million to \$1,146 million in 2006 from \$1,353 million in 2005. The decrease was primarily due to lower AECO natural gas prices, which were 21% lower in 2006 compared to 2005.

In 2006, NOVA Chemicals realized an average cash-cost advantage of 11¢ per pound of ethylene, the highest in Company history, compared to 6¢ per pound in 2005. The Alberta Advantage reached record levels in 2006 as strong demand for ethane on the USGC, coupled with high energy prices, pushed USGC ethane prices to near-record levels. Alberta ethane costs, which closely track natural gas prices, remained stable for most of the year.

**EBITDA.** EBITDA increased \$245 million, or approximately 78%, to \$558 million in 2006 from \$313 million in 2005. EBITDA increased in 2006 due to lower feedstock costs and higher selling prices.

**Net Income.** Joffre Olefins reported net income of \$324 million in 2006, compared to net income of \$154 million in 2005. Average margins were higher in 2006 due to higher selling prices for ethylene and co-products and lower feedstock costs. In addition, a favorable tax adjustment related to reductions in Canadian federal and Alberta provincial tax rates in 2006 improved the segment's net income by \$20 million.

### Joffre Olefins, 2005 versus 2004

**Revenue.** Revenue from Joffre Olefins increased \$287 million, or 20%, to \$1,704 million in 2005 from \$1,417 million in 2004. Revenue increased as higher average selling prices during 2005 more than offset lower sales volumes.

Average third-party prices for Joffre Olefins' ethylene in 2005 increased 31% over 2004 averages. Ethylene volumes were 11% lower in 2005 as a tornado that damaged third-party NGL extraction facilities constrained ethane supply to the Joffre site.

**Feedstocks and Operating Costs.** Feedstock and operating costs increased \$272 million, or approximately 25%, to \$1,353 million in 2005 from \$1,081 million in 2004. The increase was primarily due to higher AECO natural gas prices, which were 44% higher in 2005 compared to 2004.

In 2005, the Alberta Advantage averaged 6¢ per pound of ethylene compared to 7¢ per pound in 2004 primarily due to a slight narrowing of the spread between USGC and Alberta ethane costs.

**EBITDA.** EBITDA increased \$13 million, or approximately 4%, to \$313 million in 2005 from \$300 million in 2004. EBITDA increased in 2005 as higher revenue more than offset higher feedstock costs.

**Net Income.** Net income in 2005 was \$154 million, compared to net income of \$132 million in 2004. Net income improved as increased selling prices more than offset higher feedstocks costs and the negative impact to sales due to a tornado that damaged third-party ethane extraction facilities in Alberta.

#### **Corunna Olefins, 2006 versus 2005**

**Revenue.** Revenue from Corunna Olefins increased \$567 million, or approximately 40%, from \$1,430 million in 2005 to \$1,997 million in 2006. Revenue was higher in 2006 as both average selling prices and sales volumes were higher than in 2005.

Compared to 2005, average ethylene sales prices were 18% higher in 2006, while energy and chemical co-product prices were 22% higher in 2006. Energy co-product prices were driven by higher crude oil prices in 2006, while chemical co-product prices were driven by higher propylene and butadiene prices. The majority of Corunna's co-products are sold to third parties while its ethylene is primarily used for internal production.

Total sales volumes were approximately 16% higher in 2006 due to improved operations at the Corunna ethylene flexi-cracker. In 2005, the Corunna facility experienced an unplanned shutdown in the second quarter due to a power outage, and a delayed re-start in the fourth quarter following the facility's expansion and modernization project.

**Feedstocks and Operating Costs.** Feedstock and operating costs increased \$551 million, or approximately 41%, to \$1,885 million in 2006 from \$1,334 million in 2005. Costs were higher in 2006 due to higher feedstock prices and higher feedstock consumption driven by increased production at the Corunna flexi-cracker.

**EBITDA.** EBITDA increased \$16 million, or 24%, to \$83 million in 2006 from \$67 million in 2005. EBITDA improved in 2006 as higher average selling prices and sales volumes more than offset higher feedstock and operating costs.

**Net Income.** Corunna Olefins reported net income of \$25 million in 2006, compared to net income of \$2 million in 2005. Net income was higher in 2006 as higher sales volumes and selling prices more than offset higher feedstock costs. In addition, a favorable tax adjustment related to the reduction of the Canadian federal tax rate improved net income of Corunna Olefins by \$20 million in 2006.

#### **Corunna Olefins, 2005 versus 2004**

**Revenue.** Revenue from Corunna Olefins increased \$24 million, or approximately 2%, to \$1,430 million in 2005 from \$1,406 million in 2004. The increase was primarily due to higher average selling prices during 2005, which were offset by lower sales volumes due to planned and unplanned outages of the Corunna ethylene flexi-cracker.

Average prices for Corunna Olefins' products rose 19% in 2005 compared to 2004. Total sales volumes were 15% lower in 2005 due to an unplanned power outage at the Corunna facility in April, the scheduled Corunna turnaround, and the delayed re-start of the Corunna facility after its expansion and modernization project in the fourth quarter.

**Feedstocks and Operating Costs.** Feedstock and operating costs increased \$96 million, or approximately 8%, to \$1,334 million in 2005 from \$1,238 million in 2004. WTI crude oil prices rose steadily throughout most of 2005 and rose 37% to \$56.56 per barrel in 2005 from \$41.41 per barrel in 2004. Higher feedstock prices in 2005 more than offset lower feedstock consumption related to the Corunna ethylene flexi-cracker's planned and unplanned outages.

**EBITDA.** EBITDA decreased \$75 million, or 53%, to \$67 million in 2005 from \$142 million in 2004. EBITDA declined in 2005 as higher feedstock and operating costs more than offset increased revenue.

**Net Income.** Corunna Olefins reported net income of \$2 million in 2005, compared to net income of \$56 million in 2004. Net income was lower in 2005 as higher feedstock and operating costs more than offset higher revenue.

### ***Polyethylene, 2006 versus 2005***

**Revenue.** Revenue from the Polyethylene segment increased \$294 million, or about 18%, to \$1,922 million in 2006 compared to \$1,628 million in 2005. Revenue grew in 2006 due to increased sales volumes and higher average selling prices.

Sales volume was 14% higher in 2006 due to improved ethylene availability from both the Joffre and Corunna ethylene plants. In 2005, ethylene production at Joffre and Corunna was constrained due to a tornado that damaged third-party NGL extraction facilities in Alberta, as well as planned and unplanned outages at the Corunna flexi-cracker. In addition, average PE prices were 4% higher in 2006.

International sales volumes rose 6% to 423 million pounds in 2006 compared to 398 million pounds in 2005. International sales increased in 2006, representing 13% of total PE sales volume in 2006 versus 14% in 2005, as the Company pursued profitable export opportunities, particularly in the fourth quarter.

In 2006, sales of total PE made with Advanced SCLAIRTECH technology increased 17% to 854 million pounds. In addition, PE Performance Products sales volume rose 17% to 513 million pounds. During the year, NOVA Chemicals resolved a quality problem that had previously restricted the pace of transition from standard products to Performance Products. As a result of this quality issue, NOVA Chemicals fell short of its EBITDA targets in 2006 for PE Performance Products made with Advanced SCLAIRTECH technology. This problem was resolved and there are no longer production barriers associated with transitioning sales to PE Performance Products. NOVA Chemicals plans to primarily sell PE Performance Products grades from its Joffre PE2 facility by the end of 2008.

**Feedstocks and Operating Costs.** Feedstock and operating costs increased \$389 million, or approximately 29%, to \$1,749 million in 2006 from \$1,360 million in 2005. Feedstock and operating costs rose in 2006 due to higher PE production and feedstock consumption, and higher average prices for ethylene. NOVA Chemicals internally produces all of the ethylene consumed by the Polyethylene segment.

**EBITDA.** EBITDA decreased \$82 million, or 41%, to \$120 million in 2006 from \$202 million in 2005. EBITDA was lower in 2006 as higher feedstock costs more than offset higher PE revenue.

**Net Income.** The Polyethylene segment reported net income of \$32 million in 2006, compared to net income of \$71 million in 2005. Net income was lower in 2006 as higher feedstock costs more than offset higher PE revenue. A favorable tax adjustment related to the reduction of the Canadian federal tax rate improved net income of the Polyethylene reporting segment by \$20 million in 2006.

### ***Polyethylene, 2005 versus 2004***

**Revenue.** Revenue from the Polyethylene segment increased \$159 million, or 11%, to \$1,628 million in 2005 compared to \$1,469 million in 2004. The increase was due to higher average selling prices during 2005, which were partially offset by lower sales volumes due to planned and unplanned outages.

Average prices for PE products in 2005 were 28% higher than in 2004, while total PE sales volumes were 13% lower. PE volume was lower in 2005 due to constrained ethylene availability resulting from the unplanned outages at the Corunna flexi-cracker in April, the Joffre ethane interruption in June due to a tornado that damaged third-party ethane extraction facilities, and the delayed re-start of the Corunna facility after its expansion and modernization project in the fourth quarter.

International volumes declined 17% to 398 million pounds in 2005 compared to 2004 and represented 14% of total PE sales volume in 2005 versus 15% in 2004. In 2005, sales volumes of PE Performance Products made with Advanced SCLAIRTECH technology increased 52% to 438 million pounds from 289 million pounds in 2004.

**Feedstock and Operating Costs.** Feedstock and operating costs increased \$137 million, or 11%, to \$1,360 million in 2005 from \$1,223 million in 2004. Feedstock costs were higher in 2005 due to higher average ethylene costs. The increase in ethylene costs more than offset the decrease in feedstock costs due to lower PE production in 2005.

**EBITDA.** EBITDA increased \$14 million, or 7%, to \$202 million in 2005 from \$188 million in 2004. EBITDA increased in 2005 as higher revenue more than offset higher feedstock and operating costs.

**Net Income.** The Polyolefins segment reported net income of \$71 million in 2005, compared to net income of \$67 million in 2004. Net income improved as higher revenue more than offset higher feedstock costs.

**Outlook for Olefins/Polyolefins Business Unit**

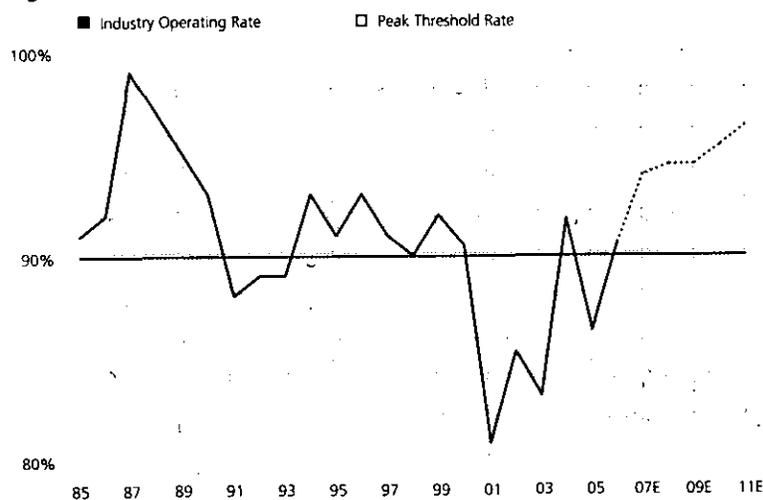
NOVA Chemicals expects strong industry market conditions at least through 2008, due to projected PE operating rates above 90% in North America and globally. This expectation is based on North American and global GDP growth forecasts of 3% and 3.5% respectively; limited capacity additions in North America; and NOVA Chemicals' belief that there will be continued delays in planned global capacity additions. Due to NOVA Chemicals' longstanding feedstock and manufacturing advantages, the Company believes it is well positioned to benefit from a sustained period of healthy margins. In addition, expected growth of PE Performance Products should provide NOVA Chemicals with greater earnings stability throughout the chemical industry cycle.

NOVA Chemicals anticipates Canadian tax rate and public policy actions will further improve the positive outlook for the Olefins/Polyolefins business unit. In 2006, the government of Alberta and the Canadian federal government granted final approval for a series of corporate tax reductions effective April 1, 2006. As a result, NOVA Chemicals' total Canadian corporate tax rate will decrease from 34%, prior to this change, to 30% by 2010.

The Alberta government also announced an initiative that would provide incentives to extract and consume additional ethane in the province. While the details of this program have not been finalized, private-sector response to the new policy could provide NOVA Chemicals additional ethane feedstock to expand its world-scale Alberta ethylene capacity at Joffre.

In 2006, NOVA Chemicals described plans to increase the capacity of its Advanced SCLAIRTECH technology polyethylene plant in Joffre. The expansion, anticipated to be complete in 2008, is expected to increase annual capacity by 150 million pounds (0.4% of North American capacity) with minimal capital investment.

**Figure 4. North American Polyethylene Operating Rates**



Source: American Plastics Council, Nexant Chemsystems and NOVA Chemicals.

## Performance Styrenics Business Unit

In 2006, NOVA Chemicals restructured into three business units in order to better align resources and reduce costs. As part of this restructuring, NOVA Chemicals divided its traditional Styrenics business into two separate units: Performance Styrenics, which remains part of NOVA Chemicals' core business, and STYRENIX.

The Performance Styrenics business unit includes the following:

- NOVA Chemicals' North American expandable polystyrene (EPS) operations
- Styrenic Performance Products, including:
  - ARCEL<sup>®</sup>, DYLARK<sup>®</sup>, and ZYLAR<sup>®</sup> resins
  - Downstream ventures including: IMx<sup>™</sup> technology for cups and containers, lightweight concrete, NOVA Chile, and NOVA Chemicals' joint venture interests in Accelerated Building Technologies and in NOVIDESA.

### **Business Overview**

This business unit sells EPS resins, which are used in the production of packaging for food and consumer products, and in insulation for the building and construction industry.

NOVA Chemicals' Performance Styrenics business unit also manufactures and sells unique styrenic Performance Products and is engaged in downstream business ventures that aim to create and capture value beyond the production and sale of polymers.

Styrenic Performance Products are used in protective packaging, automotive interiors, food packaging, consumer goods, medical devices, and appliances. Performance Products can earn significant margins above standard polymers because of the value they create for our customers and end-users. Growth of these products depends on the value they deliver to customers and the rate at which customers accept them.

Styrene monomer is the primary feedstock for the production of NOVA Chemicals' EPS and styrenic Performance Products. NOVA Chemicals' interest in Lyondell Chemical Company's Channelview, Texas propylene oxide/styrene monomer (PO/SM) facility supplies 400 million pounds per year of styrene to the Performance Styrenics business unit, meeting virtually all of its styrene requirements.

In addition to producing and marketing EPS and styrenic Performance Products, the Performance Styrenics unit manufactures SPS at the Company's Belpre, Ohio site for the STYRENIX business unit.

### **Expandable Polystyrene (EPS)**

NOVA Chemicals has the capacity to produce 370 million pounds per year of EPS at its production facilities in Monaca (Beaver Valley), Pennsylvania and Painesville, Ohio.

NOVA Chemicals continues to leverage its EPS production and technology expertise to develop new grades of EPS that create value for both molders (our customers) and end users (consumers). In 2006, NOVA Chemicals introduced ULTRA LOW<sup>®</sup> pentane EPS that targets construction applications and will enable business growth for EPS molders whose production is constrained by emissions standards. The Company also introduced EPS resins designed specifically for insulating concrete forms (ICFs) used in construction applications.

Many of NOVA Chemicals' downstream business ventures build upon the benefits of EPS resin to create new consumer applications that deliver enhanced value.

### **Performance Products**

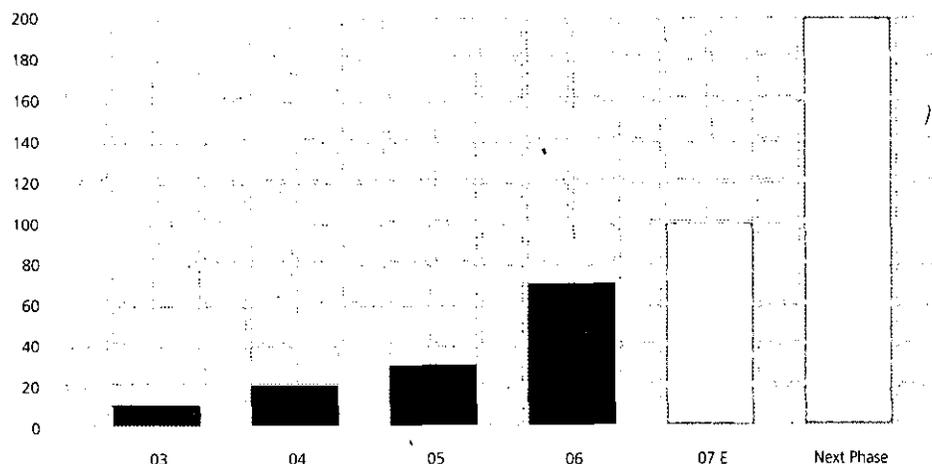
NOVA Chemicals has combined annual production capacity of approximately 265 million pounds for styrenic Performance Products, which are manufactured at its Beaver Valley and Belpre facilities and through tolling agreements with outside manufacturing partners.

**ARCEL** is a performance resin that is molded into foam for protective packaging and used by producers of damage-sensitive goods such as electronics, appliances, and furniture. Packaging made from ARCEL resin is resilient, tough, and flexible and can reduce product breakage and returns. In addition, packaging made from ARCEL resin is compact, reducing overall package size and decreasing transportation costs for finished goods.

In 2006, annual production capacity for ARCEL resin more than doubled from 30 million pounds to 70 million pounds with the expansion of the Beaver Valley facility and the startup of the new ARCEL finishing plant in Ningbo, China. This new plant provides a local source of ARCEL resin in Asia and is operated under a long-term strategic partnership with Loyal Chemical Industrial Corporation. With short lead-time and minimal cost, ARCEL resin production capacity can be increased to 100 million pounds per year.

NOVA Chemicals experienced production outages and inventory uncertainties during the year as ARCEL resin capacity was rapidly expanded. In order to conserve resin supplies for existing customers, marketing efforts to grow sales were slowed while expansion work was underway. As a result, ARCEL resin sales volumes did not meet the Company's year-end targets in 2006. With the successful completion of expansion activities, NOVA Chemicals renewed efforts to aggressively develop new ARCEL resin markets and customers. With the establishment of new end-use applications and the addition of a sales and marketing team headquartered in China, the Company expects new sales records in 2007 and in 2008. As sales of ARCEL resins grow, NOVA Chemicals expects to continue to add new increments of production capacity.

**Figure 5 – ARCEL Resin Capacity Growth** (millions of pounds)



**DYLARK** resins are used in automotive applications, such as soft instrument panels, structural consoles, roof-mounted LCD video supports and interior trim. DYLARK resins are specified for their temperature resistance, stiffness and strength, lot-to-lot consistency and exceptional foam adhesion.

The high-heat resistance and stability of DYLARK resins resulted in the development of additional DYLARK resin grades designed specifically for microwavable food packaging applications. Marketed as DYLARK FG resins, these food packaging grades provide superior low-temperature toughness and thermal stability required for freezer-to-microwave performance. In 2006, NOVA Chemicals introduced a new line of foamable DYLARK FG resins that are designed for take-out food containers and home meal replacement packaging.

NOVA Chemicals plans to increase production capacity for DYLARK FG resins with the start-up of a new manufacturing line at the Belpre, Ohio facility in 2007.

**ZYLAR** is a clear acrylic co-polymer that delivers improved clarity and toughness for injection molded applications used in consumer goods, medical devices and appliances. ZYLAR injection molding resins continued to gain market acceptance and experienced 45% sales growth in 2006.

During 2006, NOVA Chemicals discontinued production of its ZYLAR® EX extrusion grades, which did not meet the Company's financial objectives. The discontinuation of products is a normal part of the product development process and demonstrates the discipline that NOVA Chemicals applies to its Performance Products portfolio.

### **Downstream Ventures**

In 2006, NOVA Chemicals' Performance Styrenics business continued to implement downstream business models that seek to capture value beyond the manufacturing and sale of plastic resins. Through strategic relationships with downstream partners, NOVA Chemicals can leverage its intellectual property and market expertise to earn royalty revenue and create pull-through sales of the Company's basic polymers and Performance Products. This combination of technology licensing and sales of finished products is expected to generate and sustain profits throughout the chemical industry cycle. Descriptions of the key ventures and 2006 business activities follow:

- **Accelerated Building Technologies, LLC** – This joint venture develops and manufactures durable, energy-saving, composite construction products and systems for residential and light commercial use. These systems combine the insulating and lightweight characteristics of EPS with the strength of light-gauge steel framing. Accelerated Building Technologies is a 50:50 joint venture between NOVA Chemicals and Dietrich Metal Framing, a Worthington Industries company. The joint venture was formed in 2006 and commercialized its first product in January 2007.
- **IMx technology for cups and containers** – This venture produces labeled cups and containers in a single-step process. Cups and containers produced with IMx technology combine the superb insulation properties of EPS with the outstanding graphics quality traditionally offered only by paper. This venture is pursuing both direct sales of cups, as well as IMx technology licensing opportunities.

During 2006, NOVA Chemicals received its first commercial orders for IMx cups and signed its first technology licensing agreement in Europe.

- **Lightweight Concrete** – Lightweight concrete combines basic concrete with proprietary EPS beads to create a building material that is up to 25% lighter than traditional concrete. This new lightweight concrete maintains high levels of compression strength and delivers superior insulating properties. NOVA Chemicals licenses lightweight concrete technology and earns royalties on the sale of concrete as well as revenues from pull-through sales of EPS resin.

In 2006, NOVA Chemicals signed a licensing agreement with a leading supplier of pre-cast, pre-stressed concrete panels for the U.S. construction industry. The first commercial-scale structure using the Company's lightweight concrete was built in May 2006.

- **Insulating Concrete Forms (ICFs)** – ICFs are molded EPS forms that can be interlocked and filled with concrete to become the foundations and walls of structures such as residential homes. Structures built with ICFs are more energy efficient and require less maintenance than traditional buildings. ICF structures can better withstand damage caused by hurricanes and earthquakes, and are easy to assemble, potentially reducing both construction time and labor costs. Currently, ICFs are produced and marketed through the Company's joint venture in Mexico, NOVIDESA, and through NOVA Chile, the Company's production facility in South America.
- **NOVIDESA** – NOVIDESA produces and sells building systems such as ICFs and steel-reinforced EPS panels that target the rapidly growing Mexican construction market. The joint venture also sells EPS and distributes NOVA Chemicals' SPS in Mexico. NOVIDESA is a 50:50 joint venture formed by NOVA Chemicals and Grupo IDESA, a leading manufacturer of plastics and chemicals in Mexico.

In 2006, NOVIDESA commenced molding operations for ICFs and steel-reinforced EPS panels and received its first commercial orders for each of these systems.

- **NOVA Chile** - NOVA Chemicals owns and operates two EPS molding plants in Quilicura and El Tepual, Chile. These facilities produce molded products for the Chilean fish packaging, housing, and construction markets.

In 2006, NOVA Chile ceased production of EPS resin to focus on the manufacture and sale of building systems and packaging products for growing residential and industrial markets in Chile.

## Performance Styrenics Financial Highlights

(millions of U.S. dollars, except where noted)

	2006	2005	2004
Revenue	\$421	\$392	\$394
EBITDA <sup>(1)</sup>	\$ (24)	\$ (5)	\$ 8
Operating loss <sup>(2)</sup>	\$ (36)	\$ (18)	\$ (4)
Net loss	\$ (29)	\$ (14)	\$ (6)
Sales volumes <sup>(3)</sup> (millions of pounds)	457	396	479

(1) See Supplemental Measures on Page 62.

(2) To conform with changes in internal analysis and reporting, beginning with the first quarter of 2007, NOVA Chemicals will no longer allocate interest, taxes or corporate charges to business segments and accordingly will only report segment results down to the operating income (loss) line.

(3) Third-party sales.

## Operating Highlights

(U.S. dollars per pound)	2006				Annual		
	Q1	Q2	Q3	Q4	2006	2005	2004
Benchmark Raw Material Prices: <sup>(1)</sup>							
Styrene monomer <sup>(2)</sup>	\$0.61	\$0.62	\$0.70	\$0.67	\$0.65	\$0.63	\$0.58

(1) Average benchmark prices do not necessarily reflect actual prices realized by NOVA Chemicals or any other petrochemical company.

(2) Source: CMAI Contract Market.

## Discussion of Financial Results

### 2006 versus 2005

**Revenue.** Revenue for the Performance Styrenics business increased \$29 million, or 7%, to \$421 million in 2006 from \$392 million in 2005.

Revenue improved in 2006 as sales volumes for both EPS and styrenic Performance Products were higher than in 2005. Demand grew as Performance Products, such as ARCEL resin and compounded ZYLAR resin, continued to gain market acceptance. Total sales volumes which were up 15% compared with 2005, were partially offset by lower average prices for EPS.

**Feedstocks and Operating Costs.** Feedstock and operating costs increased \$52 million, or 15%, to \$399 million in 2006 from \$347 million in 2005. The increase in costs was due primarily to increased feedstock consumption and higher styrene monomer feedstock price.

**EBITDA.** Performance Styrenics' EBITDA loss in 2006 was \$24 million compared to EBITDA loss of \$5 million in 2005. EBITDA was lower in 2006 as development costs, higher styrene monomer feedstock costs and lower EPS selling prices more than offset higher sales volumes.

Styrenic Performance Products' EBITDA, a subset of the Performance Styrenics unit's financial results, was positive in 2006 but fell short of the Company's goals, primarily as a result of delays in sales of ARCEL resin. The Company experienced production outages and inventory uncertainties during the year as ARCEL resin capacity rapidly expanded. In order to conserve resin inventory for existing customers, marketing efforts to grow sales were slowed while expansion work was underway. As a result, ARCEL resin sales volumes did not meet the Company's year-end targets in 2006. With the successful completion of capacity expansion activities, NOVA Chemicals renewed efforts to aggressively develop ARCEL resin markets and customers. With the establishment of new end-use applications and a sales and marketing team headquartered in China, the Company expects new sales records in 2007 and in 2008.

**Net Loss.** The Performance Styrenics business reported a net loss of \$29 million in 2006, compared to net loss of \$14 million in 2005. The net loss increased in 2006 as higher feedstock and operating costs more than offset higher revenue.

### **2005 versus 2004**

**Revenue.** Performance Styrenics revenue for 2005 was \$392 million, consistent with revenue of \$394 million in 2004. Revenue in 2005 was largely unchanged from 2004 as higher average selling prices were largely offset by lower sales volume.

**Feedstocks and Operating Costs.** Feedstock and operating costs were \$347 million in 2005, the same as in 2004. Costs were unchanged in 2005 as lower feedstock purchases, driven by reduced EPS production, were offset by higher feedstock prices.

**EBITDA.** Performance Styrenics' EBITDA loss in 2005 was \$5 million, compared to an EBITDA gain of \$8 million in 2004. The reduction in EBITDA was primarily due to higher Performance Products development costs in 2005 as commercialization efforts were accelerated.

**Net Loss.** The Performance Styrenics business reported a net loss of \$14 million in 2005, compared to a net loss of \$6 million in 2004. The decline from 2004 was primarily due to higher Performance Products development costs in 2005.

### **Outlook for Performance Styrenics Business**

In 2006, NOVA Chemicals took measurable steps to develop and commercialize styrenic Performance Products and to establish and grow its downstream business ventures. In 2007, NOVA Chemicals expects to capture increased revenues through the sales growth of these unique products and development ventures. NOVA Chemicals will continue the acceleration of its development efforts and expects that by 2008, Performance Styrenics will contribute a significant portion of the Company's total Performance Products' EBITDA.

In addition, the Company plans to improve the cost position of the EPS business through operating efficiency gains and fixed-cost reductions, and expects to drive sales of new EPS grades such as ULTRA LOW pentane EPS resin.

## **STYRENIX Business Unit**

STYRENIX is NOVA Chemicals' non-core business unit and includes NOVA Chemicals' styrene monomer and North American SPS operations, and its 50% interest in the NOVA Innovene European joint venture. STYRENIX has three reportable segments:

- 1) **Styrene Monomer**, which produces and sells styrene monomer. This segment includes styrene monomer plants in Bayport, Texas and Sarnia, Ontario.
- 2) **North American Solid Polystyrene**, which produces and sells SPS. This segment includes the Decatur, Alabama; Springfield, Massachusetts; Montréal, Québec assets, as well as SPS production from NOVA Chemicals' Belpre, Ohio facility.
- 3) **NOVA Innovene European joint venture**, which is NOVA Chemicals' 50% interest in NOVA Innovene. The joint venture produces and sells SPS and EPS in Europe.

### **Market Overview**

A globally-traded commodity, styrene monomer is a key feedstock in the production of styrenic polymers such as SPS and EPS. Polystyrene is used to make products such as electronics packaging, small appliances, construction components, and food packaging. While SPS resin production accounts for approximately two-thirds of global styrene monomer demand, styrene monomer is also used in other styrenic polymers such as ABS, synthetic rubber and unsaturated polyesters.

Margins in the styrene monomer and polystyrene industries are primarily driven by supply/demand dynamics. Styrene monomer (also called styrene) is the supply bottleneck in the styrenics chain and therefore the key indicator of supply/demand tightness for both styrene and SPS. Operating rates in excess of 92% for styrene monomer generally lead to margin expansion. Profitability in the global styrenics industry has been poor in the last several years, primarily due to the over-supply of styrene monomer and relatively high cost of benzene feedstock.

### **Business Overview**

**Styrene Monomer.** STYRENIX can produce and purchase under contract approximately 3.2 billion pounds of styrene monomer. Approximately 65% of STYRENIX' styrene monomer production is consumed internally for the manufacture of styrenic polymers, with the balance sold to third parties.

NOVA Chemicals has capacity to manufacture approximately 2.7 billion pounds per year of styrene at its facilities in Bayport, Texas and Sarnia, Ontario. All of the ethylene and approximately half of the benzene requirements for NOVA Chemicals' Sarnia styrene plant are supplied from its Corunna facility. The balance of benzene feedstock is obtained from nearby petroleum refineries. At the Bayport facility, ethylene and benzene requirements are purchased, with the exception of some ethylene swaps.

NOVA Chemicals engages in transatlantic swap arrangements with other styrene producers and purchases up to 500 million pounds per year through a long-term supply contract to meet approximately 1 billion pounds per year of NOVA Innovene's styrene monomer requirements.

Styrene monomer purchased under contract is generally more costly than the Company's own production, and at times, honoring these contracts has forced NOVA Chemicals to reduce operating rates at its facilities. During 2006, NOVA Chemicals had two supply contracts that resulted in average estimated higher costs of \$30 million per year for the past several years. On Dec. 31, 2006 the first of the two supply contracts, for 400 million pounds of styrene annually, expired and will reduce fixed costs by \$22 million per year starting Jan. 1, 2007. The second supply contract, for up to 500 million pounds per year, will expire on Dec. 31, 2007 and is expected to reduce costs, at current styrene economics, by approximately \$8 million per year starting Jan. 1, 2008. In addition to reducing costs, expiry of these contracts allows NOVA Chemicals to operate its own, efficient styrene plants at higher rates.

**North American Solid Polystyrene.** NOVA Chemicals has the capacity to produce approximately 1.1 billion pounds per year of SPS, for which styrene monomer is the primary feedstock. Styrene feedstock is supplied from NOVA Chemicals' production facilities or from the Company's purchase and swap agreements.

In June 2006, NOVA Chemicals ceased SPS production at its Chesapeake, Virginia facility, while compounding operations stopped in September 2006. The closure of the site reduced NOVA Chemicals' annual SPS production capacity by 300 million pounds and reduced fixed costs by approximately \$15 million per year. NOVA Chemicals accrued severance costs related to the closure of approximately \$10 million after-tax in 2006. Compounding is now being performed through third-party toll manufacturers.

**NOVA Innovene European Joint Venture.** NOVA Innovene, NOVA Chemicals' 50:50 European joint venture with INEOS, is Europe's largest styrenic polymer producer. At 2006 year-end, the joint venture had combined manufacturing capacity of approximately 2 billion pounds of SPS and EPS, representing approximately 23% of Western Europe's total capacity.

Since its inception in October 2005, NOVA Innovene has aggressively reduced costs through asset rationalizations, reductions in corporate overhead expenses, and through operating synergies. As of 2006 year-end, the joint venture had achieved annualized cost-savings of \$66 million and is on-track to reduce annual costs by more than \$80 million by the end of 2007, double the original target. The benefit of these cost reductions is shared equally between NOVA Chemicals and INEOS.

During 2006, NOVA Innovene shut down the Carrington, UK SPS and the Berre, France EPS facilities, which decreased annual styrenic polymer capacity by 550 million pounds.

### STYRENIX Financial Highlights

(millions of U.S. dollars, except where noted)

	2006	2005	2004
Revenue			
Styrene Monomer <sup>(1)</sup>	\$1,889	\$ 1,828	\$1,820
North American Solid Polystyrene <sup>(1)</sup>	500	545	552
NOVA Innovene European joint venture <sup>(1)(2)</sup>	672	616	604
Eliminations	(909)	(1,081)	(997)
	\$2,152	\$ 1,908	\$1,979
EBITDA <sup>(3)</sup>			
Styrene Monomer	\$ (17)	\$ (61)	\$ 42
North American Solid Polystyrene	(39)	(18)	2
NOVA Innovene European joint venture <sup>(2)</sup>	(18)	(64)	(11)
Eliminations <sup>(4)</sup>	—	—	5
	\$ (74)	\$ (143)	\$ 38
Operating loss <sup>(5)</sup>			
Styrene Monomer	\$ (72)	\$ (113)	\$ (1)
North American Solid Polystyrene	(60)	(47)	(28)
NOVA Innovene European joint venture <sup>(2)</sup>	(50)	(94)	(42)
Eliminations <sup>(4)</sup>	—	—	5
	\$ (182)	\$ (254)	\$ (66)
Net loss			
Styrene Monomer	\$ (61)	\$ (81)	\$ (12)
North American Solid Polystyrene	(44)	(33)	(16)
NOVA Innovene European joint venture <sup>(2)</sup>	(47)	(92)	(44)
Eliminations <sup>(4)</sup>	—	—	6
	\$ (152)	\$ (206)	\$ (66)
Sales Volumes (millions of pounds)			
Styrene Monomer <sup>(6)</sup>	1,649	1,672	1,772
North American Solid Polystyrene	736	781	925
NOVA Innovene European joint venture <sup>(2)</sup>	966	991	1,022
	3,351	3,444	3,719

(1) Before inter-segment eliminations between the business units.

(2) The NOVA Innovene joint venture commenced operations Oct. 1, 2005. Prior to that date, figures represent Financial Highlights for NOVA Chemicals' European assets.

(3) See Supplemental Measures on Page 62.

(4) Represents inter-segment profit eliminations.

(5) To conform with changes in internal segment analysis and reporting, beginning with the first quarter of 2007, NOVA Chemicals will no longer allocate interest, taxes or corporate charges to the business segments, and accordingly will only report segment results down to the operating income (loss) line.

(6) Third-party sales, including purchased volumes resold. Excludes sales to NOVA Innovene.

## STYRENIX Operating Highlights

(U.S. dollars per pound, except where noted)	2006				Annual		
	Q1	Q2	Q3	Q4	2006	2005	2004
Benchmark principal product prices: <sup>(1)</sup>							
Styrene monomer <sup>(2)</sup>	\$0.61	\$0.62	\$0.70	\$0.67	\$0.65	\$0.63	\$0.58
Solid polystyrene (weighted-average) <sup>(3)</sup>							
North America	\$0.86	\$0.84	\$0.93	\$0.95	\$0.89	\$0.86	\$0.77
Europe	\$0.59	\$0.63	\$0.73	\$0.76	\$0.68	\$0.65	\$0.65
Benchmark raw material prices: <sup>(1)</sup>							
Benzene (dollars per gallon) <sup>(4)</sup>	\$2.68	\$3.02	\$3.71	\$3.64	\$3.26	\$2.90	\$2.88

(1) Average benchmark prices do not necessarily reflect actual prices realized by NOVA Chemicals or any other petrochemical company.

(2) Source: CMAI Contract Market.

(3) Source for benchmark prices: CMAI.

(4) A 10¢ per gallon change in the cost of benzene generally results in about a 1¢ per pound change in the variable cost of producing styrene monomer.  
Source of benzene benchmark prices: CMAI.

## Discussion of Financial Results

### STYRENIX Asset Write-Down

Each year, NOVA Chemicals reviews the carrying value of its plant, property and equipment to determine if this value will be recoverable through projected future cash flows from these assets. To estimate future cash flows, NOVA Chemicals uses third-party forecasts of market conditions and product margins. During 2006, the third-party forecasts for products sold by the STYRENIX business unit were revised to reflect weaker market conditions than were expected at the time of the earlier forecast. It was determined that the carrying value of the STYRENIX assets was greater than the estimated future cash flows. Accordingly, the assets were written down to the estimated realizable value of the assets, resulting in a non-cash charge of \$860 million (\$772 million after-tax). The realizable value was estimated using discounted cash-flow analysis and information gathered during the investigation of strategic options for STYRENIX. The table below details the write-down.

(millions of U.S. dollars)	Europe	North America	Total
Book value			
Before write-down	\$383	\$719	\$1,102
After write-down	63	179	242
Write-down before tax	\$320	\$540	\$ 860
Tax recovery at 36%			(308)
Tax valuation reserve <sup>(1)</sup>			220
Net tax recovery			(88)
Write-down, after-tax			\$ 772

(1) Recording the future income tax recovery on the write-down results in a future income tax asset of \$220 million in the U.S. and Swiss subsidiaries. NOVA Chemicals established a valuation reserve that will reduce the amount of the tax benefit recorded in 2006.

The write-down will reduce future depreciation charges. The Company estimates that annual depreciation charges will decrease by about \$80 million from 2007 to approximately 2017 as a result of this write-down. In addition, there is a potential future income tax benefit related to this write-down that will be recognized when and if the business records profits. (See Note 14 in the Notes to the Consolidated Financial Statements on page 96 for more details.)

## Styrene Monomer

### 2006 versus 2005

**Revenue.** Revenue from the Styrene Monomer segment increased \$61 million to \$1,889 in 2006 compared with \$1,828 million in 2005. Revenue was higher in 2006 primarily due to a 3% increase in average styrene monomer prices compared to 2005, while third-party sales volumes were relatively flat.

**Feedstock and Operating Costs.** Feedstock and operating costs increased \$24 million, or approximately 1%, to \$1,889 million in 2006 from \$1,865 million in 2005. In 2006, benzene prices increased 12%, while ethylene prices increased by 9% from 2005. Higher feedstock costs in 2006 were partially offset by operating cost improvements due to efficiency gains from the Bayport, Texas styrene monomer plant.

**EBITDA.** EBITDA loss for 2006 was \$17 million, compared to an EBITDA loss of \$61 million in 2005. EBITDA improved in 2006 as higher revenues, driven by higher styrene prices, and declining operating costs more than offset higher feedstock costs. In addition, SG&A costs were lower in 2006 as restructuring savings were realized late in the year.

**Net Loss.** The Styrene Monomer segment reported a net loss of \$61 million in 2006, compared to a net loss of \$81 million in 2005. The net loss improved in 2006 due to higher styrene monomer gross margins and lower SG&A costs.

### 2005 versus 2004

**Revenue.** Styrene Monomer revenue in 2005 was \$1,828 million, essentially flat with 2004 revenue of \$1,820 million. Average styrene monomer prices in 2005 were 9% higher than 2004. The increase in average price was roughly offset by a decrease in domestic sales volumes due to planned and unplanned outages of the Bayport, Texas and Sarnia, Ontario styrene monomer units in 2005.

**Feedstock and Operating Costs.** Feedstock and operating costs increased \$110 million, or 6%, to \$1,865 million in 2005 from \$1,755 million in 2004. In 2005, benzene prices increased 1% while ethylene prices increased by 29% as hurricane-related outages on the USGC constrained ethylene availability.

**EBITDA.** EBITDA decreased \$103 million to an EBITDA loss of \$61 million in 2005 from an EBITDA gain of \$42 million in 2004. The EBITDA decline was primarily due to higher feedstock costs.

**Net Loss.** Styrene Monomer reported a net loss of \$81 million in 2005, compared to a net loss of \$12 million in 2004. The increase in net loss was primarily due to higher feedstock costs. In addition, 2005 results were impacted by a brief, unplanned shutdown of the Bayport facility related to Hurricane Rita, as well as planned turnarounds at the Bayport and Sarnia styrene monomer units.

## North American Solid Polystyrene

### 2006 versus 2005

**Revenue.** North American SPS revenue in 2006 was \$500 million, compared to \$545 million in 2005. Revenue declined in 2006 due to a combination of lower sales volume and lower sales prices.

SPS sales volumes in 2006 were 6% lower than 2005 reflecting the decline in North American SPS demand. Average third-party prices for North American SPS in 2006 were 4% lower than 2005 as weaker demand in North America did not support higher prices.

**Feedstock and Operating Costs.** Feedstock and operating costs were \$525 million in 2006, compared to \$545 million in 2005. Feedstock costs were lower in 2006 primarily due to reduced feedstock consumption driven by lower sales volume, and lower fixed costs related to the restructuring.

**EBITDA.** EBITDA loss in 2006 was \$39 million compared to EBITDA loss of \$18 million in 2006. EBITDA declined in 2006 as the decline in revenue was greater than the decline in feedstock costs.

**Net Loss.** North American SPS reported a net loss of \$44 million in 2006, compared to a net loss of \$33 million in 2005. The net loss increased as declines in revenue outpaced lower feedstock costs.

#### **2005 versus 2004**

**Revenue.** North American SPS revenue in 2005 was \$545 million, down slightly from \$552 million in 2004. Average third-party prices for North American SPS in 2005 were 12% higher than 2004, while sales volumes were 15% lower. In 2005, customers reduced purchases in response to higher SPS prices caused by higher feedstock costs and volatility in natural gas pricing.

**Feedstock and Operating Costs.** Feedstock and operating costs in 2005 were \$545 million, up slightly from \$533 million in 2004. Higher styrene monomer feedstock unit costs were mostly offset by lower feedstock purchases.

**EBITDA.** EBITDA loss in 2005 was \$18 million, down from EBITDA gain of \$2 million in 2004. EBITDA declined in 2005 due to the combination of higher feedstock and operating costs and lower revenue.

**Net Loss.** North American SPS net loss was \$33 million in 2005, compared to a net loss of \$16 million in 2004. The net loss increased in 2005 due to higher feedstock costs and lower revenue.

### **NOVA Innovene European Joint Venture<sup>(1)</sup>**

#### **2006 versus 2005**

**Revenue.** NOVA Innovene European joint venture revenue in 2006 was \$672 million, \$56 million higher than 2005. Revenue improved in 2006 as higher SPS and EPS pricing more than offset 3% lower sales volume.

Average SPS and EPS prices were higher in 2006 by 8% and 16%, respectively, due to tighter market conditions in Europe. The supply/demand balance for the European EPS industry improved in 2006 from 2005 with the closure of NOVA Innovene's Berre, France and Carrington, UK EPS facilities.

**Feedstock and Operating Costs.** Feedstock and operating costs were \$647 million in 2006, slightly higher than costs of \$634 million in 2005. Costs increased due to the higher cost of styrene monomer feedstock, which rose 3% in 2006 compared to 2005. Higher feedstocks costs were partially offset by lower operating costs related to closures of the Carrington, UK and Berre, FR EPS facilities.

**EBITDA.** EBITDA loss in 2006 was \$18 million, a \$46 million improvement over 2005. EBITDA improved as higher revenue more than offset higher feedstock costs. In addition, SG&A and plant manufacturing costs were lower as NOVA Innovene realized cost synergies during the year.

**Net Loss.** The NOVA Innovene European joint venture reported a net loss of \$47 million in 2006, compared to a net loss of \$92 million in 2005 for nine months of stand-alone operations and three months operating as part of the joint venture. Net loss improved due to higher gross margins and lower operating and SG&A costs.

(1) 2005 results for the NOVA Innovene segment reflect nine months of NOVA Chemicals operation and three months of NOVA Innovene joint venture operation.

### **2005 versus 2004**

**Revenue.** Revenue was \$616 million in 2005 compared to \$604 million in 2004.

Average European SPS and EPS prices in 2005 increased 8% and 2%, respectively, over 2004. Sales volumes decreased 3%, or 31 million pounds from 1,022 million pounds in 2004 to 991 million pounds in 2005.

**Feedstock and Operating Costs.** Feedstock and operating costs were \$634 million in 2005 compared to \$581 million in 2004. The increase in costs was primarily due to higher styrene monomer feedstock costs in 2005.

**EBITDA.** EBITDA loss in 2005 was \$64 million, up from an EBITDA loss of \$11 million in 2004. EBITDA decreased as higher feedstock costs more than offset higher revenue.

**Net Loss.** The net loss was \$92 million in 2005, compared to net loss of \$44 million in 2004. The decline in 2005 was due to higher feedstock costs which more than offset higher revenue.

### **Outlook for STYRENIX**

As part of NOVA Chemicals' company-wide restructuring in 2006, the Company took a series of actions to rapidly reduce costs in the STYRENIX unit. In addition, NOVA Chemicals announced it would pursue all strategic options available for the unit including: sale, formation of a joint venture with other producers, or a spin-out. During the year, NOVA Chemicals exceeded its cost-reduction targets and recorded a \$772 million (after-tax) non-cash write-down of STYRENIX assets – actions that are expected to improve the unit's future net income by approximately \$150 million per year.

In 2007, the Company will continue to pursue strategic options to finalize a shareholder-value-adding pathway for STYRENIX. The Company believes that its rapid cost reductions are a good indicator of the potential benefits of industry consolidation and that the STYRENIX unit is an ideal vehicle for consolidation.

# Corporate and Other Items

A listing of before-tax corporate and other items for the periods presented is as follows:

<i>(millions of U.S. dollars)</i>	2006	2005	2004
Stock-based compensation and profit sharing	\$ 6	\$ 37	\$(104)
Forward transactions on stock-based compensation	(20)	(15)	—
Restructuring	(985)	(168)	(8)
Tax settlement	—	8	122
Insurance charge	(19)	(22)	—
Mark-to-market feedstock derivatives	(21)	12	6
Gain on sale of investments in AEGS	—	—	53
	<b>\$(1,039)</b>	<b>\$(148)</b>	<b>\$ 69</b>

A listing of after-tax corporate and other items for the periods presented is as follows:

<i>(millions of U.S. dollars)</i>	2006	2005	2004
Stock-based compensation and profit sharing	\$ —	\$ 20	\$ (63)
Forward transactions on stock-based compensation	(13)	(10)	—
Restructuring	(861)	(125)	(5)
Tax settlement	—	5	101
Insurance charge	(13)	(15)	—
Mark-to-market feedstock derivatives	(14)	8	4
Gain on sale of investments in AEGS	—	—	40
	<b>\$(901)</b>	<b>\$(117)</b>	<b>\$ 77</b>

### **Stock-Based Compensation and Profit Sharing and Forward Transactions**

NOVA Chemicals has two cash-settled, stock-based incentive compensation plans that are marked-to-market with changes in the value of its common stock price. In November 2005, NOVA Chemicals entered into forward transactions with two financial institutions in order to hedge the portion of its stock-based compensation which is subject to quarterly mark-to-market accounting adjustments. Mark-to-market rules had resulted in material quarterly earnings variations prior to 2006. The forward transactions are cash-settled at the end of a three-year term (November 2008), or at any time prior to that at the option of NOVA Chemicals, based on the difference between NOVA Chemicals' common stock price and the execution price plus accrued interest.

The transactions effectively give NOVA Chemicals the same economic effect as if it had borrowed money, purchased NOVA Chemicals' common shares and held them as assets. The average execution price was \$37.56 on approximately 3.6 million shares, which approximates the number of outstanding shares related to the stock-based compensation units as of November 2005. As NOVA Chemicals' stock price changes, the mark-to-market impact related to the stock-based compensation liability is effectively neutralized by the mark-to-market impact related to the forward contracts.

Stock-based compensation also includes the amount expensed related to the fair value of stock options earned by employees.

Additionally, a profit sharing program, available to most employees, is based on the achievement of shareholder return on equity targets.

### **Mark-to-Market Feedstock Derivatives**

Beginning in the first quarter of 2006, NOVA Chemicals began classifying mark-to-market adjustments on feedstock derivative positions as corporate items, as they are non-cash items and are not relevant in measuring business performance. Previously, these amounts were allocated to the Olefins/Polyolefins and Styrenics business units. Prior periods have been restated.

### **2006**

**Restructuring Charges.** In 2006, NOVA Chemicals recorded total restructuring charges of \$985 million (\$861 million after-tax) related to the following: the write-down of the STYRENIX assets, the write-down of the Carrington, UK SPS facility, severance costs for the North American restructuring, severance costs for the Chesapeake, Virginia polystyrene plant site closure and NOVA Innovene restructuring costs.

NOVA Chemicals recorded a non-cash write-down of \$860 million in 2006 (\$772 million after-tax) related to STYRENIX assets (see discussion on page 64 related to Plant, Property and Equipment). The Company accrued \$56 million (\$46 million after-tax) of restructuring costs related primarily to non-cash asset write-downs for the Carrington, UK SPS facility closure. The Company also accrued \$53 million (\$33 million after-tax) of restructuring costs related to severance, pension and other employee-related costs associated with the North American restructuring announced on June 26, 2006. To date, \$22 million has been paid to employees related to the North American restructuring. NOVA Chemicals accrued \$15 million (\$10 million after-tax) related to severance costs for the Chesapeake, Virginia polystyrene plant site closure. To date, \$3 million has been paid to employees. Lastly, \$1 million (less than \$1 million after-tax) of restructuring costs related to actions taken by NOVA Innovene were accrued.

**Insurance Charge.** NOVA Chemicals is one of many participants in OIL and sEnergy – two mutual insurance companies formed to insure against catastrophic risks. NOVA Chemicals recorded a \$19 million (\$13 million after-tax) charge in 2006 related to its share of potential incremental future payments required to meet losses in the insurance pools in which it participates. The Company continues to participate in OIL, an insurance pool for property and liability; however, sEnergy, an insurance pool for business interruption, is in the process of closing its operations. NOVA Chemicals believes the Company's reserves are adequate to cover any outstanding claims.

#### **2005**

**Restructuring Charges.** In 2005, NOVA Chemicals recorded total restructuring charges of \$168 million (\$125 million after-tax) related to the following: write-down of the Berre, France and the Carrington, UK EPS facilities and associated severance costs; write-down of the Chesapeake, Virginia polystyrene plant; and the write-off of certain other non-productive assets.

On October 1, 2005, NOVA Chemicals and Innovene combined their European polystyrene businesses into a 50:50 joint venture known as NOVA Innovene. Shortly thereafter, NOVA Innovene announced it would cease EPS production at Berre, France, and permanently shut down the previously idled EPS plant at its Carrington, UK facility. Accordingly, NOVA Chemicals took a write-down on the value of its 50% interest in the value of the plants in the amount of \$76 million (\$60 million after-tax). NOVA Chemicals also reduced the recorded benefit of certain tax loss carry forwards by \$9 million, as the utilization likelihood was reduced due to the formation of the joint venture and closure of the plants. NOVA Chemicals incurred additional restructuring charges of \$7 million (\$4 million after-tax) for severance costs related to these plant closures.

NOVA Chemicals recorded a non-cash \$76 million (\$46 million after-tax) write-down related to the permanent closure of the Chesapeake, Virginia PS plant.

Certain other non-productive assets were written off, amounting to \$9 million (\$6 million after-tax).

**Insurance Charge.** NOVA Chemicals incurred a \$22 million (\$15 million after-tax) charge in 2005 related to its share of potential incremental future payments required to meet losses in the sEnergy insurance pool in which it participates.

**Tax Settlement.** An additional amount of \$8 million (\$5 million after-tax) was recorded in 2005 related to the 2004 tax settlement that resulted from a tax dispute regarding the deductibility of foreign taxes in certain returns filed with the U.S. Internal Revenue Service prior to 1982.

#### **2004**

**Restructuring Charges.** In 2004, a restructuring charge of \$8 million (\$5 million after-tax) was taken for additional dismantling and severance costs related to the May 2004 shutdown of the A-Line at NOVA Chemicals' St. Clair River PE plant at Corunna, Ontario. To date, \$8 million has been spent on severance costs representing substantially all of such costs expected to be incurred. To date, \$7 million has been spent on dismantling activities and these activities will continue into 2007.

**Tax Settlement.** During 2004, a \$122 million (\$101 million after-tax) settlement was recorded, which resulted from a tax dispute related to the deductibility of foreign taxes in certain returns filed with the U.S. Internal Revenue Service prior to 1982.

**Gain on Sale of Investments in AEGS.** In 2004, NOVA Chemicals sold its interest in the Alberta Ethane Gathering System (AEGS) for cash proceeds of \$78 million and recorded a gain of \$53 million (\$40 million after-tax). NOVA Chemicals continues to transport ethane as one of several shippers on AEGS under existing long-term ethane transportation agreements. In addition, NOVA Chemicals operates and maintains the system under a contract with the new owner of AEGS. The new owner is responsible for the commercial aspects of operating the pipeline.

## Liquidity and Capital Resources

NOVA Chemicals' principal sources of liquidity are cash flows from operations, accounts receivable securitization programs, and borrowings under its revolving credit facilities. NOVA Chemicals' principal uses of cash are operating expenditures, capital expenditures and debt service.

### Cash Flow

The following is a summary of the cash inflows and outflows, which contributed to the changes in NOVA Chemicals' cash and debt:

<i>(millions of U.S. dollars)</i>	2006	2005	2004
<b>Inflows</b>			
Funds generated from operations <sup>(1)</sup>	\$ 297	\$ 262	\$ 411
Decrease (increase) in operating working capital	27	(43)	(76)
Cash generated from operations	324	219	335
Proceeds from sale of assets and other capital transactions	3	11	103
Common shares issued	3	13	37
Affiliate long term notes	3	—	—
Tax-related settlement	—	116	12
Foreign exchange and other	14	—	—
Total inflows	347	359	487
<b>Outflows</b>			
Capital expenditures (net of project advances)	(198)	(419)	(227)
Turnaround costs, long-term investments and other assets	(48)	(176)	(4)
Common share dividends	(29)	(27)	(28)
Stock options retired for cash	(2)	(11)	(18)
Common shares repurchased	—	(125)	(188)
Foreign exchange and other	—	(5)	(21)
Total outflows	(277)	(763)	(486)
Net debt reduction (addition) <sup>(2)</sup>	\$ 70	\$ (404)	\$ 1

(1) See Supplemental Measures on page 62.

(2) Including cash and foreign exchange changes.

### Inflows of Cash

Funds from operations increased to \$297 million in 2006 from \$262 million in 2005 primarily due to an improvement in business unit earnings despite the large non-cash asset write-downs that occurred during 2006. Funds from operations in 2005 of \$262 million were down substantially from \$411 million in 2004 primarily as a result of lower sales volumes following very strong demand in 2004.

Operating working capital decreased by \$27 million in 2006 primarily due to a decrease in receivables and inventory. Operating working capital increased by \$43 million in 2005 primarily due to higher-priced feedstock inventories. Operating working capital increased by \$76 million in 2004, due to higher-priced inventories and accounts receivable, as well as building inventories to meet growing demand and a series of planned plant maintenance outages for 2005. NOVA Chemicals measures the effectiveness of its working capital management through Cash Flow Cycle Time (CFCT). CFCT measures working capital from operations in terms of the number of days' sales (see Supplemental Measures on page 62). This metric helps NOVA Chemicals to determine which portion of changes in NOVA Chemicals' working capital results from factors other than price movements. CFCT was 27 days as of December 31, 2006 compared to 26 days as of December 31, 2005 and 35 days as of December 31, 2004. The increase as of December 31, 2006 was due primarily to an increase in receivable days and a decrease in payable days partially offset by a decrease in inventory days. The decrease as of December 31, 2005 was due primarily to de-stocking of crude oil-based inventories.

In total, NOVA Chemicals generated \$324 million in cash from operations in 2006 versus \$219 million in 2005, and \$335 million in cash from operations in 2004.

NOVA Chemicals sold non-strategic assets in 2004, which resulted in \$103 million of net cash proceeds. The sale of the Company's interests in the Ethylene Delivery System and AEGS contributed \$19 million and \$78 million, respectively, in 2004.

Cash collections of \$116 million in 2005 and \$12 million in 2004 were received from the settlement of a tax dispute related to the deductibility of foreign taxes in certain returns filed with the U.S. Internal Revenue Service prior to 1982.

Cash generation in 2006 was primarily due to earnings, whereas cash generation in 2005 was largely due to earnings and the receipt of cash for a tax-related settlement. Cash generation in 2004 was principally a result of improving business conditions and earnings.

### Outflows of Cash

NOVA Chemicals' capital expenditures, net of third-party advances, were \$198 million in 2006 compared to \$419 million in 2005 and \$227 million in 2004. The decrease in capital expenditures reflects the substantial completion of the Corunna ethylene flexi-cracker expansion and modernization project, which increased the Company's production capacity. Capital expenditures in 2007 are expected to be approximately \$210 million. During 2006, NOVA Chemicals spent \$48 million for turnaround costs, long-term investments and other assets compared to \$176 million and \$4 million in 2005 and 2004, respectively. The Company incurred significant turnaround costs in 2005 to ensure its plants were at peak operating performance.

No share repurchase programs were initiated in 2006. In July 2005, a share repurchase program, for up to approximately 7.2 million shares, was announced. This repurchase program terminated on July 26, 2006. The Company did not repurchase any shares under this program. In July 2004, a share repurchase program for up to approximately 7.5 million shares was initiated. NOVA Chemicals purchased the entire number of shares available under that program for an aggregate cost of \$313 million, or an average cost of \$41.60 per share. The Company also paid stock option exercise values in cash of \$2 million, \$11 million and \$18 million in 2006, 2005 and 2004, respectively, in lieu of issuing stock.

In May 2006, the Company repaid \$300 million of medium-term notes upon maturity. This debt repayment was funded by an issuance, in October 2005, of \$400 million of senior floating rate notes due 2013. In September 2005, the Company repaid \$100 million of 7% notes upon maturity. This debt repayment was funded by cash on hand. In 2004, the Company issued \$400 million of 6.50% senior notes due 2012, from which \$383 million in net proceeds was used to redeem two series of preferred securities due 2047 and 2048.

### Commitments

NOVA Chemicals has various commercial commitments, including operating leases for office space and railcars, and unconditional purchase obligations related to minimum amounts of feedstock and other raw material purchases pursuant to agreements entered into to secure short- and long-term supply. While NOVA Chemicals has some fixed-price raw materials agreements, prices are typically based on a market or a cost-plus basis, and fluctuate with changes in the underlying raw materials indices. Obligations have been calculated using current pricing for purposes of the chart below.

### Contractual Cash Obligations

as of December 31, 2006 (millions of U.S. dollars)	Total	Payments due by period			
		2007	2008 to 2009	2010 to 2011	After 2011
Long-term debt <sup>(1)</sup>	\$ 1,877	\$ 262	\$ .258	\$ 306	\$1,051
Operating leases <sup>(2)</sup>	520	46	89	76	309
Unconditional purchase obligations <sup>(3)</sup>	9,200	3,140	1,821	932	3,307
Total contractual cash obligations	\$11,597	\$3,448	\$2,168	\$1,314	\$4,667

(1) Includes current portion and bank loans.

(2) Includes property, railcar and other equipment leasing commitments.

(3) NOVA Chemicals could mitigate the impact of excess quantities of raw materials and feedstock commodities resulting from fixed-purchase commitments by reselling these products at market prices.

### Liquidity

NOVA Chemicals is able to meet short-term liquidity needs through the generation of funds from operations, cash-on-hand, accounts receivable securitization programs, and borrowing capacity under revolving credit facilities. At Dec. 31, 2006, the Company had \$75 million cash-on-hand in addition to \$421 million (net of letters of credit) of available borrowing capacity under its revolving credit facilities.

In May 2006, the Company repaid \$300 million of medium-term notes upon maturity. This debt repayment was funded by an issuance, in October 2005, of \$400 million of senior floating rate notes due 2013. In September 2005, the Company repaid \$100 million of 7% notes upon maturity. This debt repayment was funded by cash on hand. In 2004, the Company issued \$400 million of 6.50% senior notes due 2012, from which \$383 million in net proceeds was used to redeem two series of preferred securities due 2047 and 2048.

### Credit Facilities

During 2006, NOVA Chemicals added two new \$100 million revolving credit facilities expiring Dec. 31, 2007 and Mar. 20, 2011. These facilities are in addition to the existing \$375 million revolving credit facility that expires June 30, 2010. As of Dec. 31, 2006, NOVA Chemicals had utilized \$154 million of these facilities, of which \$44 million was in the form of letters of credit.

In late December 2006, NOVA Chemicals amended the financial covenants in the relevant credit facilities to allow for an exemption of any write-down of the STYRENIX assets up to \$950 million and for the debt-to-capitalization ratio financial covenant to be raised from 55% to 60%. These amendments are in effect for the period Dec. 31, 2006 to June 29, 2007. The Company is currently in discussions with its banks and expects to restructure covenants to be consistent with the existing maturity dates of the credit facilities prior to the expiry of the amendment. Using the covenant methodology in the relevant revolving credit facilities, the debt-to-capitalization ratio was 55% at Dec. 31, 2006. NOVA Chemicals continues to comply with all financial covenants under the applicable facilities.

The amended financial covenants are as follows:

Covenant	Requirement	December 31, 2006 Actual
Interest Coverage <sup>(1)</sup>	2.0x when net debt to total capitalization ratio > 40%	3.5x
Debt to Total Capitalization <sup>(2)</sup>	60%	55%
Consolidated Shareholders' Equity <sup>(3)</sup>	\$1.25 billion plus 50% of positive earnings	\$1.52 billion

(1) As defined in NOVA Chemicals' revolving credit facility, interest coverage is the ratio of cash flow to interest expense for the preceding twelve-month period.

(2) As defined in NOVA Chemicals' revolving credit facility, debt includes items not in accordance with Canadian GAAP, such as obligations under operating leases (if in excess of a specified percentage of consolidated assets) and amounts outstanding under the Company's accounts receivable securitization programs. The amended definition also provides for debt to be offset by cash, other than restricted cash, and the amount of NOVA Chemicals' wholly-owned subsidiary's (NOVA Chemicals Inc.) preferred shares to be excluded in arriving at debt for purposes of this covenant.

(3) Shareholders' equity is defined in accordance with Canadian GAAP plus the amount of NOVA Chemicals' wholly-owned subsidiary's (NOVA Chemicals Inc.) preferred shares and excludes any write-down up to \$950 million of NOVA Chemicals' STYRENIX business that may occur during the period Dec. 31, 2006 to June 29, 2007.

As a result of the STYRENIX asset write-down, the permitted amount of secured debt under the terms of our public debt indentures was reduced. Accordingly, NOVA Chemicals reduced its \$375 million secured revolver to \$325 million, effective February 5, 2007. The remaining two revolving credit facilities were not affected as they are unsecured.

**Off-Balance Sheet Accounts Receivable Securitization Programs.** NOVA Chemicals' off-balance sheet financing activities are limited to participation in accounts receivable securitization programs. NOVA Chemicals has engaged in the current programs since 1999 to obtain lower financing rates than those available from other sources. In 2006, the Company amended the programs to increase the capacity of trade accounts receivable sold to a third party, on a revolving basis, to a maximum of \$350 million from \$300 million. At Dec. 31, 2006, \$247 million in receivables were sold under the programs. Of the total amount, \$151 million was sold via a special purpose entity (SPE) that is 100% owned by NOVA Chemicals. The SPE isolates the sold receivables and the related cash collections for the exclusive benefit of the purchasers. The Company has no right to any cash collected from these receivables; therefore, neither the receivables nor any obligation to the purchasers is reflected in NOVA Chemicals Consolidated Financial Statements. No other business is conducted through SPEs.

**NOVA Innovene Accounts Receivable Securitization Program.** In November 2006, the NOVA Innovene joint venture entered into a five-year, € 120 million accounts receivable securitization program. Borrowings under this program are accounted for as long-term debt. NOVA Chemicals' 50% share of the outstanding balance was \$33 million at Dec. 31, 2006. The program expires in November 2011.

**Total Return Swap.** In connection with the acquisition of styrenics assets from Huntsman Corporation in 1998, the Company's subsidiary, NOVA Chemicals Inc., issued retractable preferred shares with a liquidation preference of \$198 million as partial consideration. Holders of the retractable preferred shares originally had the right to exchange the shares (a retraction) for NOVA Chemicals' common shares (plus NOVA Chemicals' preferred shares if the market value of such common shares was less than \$198 million) on or after April 1, 2001. In September 2005, the terms of the retractable preferred shares were amended to eliminate this right. In connection with this amendment, the retractable preferred shares were re-designated as Series A preferred shares. Additionally, the dividend rate on the Series A preferred shares was reduced from 2% to 0.5% in December 2005.

NOVA Chemicals has the right to repurchase the Series A preferred shares at any time. However, any such repurchase may obligate NOVA Chemicals to pay an early termination fee under the terms of the total return swap described below.

NOVA Chemicals also entered into a total return swap with respect to the Series A preferred shares. Under the terms of the total return swap: (i) the counterparty pays NOVA Chemicals the total return on the preferred shares (periodic dividends plus positive changes in the equity value of the Series A preferred shares upon termination of the swap); and (ii) NOVA Chemicals pays the counterparty a spread to London Inter-Bank Offered Rate (LIBOR), as well as any negative changes in the equity value of the Series A preferred shares upon termination of the swap.

If the equity value of the Series A preferred shares decreases by approximately 24% or more at any time, NOVA Chemicals is required to post maintenance collateral. Once the margin-posting requirement is triggered, if the equity value of the Series A preferred shares increases by 5% or more, any excess margin may be returned to NOVA Chemicals. Changes in equity value of the Series A preferred shares during the term of the swap will be determined based on changes in the average price of the outstanding 6.5% medium-term notes due 2012, issued by NOVA Chemicals.

If NOVA Chemicals defaults on other debt of at least \$25 million or the closing price of its common shares is \$12.00 or less and upon certain other events, the counterparty would have the right to sell the Series A preferred shares to a third party and terminate the swap. NOVA Chemicals would then owe the counterparty the difference between the actual sale price received by the counterparty and \$126 million. Subsequent to the termination of the swap, NOVA Chemicals may, at its option, repurchase the preferred shares for \$198 million plus accrued and unpaid dividends.

The total return swap was scheduled to terminate on March 15, 2007. However, in February 2007, NOVA Chemicals and the counterparty agreed to extend the term until Oct. 31, 2007.

#### **Capitalization**

NOVA Chemicals' net debt-to-total capitalization ratio was 76.0% at Dec. 31, 2006 compared to 59.7% at Dec. 31, 2005 and 48.5% at Dec. 31, 2004. In May 2006, NOVA Chemicals repaid \$300 million medium-term notes upon maturity. In December 2006, NOVA Chemicals wrote down the STYRENIX assets by \$860 million (\$772 million after-tax), which negatively impacted shareholders' equity.

### Financial Ratios

December 31 (millions of U.S. dollars, except as noted)	2006	2005	2004
Long-term debt <sup>(1)</sup>	\$1,878	\$2,039	\$1,714
Less: cash and cash equivalents, restricted cash and other assets	(75) (72)	(166) (72)	(245) (72)
Total debt, net of cash, cash equivalents, restricted cash and other assets	1,731	1,801	1,397
Shareholders' equity	546	1,215	1,484
Total capitalization <sup>(2)</sup>	\$2,277	\$3,016	\$2,881
Net debt to total capitalization <sup>(3)</sup>	76.0%	59.7%	48.5%

(1) On Jan. 1, 2005, NOVA Chemicals adopted new Canadian accounting standards, which require the preferred shares of NOVA Chemicals' subsidiary, NOVA Chemicals Inc., to be classified as debt. Prior periods have been restated accordingly. Maturity dates for NOVA Chemicals' current and long-term debt range from October 2007 to August 2028. Long-term debt includes current portion of long-term debt, the secured revolver, and bank loans.

(2) Total capitalization reflects shareholders' equity and total debt, net of cash, cash equivalents, restricted cash and other assets.

(3) Computed after taking into account the reclassification of the preferred shares (see Supplemental Measures below).

### Senior Debt Ratings<sup>1</sup>

	Senior Unsecured Debt
DBRS	BB (negative)
Fitch Ratings	BB- (stable)
Moody's	Ba3 (negative)
Standard & Poor's	B+ (stable)

(1) Credit ratings are not recommendations to purchase, hold or sell securities and do not comment on market price or suitability for a particular investor. There is no assurance that any rating will remain in effect for any given period of time or that any rating will not be revised or withdrawn entirely by a rating agency in the future.

### Supplemental Measures

In addition to providing measures in accordance with Canadian GAAP, NOVA Chemicals presents certain supplemental measures as follows. The following supplemental measures do not have any standardized meaning prescribed by Canadian GAAP and are therefore unlikely to be comparable to similar measures presented by other companies.

**Cash Flow Cycle Time** equals working capital from operations divided by average daily sales. This measure helps to determine which portion of changes in working capital results from factors other than price movements and helps investors to assess NOVA Chemicals' performance against its goal to minimize investment in working capital.

**EBITDA** equals net income (loss) before income taxes, interest expense, other gains and losses, and depreciation and amortization. This measure is provided to assist investors in determining NOVA Chemicals' ability to generate cash.

**Adjusted EBITDA** equals net income (loss) before restructuring charges, income taxes, interest expense, other gains and losses, equity in the earnings of affiliates and depreciation and amortization. This measure is provided to assist investors in determining NOVA Chemicals' ability to generate cash.

**Funds generated from operations** – Refer to the Consolidated Statements of Cash Flows on page 79 for a reconciliation to net income.

**Net debt** equals long-term debt, net of cash, cash equivalents, restricted cash, and other assets.

**Net debt to total capitalization** equals net debt, as defined above, divided by the sum of net debt and shareholders' equity. This measure can be used to analyze the leverage of the Company.

### Adjusted EBITDA

(millions of U.S. dollars)	2006	2005	2004
Net income (loss)	<b>\$(703)</b>	\$(101)	\$ 253
Income tax (recovery) expense	<b>(144)</b>	(1)	81
Other gains	<b>(1)</b>	(8)	(177)
Restructuring charges	<b>985</b>	168	8
Interest expense (net)	<b>168</b>	113	108
Depreciation and amortization	<b>299</b>	290	297
Adjusted EBITDA	<b>\$ 604</b>	\$ 461	\$ 570

### Dividends and Distributions

**Common Share Dividends.** Historically, NOVA Chemicals has paid quarterly dividends on its common shares at the rate of \$0.10 Canadian per share, representing an aggregate of \$0.40 Canadian per share annually. In 2006, a total of \$29 million in dividends was paid on the Company's common shares. There are currently no material contractual restrictions on NOVA Chemicals' ability to declare and pay dividends on its common shares. The declaration and payment of dividends is at the discretion of NOVA Chemicals' Board of Directors, which will consider earnings, capital requirements, financial condition and other relevant factors. It is, however, the Company's current intention to retain most of its earnings to support current operations, reduce debt and continue to pay dividends at historic levels.

**Series A Preferred Share Dividends.** NOVA Chemicals pays 0.5% annual dividends on the \$198 million Series A preferred shares of its subsidiary. On Jan. 1, 2005, NOVA Chemicals adopted new Canadian accounting standards that require these instruments to be classified, on a retroactive basis, as liabilities rather than equity. In addition, any dividends associated with these preferred shares have been reclassified to interest expense. All prior periods have been restated.

### Application of Critical Accounting Estimates

The following represents the estimates most critical to the application of NOVA Chemicals' accounting policies. For a summary of the Company's significant accounting policies, please see Note 2 to the annual Consolidated Financial Statements. Management has discussed the development and selection of these critical accounting estimates with the Audit, Finance and Risk Committee of NOVA Chemicals' Board of Directors and the Audit, Finance and Risk Committee has reviewed the disclosure relating to such estimates in this Management's Discussion & Analysis.

**Inventories.** NOVA Chemicals carries inventories at the lower of cost or net realizable value. Cost is determined on a first-in, first-out (FIFO) basis with no allocation of fixed production overhead. Most of NOVA Chemicals' competitors determine cost on a last-in, first-out (LIFO) basis. As a result of this difference in methodology used to account for costs, significant differences in the timing of quarterly earnings can occur during periods when feedstock costs are volatile. NOVA Chemicals uses the FIFO method because it believes the FIFO basis is a better method to match the actual costs incurred with the related revenue.

**Plant, Property and Equipment (PP&E).** NOVA Chemicals' PP&E consists primarily of manufacturing equipment, land and buildings for producing petrochemicals. NOVA Chemicals values PP&E at historical cost. Financing costs incurred during major construction projects are capitalized as part of the cost of the asset until the asset is available for use. Costs related to turnaround activities are capitalized and amortized over the period remaining until the next turnaround activity, while maintenance and repair costs are expensed as incurred.

Judgmental aspects of accounting for PP&E involve estimates of the life of the assets, the selection of an appropriate method of depreciation and determining whether an impairment of NOVA Chemicals' assets exists and measuring such an impairment. These assessments are critical due to their potential impact on earnings and equity.

NOVA Chemicals is able to choose from alternative methods of depreciation. The straight-line method was chosen rather than other methods, such as units of production, because the straight-line method is more conservative, requires less estimation and judgment, and is a systematic and rational basis reflecting the period over which the assets' benefit is realized.

Net PP&E at Dec. 31, 2006 totaled \$2,719 million. PP&E is tested for impairment at the lowest level for which identifiable cash flows exist, which in NOVA Chemicals' case is the plant asset level. Impairment testing of the plant assets occurs whenever events or changes in circumstances indicate that the carrying amount of the assets may not be recoverable. The Company assesses recoverability by comparing the carrying amount of the asset group to the estimated future cash flows expected to be generated by the assets, undiscounted and without interest charges. If an asset is considered impaired, the impairment loss to be recognized would be measured as the amount by which the asset's carrying amount exceeds its fair value.

The estimate of PP&E fair value is based on estimated discounted future cash flows expected to be generated by the asset. The assumptions underlying cash flow projections represent management's best estimates at the time of the impairment review. Factors that management must estimate include: industry and market conditions, sales volume and prices, costs to produce, inflation, etc. Changes in key assumptions or actual conditions, which differ from estimates, could result in an impairment charge. The Company uses reasonable, supportable and, where available, third-party, industry expert assumptions when performing impairment reviews.

NOVA Chemicals' Olefins/Polyolefins business has an established, long-term record of profitability and, based on current asset carrying values and expected future cash flows, NOVA Chemicals has concluded the carrying value of the assets of the Olefins/Polyolefins business unit is appropriate.

During 2006, NOVA Chemicals restructured its traditional Styrenics business into two new business units, Performance Styrenics (which includes North American EPS and Styrenic Performance Products) and STYRENIX (which includes the reportable segments of Styrene Monomer, North American SPS and NOVA Chemicals' interest in NOVA Innovene, the 50:50 European joint venture with INEOS). Based on current asset carrying values and expected future cash flows, NOVA Chemicals has concluded that the carrying value of the assets of the Performance Styrenics business unit is appropriate.

NOVA Chemicals' STYRENIX business unit has not been profitable, and in recent years NOVA Chemicals has reduced production capacity due to poor market conditions. In 2005, NOVA Chemicals and Innovene combined their European polystyrene businesses into a 50:50 joint venture known as NOVA Innovene. Subsequently, Innovene sold its share in NOVA Innovene to INEOS. Shortly after the commencement of the joint venture, NOVA Innovene announced it would cease EPS production at its Berre, France, plant and permanently shut down the previously-idled EPS plant in Carrington, U.K. Accordingly, the value of these assets was written off as of Sept. 30, 2005, resulting in a \$60 million after-tax charge to earnings. On Jan. 19, 2006, NOVA Chemicals announced its intention to permanently close its Chesapeake, Virginia, SPS plant and accordingly wrote off the asset's value, resulting in a \$46 million after-tax charge to earnings. On July 25, 2006, NOVA Innovene announced its plans to permanently close its Carrington, UK, SPS facility, resulting in a \$46 million after-tax charge to earnings.

On July 20, 2006, NOVA Chemicals announced as part of its restructuring that it would pursue all strategic options available for the STYRENIX business unit including: sale, formation of a joint venture with other producers, or spin-out. A number of options were and continue to be aggressively pursued.

In assessing the recoverability through projected future cash flows of the STYRENIX plant carrying values, NOVA Chemicals used third-party forecasts of market conditions and product margins. Third party information was used for key assumptions to provide objectivity to the cash flow analysis and these assumptions were largely in line with what management would have estimated.

During 2006, the third-party forecasts for products sold by the STYRENIX business unit were revised to reflect weaker market conditions than had been expected at the time of the earlier forecast. It was determined that the carrying value of the STYRENIX assets were greater than estimated future cash flows. The assets' carrying value at Dec. 31, 2006, prior to write-down, was \$1.1 billion. Fair value was estimated to be \$242 million. Thus, the assets were written down to the estimated fair value, resulting in a non-cash charge of \$860 million (\$772 million after-tax).

The write-down will reduce future depreciation charges in the three reportable segments within the STYRENIX business unit. The Company estimates that depreciation charges will decrease by about \$80 million per year from 2007 to approximately 2017 as a result of this write-down. In addition, there is a potential future income tax benefit related to this write-down that will be recognized when and if the business records profits.

**Asset Retirement Obligations.** United States and Canadian GAAP require companies to record liabilities associated with future plant decommissioning and site restoration costs on both active and inactive plants at their fair value, based on a discounted value of the expected costs to be paid when the assets are retired. At Dec. 31, 2006, NOVA Chemicals had \$26 million of accumulated reserve for these activities. This accumulated reserve is comprised of approximately \$19 million anticipated to be required for the decommissioning and site restoration of currently active plant sites; \$4 million for plant sites that have been divested or are no longer in use; and approximately \$3 million for ongoing environmental management and planned dismantling of currently operating plant sites.

During 2006 and 2005, there were no business conditions or decisions that resulted in a requirement to increase or decrease the asset retirement obligations associated with active or divested sites. The obligations were increased as a result of the accretion of the liabilities. For inactive sites or sites that became inactive in 2006 and 2005, the reserves were generally considered adequate for the environmental remediation work required.

During 2004, NOVA Chemicals reduced the reserve that was carried for inactive sites by \$5 million due to several projects either being completed or at a stage of completion that allowed reassessment of the estimated costs to complete. After review of these projects, it was determined that NOVA Chemicals' accumulated reserve for inactive sites was too high.

(In 2003, the Company undertook an evaluation of the costs to conduct decommissioning and site restoration to satisfy the projected obligations under applicable environmental requirements upon termination of operations at currently operating plant sites. Canadian GAAP required that the present value of inflation-adjusted decommissioning and site restoration costs be recorded as increases to the carrying values of the assets at that time, and that this amount be depreciated over the estimated remaining lives of the assets. NOVA Chemicals determined that \$131 million, at that time, may be required to decommission and restore operating plant sites. This amount does not include any deduction for salvage or land value that may be realized; however, these will be taken into consideration as the assets are depreciated. Because these plants may be in operation in excess of 40 years, significant uncertainty exists concerning the nature of the decommissioning and site restoration activities that may be required. Furthermore, significant judgment is involved in the estimation process, because the degree of natural attenuation, evolution of new technologies and potential land uses may mitigate future environmental liabilities and potential costs. Management has reviewed the initial estimates in light of today's circumstances and determined that no adjustment is needed to this estimate.

After adjusting for inflation as required by Canadian GAAP, the amount of \$131 million was approximately \$225 million to \$250 million. The present value of this future amount (using a credit-adjusted risk-free rate of 10.5% to discount the estimated future cash flows) was approximately \$19 million, and was accrued in 2003 in anticipation of these activities. This estimated liability will increase, or accrete, each year over the lives of the active plants until it reaches the \$225 million to \$250 million expected to be incurred on closure of the plants. The resulting expense is referred to as accretion expense and is included in operating expenses. In each of 2006, 2005 and 2004, this expense was \$2 million.

**Pension Plans.** NOVA Chemicals sponsors both defined benefit and defined contribution pension arrangements covering substantially all of its employees. For the defined contribution plans, the cost is expensed as earned by employees. For the defined benefit plans, obligations and expense are determined using actual discount rates and assumptions for mortality, termination, retirement and other rates, as well as the expected return on plan assets and the rate of increase for future compensation. The Company uses current mortality rate tables commonly used for actuarial calculations and selects other assumptions in line with past experience and current economic conditions. The return on plan assets is not the actual return, but an expected rate based on estimated asset returns over the life of the pension plans and the investment strategy of the plans. The discount rate is based on actual market interest rates at the measurement date on high quality debt instruments with cash flows that match the timing and amount of expected benefit payments of NOVA Chemicals' plans.

Canadian GAAP requires that actuarial gains and losses be recognized in NOVA Chemicals' income using a systematic and consistent methodology. For defined benefit pensions, the Company amortizes such gains and losses over the estimated remaining service lifetime of the employee group to the extent these gains or losses exceed 10% of the greater of the accrued benefit obligation or market value of assets. This alternative avoids recognizing into income large unrealized gains or losses in individual years. Immediate recognition of such gains and losses would introduce significant volatility into NOVA Chemicals' earnings. Cumulative unrealized actuarial gains and losses have ranged from a \$61 million gain at Dec. 31, 1999 to a \$195 million loss at Dec. 31, 2005. On Dec. 31, 2006, unrealized actuarial losses were \$155 million.

A total of \$65 million, \$49 million, and \$26 million was contributed in 2006, 2005, and 2004, respectively, to all of NOVA Chemicals' defined benefit pension plans. The contributions were based on the most recently filed valuations with pension regulators in various countries. Contributions to defined contribution plans were \$8 million, \$7 million, and \$7 million in 2006, 2005, and 2004, respectively.

Funding for NOVA Chemicals' defined benefit pension plans is largely driven by the North American pension plans, as they constitute a significant portion of the Company's pension plan assets and obligations. For 2007, funding is expected to be approximately \$55 million as employees accrue additional pension benefits and special payments are made to cover the shortfall between assets and liabilities. Contributions to defined contribution plans for 2007 are expected to be \$8 million.

**Income Taxes.** The objective of accounting for income taxes is to recognize the amount of taxes payable or refundable for the current and future years for events that have been recognized in NOVA Chemicals' financial statements or tax returns. Judgment is required in assessing future tax consequences. Variations in the actual outcome of these future tax consequences could materially impact NOVA Chemicals' financial position or results of operations.

NOVA Chemicals has a tax reserve to provide for uncertain tax positions. This reserve is assessed from time-to-time for adequacy. In 2006, NOVA Chemicals' reserve was determined to be under-provided as a result of the STYRENIX write-down, and the reserve was increased by \$226 million. This increase is primarily related to uncertainty with respect to the utilization of net operating loss carryforwards. In 2005, no adjustments were made to the reserve. In 2004, NOVA Chemicals' reserve was determined to be over-provided, and the reserve was reduced by \$11 million.

## Accounting Standards

**EIC-162, Stock-Based Compensation for Employees Eligible to Retire Before the Vesting Date.** This standard, issued by the Emerging Issues Committee (EIC), is to be applied retroactively, with restatement of prior periods, and is effective for interim and annual periods ending on or after Dec. 31, 2006. EIC-162 clarifies inconsistencies regarding accounting for stock-based awards granted to employees who are either eligible for retirement at the grant date or will be eligible before the end of the vesting period. Compensation costs for stock-based awards for employees eligible to retire at the grant date must be recognized at the grant date. Compensation costs for stock-based awards for employees who will become eligible to retire during the vesting period should be recognized over the period from the grant date to the date on which the employee becomes eligible to retire. Application of this standard will result in acceleration of the recognition of retirement compensation expenses. NOVA Chemicals adopted EIC-162 in the fourth quarter of 2006, with restatements for prior periods. The impact on NOVA Chemicals' 2006 Consolidated Financial Statements is an \$11 million (\$9 million after-tax) charge to retained earnings as of Jan. 1, 2006 and a \$2 million increase (\$1 million after-tax) in current year income. Canadian and U.S. GAAP are mainly consistent on this issue.

**CICA 3831, Non-Monetary Transactions.** This standard is effective for periods beginning on or after Jan. 1, 2006. It requires commercially substantive, non-monetary transactions to be measured at fair value rather than the carrying amount of the assets given up. NOVA Chemicals had no transactions that occurred during 2006 to which this standard was applicable.

**CICA 3855, Financial Instruments – Recognition and Measurement and CICA 3865, Hedges.** These standards are effective for fiscal years beginning on or after Oct. 1, 2006. CICA 3865 harmonizes Canadian and U.S. GAAP and IFRS by establishing standards for recognition and measurement of financial assets, liabilities and non-financial derivatives. Previous Canadian standards addressed disclosure and presentation matters only. CICA 3865 sets standards for when and how hedge accounting may be applied, further restricting which hedging relationships qualify for hedge accounting. NOVA Chemicals adopted these standards on Jan. 1, 2007.

**CICA 1530, Comprehensive Income.** This standard is effective for interim and annual periods relating to fiscal years beginning on or after Oct. 1, 2006 and was adopted by NOVA Chemicals on Jan. 1, 2007. This standard harmonizes Canadian and U.S. GAAP and IFRS. This statement defines the presentation of comprehensive income and its components. Comprehensive income includes all changes in equity during the period including items that are not in net income (loss).

**CICA 1506, Changes in Accounting Policies and Estimates, and Errors.** This standard became effective Jan. 1, 2007 and states an entity is permitted to change accounting policies only when it is required by a primary source of GAAP, or when the change results in a reliable and more relevant presentation in the financial statements.

## **Market and Regulatory Risk**

The Audit, Finance and Risk Committee of NOVA Chemicals' Board of Directors regularly reviews foreign exchange, interest rate and commodity hedging activity and monitors compliance with the Company's hedging policy. NOVA Chemicals' policy prohibits the use of financial instruments for speculative purposes and limits hedging activity to the underlying net economic exposure.

### ***Foreign Exchange Hedging***

NOVA Chemicals conducts business in various countries where certain revenues and expenses are determined in currencies other than the U.S. dollar. The Company has not hedged its exposure to fluctuations in any currency in recent years.

### ***Commodity Hedging and Feedstock Acquisition***

NOVA Chemicals manages exposure to fluctuating commodity prices on its physical feedstock requirements by varying the mix of fixed- and floating-price contracts and by entering into commodity futures contracts, swaps and options. The extent to which hedging instruments are used depends on market conditions and requires adherence to the Company's hedging policy. NOVA Chemicals also limits its positions in futures markets to proprietary feedstock requirements and does not use hedging instruments for speculative purposes.

The Company's feedstock acquisition team manages its position in the volatile natural gas and crude markets in an effort to moderate the risks of fluctuations in feedstock prices to lower overall feedstock costs. As a result of hedging activities, after-tax earnings in 2006, 2005 and 2004 increased by \$10, \$14 and \$16 million, respectively due to realized hedging gains. Gains are recorded through feedstock and operating costs on the Consolidated Statements of Income (Loss) on a pre-tax basis. Mark-to-market amounts on unrealized positions are recorded in deferred credits and long-term liabilities on the Consolidated Balance Sheets.

At Dec. 31, 2006, approximately 59% of NOVA Chemicals' debt had fixed-interest rates averaging 7.2%, and approximately 41% of its debt had floating-interest rates averaging 7.8%.

### ***Equity Forward Contracts***

Equity forward contracts are used to manage exposures to fluctuations in NOVA Chemicals' stock-based compensation costs, as the costs of the plans vary as the market price of the underlying common shares changes. For further details on NOVA Chemicals' equity forward contracts, please see Corporate and Other Items, Stock-Based Compensation and Profit Sharing and Forward Transactions on page 56.

### ***Credit Risk Management***

NOVA Chemicals is exposed to credit risk on financial instruments in cases where a counterparty to an instrument fails to make payment of unrealized gains. The Company has established a limit on contingent exposure for each counterparty, based on the counterparty's credit rating. Credit exposure is managed through credit approval and monitoring procedures. Concentration of credit risk can result primarily from receivables, as certain customer groups are located in the same geographic area and operate in the same industry. NOVA Chemicals manages its credit risk relating to these receivables through credit approval and monitoring procedures.

### ***Government Regulation and Environmental Protection***

Like other companies in the plastics and chemical industries, NOVA Chemicals is subject to extensive environmental laws and regulations at all levels of government. These laws and regulations concern the manufacture, processing and importation of certain petrochemical substances; discharges or releases (whether to air, land or water); and the generation, handling, storage, transportation, treatment, disposal and clean-up of regulated materials. Although NOVA Chemicals believes that its businesses, operations and facilities are being operated in material compliance with applicable environmental laws and regulations, the operation of any petrochemical facility and the distribution of petrochemical products involve the risk of accidental discharges of toxic or hazardous materials, personal injury and property and environmental damage.

Furthermore, applicable environmental laws and regulations are complex, change frequently and provide for substantial fines, regulatory penalties and criminal sanctions in the event of non-compliance. In addition, substantial costs can sometimes result from orders that require rectification of environmental conditions. NOVA Chemicals cannot provide assurance that it will not incur substantial costs or liabilities as a result of such occurrences or the enforcement of environmental laws.

From time to time, NOVA Chemicals has entered into various consent agreements or been subject to administrative orders for pollution abatement or remedial action. Under some environmental laws, NOVA Chemicals may be subject to strict and, under certain circumstances, joint and several liability for the costs of environmental contamination on or from its properties, and at off-site locations where NOVA Chemicals disposed of or arranged for disposal or treatment of hazardous substances, and may also incur liability for related damages to natural resources. NOVA Chemicals has been named as a potentially responsible party under the U.S. Comprehensive Environmental Response, Compensation and Liability Act of 1980, or its state equivalents, at several third-party sites. NOVA Chemicals cannot provide assurance that significant costs will not be incurred.

In 1985, NOVA Chemicals adopted the Responsible Care initiative as the basis for its overall safety, health, environment, security and risk program. Responsible Care is a global chemical industry performance initiative created by the Canadian Chemical Producers' Association (CCPA) in 1985 and adopted by the American Chemistry Council (ACC) in the United States in 1988. Responsible Care is currently practiced by chemical industry associations in more than 52 countries worldwide. Responsible Care requires participants to commit to the responsible management of the total life cycle of their products. In 2006, the ACC honored NOVA Chemicals as co-winner of their Responsible Care Leadership award in the medium-sized company category. The award recognizes outstanding leadership and performance under the Responsible Care initiative.

NOVA Chemicals is active in a number of voluntary environmental initiatives to reduce emissions and wastes from its facilities. In addition to participation in the CCPA's National Emissions Reduction Masterplan, NOVA Chemicals also participates in Canada's Accelerated Reduction and Elimination of Toxics. NOVA Chemicals is also directly involved in the Canadian Chemical Industry's Environmental Performance Memoranda of Understanding with the Federal, Ontario and Alberta governments, which is a voluntary program designed to achieve reductions in air emissions from the chemical industry. Through a greenhouse gas emissions management program, NOVA Chemicals is committed to economically viable solutions to climate change concerns. This includes NOVA Chemicals' participation in the joint venture with ATCO Power Canada Ltd. and EPCOR Power Development Corporation to operate a natural gas-fired cogeneration power plant at its production site at Joffre, Alberta. This joint venture has substantially reduced greenhouse gas emissions when compared with supplying the electrical needs of the Joffre site from Alberta's primarily coal-fired electrical generation facilities.

The Kyoto Protocol to the United Nations Framework Convention on Climate Change took effect during the first quarter of 2005. As a result of the Canadian government's decision to ratify the Kyoto Protocol, Canada is required to reduce its greenhouse gas emissions by 6% below 1990 levels during the years 2008 through 2012 and legally binding greenhouse gas emission reduction targets will be imposed on NOVA Chemicals' operations in Canada. In view of the uncertainty of how and when implementation will occur in Canada and the United States and Europe, NOVA Chemicals cannot estimate compliance costs or whether they will be material.

### Summarized Quarterly Financial Information

three months ended (millions of U.S. dollars, except per share amounts)	2006				2005			
	Dec. 31	Sept. 30	Jun. 30	Mar. 31	Dec. 31	Sept. 30	Jun. 30	Mar. 31
Revenue	\$1,635	\$1,712	\$1,619	\$1,553	\$1,433	1,366	1,329	1,488
Operating income (loss)	\$ (837)	\$ 13	\$ 107	\$ 37	\$ (76)	(98)	5	172
Net income (loss)	\$ (781)	\$ (24)	\$ 106	\$ (4)	\$ (66)	(107)	(22)	94
Net income (loss) per common share								
— Basic	\$ (9.46)	\$ (0.29)	\$ 1.28	\$ (0.05)	\$ (0.80)	(1.29)	(0.27)	1.12
— Diluted	\$ (9.46)	\$ (0.29)	\$ 1.27	\$ (0.05)	\$ (0.80)	(1.29)	(0.27)	1.06
Weighted-average common shares								
outstanding (millions)								
— Basic	82.6	82.6	82.5	82.5	82.4	82.3	82.3	83.2
— Diluted	82.6	82.6	83.2	82.5	82.4	82.3	82.3	90.0

### Quarterly Earnings Trends

The net loss in the first quarter of 2006 was primarily the result of the extended Corunna facility shutdown for maintenance and modernization work, and the accrued severance costs associated with the closure of the Chesapeake, Virginia facility. In addition, margins eroded due to selling prices falling at a faster rate than feedstock costs. Net income in the second quarter was favorably impacted by Canadian tax rate reductions of \$60 million, the Corunna site beginning expanded operations and improved ethylene and PE margins. The third-quarter loss was primarily related to North American restructuring costs and the costs associated with the closure of the Carrington, UK site. The third quarter also saw the highest quarterly EBITDA for the Company's Olefins/Polyolefins business unit as polyethylene and ethylene price increases out-paced higher feedstock costs. The fourth quarter net loss was largely due to the one-time, non-cash write-down of the STYRENIX business unit assets, however business operating performance also suffered. Despite unusually high sales volumes in the Olefins/Polyolefins business unit, polyethylene and ethylene pricing declined from the third quarter 16% and 12%, respectively. This was due in large part to de-stocking as converters worked off excess inventories in anticipation of the 2006 hurricane season, which did not result in disruptions as in 2005. Similarly, styrene monomer and the Performance Styrenics unit's products such as EPS also saw price declines, although not as dramatic as in the Olefins/Polyolefins business.

Net income in the first quarter of 2005 was favorably impacted by strong industry operating rates and co-product sales in NOVA Chemicals' Olefins/Polyolefins business. Net losses in the second and third quarters of 2005 were primarily caused by several unusual events, including the Corunna power outage, the Joffre ethane interruption, the non-cash insurance accrual, and the non-cash write-down related to the European joint venture. The net loss in the fourth quarter was caused by the decline in sales volumes primarily as a result of the Corunna facility being shut down for extended maintenance and modernization work and the non-cash write-down of the Chesapeake, Virginia facility.

Historically, sales volumes in the plastics and chemical industry during the last quarter of a calendar year are lower than the first three quarters due to seasonal factors. However this trend did not present itself in 2006 with fourth quarter volumes for polyethylene and styrene monomer hitting the highest level all year and Performance Styrenics' volume remaining consistent with third quarter volumes. In polyethylene and ethylene this was in part due to increased shipments overseas as well as the Company positioning itself to capture the maximum value through the chain. Styrene monomer volumes were higher in the fourth quarter as the Company sold excess inventories on the spot market. North American SPS and NOVA Innovene volumes were down in the fourth quarter as is typical in this industry due to slowness in the packaging and construction markets.

In the fourth quarter of 2005, polyethylene sales volumes were lower than any of the prior three quarters; however, this was primarily attributable to the outage at the Corunna, Ontario manufacturing facility rather than the typical seasonal factors. Styrene monomer, SPS and EPS sales volumes also followed the historical pattern of being lowest in the fourth quarter of 2005. Ethylene constraints limited the sales potential for styrene monomer in the fourth quarter of 2005. SPS volumes were down in the first half of the fourth quarter of 2005 due to the force majeure caused by a hurricane and they were down in the second half of the fourth quarter as customers positioned themselves for 2006 contract negotiations. EPS sales volumes were down in the fourth quarter due to seasonal slowing in the packaging and construction markets as well as the widening price gap caused by increased Asian imports.

#### **Fourth Quarter 2006 Overview**

The Company filed its Management's Discussion & Analysis for the fourth quarter of 2006 (the "Fourth Quarter MD&A") with the Canadian securities administrators and the U.S. Securities and Exchange Commission on Jan. 31, 2007. The Fourth Quarter MD&A is hereby incorporated by reference into this Management's Discussion and Analysis for the year ended Dec. 31, 2006.

### **Share Data**

#### **Common Shares Issued and Outstanding**

<i>(number of shares)</i>	For the period ended February 8, 2007	2006	2005	2004
Beginning of period	82,561,272	<b>82,364,899</b>	84,268,293	87,099,781
Issued upon exercise of options	21,688	<b>196,373</b>	695,157	2,103,112
Repurchased	—	—	(2,598,551)	(4,934,600)
End of period	82,582,960	<b>82,561,727</b>	82,364,899	84,268,293

#### **Employee Incentive Stock Options**

<i>(number of shares)</i>	For the period ended February 8, 2007	2006	2005	2004
Beginning of period	5,478,697	<b>5,107,611</b>	5,849,131	8,822,440
Granted	174,100	<b>1,007,259</b>	532,750	271,300
Exercised	(152,353)	<b>(567,795)</b>	(1,257,857)	(3,204,731)
Cancelled	(5,400)	<b>(68,378)</b>	(16,413)	(39,878)
End of period	5,495,044	<b>5,478,697</b>	5,107,611	5,849,131

### Disclosure Controls and Procedures

NOVA Chemicals' management, with the participation of the Chief Executive Officer (CEO) and Chief Financial Officer (CFO), has evaluated the effectiveness, as at Dec. 31, 2006, of NOVA Chemicals' disclosure controls and procedures (as defined in Rules 13a-15e and 15d-15e under the United States Securities Exchange Act of 1934) and has concluded that such disclosure controls and procedures are effective.

In response to a Comment Letter from the SEC related to the Company's Form 40-F for the prior year, the Company has increased the number of reportable segments in the current period from three business segments plus corporate to seven business segments plus corporate and restated the segmented disclosures of prior periods to be consistent with the number of segments in the current year. Management, including the CEO and CFO, has re-evaluated the Company's disclosure controls and procedures at Dec. 31, 2005, to determine whether the restatement changes their prior conclusion, and management has determined that it does not change their prior conclusion that as at Dec. 31, 2005, disclosure controls and procedures were effective. The restatement represents a change in judgment under current practice as to the application of Statement of Financial Accounting Standards No. 131. Management believes that it had a reasonable basis for its original segment presentation. The restatement only affected segmented disclosures and there is no affect on the financial position, results of operations, or cash flows of the prior periods.

### Changes in Internal Control Over Financial Reporting

There have been no changes in NOVA Chemicals' internal control over financial reporting during the year ended Dec. 31, 2006, that have materially affected, or are reasonably likely to materially affect, its internal control over financial reporting. Management has determined that no change in internal control over financial reporting is necessary due to the change in the number of reportable segments described above.

### Additional Information

Additional information relating to NOVA Chemicals, including the Annual Information Form, is filed with Canadian securities administrators and can be accessed through the System for Electronic Document Analysis and Retrieval (SEDAR) at [www.sedar.com](http://www.sedar.com). This same information is filed with the U.S. Securities and Exchange Commission and can be accessed via its Electronic Data Gathering, Analysis and Retrieval System (EDGAR) at [www.sec.gov/edgar.shtml](http://www.sec.gov/edgar.shtml).

# Consolidated Six-Year Review

<i>(millions of U.S. dollars, except per share amounts, ratios and miscellaneous data)</i>	2006	2005 <sup>(1)</sup>	2004 <sup>(1)</sup>	2003 <sup>(1)</sup>	2002	2001
<b>Operating Results</b>						
Revenue	\$6,519	5,616	5,270	3,949	3,091	3,194
Operating income (loss)	\$ (680)	3	265	(94)	(71)	(195)
Net income (loss)	\$ (703)	(101)	253	(14)	(112)	(161)
Total assets	\$4,155	5,217	5,047	4,413	4,154	4,359
<b>Capitalization</b>						
Current bank loans	\$ 1	1	—	—	3	14
Long-term debt <sup>(2)</sup>	1,877	2,038	1,714	1,682	1,793	2,089
Less: Cash and cash equivalents <sup>(3)</sup>	(147)	(238)	(317)	(284)	(64)	(92)
Net debt <sup>(4)</sup>	\$1,731	1,801	1,397	1,398	1,732	2,011
Shareholders' equity	546	1,215	1,484	1,301	980	1,033
Total capitalization net of cash and cash equivalents <sup>(4)</sup>	\$2,277	3,016	2,881	2,699	2,712	3,044
<b>Cash Flow Data</b>						
Capital expenditures (net of project advances)	\$ 198	419	227	119	70	168
Cash provided by (used in) operating activities	\$ 324	219	335	(26)	314	239
Net debt additions (repayments)	\$ (162)	317	15	(157)	(307)	68
Adjusted EBITDA <sup>(4)</sup>	\$ 604	461	570	219	215	62
<b>Data per Common Share</b>						
Net income (loss)						
— Basic	\$ (8.52)	(1.22)	2.92	(0.16)	(1.30)	(1.88)
— Diluted	\$ (8.52)	(1.22)	2.72	(0.16)	(1.30)	(1.88)
Common shareholders' equity at year-end <sup>(4)(5)</sup>	\$ 6.62	14.76	16.00	13.60	12.40	13.05
<b>Ratios</b>						
Return (loss) on average common equity <sup>(6)</sup>	(55.6)%	(7.5)%	19.2%	(0.8)%	(11.1)%	(13.5)%
Net debt to total capitalization <sup>(4)</sup>	76.0%	59.7%	48.5%	51.8%	63.9%	66.1%
Funds flow coverage of financial charges <sup>(4)(7)</sup>	2.6x	2.9x	4.4x	1.7x	1.8x	1.2x
<b>Miscellaneous Data</b>						
Employees at year-end	3,300	3,600	4,100	4,300	4,300	4,600
Closing share price						
— TSX (\$Cdn)	\$32.50	38.81	56.70	35.04	28.89	30.75
— NYSE (\$U.S.)	\$27.90	33.40	47.30	26.95	18.30	19.27
<b>Dividends and distributions</b>						
Common shares	\$ 29	27	28	25	23	23

(1) 2005, 2004 and 2003 have been retrospectively adjusted due to a change in accounting policy – see Note 2 of the Notes to Consolidated Financial Statements.

(2) Long-term debt includes current portion of long-term debt.

(3) Cash and cash equivalents include restricted cash associated with the preferred shares, which is classified in the Consolidated Balance Sheets in Restricted cash and other assets for 2006 and Investments and other assets for prior years.

(4) In addition to providing measures in accordance with Canadian GAAP, NOVA Chemicals presents certain supplemental measures. These measures do not have any standardized meaning prescribed by Canadian GAAP and are, therefore, unlikely to be comparable to measures provided by other companies. Certain of these measures are defined on page 62 of the Management's Discussion and Analysis.

(5) Common shareholders' equity divided by outstanding common shares. Years prior to 2005 assume the retractable preferred shares were exchanged for common shares, to a maximum of 8.5 million. Effective September 2005, the preferred shares are no longer convertible to common shares.

(6) Net income (loss) divided by average common equity.

(7) Funds from operations plus interest expense (net) less interest income divided by gross interest expense.

# Management's Report

## To the Shareholders of NOVA Chemicals Corporation

The Consolidated Financial Statements and other financial information included in this annual report have been prepared by management. It is management's responsibility to ensure that sound judgment, appropriate accounting principles and methods and reasonable estimates have been used in the preparation of this information. They also ensure that all information presented is consistent.

Management is also responsible for establishing and maintaining internal controls and procedures over the financial reporting process. The internal control system includes an *internal audit function* and an *established business conduct policy* that applies to all employees. In addition, the Company has adopted a code of ethics that applies to its Chief Executive Officer, Chief Financial Officer and Corporate Controller. The code of ethics can be viewed on NOVA Chemicals' website ([www.novachemicals.com](http://www.novachemicals.com)). Management believes the system of internal controls, review procedures and established policies provide reasonable assurance as to the reliability and relevance of financial reports. Management also believes that NOVA Chemicals' operations are conducted in conformity with the law and with a high standard of business conduct.

During the past year, we have directed efforts to improve and document the design and operating effectiveness of internal control over external financial reporting. The results of this work have been subjected to audit by the shareholders' auditors. As at year end, we have reported that internal control over financial reporting is effective. In compliance with Section 302 of the United States Sarbanes-Oxley Act of 2002, NOVA Chemicals' Chief Executive Officer and Chief Financial Officer will provide to the Securities and Exchange Commission a *certification related to NOVA Chemicals' annual disclosure document in the U.S. (Form 40-F)*. The same certification will be provided to the Canadian Securities Administrators.

The Board of Directors is responsible for ensuring that management fulfills its responsibilities for financial reporting and internal control. The Board carries out this responsibility principally through its Audit, Finance and Risk Committee. The Committee, which consists solely of independent directors, reviews the financial statements and annual report and recommends them to the Board for approval. The Committee meets with management, internal auditors and external auditors to discuss internal controls, auditing matters, and financial reporting issues. Internal and external auditors have full and unrestricted access to the Audit, Finance and Risk Committee. The Committee also recommends a firm of external auditors to be appointed by the shareholders.



Jeffrey M. Lipton  
President & Chief Executive Officer



Larry A. MacDonald  
Senior Vice President & Chief Financial Officer

February 8, 2007  
Calgary, Canada

# Management's Annual Report on Internal Control Over Financial Reporting

The following report is provided by management in respect of NOVA Chemicals' internal control over financial reporting (as defined in Rules 13a-15f and 15d-15f under the United States Securities Exchange Act of 1934):

1. NOVA Chemicals' management is responsible for establishing and maintaining adequate internal control over financial reporting for NOVA Chemicals.
2. Management has used the Committee of Sponsoring Organizations of the Treadway Commission (COSO) framework to evaluate the effectiveness of NOVA Chemicals' internal control over financial reporting. Management believes that the COSO framework is a suitable framework for its evaluation of NOVA Chemicals' internal control over financial reporting because it is free from bias, permits reasonably consistent qualitative and quantitative measurements of NOVA Chemicals' internal controls, is sufficiently complete so that those relevant factors that would alter a conclusion about the effectiveness of NOVA Chemicals' internal controls are not omitted and is relevant to an evaluation of internal control over financial reporting.
3. NOVA Chemicals' Consolidated Financial Statements include the accounts of the NOVA Innovene joint venture via proportionate consolidation in accordance with Canadian GAAP. Management has been unable to assess the effectiveness of internal control within the joint venture due to the fact that NOVA Chemicals does not have the ability to dictate or modify the controls of the joint venture and does not have the ability, in practice, to assess those controls. Management's conclusion regarding the effectiveness of internal controls does not extend to the internal controls of the joint venture. The 2006 Consolidated Financial Statements of NOVA Chemicals included \$230 million and \$130 million of total and net assets, respectively, related to the NOVA Innovene joint venture, as of December 31, 2006, and \$669 million and \$32 million of revenues and net loss, respectively, for the year then ended.
4. Management has assessed the effectiveness of NOVA Chemicals' internal control over financial reporting, as at December 31, 2006, and has concluded that such internal control over financial reporting is effective. There are no material weaknesses in NOVA Chemicals' internal control over financial reporting that have been identified by management.
5. Ernst & Young LLP, who has audited the Consolidated Financial Statements of NOVA Chemicals for the year ended December 31, 2006, has also issued a report on internal controls under Auditing Standard No. 2 of the Public Company Accounting Oversight Board (United States). This report is located on page 76 of this Annual Report.



Jeffrey M. Lipton  
President & Chief Executive Officer



Larry A. MacDonald  
Senior Vice President & Chief Financial Officer

February 8, 2007  
Calgary, Canada

# Independent Auditors' Report on Financial Statements

*Under Canadian Generally Accepted Auditing Standards and the Standards of the Public Company Accounting Oversight Board (United States)*

## To the Shareholders of NOVA Chemicals Corporation

We have audited the Consolidated Balance Sheets of NOVA Chemicals Corporation as at December 31, 2006, 2005, and 2004 and the Consolidated Statements of Income (Loss) and Reinvested Earnings (Deficit) and Cash Flows for each of the years in the three-year period ended December 31, 2006. These financial statements are the responsibility of the Corporation's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with Canadian Generally Accepted Auditing Standards and the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform an audit to obtain reasonable assurance whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, these Consolidated Financial Statements present fairly, in all material respects, the financial position of NOVA Chemicals Corporation as at December 31, 2006, 2005, and 2004 and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2006 in accordance with Canadian Generally Accepted Accounting Principles.

As discussed in Note 2 to the Consolidated Financial Statements, the Corporation made changes to its method of measuring stock-based compensation. In addition, as described in Note 21, the Corporation has restated its segmented reporting for the years ended December 31, 2005 and 2004.

We have also audited, in accordance with the Standards of the Public Company Accounting Oversight Board (United States), the effectiveness of NOVA Chemicals Corporation's internal control over financial reporting as of December 31, 2006, based on criteria established in Internal Control – Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated February 8, 2007, expressed an unqualified opinion thereon.

*Ernst & Young LLP*

Ernst & Young LLP  
Chartered Accountants

February 8, 2007  
Calgary, Canada

# Independent Auditor's Report on Internal Controls

*Under Standards of the Public Company Accounting Oversight Board (United States)*

To the Shareholders of NOVA Chemicals Corporation

We have audited management's assessment, included on page 74 of this annual report, that NOVA Chemicals Corporation (NOVA Chemicals) maintained effective internal control over financial reporting as of December 31, 2006, based on criteria established in Internal Control – Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (the COSO criteria). NOVA Chemicals' management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting. Our responsibility is to express an opinion on management's assessment and an opinion on the effectiveness of the Corporation's internal control over financial reporting based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, evaluating management's assessment, testing and evaluating the design and operating effectiveness of internal control, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

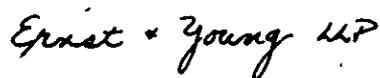
A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with Generally Accepted Accounting Principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with Generally Accepted Accounting Principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

As indicated in Management's Annual Report on Internal Control Over Financial Reporting, management's assessment of and conclusion on the effectiveness of internal control over financial reporting did not include the internal controls of the NOVA Innovene joint venture, included in NOVA Chemicals' 2006 Consolidated Financial Statements and constituting \$230 million and \$130 million of total and net assets, respectively, as of December 31, 2006, and \$669 million and \$32 million of revenues and net loss, respectively, for the year then ended. Management did not assess the effectiveness of internal control over financial reporting at the joint venture because NOVA Chemicals does not have the ability to dictate or modify the controls of the joint venture, nor the ability, in practice, to assess those controls. Our audit of internal control over financial reporting of NOVA Chemicals did not include an evaluation of the internal controls over financial reporting of NOVA Innovene.

In our opinion, management's assessment that NOVA Chemicals maintained effective internal control over financial reporting as of December 31, 2006, is fairly stated, in all material respects, based on the COSO criteria. Also, in our opinion, NOVA Chemicals maintained, in all material respects, effective internal control over financial reporting as of December 31, 2006 based on the COSO criteria.

We have also audited, in accordance with Canadian generally accepted auditing standards and the standards of the Public Company Accounting Oversight Board (United States), the Consolidated Balance Sheets of NOVA Chemicals Corporation as at December 31, 2006, 2005 and 2004 and the Consolidated Statements of Income (Loss) and Reinvested Earnings (Deficit) and Cash Flows for each of the years in the three-year period ended December 31, 2006, and our report dated February 8, 2007, expressed an unqualified opinion thereon.



Ernst & Young LLP  
Chartered Accountants

February 8, 2007  
Calgary, Canada

# Consolidated Statements of Income (Loss) And Reinvested Earnings (Deficit)

<i>year ended December 31 (millions of U.S. dollars, except number of shares and per share amounts)</i>	2006	2005 <sup>(1)</sup>	2004 <sup>(1)</sup>
Revenue	\$6,519	\$5,616	\$5,270
Feedstock and operating costs	5,663	4,906	4,378
Depreciation and amortization	299	290	297
Selling, general and administrative	201	199	274
Research and development	51	50	48
Restructuring charges (Note 14)	985	168	8
	7,199	5,613	5,005
Operating income (loss)	(680)	3	265
Interest expense, net (Note 8)	(168)	(113)	(108)
Other gains (Note 15)	1	8	177
	(167)	(105)	69
Income (loss) before income taxes	(847)	(102)	334
Income tax recovery (expense) (Note 16)	144	1	(81)
Net Income (Loss)	\$ (703)	\$ (101)	\$ 253
Reinvested earnings, beginning of year	381	621	584
Changes in accounting policies (Note 2)	—	—	(20)
Common share repurchases (Note 10)	—	(107)	(155)
Stock options retired for cash (Note 12)	(3)	(5)	(13)
Common share dividends	(29)	(27)	(28)
Reinvested earnings (deficit), end of year	\$ (354)	\$ 381	\$ 621
Weighted-average number of common shares outstanding (millions)			
— Basic	83	83	87
— Diluted	83	83	95
Net income (loss) per common share (Note 10)			
— Basic	\$ (8.52)	\$ (1.22)	\$ 2.92
— Diluted	\$ (8.52)	\$ (1.22)	\$ 2.72

See accompanying Notes to Consolidated Financial Statements.

(1) 2005 and 2004 have been retrospectively adjusted due to a change in accounting policy – see Note 2.

# Consolidated Balance Sheets

December 31 (millions of U.S. dollars)	2006	2005 <sup>(1)</sup>	2004 <sup>(1)</sup>
<b>Assets</b>			
<b>Current assets</b>			
Cash and cash equivalents	\$ 75	\$ 166	\$ 245
Accounts receivable (Note 3)	507	564	567
Inventories (Note 4)	669	680	634
Restricted cash and other assets	72	—	—
	<b>1,323</b>	<b>1,410</b>	<b>1,446</b>
Investments and other assets (Note 5)	113	181	147
Plant, property and equipment, net (Note 6)	2,719	3,626	3,454
	<b>\$4,155</b>	<b>\$5,217</b>	<b>\$5,047</b>
<b>Liabilities and Shareholders' Equity</b>			
<b>Current liabilities</b>			
Bank loans	\$ 1	\$ 1	\$ —
Accounts payable and accrued liabilities (Note 7)	926	974	790
Long-term debt due within one year (Note 8)	262	301	100
	<b>1,189</b>	<b>1,276</b>	<b>890</b>
Long-term debt (Note 8)	1,615	1,737	1,614
Deferred credits and long-term liabilities (Note 9)	370	346	388
Future income taxes (Note 16)	435	643	671
	<b>3,609</b>	<b>4,002</b>	<b>3,563</b>
<b>Shareholders' Equity</b>			
Common shares (Note 10)	497	494	499
Contributed surplus (Note 11)	25	16	11
Cumulative translation adjustment	378	324	353
Reinvested earnings (deficit)	(354)	381	621
	<b>546</b>	<b>1,215</b>	<b>1,484</b>
	<b>\$4,155</b>	<b>\$5,217</b>	<b>\$5,047</b>
<b>Contingencies and commitments (Notes 8, 20 and 22)</b>			

See accompanying Notes to Consolidated Financial Statements.

(1) 2005 and 2004 have been retrospectively adjusted due to a change in accounting policy - see Note 2.

On behalf of the board:



Kerry L. Hawkins  
Director



Jeffrey M. Lipton  
Director

# Consolidated Statements of Cash Flows

<i>year ended December 31 (millions of U.S. dollars)</i>	2006	2005 <sup>(1)</sup>	2004 <sup>(1)</sup>
<b>Operating Activities</b>			
Net income (loss)	\$ (703)	\$ (101)	\$ 253
Depreciation and amortization	299	290	297
Future income tax expense (recovery) (Note 16)	(219)	(69)	36
Other gains and losses (Note 15)	(1)	(8)	(177)
Stock option expense (Note 12)	8	8	2
(Gains) loss on derivatives, net	6	(19)	—
Asset writedowns (Note 14)	907	161	—
Funds from operations	297	262	411
Changes in non-cash working capital (Note 17)	27	(43)	(76)
Cash provided by operating activities	324	219	335
<b>Investing Activities</b>			
Proceeds on sales of assets, investments and other capital transactions	3	11	225
Plant, property and equipment additions	(198)	(419)	(242)
Settlement of derivatives	15	7	(6)
Turnaround costs, long-term investments and other assets	(48)	(176)	(4)
Change in non-cash working capital (Note 17)	(2)	110	(110)
Cash used by investing activities	(230)	(467)	(137)
<b>Financing Activities</b>			
Increase in current bank loans	—	1	—
Long-term debt additions	38	419	400
Long-term debt repayments	(308)	(103)	(2)
Long-term debt – increase in revolving debt	108	—	—
Affiliate long-term notes	3	—	—
Preferred securities redeemed (Note 8)	—	—	(383)
Common shares issued (Note 10)	3	13	37
Common share repurchases (Note 10)	—	(125)	(188)
Options retired for cash (Note 12)	(2)	(11)	(18)
Common share dividends	(29)	(27)	(28)
Project advances from third parties (Note 17)	—	—	15
Changes in non-cash working capital (Note 17)	2	2	2
Cash (used) provided by financing activities	(185)	169	(165)
Increase (decrease) in cash and cash equivalents	(91)	(79)	33
Cash and cash equivalents, beginning of year	166	245	212
Cash and cash equivalents, end of year	\$ 75	\$ 166	\$ 245
Cash tax payments	\$ 53	\$ 55	\$ 11
Cash interest payments	\$ 168	\$ 131	\$ 107

See accompanying Notes to Consolidated Financial Statements.

(1) 2005 and 2004 have been retrospectively adjusted due to a change in accounting policy – see Note 2.

# Notes To Consolidated Financial Statements

All amounts in U.S. dollars, unless otherwise noted.

## 1. Basis of Presentation

NOVA Chemicals is incorporated under the laws of the Canada Business Corporations Act. Where used in these financial statements, "NOVA Chemicals" or "the Corporation" or "the Company" means NOVA Chemicals Corporation alone or together with its subsidiaries and affiliates, depending on the context in which such terms are used. The Consolidated Financial Statements include the accounts of the Corporation, its subsidiaries and the proportionate share of the accounts of its joint ventures. Where reference is made to balances due to and from, and transactions with, affiliate, "affiliate" means the NOVA Innovene and other joint ventures. These transactions arise from business conducted between NOVA Chemicals and NOVA Innovene and other joint ventures.

These Consolidated Financial Statements have been prepared by management on the historical cost basis in accordance with Canadian Generally Accepted Accounting Principles (GAAP). These accounting principles are different in some respects from those generally accepted in the United States and the significant differences are described in Note 23, "United States Generally Accepted Accounting Principles" (U.S. GAAP).

The Corporation measures and reports its Consolidated Financial Statements in U.S. dollars.

The preparation of these Consolidated Financial Statements in conformity with Canadian GAAP requires management to make estimates and assumptions that affect amounts reported and disclosed in the financial statements and related notes. Actual results could differ materially from those estimates due to factors such as fluctuations in commodity prices, foreign exchange rates, interest rates, changes in economic conditions and regulatory changes. Examples of significant estimates include: the estimated useful lives of assets; the recoverability of tangible assets; certain actuarial and economic assumptions used in determining defined benefit pension costs, accrued pension benefit obligations and pension plan assets; and estimates of cash flows related to environmental site restoration and clean-up and the resulting asset retirement obligations.

## 2. Summary of Significant Accounting Policies

### *Changes in Accounting Policies*

**Measurement Date.** Effective January 1, 2006, NOVA Chemicals changed the measurement date for reporting related to its defined benefit plans from November 30 to December 31. This change in measurement date will be used consistently in future periods and had no significant impact on the 2006 Consolidated Financial Statements.

**Stock-Based Compensation for Employees Eligible to Retire Before the Vesting Date (EIC 162).** This standard, issued by the Emerging Issues Committee (EIC), clarifies inconsistencies regarding accounting for stock-based awards granted to employees who are either eligible for retirement at the grant date or will be eligible before the end of the vesting period. Compensation costs for stock-based awards for employees eligible to retire at the grant date must be recognized at the grant date. Compensation costs for stock-based awards for employees who will become eligible to retire during the vesting period should be recognized over the period from the grant date to the date on which the employee becomes eligible to retire. Application of this standard will result in acceleration of the recognition of stock-based compensation expenses. EIC 162 is to be applied retroactively, with restatement of prior periods, and is effective for interim and annual periods ending on or after Dec. 31, 2006. Accordingly, NOVA Chemicals adopted EIC-162 in the fourth quarter of 2006. Prior periods presented have been retrospectively adjusted, thereby reducing net loss in 2005 by \$3 million and increasing net income in 2004 by \$1 million. Opening reinvested earnings at January 1, 2004 has been reduced by \$13 million for the effects on net income (loss) of years prior to 2004. The impact on NOVA Chemicals' 2006 Consolidated Financial Statements is a \$1 million reduction in net loss.

**Accounting for Financial Instruments with Characteristics of Both Debt and Equity.** On January 1, 2005, the Corporation adopted new accounting standards as prescribed by the Canadian Institute of Chartered Accountants (CICA), which harmonize accounting standards with U.S. GAAP for certain types of mandatorily redeemable shares and other financial instruments. Beginning on January 1, 2005, these instruments were required to be reclassified, on a retroactive basis, as liabilities rather than equity. As a result, the preferred shares of NOVA Chemicals' subsidiary, NOVA Chemicals Inc., and the Corporation's preferred securities have been reclassified as debt. In addition, dividends and distributions associated with these preferred shares and securities have been reclassified to interest expense, reducing net income by \$10 million in 2004 as the presentation for all prior periods was restated.

**Stock-Based Incentive Plans.** On January 1, 2004, NOVA Chemicals adopted a new accounting standard related to stock-based compensation as prescribed by the CICA. The recommendations require that the fair value of stock options be expensed over their vesting period. Previously, NOVA Chemicals followed the intrinsic-value approach, where the granting and exercising of stock options were accounted for as equity transactions and no amounts were expensed. The Corporation adopted the accounting policy on a retroactive basis with no restatement of prior periods. Accordingly, on January 1, 2004, reinvested earnings was reduced and contributed surplus was increased by \$7 million to account for the stock option expense that would have been charged to income (loss) in 2002 and 2003 with respect to all options granted since January 1, 2002. NOVA Chemicals uses the Black-Scholes option valuation model to calculate the fair value of options at the date of grant.

**Derivative Financial Instruments.** Effective January 1, 2004, NOVA Chemicals adopted the CICA accounting standard that requires all derivative positions, except those that qualify for hedge accounting treatment, to be marked-to-market at each period end with any resulting gains or losses recorded in income (loss). NOVA Chemicals adopted the new accounting standard on a prospective basis. In accordance with the transitional provisions of the accounting standard, \$10 million of unrealized gains and \$18 million of crystallized losses that existed on January 1, 2004 were deferred on the Consolidated Balance Sheets. These amounts were recognized in income (loss) over the remaining term to maturity of the previously hedged transaction.

#### **Cost of Service**

Under the terms of certain sales agreements, the Corporation sold ethylene on a take-or-pay basis, for a price determined by a cost-of-service formula that included the cost of fuel and feedstock, operating expenses, depreciation, income taxes, return on capital and realized foreign exchange gains or losses in respect of debt service. The return on capital included a 20% after-tax return on equity based on a deemed debt-to-equity ratio. NOVA Chemicals' cost-of-service agreements expired on June 30, 2004.

#### **Cash and Cash Equivalents**

Short-term investments with initial maturities not greater than 90 days are considered to be cash equivalents, and are recorded at cost, which approximates current market value.

#### **Foreign Currency Translation**

The Corporation's foreign operations are considered self-sustaining and are translated into U.S. dollars using the current rate method. Resulting translation gains or losses are deferred in the cumulative translation adjustment account (CTA) until there is a realized reduction of the investment in the foreign operations.

#### **Derivative Instruments**

The Corporation sells petrochemical products at prices denominated in various currencies; purchases energy commodities; invests in foreign operations; issues short- and long-term debt, including amounts in foreign currencies; and utilizes a number of stock-based compensation plans. These activities result in exposures to fluctuations in foreign currency exchange rates, commodity prices, interest rates, and common stock prices. NOVA Chemicals may choose to modify these exposures by entering into contractual arrangements (derivatives), which reduce the exposure by creating offsetting positions. Derivative instruments are used only for economic hedges of foreign exchange rate, commodity price, interest rate, and stock price volatility risks. These derivative instruments are not utilized for trading or speculative purposes.

NOVA Chemicals has U.S., Canadian and European-based petrochemical operations. The Corporation periodically manages its exposure to fluctuations in Canadian and Euro dollar exchange rates by using forward exchange contracts.

NOVA Chemicals may choose to use commodity-based derivatives to manage its exposure to price fluctuations on crude oil, refined products and natural gas transactions. The instruments are used to moderate against adverse short-term price movements. Occasionally, longer-term positions will be taken to manage price risk for anticipated supply requirements.

When considered appropriate, NOVA Chemicals enters into interest rate swaps in order to manage the fixed and floating interest rate mix on its long-term debt portfolio. The interest rate swap agreements generally involve the periodic exchange of payments without the exchange of the notional principal amounts upon which the payments are based.

Equity forward contracts are used to manage exposures to fluctuations in the Corporation's stock-based compensation costs, as the costs of the plans vary with changes in the market price of the underlying common shares.

Unrealized gains or losses on derivative instruments that do not qualify for hedge accounting are reflected in income (loss) each period as a result of the derivatives being marked-to-market. Gains or losses realized on settlement of derivative instruments qualifying for hedge accounting are recognized in income (loss) in the same period and the same Statement of Income (Loss) category as the revenues or expenditures arising from the hedged transaction.

Gains or losses on termination or liquidation of derivative instruments qualifying for hedge accounting are deferred as current or non-current assets or liabilities on the balance sheet, as appropriate, and are recognized in income (loss) in the period in which the underlying hedged transaction is recognized. Gains or losses on early termination or liquidation of derivative instruments that do not qualify for hedge accounting are recognized in income (loss) on termination or liquidation.

#### ***Inventories***

Inventories are carried at the lower of cost and net realizable value. Cost is determined on a first-in, first-out basis with no allocation of fixed production overhead.

#### ***Investments***

Investments, except investments in joint ventures, are carried at cost. Investments are assessed annually for potential impairment.

#### ***Joint Ventures***

NOVA Chemicals applies the proportionate consolidation method of accounting for its investments in joint venture operations. Under this method, NOVA Chemicals records, on a line-by-line basis within its financial statements and notes, its pro rata share of the joint venture's assets, liabilities, revenues, expenses and cash flows.

#### ***Plant, Property And Equipment (PP&E)***

NOVA Chemicals' PP&E consists primarily of manufacturing equipment, land and buildings for producing petrochemicals. PP&E are valued at historical cost. Financing costs incurred during major construction are capitalized as part of the cost of the asset until the asset is available for use. Costs related to turnaround activities are capitalized and amortized over the period remaining to the next turnaround activity, while maintenance and repair costs are expensed as incurred.

The Corporation periodically reviews the carrying value of PP&E for impairment when circumstances indicate an asset's value may not be recoverable. If it is determined that an asset's undiscounted cash flows are less than its carrying value, the asset is written down to its fair value.

#### ***Depreciation***

Plant and equipment are depreciated on a straight-line basis at annual rates ranging from 3% to 40%. These rates are designed to write-off assets to their salvage values over their estimated useful lives. The Alberta cost-of-service ethylene plants and the hydrogen plant were depreciated over the lives of the related sales agreements.

#### ***Deferred Start-Up Costs***

Costs associated with start-up activities on constructed plants are deferred from the date of mechanical completion of the facilities until the date the Corporation is ready to commence commercial service. Any revenues earned during this period are recorded as a reduction in deferred start-up costs. These costs are amortized on a straight-line basis over a five-year period, commencing on the date of commercial service.

#### ***Leases***

Leases are classified as operating or capital depending upon the terms and conditions of the contracts. Leases that transfer substantially all the benefits and risks of ownership to the Corporation are accounted for as capital leases. Assets under capital leases are amortized on a straight-line basis over the period of expected use and are classified with PP&E. Obligations recorded under capital leases are reduced by lease payments net of imputed interest and are classified with long-term debt.

### **Income Taxes**

Cost-of-service activities operated under billing structures that allowed NOVA Chemicals to recover related income tax costs from customers were based on the taxes-payable method. NOVA Chemicals recorded income tax expense on these operations equal to recoverable amounts. All cost-of-service agreements expired on June 30, 2004.

For non-cost-of-service operations, the liability method of tax allocation accounting is used. Under the liability method, future tax assets and liabilities are determined based on differences between the accounting and tax basis of assets and liabilities and measured using the substantively enacted tax rates and laws that will be in effect when the differences are expected to reverse.

Periodically, future tax assets are evaluated as to the likelihood of their realization. In instances where it is more likely than not that the future tax asset will not be realized, a valuation allowance is recorded to reduce all or a portion of the future tax asset to its realizable amount. Changes in the valuation allowance are recorded as a component of income tax expense or recovery.

### **Employee Future Benefits**

**Pension Plans.** NOVA Chemicals sponsors both defined benefit and defined contribution pension arrangements covering substantially all employees.

The cost of defined benefit pensions is determined using the projected benefit method prorated on employment services and is expensed as employees provide services. Adjustments arising from plan amendments are amortized on a straight-line basis over the estimated average remaining service lifetime (EARSL). Adjustments arising from changes in assumptions and experience gains and losses are amortized over EARSL when the cumulative unamortized balance exceeds 10% of the greater of accrued obligations or plan assets. Gains or losses arising from plan curtailments and settlements are recognized in the year in which they occur. For purposes of calculating the expected return on plan assets, pension assets are revalued at fair value. Liabilities are measured at market discount rates that reflect the yield at the latest valuation date on a portfolio of corporate bonds of similar duration as the Corporation's pension liabilities.

The cost of defined contribution benefits is expensed as earned by employees. NOVA Chemicals makes contributions in accordance with all plan agreements:

**Post-Retirement Benefits Other Than Pensions.** In North America, NOVA Chemicals provides medical care and life insurance benefits to eligible retirees and their dependents. Post-retirement benefit costs are expensed as the employees provide service.

### **Stock-Based Compensation**

The Corporation uses the fair-value method of accounting for equity-settled, stock-based compensation awards granted to employees, such as options, where compensation expense is measured and recognized based on the fair value of the stock-based award. Amounts related to compensation costs are initially credited to contributed surplus and then transferred to common shares upon exercise of options, or reinvested earnings (deficit) upon cancellation or retirement of options.

The Corporation uses the liability method of accounting for cash-settled, stock-based compensation awards granted to employees, such as equity appreciation and restricted stock units. Units granted are marked-to-market each period based on the value of NOVA Chemicals' common stock as reported on the Toronto or New York Stock Exchanges, as applicable. Changes in value are recorded in income (loss) over the service period, or for vested units as such changes arise.

### **Deferred Share Unit Plans**

Units issued under these plans are calculated based on annual management incentive awards or director fees. The cost of the units earned is expensed as employees and directors provide services. Any adjustments to the value of the units as a result of expected changes in NOVA Chemicals' common stock value are amortized on a straight-line basis over the estimated average remaining service lifetime of individuals participating in the plans.

### **Earnings Per Share**

The treasury stock method is used to calculate diluted earnings per share. Under this method, the incremental number of common shares outstanding for the diluted earnings per share calculation is determined assuming that the proceeds from exercise of dilutive options are used to repurchase common shares at the average market price during the period.

### Securitizations

Accounts receivable securitization transactions are recorded as sales of assets based on the transfer of control to the purchaser. Transactions recorded in this manner result in the removal of the sold assets from the Corporation's balance sheet. Interest paid, net of servicing fees, on the portfolio of sold receivables is recorded as interest expense. Transactions in which there is no transfer of control to the purchaser are recorded as secured financings.

### Revenue Recognition

The Corporation recognizes revenue when the earnings process is complete. This generally occurs when products are shipped to the customer in accordance with the terms of the sales agreement; title or risk of loss has been transferred; and pricing is fixed or determinable. The Corporation accounts for sales incentives as a reduction in revenue at the time revenue is recorded.

### Research and Development

Expenditures associated with research and development activities are expensed as incurred.

### Investment Tax Credits

The Corporation accounts for investment tax credits using the cost-reduction approach. Investment tax credits related to the acquisition of assets are deducted from the related assets with depreciation calculated on the net amount. Investment tax credits related to current expenses are included in the determination of income (loss) for the period.

### Comparative Figures

Certain comparative figures have been reclassified to conform to the current year's presentation.

## 3. Accounts Receivable

December 31 (millions of dollars)	2006	2005	2004
Trade <sup>(1)</sup>	\$315	\$350	\$382
Affiliate trade	4	27	—
	319	377	382
Allowance for doubtful accounts	(5)	(6)	(10)
	314	371	372
Proceeds receivable <sup>(2)</sup>	—	—	110
Trade accruals	63	65	40
Recoverable taxes	15	22	7
Other	46	50	32
Due from affiliate <sup>(3)</sup>	51	52	—
	489	560	561
Income taxes receivable	18	4	6
	\$507	\$564	\$567

(1) Trade accounts receivable of the NOVA Innovene joint venture have been provided as security under an accounts receivable securitization financing program. At December 31, 2006, \$33 million is outstanding under the financing program (2005 and 2004 - \$nil) (See Note 8).

(2) In 2004, the Corporation recorded final resolution of a tax dispute related to the deductibility of foreign taxes in certain returns filed with the U. S. Internal Revenue Service prior to 1982. In this regard, \$110 million was received in 2005 from a former affiliate of a company in which the Corporation previously had an interest.

(3) Includes advances and notes receivable from affiliate. \$46 million (2005 - \$43 million) in unsecured notes receivable bear interest at 4.5% per annum.

### Accounts Receivable Securitizations

The Corporation sells undivided interests in certain trade accounts receivable pursuant to revolving securitization transactions in which the Corporation retains servicing responsibilities. The receivables are sold at a discount approximating the purchaser's financing cost of issuing commercial paper backed by the accounts receivable. The Corporation pays a fee on this same basis, plus a margin that varies with the Corporation's interest coverage ratio. The sale of receivables is reflected as a reduction of accounts receivable and in operating cash flows. As collections reduce previously sold interests, new accounts receivable are sold, to a maximum amount equal to the lesser of eligible receivables or \$350 million (2005 – \$300 million and 2004 – \$250 million). Recourse on sold receivables is limited to the receivables and certain reserves provided to cover credit losses and dilution (such as discounts, rebates, and other non-cash reductions). During 2006, the Corporation amended its securitization programs to increase the size of the facilities from \$300 million to \$350 million. During 2005, the Corporation amended its securitization programs to extend the maturity to June 2010 and to increase the size of the facilities from \$250 million to \$300 million.

Information regarding the Corporation's securitization programs is as follows:

<i>December 31 (millions of dollars, unless otherwise noted)</i>	2006	2005	2004
Amount sold at end of year	\$247	\$153	\$250
Loss, dilution and other reserves (as a % of eligible accounts receivable)	22%	16%	16%
Interest expense, net of servicing fees	\$ 14	\$ 8	\$ 4

One of the Corporation's securitization agreements involves the use of a special purpose entity (SPE). Information regarding the cash flows between the Corporation and the SPE are as follows:

<i>December 31 (millions of dollars)</i>	2006	2005	2004
Proceeds from (repayment of) new securitizations	\$ (2)	\$ 3	\$ 33
Proceeds from collections reinvested in revolving period securitizations <sup>(1)</sup>	\$1,993	\$1,933	\$1,646
Servicing fees received	\$ 2	\$ 2	\$ 2
Other cash flows received	\$ 499	\$ 547	\$ 452

(1) Collections received by the SPE on accounts receivable previously sold are used to purchase interests in new accounts receivable.

In 2006, the NOVA Innovene joint venture entered into an accounts receivable securitization program for the financing of its trade receivables, to a maximum of 120 million euros. The program expires in November 2011.

### 4. Inventories

<i>December 31 (millions of dollars)</i>	2006	2005	2004
Materials and supplies	\$ 48	\$ 48	\$ 47
Raw materials	325	340	255
Finished goods	296	292	332
	\$669	\$680	\$634

### 5. Investments and Other Assets

<i>December 31 (millions of dollars)</i>	2006	2005	2004
Investments <sup>(1)</sup>	\$ 33	\$ 28	\$ 28
Advances receivable from affiliate <sup>(2)</sup>	13	10	—
Other assets <sup>(3)</sup>	67	143	119
	\$113	\$181	\$147

(1) Includes an investment of \$15 million (2005 and 2004 – \$15 million) in a special purpose entity with respect to the accounts receivable securitization program described in Note 3, an \$11 million (2005 and 2004 – \$11 million) investment in sEnergy, a \$5 million investment in common shares of Envirokare Tech Inc. (2005 and 2004 – \$1 million) and other miscellaneous investments at cost.

(2) \$5 million (2005 – \$8 million) of the advances receivable is not scheduled for repayment until 18 months (March 31, 2007) from the date of commencement of the NOVA Innovene joint venture, and is subordinated to certain notes receivable. The advance is repayable upon the achievement of certain accounts receivable performance targets in respect of NOVA Chemicals' trade accounts receivable contributed to the joint venture.

(3) See schedule of Other Assets on page 86.

### Other Assets

Other assets are comprised of the following:

<i>December 31 (millions of dollars)</i>	<b>2006</b>	<b>2005</b>	<b>2004</b>
Restricted cash on Series A preferred shares (Note 8) <sup>(1)</sup>	\$ —	\$ 65	\$ 65
Deferred debt issue costs <sup>(2)</sup>	14	23	20
Deferred start-up costs <sup>(3)</sup>	30	27	5
Prepaid pension	—	2	5
Other assets and deferred costs	23	26	24
	<b>\$ 67</b>	<b>\$143</b>	<b>\$119</b>

(1) In 2006, restricted cash has been reclassified to Restricted Cash and other assets.

(2) Debt issue costs are amortized on a straight-line basis over the terms of the related debt instruments.

(3) Start-up costs consist of the unamortized portion of costs incurred in 2005 and 2006 associated with the start-up of the Corunna facility after the maintenance turnaround and expansion and modernization project. Prior periods also include the unamortized portion of operating costs, net of incidental revenues, incurred during the pre-operating period on constructed assets at Joffre, Alberta.

### Joint Ventures

In 2006, the Corporation formed a 50:50 joint venture with Dietrich Metal Framing (a Worthington Industries company) called Accelerated Building Technologies, LLC. This joint venture develops and manufactures durable, energy-saving composite construction products and systems using NOVA Chemicals' expandable polystyrene (EPS) technology and steel. Each party contributed cash and/or equipment of \$1 million to form the joint venture.

On October 1, 2005, the Corporation contributed its European styrenic polymer assets, comprised of manufacturing facilities, accounts receivable and inventory, to the NOVA Innovene joint venture with Innovene (now with INEOS) in exchange for a 50% interest in the joint venture. The joint venture produces styrenic polymers from NOVA Chemicals' contributed plants and INEOS' contributed plants. NOVA Chemicals accounted for its contribution to the joint venture as an exchange of 50% of its contributed non-monetary productive assets for a 50% interest in similar productive assets of INEOS. Consequently, the exchange was recorded at the carrying value of the assets given up, with no gain or loss recognized.

NOVA Chemicals sells the joint venture 50% of its styrene monomer requirements and certain styrenic polymer products for distribution in Europe. During 2006 and 2005, NOVA Chemicals recognized revenues of \$254 million and \$60 million, respectively, from the sale of these products to the joint venture.

NOVA Chemicals has provided a guarantee of \$25 million to a financial institution to secure various obligations of the NOVA Innovene joint venture.

On October 1, 2005, the Corporation and Grupo IDESA formed a 50:50 joint venture in Mexico, called NOVIDESA, S.A. de C.V. The joint venture produces EPS from an existing Grupo IDESA facility for construction and packaging applications in the growing Mexican market. It also produces applications such as insulating concrete forms (ICFs) and distributes NOVA Chemicals' solid polystyrene in Mexico.

In addition to its interests in recently formed joint ventures, NOVA Chemicals owns a 50% interest in an ethylene plant, a 50% interest in LRM Industries, LLC (a 50:50 joint venture with Envirokare Composite Corporation (a unit of Envirokare Tech Inc.) and a 20% interest in a cogeneration facility located at Joffre, Alberta.

The following is summarized financial information for NOVA Chemicals' interests in its joint ventures:

<i>year ended December 31 (millions of dollars)</i>	2006	2005	2004
Revenue	\$ 1,099	\$ 518	\$ 260
Operating expenses, depreciation and income taxes	(1,043)	(499)	(236)
Net income	\$ 56	\$ 19	\$ 24

<i>December 31 (millions of dollars)</i>	2006	2005	2004
Current assets	\$ 234	\$ 248	\$ 37
Plant, property and equipment and other assets	547	909	522
Current liabilities	(181)	(161)	(26)
Long-term liabilities	(68)	(130)	(33)
Venturers' equity	\$ 532	\$ 866	\$ 500

<i>year ended December 31 (millions of dollars)</i>	2006	2005	2004
Cash inflows (outflows) from:			
Operating activities	\$ 49	\$ 127	\$ 43
Financing activities	\$ (10)	\$ (32)	\$ (2)
Investing activities	\$ 32	\$ (3)	\$ 36

In December 2004, the Corporation sold its 33.3% interest in an ethane gathering system in Alberta for cash proceeds of \$78 million, resulting in a before-tax gain of \$53 million (\$40 million after-tax).

## 6. Plant, Property and Equipment

<i>December 31 (millions of dollars)</i>	2006 <sup>(1)</sup>	2005 <sup>(1)</sup>	2004 <sup>(1)</sup>
Plant and equipment	\$ 6,266	\$ 5,787	\$ 5,962
Assets under capital lease	20	19	—
Land	29	29	35
Under construction <sup>(2)</sup>	356	643	351
	6,671	6,478	6,348
Accumulated depreciation <sup>(3)(4)</sup>	(3,952)	(2,852)	(2,894)
Net book value	\$ 2,719	\$ 3,626	\$ 3,454

(1) See Note 8 for discussion of security provided on the committed credit facility.

(2) Assets under construction are not depreciated until such time at which commercial production is achieved.

(3) Accumulated depreciation for assets under capital lease was \$4 million at December 31, 2006, (\$nil million - December 31, 2005).

(4) See Note 14 for discussion of impairment charge related to plant and equipment, which has been recorded as an increase in accumulated depreciation in 2006.

During 2004, the Corporation sold its 100% interest in an ethylene delivery system in Alberta and entered into a pipeline transportation agreement to lease back the pipeline. Net cash proceeds of \$19 million were received from the sale, resulting in a gain of \$19 million. The gain realized on the sale has been deferred (see Note 9) and is being amortized to income on a straight-line basis over the term of the pipeline transportation agreement, which expires in 2016.

## 7. Accounts Payable and Accrued Liabilities

December 31 (millions of dollars)	2006	2005	2004
Accounts payable			
Trade	\$596	\$617	\$581
Other	27	22	38
	623	639	619
Accrued liabilities			
Pension and post-retirement benefit obligations	4	30	22
Interest	31	33	30
Dividends	7	7	7
Deferred gains on interest rate swaps <sup>(1)</sup>	2	4	7
Site clean-up and restoration	3	5	4
Deferred commodity hedging gains <sup>(2)</sup>	—	—	2
Advances and notes due to affiliate	9	5	—
Notes payable <sup>(3)</sup>	39	47	—
Trade accruals and other accrued liabilities	208	204	99
	303	335	171
	\$926	\$974	\$790

(1) Represents the portion of deferred gains realized on liquidation of floating-for-fixed interest rate swaps to be recognized within one year (see Note 22).

(2) Represents the portion of deferred gains realized on liquidation of natural gas option positions to be recognized within one year (see Note 22).

(3) Includes \$39 million (2005 - \$41 million) of unsecured notes payable, bearing interest at 4.5% per annum.

## 8. Long-Term Debt

December 31 (millions of dollars, unless otherwise noted)		2006		2005		2004	
	Maturity	Debt	Weighted-Average Year-End Interest Rate	Debt	Weighted-Average Year-End Interest Rate	Debt	Weighted-Average Year-End Interest Rate
Revolving credit facilities	2007 – 2011	\$ 110	7.7%	—	—	—	—
Unsecured debentures and notes	2010 – 2028	1,240	7.6%	\$1,239	7.3%	\$ 933	7.1%
Medium-term notes	2009	250	7.4%	550	8.0%	550	7.0%
Preferred shares and securities	2007	198	8.1%	198	7.6%	198	8.1%
Other unsecured debt <sup>(1)</sup>	2007 – 2020	46	7.6%	51	6.9%	33	6.2%
Other secured debt <sup>(2)</sup>	2011	33	4.3%	—	—	—	—
		1,877		2,038		1,714	
Less installments due within one year		(262)		(301)		(100)	
		\$1,615		\$1,737		\$1,614	

(1) Composed primarily of non-recourse joint venture secured debt (2006 – \$24 million, 2005 – \$32 million and 2004 – \$33 million), whereby security is limited to NOVA Chemicals' net investment in the Joffre co-generation joint venture, and obligations under capital leases (2006 – \$22 million, 2005 – \$19 million and 2004 – \$nil million).

(2) Revolving financing arrangement collateralized by the NOVA Innovene joint venture's trade accounts receivable.

### Unsecured Debentures And Notes

On October 31, 2005, the Corporation issued \$400 million Senior Floating Rate Notes due 2013.

On January 13, 2004, the Corporation issued \$400 million 6.50% Senior Notes due 2012. The net proceeds were used to redeem the Corporation's preferred securities.

The remaining debentures and notes are unsecured borrowings, which rank *pari passu* in all respects with other unsecured and unsubordinated debt of the Corporation. Terms of the outstanding unsecured debentures and notes are as follows:

December 31 (millions of dollars, unless otherwise noted)		2006	2005	2004
Maturity	Stated Interest Rate (%)			
2005 <sup>(1)</sup>	7.0	\$ —	\$ —	\$100
2010 <sup>(2)</sup>	7.85	215	214	208
2012 <sup>(3)</sup>	6.5	400	400	400
2013 <sup>(3)</sup>	Floating <sup>(4)</sup>	400	400	—
2025 <sup>(5)</sup>	7.875	100	100	100
2028 <sup>(6)</sup>	7.25	125	125	125
		<b>\$1,240</b>	<b>\$1,239</b>	<b>\$933</b>

(1) Matured and retired for cash in September 2005.

(2) \$250 million Canadian; callable at the option of the Corporation at any time.

(3) Callable at the option of the Corporation at any time.

(4) LIBOR + 3.125%; 8.502% at December 31, 2006 (7.561% at December 31, 2005).

(5) Callable at the option of the Corporation on or after September 15, 2005.

(6) Redeemable at the option of the holders on August 15, 2008.

### Revolving Credit Facilities

The Corporation has \$575 million of revolving credit facilities, which expire on the following dates: \$100 million on December 31, 2007; \$375 million on June 30, 2010 and \$100 million on March 20, 2011. As of December 31, 2006, NOVA Chemicals had utilized \$154 million of the facilities, of which \$44 million was in the form of letters of credit. The \$100 million facility expiring on December 31, 2007 and the \$375 million facility are governed by the same financial covenants. The remaining \$100 million facility has no financial covenants associated with it.

On December 31, 2006, NOVA Chemicals negotiated an amendment to its financial covenants governing these two credit facilities. The amendment allows for an exemption, in determining Shareholders' Equity, of any write-down of the STYRENIX assets up to \$950 million; and for the Debt-to-Capitalization Ratio financial covenant to be raised from 55% to 60%. Both amendments will be in effect for the period December 31, 2006 to June 29, 2007. The Company is currently in discussions with its banks and expects to restructure covenants to be consistent with the existing maturity dates of the credit facilities prior to the expiry of the amendment.

At Dec. 31, 2006 NOVA Chemicals was in compliance with all required financial covenants under the credit facilities.

The \$375 million facility is secured by \$1.2 billion (2005 and 2004 – \$1.2 billion) in net book value of assets in Canada, including real estate. The remaining credit facilities are unsecured.

As a result of the STYRENIX asset write-down, the amount of secured debt permitted under the terms of NOVA Chemicals' public indentures will be reduced. Accordingly, the \$375 million secured revolving credit facility was reduced to \$325 million, effective February 5, 2007. The remaining two unsecured revolving credit facilities are not affected.

### Medium-Term Notes

The notes are unsecured borrowings ranking *pari passu* with all other unsecured and unsubordinated debt of the Corporation. The \$300 million 7% notes were due and repaid in May 2006. The \$250 million 7.4% notes are due in April 2009 and are redeemable by the Corporation at any time.

### Preferred Securities

On March 1, 2004, the Corporation redeemed its \$172.5 million 9.04% and \$210 million 9.50% preferred securities, which were due March 31, 2048 and December 31, 2047, respectively. Net proceeds from the 2004 issuance of \$400 million 6.5% Senior Notes were used to redeem the securities.

### Series A Preferred Shares

In connection with the acquisition of styrenics assets from Huntsman Corporation in 1998, a subsidiary of the Corporation issued retractable preferred shares with a liquidation preference of \$198 million as partial consideration. Holders of the retractable preferred shares originally had the right, on or after April 1, 2001, to exchange the shares (a retraction) for NOVA Chemicals' common shares (plus preferred shares if the market value of such common shares was less than \$198 million). In September 2005, the terms of the retractable preferred shares were amended to eliminate this right. In connection with this amendment, the retractable preferred shares were redesignated as Series A preferred shares. Additionally, in December 2005, the dividend rate was reduced from 2% to 0.5%.

NOVA Chemicals has the right to repurchase the Series A preferred shares at any time; however, any such repurchase may obligate NOVA Chemicals to pay an early termination fee under the terms of the total return swap discussed below.

NOVA Chemicals also entered into a total return swap with respect to the Series A preferred shares, which was scheduled to terminate on March 15, 2007. In February 2007, the maturity date of the total return swap was extended from March 15, 2007 to October 31, 2007. Under the terms of the total return swap: (i) the counterparty pays NOVA Chemicals the total return on the preferred shares (periodic dividends plus positive changes in the equity value of Series A preferred shares) upon termination of the swap; and (ii) NOVA Chemicals pays the counterparty a spread to LIBOR, as well as any negative changes in the equity value of the Series A preferred shares upon termination of the swap.

If the equity value of the Series A preferred shares decreases by approximately 24% or more at any time, NOVA Chemicals is required to post maintenance collateral. Once the margin-posting requirement is triggered, if the equity value of the Series A preferred shares increases by 5% or more, any excess margin may be returned to NOVA Chemicals. Changes in the equity value of the Series A preferred shares during the term of the swap will be determined based on changes in the average price of the outstanding 6.5% Senior Notes due 2012, issued by NOVA Chemicals.

If NOVA Chemicals defaults on other debt with an aggregate principal amount of \$25 million or more, or the closing price of the Corporation's common shares is \$12.00 U.S. or less, and upon certain other events, the counterparty would have the right to sell the Series A preferred shares to a third party and terminate the swap. NOVA Chemicals would then owe the counterparty the difference between the actual sale price received by the counterparty and \$126 million (\$191 million fair value less \$65 million restricted cash). Subsequent to the termination of the swap, NOVA Chemicals may, at its option, repurchase the preferred shares for \$198 million plus accrued and unpaid dividends.

### Repayment Requirements

Repayment requirements in respect of long-term debt are as follows:

(millions of dollars)

2007	\$ 262
2008	4
2009	254
2010	219
2011	87
Thereafter	1,051
	<u>\$1,877</u>

### Interest Expense

year ended December 31 (millions of dollars)	2006	2005	2004
Interest on long-term debt	\$146	\$117	\$109
Interest on bank loans, securitizations and other	30	14	8
Gross interest expense	176	131	117
Interest capitalized during plant construction	(3)	(14)	(3)
Interest income	(5)	(4)	(6)
Interest expense (net)	\$168	\$113	\$108

## 9. Deferred Credits and Long-Term Liabilities

<i>December 31 (millions of dollars)</i>	2006	2005	2004
<b>Deferred Credits</b>			
Deferred income	\$ 29	\$ 29	\$ 31
Deferred gain on sale of investments <sup>(1)</sup>	35	37	38
Deferred gain on sale of asset <sup>(2)</sup>	14	15	20
Deferred gains on interest rate swaps <sup>(3)</sup>	2	5	9
Deferred gain on sale of railcars	7	8	9
Deferred commodity hedging gains <sup>(4)</sup>	—	—	2
Other deferred credits	7	4	7
	<b>94</b>	<b>98</b>	<b>116</b>
<b>Long-Term Liabilities</b>			
Pension and post-retirement benefit obligations (Note 18)	99	92	106
Equity appreciation plan obligations (Note 12)	24	44	98
Accrued mark-to-market liability on equity derivative (Note 22)	35	15	—
Asset retirement obligations (Note 19)	23	21	23
Deferred share unit plan obligations (Note 13)	25	24	23
Restricted stock unit plan obligations (Note 12)	14	11	7
Other long-term liabilities	56	41	15
	<b>276</b>	<b>248</b>	<b>272</b>
	<b>\$370</b>	<b>\$346</b>	<b>\$388</b>

(1) Represents the long-term portion of deferred gains realized on the 2003 sale of a 50% interest in Fort Saskatchewan Ethylene Storage Limited Partnership. The deferred gain is being recognized in income (loss) on a straight-line basis over the 20-year storage contract entered into immediately following the sale.

(2) Represents the long-term portion of a deferred gain realized on the sale of an ethylene pipeline system (see Note 6).

(3) Represents the long-term portion of deferred gains realized on liquidation of floating-for-fixed interest rate swaps (see Note 22).

(4) Represents the long-term portion of deferred gains realized on the liquidation of natural gas option positions (see Note 22).

## 10. Common Shares

### Authorized

Unlimited number of voting common shares without par value, non-voting first preferred shares, and non-voting second preferred shares. Currently only common shares are issued and outstanding.

### Issued And Outstanding

*year ended December 31*

*(millions of dollars, except number of shares)*

	2006		2005		2004	
	Shares	Dollars	Shares	Dollars	Shares	Dollars
Beginning of year	82,364,899	\$494	84,268,293	\$499	87,099,781	\$493
Issued for cash on exercise of stock options	129,007	3	570,547	13	1,917,735	37
Issued on exercise of stock options as share appreciation rights <sup>(1)</sup>	67,366	—	124,610	—	185,377	—
Compensation cost of stock options exercised <sup>(2)</sup>	—	—	—	—	—	2
Repurchased <sup>(3)</sup>	—	—	(2,598,551)	(18)	(4,934,600)	(33)
End of year <sup>(4)</sup>	<b>82,561,272</b>	<b>\$497</b>	<b>82,364,899</b>	<b>\$494</b>	<b>84,268,293</b>	<b>\$499</b>

(1) See Note 12.

(2) Under the fair value method of accounting for stock-based compensation, the compensation cost associated with options exercised is transferred from contributed surplus to common stock.

(3) The Corporation repurchased nil million (2005 – 2,598,551 and 2004 – 4,934,600) of its common shares with a carrying value of \$nil million (2005 – \$18 million and 2004 – \$33 million) on the Toronto Stock Exchange for cash of \$nil million (2005 – \$125 million and 2004 – \$188 million). The difference between the cash paid and the carrying value of the shares is charged to reinvested earnings.

(4) Stated common share capital for legal purposes at December 31, 2006 is \$1,632 million.

### Shares Reserved For Future Issue

December 31 (number of shares)	2006	2005	2004
Under the employee incentive stock option plan <sup>(1)(2)</sup>	7,678,352	7,874,725	8,569,882
Under the director compensation plan	47,800	47,800	47,800
Under the terms of the retractable preferred share agreement <sup>(3)</sup>	—	—	8,500,000
	7,726,152	7,922,525	17,117,682

(1) Under the employee incentive stock option plan, options are outstanding to officers and employees to purchase 4,286,234 shares at prices ranging from \$21.225 to \$58.240 (Canadian\$ TSX pricing) and 1,192,463 shares at prices ranging from \$33.95 to \$47.00 (US\$ NYSE pricing) per share, with expiration dates between February 19, 2007, and July 12, 2016. A total of 2,199,655 common shares are reserved but unallocated. See Note 12 for further details regarding the plan.

(2) A total of 13 million common shares was initially approved by shareholders for issuance under the employee incentive stock option plan.

(3) See Note 8 for discussion of retractable, now Series A, preferred shares.

### Net Income (Loss) Per Share

The following table outlines the calculation of basic and diluted net income (loss), or earnings, per common share (EPS):

year ended December 31 (millions of dollars, except per share amounts)	2006 Basic	2006 Diluted	2005 Basic	2005 Diluted	2004 Basic	2004 Diluted
Net income (loss)	\$ (703)	\$ (703)	\$ (101)	\$ (101)	\$ 253	\$ 253
Interest on Series A preferred shares	—	—	—	—	—	6
Net income (loss) for EPS calculation	\$ (703)	\$ (703)	\$ (101)	\$ (101)	\$ 253	\$ 259
Weighted-average common shares outstanding	82.5	82.5	82.6	82.6	86.7	86.7
Add effect of dilutive items: <sup>(1)</sup>						
Stock options	—	—	—	—	—	2.6
Retractable preferred shares	—	—	—	—	—	6.1
Weighted average common shares for EPS calculation	82.5	82.5	82.6	82.6	86.7	95.4
Net income (loss) per common share	\$ (8.52)	\$ (8.52)	\$ (1.22)	\$ (1.22)	\$ 2.92	\$ 2.72

(1) A total of 3.5 million stock options have been excluded from the computation of diluted earnings per share for the year ended December 31, 2006 (2005 – 4.8 million and 2004 – nil) as their impact would not be dilutive. As of September 30, 2005, the Series A preferred shares are no longer convertible to NOVA Chemicals' common shares and therefore are no longer a dilutive factor in the earnings per share calculation. No restatements were made to prior years.

### Shareholder Rights Plan

In May 1999, NOVA Chemicals' shareholders approved a shareholder rights plan where one right was issued for each outstanding common share. The rights remain attached to the shares and are not exercisable until the commencement or announcement of a takeover bid for NOVA Chemicals' common shares or until a person acquires 20% or more of NOVA Chemicals' common shares. The plan expires in May 2009.

### 11. Contributed Surplus

On January 1, 2004, the Corporation adopted accounting recommendations related to stock options (see Notes 2 and 12).

The recommendations require that the fair value of stock options be expensed over their vesting period, with a corresponding amount recorded to contributed surplus. On exercise of options for common shares, amounts previously recorded to contributed surplus for compensation costs are transferred to the common share account. On retirement or cancellation of options, amounts previously recorded to contributed surplus for compensation costs are transferred to reinvested earnings (deficit). As a result of the 2006 adoption of the standard associated with stock-based compensation for employees eligible to retire before the vesting date (see Note 2), the 2004 contributed surplus associated with accounting policy changes has been increased by \$5 million.

year ended December 31 (millions of dollars)	2006	2005	2004
Balance at beginning of year	\$16	\$11	\$—
Accounting policy changes (see Note 2)	—	—	12
Stock option compensation cost	9	8	2
Transfers on exercise, retirement or cancellation of options	—	(3)	(3)
Balance at end of year	\$25	\$16	\$11

## 12. Stock-Based Compensation

In 2006, the Corporation adopted accounting recommendations related to stock-based awards granted to employees who are eligible for retirement at the grant date or will be eligible before the end of the vesting period. Application of this recommendation will result in acceleration of the recognition of stock-based compensation expenses (see note 2).

### Employee Incentive Stock Option Plan

The Corporation may grant options to its employees for up to 13 million common shares. During 2005, the Corporation amended its Employee Incentive Stock Option Plan such that options may be granted which are exercisable based on the Corporation's New York Stock Exchange (NYSE) common share price. Accordingly, the exercise price of an option may equal the closing market price, on the Toronto Stock Exchange (TSX) or the NYSE, of the Corporation's common stock on the date of grant. Options may be exercised over a 10-year period and generally 25% of the options vest at the grant date with further vesting of 25% in each of the next three years.

On January 1, 2004, the Corporation adopted accounting recommendations related to stock options (see Note 2). The Corporation adopted the accounting policy on a retroactive basis with no restatement of prior periods. Accordingly, all options granted since January 1, 2002 are accounted for using the fair-value method. The recommendations require that the fair value of stock options be expensed over their vesting period and reflected in earnings as the related services are provided. The Corporation uses the Black-Scholes option-pricing model to calculate the fair value of options at the date of grant.

Generally, options are settled by issuance of common shares. Occasionally, options may be retired, whereby the option premium (the differential between the market price and the exercise price) is paid in cash. Amounts paid are recorded as a charge to reinvested earnings (deficit), net of related tax benefits. Options may also be settled periodically as share appreciation rights (SARs), whereby the option premium is settled by issuance of common shares. Options settled by issuance of shares are cancelled whereas options settled by other means are returned to the unallocated pool of options available for issue.

A summary of the status of the Corporation's employee incentive stock option plan, for options based on TSX pricing, as of December 31, 2006, 2005, and 2004, and changes during the years then ended is presented below:

year ended December 31	2006		2005		2004	
	Options	Weighted-Average Exercise Price (Canadian \$)	Options	Weighted-Average Exercise Price (Canadian \$)	Options	Weighted-Average Exercise Price (Canadian \$)
Outstanding at beginning of year	4,667,898	\$28.685	5,849,131	\$27.952	8,822,440	\$26.791
Granted	232,059	\$38.109	91,450	\$58.135	271,300	\$36.526
Exercised – settled in shares	(129,007)	\$23.698	(570,060)	\$26.928	(1,917,735)	\$22.938
Exercised – retired for cash	(259,003)	\$27.842	(469,091)	\$29.214	(860,750)	\$26.161
Exercised – settled as SARs <sup>(1)</sup>	(179,785)	\$23.928	(218,219)	\$24.799	(426,246)	\$25.682
Cancelled	(45,928)	\$39.475	(15,313)	\$29.151	(39,878)	\$30.284
Outstanding at end of year	4,286,234	\$29.480	4,667,898	\$28.685	5,849,131	\$27.952
Exercisable at end of year	4,043,465	\$28.832	4,249,162	\$28.181	5,054,171	\$27.613

(1) In 2006, 67,366 shares were issued to settle options exercised as SARs (2005 – 124,610 and 2004 – 185,377).

The following table summarizes information about employee incentive stock options, based on TSX pricing, outstanding at December 31, 2006:

Range of Exercise Prices (Canadian \$)	Options Outstanding		Options Exercisable	
	Number Outstanding	Weighted-Average Contractual Life (years)	Number Exercisable	Weighted-Average Exercise Price (Canadian \$)
\$21.225 – \$28.050	2,594,598	3.6	2,592,148	\$25.982
\$30.750 – \$39.220	1,610,886	3.9	1,402,292	\$33.073
\$58.240 – \$58.240	80,750	8.1	49,025	\$58.240
	4,286,234		4,043,465	

A summary of the status of the Corporation's employee incentive stock option plan, for options based on NYSE pricing, as of December 31, 2006, 2005 and 2004, and changes during the years then ended is presented below:

<i>year ended December 31</i>	2006		2005		2004	
	Options	Weighted-Average Exercise Price (U.S. \$)	Options	Weighted-Average Exercise Price (U.S. \$)	Options	Weighted-Average Exercise Price (U.S. \$)
Outstanding at beginning of year	439,713	\$46.78	—	\$ —	—	\$ —
Granted	775,200	\$33.95	441,300	\$46.78	—	\$ —
Exercised – settled in shares	—	\$ —	(487)	\$47.00	—	\$ —
Cancelled	(22,450)	\$38.44	(1,100)	\$47.00	—	\$ —
Outstanding at end of year	1,192,463	\$38.60	439,713	\$46.78	—	\$ —
Exercisable at end of year	428,538	\$40.63	111,885	\$46.78	—	\$ —

The following table summarizes information about employee incentive stock options, based on NYSE pricing, outstanding at December 31, 2006:

<i>year ended December 31</i>	Options Outstanding			Options Exercisable	
	Number Outstanding	Weighted-Average Remaining Contractual Life (years)	Weighted-Average Exercise Price (U.S. \$)	Number Exercisable	Weighted-Average Exercise Price (U.S. \$)
Range of Exercise Prices (U.S. \$)					
\$33.95 – \$47.00	1,192,463	8.8	\$38.60	428,538	\$40.63

In 2006, 2005 and 2004, the Corporation recognized total compensation cost in income of \$8 million, \$8 million and \$2 million, respectively, for stock-based employee compensation awards.

The fair value of each stock option grant is estimated on the date of grant using the Black-Scholes option-pricing model with the following weighted-average assumptions used for stock options granted:

Weighted-Average Assumptions	2006	2005	2004
Expected dividend yield (%)	1.1	0.7	1.1
Expected volatility (%)	33.1	31.6	34.0
Risk-free interest rate (%)	4.5	3.8	2.7
Expected life (years)	4.0	4.0	4.0
Fair value of options granted during the year (U.S. \$)	\$10.02	\$13.40	\$8.43

#### **Equity Appreciation Plan**

The Corporation has an equity appreciation plan in which units are granted to key employees. The redemption price of a unit is determined by the closing market price on the NYSE of the Corporation's common shares on the date of grant. Units may be redeemed for cash over a 10-year period and generally 25% of the units vest at the grant date with further vesting of 25% in each of the next three years. The value of a unit on the redemption date is the difference between the closing price of the Corporation's common shares on that date and the redemption price.

At December 31, 2006, the mark-to-market value of the vested units was approximately \$24 million (2005 – \$44 million and 2004 – \$98 million).

A summary of the status of the Corporation's equity appreciation plan as of December 31, 2006, 2005 and 2004 and changes during the years then ended is presented below:

<i>year ended December 31</i>	2006		2005		2004	
	Units	Weighted-Average Redemption Price (U.S. \$)	Units	Weighted-Average Redemption Price (U.S. \$)	Units	Weighted-Average Redemption Price (U.S. \$) <sup>(1)</sup>
Equity Appreciation Units						
Outstanding at beginning of year	3,618,678	\$21.18	3,801,143	\$21.08	3,292,987	\$18.92
Granted	—	\$ —	9,000	\$30.59	942,600	\$27.90
Redeemed	(109,823)	\$20.26	(190,040)	\$19.69	(410,694)	\$19.37
Cancelled	(3,264)	\$27.90	(1,425)	\$24.77	(23,750)	\$21.65
Outstanding at end of year	3,505,591	\$21.20	3,618,678	\$21.18	3,801,143	\$21.08
Exercisable at end of year	3,276,259	\$20.73	2,786,063	\$20.54	2,149,390	\$20.06

(1) In February 2004 the definition of redemption price was amended to include New York Stock Exchange (NYSE) pricing, reflecting the intent and design of the plan to provide the value of the awards in U.S. currency for U.S. resident employees. Accordingly, the weighted-average redemption price at the beginning of the year has been restated to reflect the NYSE price.

The following table summarizes information about equity appreciation units outstanding at December 31, 2006:

Range of Redemption Prices (U.S. \$)	Units Outstanding		Units Exercisable	
	Number Outstanding	Weighted-Average Remaining Contractual Life (years)	Weighted-Average Redemption Price (U.S. \$)	Number Exercisable
\$17.42 - \$21.72	2,592,375	5.3	\$18.87	2,592,375
\$23.49 - \$30.59	913,216	7.1	\$27.83	683,884
	3,505,591			3,276,259

### Restricted Stock Unit Plan

The Restricted Stock Unit Plan is a phantom stock plan wherein the value of a restricted stock unit (RSU) is determined by the value of the Corporation's common shares on the vesting date and is paid to employees in cash or open market shares at the Corporation's discretion. The value of an RSU is determined using the NYSE price for U.S. residents and the TSX price for residents of all other countries. Generally, the units vest and proceeds are distributed three years from the grant date. The value of any common share dividends declared during the vesting period is credited to each RSU account. The value of the RSUs is expensed over the vesting period and is marked-to-market.

A summary of the status of the Corporation's restricted stock unit plan as of December 31, 2006, 2005 and 2004 and changes during the years then ended is presented below:

<i>year ended December 31</i>	2006	2005	2004
Restricted Stock Units	Units	Units	Units
Outstanding at beginning of year	417,730	196,178	—
Granted	231,470	229,395	225,329
Dividend equivalents credited	6,460	3,385	1,457
Redeemed	(57,836)	(9,403)	(26,528)
Cancelled	(6,447)	(1,825)	(4,080)
Outstanding at end of year	591,377	417,730	196,178

The mark-to-market liability for the RSU plan was \$14 million at December 31, 2006 (2005 – \$11 million and 2004 – \$7 million).

### 13. Deferred Share Unit Plans

Under the Corporation's Deferred Share Unit Plans (DSUP), key employees and non-employee directors may elect on an annual basis to receive all or a portion of their management incentive award or fees, respectively, in deferred share units (DSUs).

The amount of the management incentive award that a key employee elects to have participate in the DSUP will be converted to an equivalent number of DSUs based on the average closing price, on the TSX for Canadian employees and on the NYSE for U.S. employees, of NOVA Chemicals' common shares for the last five consecutive trading days of the month of December prior to the performance period.

The amount of fees that a non-employee director elects to have participate in the DSUP will be converted to an equivalent number of DSUs based on the average closing price, on the TSX or NYSE, of NOVA Chemicals' common shares for the last five consecutive trading days preceding the end of each fiscal quarter in which the fees are earned. The units are redeemable upon retirement or termination from the Corporation.

A summary of the status of the Corporation's deferred share unit plans as of Dec. 31, 2006, 2005 and 2004, and changes during the years ended on those dates is presented below:

year ended December 31	2006		2005		2004	
	Units	Weighted-Average Price (U.S. \$)	Units	Weighted-Average Price (U.S. \$)	Units	Weighted-Average Price (U.S. \$)
Employee Deferred Share Units						
Outstanding at beginning of year	520,885	\$19.18	508,593	\$18.75	434,243	\$17.29
Earned	23,305	\$33.24	12,292	\$36.82	116,116	\$27.27
Redeemed	—	\$ —	—	\$ —	(41,766)	\$27.21
Outstanding at end of year	544,190	\$19.78	520,885	\$19.18	508,593	\$18.75

year ended December 31	2006		2005		2004	
	Units (Canadian \$)	Weighted-Average Price (Canadian \$)	Units (Canadian \$)	Weighted-Average Price (Canadian \$)	Units (Canadian \$)	Weighted-Average Price (Canadian \$)
Non-Employee Directors Deferred Share Units						
Outstanding at beginning of year	83,075	\$31.01	79,938	\$29.80	79,676	\$29.24
Earned	18,056	\$32.93	8,329	\$42.13	14,636	\$37.50
Redeemed	—	\$ —	(5,192)	\$30.24	(14,374)	\$34.57
Outstanding at end of year	101,131	\$31.35	83,075	\$31.01	79,938	\$29.80

The amount expensed in aggregate related to the award of units was approximately \$1 million (2005 – \$1 million, and 2004 – \$4 million).

### 14. Restructuring Charges

During the past three years, NOVA Chemicals has undertaken several restructuring steps to reduce costs. As a result of these actions, the Company estimates it will reduce costs by about \$100 million per year beginning in 2007. In addition to this, depreciation will be reduced by about \$80 million per year in the three reportable segments within the STYRENIX business unit.

In 2006, NOVA Chemicals recorded a restructuring charge of \$985 million before-tax (\$861 million after-tax) related to the following:

The Company recorded an impairment charge of \$860 million related to the STYRENIX business unit assets. The STYRENIX business unit includes the Styrene Monomer, North American Solid Polystyrene and NOVA Innovene European joint venture segments. The

STYRENIX business unit has not been profitable due to poor market conditions, and in recent years both NOVA Chemicals and the NOVA Innovene joint venture have reduced production capacity through plant closures. In July 2006, NOVA Chemicals announced it would investigate various alternatives for the STYRENIX business unit, including sale, formation of a joint venture with other producers, or spin out. NOVA Chemicals has assessed the recoverability of the STYRENIX assets and determined that the carrying value exceeded the estimated future cash flows from these assets. Based on this analysis, the fair market value of these STYRENIX facilities was determined to be \$242 million.

NOVA Innovene permanently closed its Carrington, UK solid polystyrene facility in October 2006. The Company recorded a restructuring charge of \$57 million related primarily to non-cash asset write-downs of the plant including \$8 million related to total expected severance and other departure costs. As of December 31, 2006, \$5 million of the severance costs was paid to employees.

During 2006, NOVA Chemicals restructured its North American operations to better align resources and reduce costs. As a result, the Company recorded a \$53 million restructuring charge related to severance, pension and other employee-related costs. Of this amount, \$10 million related to one-time pension curtailment and special termination benefits. Of the remaining \$43 million, \$22 million has been paid to employees by the end of 2006 with the majority of the remainder to be paid in 2007.

A \$15 million charge was recorded related to the accrual of total expected severance costs for the Chesapeake, Virginia polystyrene plant, which was closed in 2006. To date, \$3 million has been paid to employees.

During 2005, the Corporation provided for \$168 million in restructuring charges related to the following:

A \$76 million write-down of the Berre, France EPS plant and the Carrington, UK EPS plant was recorded, following the announcement by NOVA Innovene to cease EPS production at Berre and permanently shutdown the EPS plant at Carrington. These actions were completed in 2006. In addition to the plant write-downs, a \$7 million charge related to NOVA Chemicals' share of the severance costs incurred by the NOVA Innovene joint venture associated with these closures was recorded. No further costs are expected.

A \$76 million write-down of the Chesapeake, Virginia plant value was the result of NOVA Chemicals' decision to permanently close the plant.

In addition, a \$9 million charge was taken associated with the write-off of certain other nonproductive assets.

During 2004, the Corporation incurred \$8 million of dismantling costs related to the closure of its oldest and highest-cost polyethylene production line at the St. Clair River site. This dismantling began in 2003 and was concluded in 2004 for a total cost of \$15 million.

Restructuring activities are a corporate responsibility and accordingly are classified as Corporate and Other in segmented reporting.

## 15. Other Gains and Losses

year ended December 31 (millions of dollars)	2006		2005		2004	
	Before-Tax	After-Tax	Before-Tax	After-Tax	Before-Tax	After-Tax
Tax related settlement <sup>(1)</sup>	\$ —	\$ —	\$ 6	\$ 4	\$122	\$101
Gain on sale of 33.3% interest in Alberta Ethane Gathering System (Note 5)	—	—	—	—	53	40
Other	1	1	2	1	2	2
	\$ 1	\$ 1	\$ 8	\$ 5	\$177	\$143

(1) The Corporation recorded gains in 2005 and 2004 related to the final resolution of a tax dispute. The dispute was related to the deductibility of foreign taxes in certain returns filed with the United States Internal Revenue Service prior to 1982. \$12 million was received in 2004 and an additional \$116 million was received in 2005.

## 16. Income Taxes

Income tax expense (recovery) varies from amounts computed by applying the Canadian federal and provincial statutory income tax rates to income (loss) before income taxes as shown in the following table:

<i>(millions of dollars, except as noted)</i>	2006	2005	2004
Income (loss) before income taxes	<b>\$(847)</b>	\$(102)	\$334
Statutory income tax rate	<b>32.49%</b>	33.62%	33.87%
Computed income tax expense (recovery)	<b>\$(275)</b>	\$ (34)	\$113
Increase (decrease) in taxes resulting from:			
(Higher) lower effective foreign tax rates	<b>(37)</b>	9	2
Lower tax rates and higher recoveries on asset sales	—	—	(5)
Non-provision of future income taxes on cost-of-service operations <sup>(1)</sup>	—	—	4
Reduction in tax reserve <sup>(2)</sup>	—	—	(11)
Income tax rate adjustments <sup>(3)</sup>	<b>(60)</b>	—	(7)
Lower tax rate on gain related to tax settlement <sup>(4)</sup>	—	(2)	(21)
Tax benefits not recognized on restructuring charges <sup>(5)</sup>	<b>226</b>	16	—
Other	<b>2</b>	10	6
Income tax expense (recovery)	<b>\$(144)</b>	\$ (1)	\$ 81
Current income tax expense	<b>\$ 75</b>	\$ 68	\$ 45
Future income tax expense (recovery)	<b>(219)</b>	(69)	36
Income tax expense (recovery)	<b>\$(144)</b>	\$ (1)	\$ 81

(1) Certain agreements for cost-of-service operations provide for the recovery of income taxes from customers. These agreements expired on June 30, 2004. While the agreements were in effect, the Corporation recorded income tax expense on these operations equal to the amounts recoverable under the agreements, resulting in no effect on net income (loss). Some agreements limited the recoverable amount to current taxes payable. Accordingly, the provision for income taxes excluded future income tax recoveries relating to these operations.

(2) NOVA Chemicals has a tax reserve, which is available to settle periodic tax disputes and ongoing tax adjustments. NOVA Chemicals assesses this reserve from time to time for adequacy and in 2004, determined that it was over-provided.

(3) In 2006, the Alberta and Federal Canadian Governments (2004 – the Alberta Government) substantively enacted a tax-rate reduction, which reduced income tax accruals for future tax liabilities by \$60 million (2005 – \$nil and 2004 – \$7 million). These benefits have been recorded as a reduction of income tax expense.

(4) The Corporation recorded gains in 2005 and 2004 related to the resolution of a tax dispute. The dispute related to the deductibility of foreign taxes in certain returns filed with the United States Internal Revenue Service prior to 1982.

(5) In instances where there is uncertainty as to the ultimate realization of tax benefits related to restructuring charges, the full amount of associated future income tax benefits may not be recognized. As part of the Corporation's impairment charge on its STYRENIX assets (see Note 14), \$220 million of potential future income tax benefits were not recorded. Another \$6 million of potential future income tax benefits associated with the Carrington, UK plant closure were also not recorded. These amounts are reflected as a valuation allowance, which can be taken into income in the future to offset any tax expense otherwise recordable in the relevant subsidiaries. At such time as these subsidiaries establish a record of ongoing profitability, such that the realization of the related future income tax asset is more likely than not, the remaining future income tax asset could be recognized at that time as a reduction in income tax expense.

The following table outlines the principal temporary differences comprising the future income tax assets (liabilities):

<i>(millions of dollars)</i>	2006	2005
Basis difference in plant and equipment	<b>\$(493)</b>	\$(843)
Unrealized foreign exchange gains	<b>(42)</b>	(57)
Reserves not currently deductible	<b>108</b>	113
Losses available to be carried forward	<b>202</b>	184
Other	<b>35</b>	(21)
Valuation allowance	<b>(245)</b>	(19)
Net future income tax liability	<b>\$(435)</b>	\$(643)

At December 31, 2006, the Corporation has U.S. Federal net operating loss carryforwards (NOLs) of \$415 million. The U.S. NOLs will begin to expire in 2021 and fully expire in 2026. In addition, NOVA Chemicals has \$110 million of Canadian NOLs that expire in 2010; and \$360 million NOLs in Switzerland, with expiration dates from 2008 to 2013.

The Company's valuation allowance of \$245 million at Dec. 31, 2006 relates principally to the uncertainty of the utilization of certain deferred tax assets, primarily tax loss and credit carryforwards in the U.S. and Switzerland.

The following table outlines the income tax expense (recovery) arising from Canadian and Foreign operations:

<i>year ended December 31 (millions of dollars)</i>	2006	2005	2004
Income (loss) before income taxes			
Canadian	\$ 155	\$ 201	\$ 473
Foreign	(1,002)	(303)	(139)
	\$ (847)	\$ (102)	\$ 334
Current income tax expense (recovery)			
Canadian	\$ 71	\$ 81	\$ 44
Foreign	4	(13)	1
	\$ 75	\$ 68	\$ 45
Future income tax expense (recovery)			
Canadian	\$ (79)	\$ (14)	\$ 83
Foreign	(140)	(55)	(47)
	\$ (219)	\$ (69)	\$ 36
Total income tax expense (recovery)	\$ (144)	\$ (1)	\$ 81

## 17. Changes in Non-Cash Working Capital

<i>year ended December 31 (millions of dollars)</i>	2006	2005	2004
Accounts receivable	\$ 57	\$ 3	\$(251)
Inventories	11	(46)	(242)
Accounts payable and accrued liabilities	(48)	184	203
Changes in non-cash working capital	20	141	(290)
Reclassification and other items not having a cash effect	7	(72)	121
Changes in non-cash working capital having a cash effect	\$ 27	\$ 69	\$(169)
These changes relate to the following activities:			
Operating	\$ 27	\$(43)	\$ (76)
Investing	(2)	110	(110)
Financing <sup>(1)</sup>	2	2	17
(Increase) decrease in working capital	\$ 27	\$ 69	\$(169)

(1) Changes in non-cash working capital related to financing activities include project advances of \$nil million (2005 – \$nil million and 2004 – \$15 million).

## 18. Employee Future Benefits

### Pension Plans

NOVA Chemicals sponsors both defined benefit and defined contribution pension arrangements.

Defined benefit pensions at retirement are mainly related to years of service and remuneration during the last years of employment with some plans having limited or conditional indexing provisions. One plan has provisions whereby the benefits are related to career average salaries. Actuarial reports are prepared regularly by independent actuaries for accounting and funding purposes using the projected unit credit method. The last actuarial valuation for all significant plans in North America and Europe was as of December 31, 2005.

Plan assets are measured at fair value while pension obligations are discounted using current yield rates of corporate bonds with terms to maturity that approximate the duration of the Corporation's pension liabilities. The plans' assets consist primarily of publicly traded equity and fixed income securities. Prior to January 1, 2005, the Corporation used a measurement date of December 31 for its pension and post-retirement plans. Effective January 1, 2005, the Corporation began using a measurement date of November 30 for its pension and post-retirement plans. Effective January 1, 2006, the Corporation reverted back to a measurement date of December 31 for its pension and post-retirement plans, as this will be required by U.S. accounting rules. The December 31 measurement date will be used consistently in future periods.

The North American restructuring that occurred in 2006 and the redesign of certain European plans triggered the following charges: a curtailment charge, a special termination charge and a settlement charge. A curtailment charge results from the termination of employment earlier than previously assumed and requires the immediate recognition of unrecognized amounts that were scheduled to be reflected in future accounting periods. A special termination charge results from the enhancements provided under the voluntary programs; for example, additional years of age and service. A settlement charge results when the total lump sums paid during a given year exceed a certain threshold. The impact of these charges are reflected in the table below and on page 101.

Upon commencement of the NOVA Innovene joint venture in October 2005, the defined benefit pension plans of each pre-joint venture entity were transferred to the NOVA Innovene joint venture with the financial responsibility for pre-close assets and liabilities retained by the pre-joint venture company and the financial responsibility for post-close assets and liabilities assumed by the NOVA Innovene joint venture. There is a specific arrangement to identify and apportion the pre- and post-close assets and liabilities. Therefore, the amounts presented in the defined benefit pension tables represent NOVA Chemicals' assets and obligations, for which it has provided an indemnity, and its share of the post-close assets and obligations of NOVA Innovene subsequent to October 1, 2005.

Pension and post-retirement expense (included in operating and selling, general and administrative costs) for all significant defined benefit plans consisted of the following:

<i>year ended December 31 (millions of dollars)</i>	Pension Plans			Post-Retirement Plans		
	2006	2005	2004	2006	2005	2004
Current service cost	\$ 27	\$ 26	\$ 24	\$ 2	\$ 2	\$ 2
Interest cost on accrued benefit obligations	43	39	34	5	4	4
Actual return on plan assets	(87)	(55)	(45)	—	—	—
Actuarial (gain) loss on accrued benefit obligations	28	2	25	—	—	(2)
Costs arising in the period	11	12	38	7	6	4
Differences between costs arising in the period and costs recognized in the period in respect of the long-term nature of employee future benefit costs:						
Return on plan assets	42	18	14	—	—	—
Transitional (asset) obligation	(6)	(5)	(5)	1	1	1
Actuarial (gain) loss	(18)	5	(21)	1	1	3
Past service and actual plan amendments	—	1	2	(1)	—	—
Net defined benefit cost recognized	29	31	28	8	8	8
Curtailment / special termination charge	9	—	—	5	—	—
Settlement charge	3	—	—	—	—	—
Total benefit cost recognized	\$ 41	\$ 31	\$ 28	\$ 13	\$ 8	\$ 8

The status of all significant defined benefit pension and post-retirement plans is as follows:

year ended December 31 (millions of dollars, except as noted)	Pension Plans			Post-Retirement Plans		
	2006	2005	2004	2006	2005	2004
<b>Change in benefit obligations</b>						
Benefit obligation at beginning of year	\$ 797	\$ 668	\$ 569	\$ 70	\$ 73	\$ 69
Current service cost	27	26	24	2	2	2
Interest cost	43	39	34	5	4	4
Experience (gain) loss	23	85	25	13	(8)	7
Plan amendments	(8)	—	—	(10)	—	—
Curtailment / special charges	(3)	—	—	6	—	—
Settlement gain	(33)	—	—	—	—	—
Commuted value payments	(20)	(6)	(7)	—	—	—
Employee contributions	8	4	5	1	1	1
Medicare Act subsidy effect	—	—	—	—	—	(9)
Benefits paid	(25)	(21)	(21)	(4)	(3)	(3)
Foreign currency exchange rate loss	12	2	39	—	1	2
<b>Benefit obligation at end of year</b>	<b>\$ 821</b>	<b>\$ 797</b>	<b>\$ 668</b>	<b>\$ 83</b>	<b>\$ 70</b>	<b>\$ 73</b>
<b>Change in plan assets</b>						
Fair value of plan assets at beginning of year	\$ 585	\$ 506	\$ 425	\$ —	\$ —	\$ —
Actual return on plan assets	87	55	45	—	—	—
Employer and employee contributions	83	52	32	4	3	3
Settlement loss	(35)	—	—	—	—	—
Benefits paid	(44)	(27)	(28)	(4)	(3)	(3)
Foreign currency exchange rate gain (loss)	9	(1)	32	—	—	—
<b>Fair value of plan assets at end of year</b>	<b>\$ 685</b>	<b>\$ 585</b>	<b>\$ 506</b>	<b>\$ —</b>	<b>\$ —</b>	<b>\$ —</b>
<b>Funded status</b>						
Plan assets in deficiency of benefit obligation	\$(136)	\$(212)	\$(162)	\$(83)	\$(70)	\$(73)
Unrecognized net transitional (asset) obligation	(38)	(44)	(47)	8	10	11
Unrecognized prior service cost	(4)	3	6	(8)	—	—
Unrecognized net actuarial loss	155	195	132	23	11	19
December contribution	—	2	—	—	—	—
<b>Net amounts recognized in consolidated balance sheets</b>	<b>\$ (23)</b>	<b>\$ (56)</b>	<b>\$ (71)</b>	<b>\$(60)</b>	<b>\$(49)</b>	<b>\$(43)</b>
<b>Weighted-average assumptions</b>						
Discount rate	5.1%	5.2%	5.6%	5.7%	5.6%	5.8%
Assumed long-term rate of return on plan assets <sup>(1)</sup>	7.4%	7.3%	7.3%	—	—	—
Rate of increase in future compensation	3.2%	3.6%	3.2%	—	—	—
Long-term health care inflation <sup>(2)</sup>	—	—	—	4.9%	4.9%	5.0%

(1) NOVA Chemicals establishes an appropriate long-term rate of return for each plan's assets which reflects asset allocations within each plan as well as independent views of long-term rate of return expectations for each asset class.

(2) Ultimate trend rate, expected to be achieved by 2012. The assumed health care cost trend rate used to measure the 2006 expected cost of benefits covered by the plans is 10% on average.

NOVA Chemicals recorded a liability of \$5 million in 2006 and \$4 million in each of years 2005 and 2004 for the following: health and welfare benefit continuation to disabled individuals and dependents until the earliest of the disabled's attainment of age 65, death or recovery; short-term disability income continuation; and COBRA continuation for medical and dental benefits. This liability is not included in the table above. A formal actuarial valuation is performed every three years with the most current evaluation having been performed as of December 31, 2005.

The plans are presented on the basis of accrued benefit obligations, rather than accumulated benefit obligations. The accrued benefit obligations and fair value of assets for NOVA Chemicals' pension plans in which the accrued benefit obligations exceed the fair value of plan assets, as of each year end, are shown below:

<i>(millions of dollars)</i>	Accrued Benefit Obligation	Fair Value of Assets
<b>December 31, 2006</b>	<b>\$694</b>	<b>\$551</b>
December 31, 2005	\$797	\$585
December 31, 2004	\$668	\$506

Expected benefit payments for the defined benefit pension plans and the post-retirement plans are as follows:

<i>(millions of dollars)</i>	Pension Plans	Post-Retirement Plans
2007	\$ 34	\$ 4
2008	\$ 57	\$ 5
2009	\$ 39	\$ 5
2010	\$ 42	\$ 5
2011	\$ 44	\$ 5
Five Years Thereafter	\$281	\$ 28

In 2007, NOVA Chemicals expects to fund its defined benefit pension plans by \$55 million.

#### **Defined Benefit Plan Assets**

The investment strategy for NOVA Chemicals' defined benefit plans is determined for each plan after taking into consideration the plan structure, nature of the liabilities, the funded status and cash flow requirements of the plan, the size of the assets, and the financial situation of the Corporation and its ability to withstand fluctuations in pension contributions. For the significant plans, asset-liability modeling has been utilized to assist in setting the investment strategy. The assets of each plan are invested in a variety of traditional financial instruments such as equities and fixed income securities using a combination of active and passive strategies. Non-traditional assets such as real estate and venture capital may also be considered in certain situations. Although the Corporation does not consider derivatives a separate asset class, they are permitted in order to manage the allocation of investments across asset classes, markets and currencies. However, under no circumstances can they be used for speculative purposes or have the effect of leveraging the assets.

While most of the benefits of diversification are achieved by allocating across different asset classes, the Corporation also believes it may be appropriate to further diversify by using multiple investment managers and employing different management styles within an asset class.

NOVA Chemicals' Canadian and U.S. plans are the most significant to the Corporation with 84% of total pension assets and 92% of total plan members in these plans. The asset allocation for these pension plans at the end of 2006, 2005, and 2004, and the target allocation for 2007, by asset category, follow. This information has been aggregated within a geographic segment as asset allocations are similar for the Canadian and U.S. plans.

#### **North American Plans**

Asset Category	Target Allocation		Percentage of Plan Assets	
	2007	2006	2005	2004
<i>year ended December 31</i>				
Equities	60%	<b>61%</b>	60%	60%
Fixed Income	40%	<b>39%</b>	40%	40%
Total	100%	<b>100%</b>	100%	100%

The investment strategies for the pension plans in Europe (most of which are sponsored by NOVA Innovene) differ significantly across countries and from NOVA Chemicals' North American plans. The different strategies reflect considerable variations in plan membership, plan liability structure, pension arrangements and plan asset size. Some European plans are re-insured with the investment strategy and asset allocation determined or heavily influenced by the re-insurer.

#### **Post-Retirement Benefits Other Than Pensions**

The Corporation provides medical care and life insurance benefits to eligible retirees and their dependents in North America. The Corporation accrues the cost of providing post-retirement benefits as the employees provide services. Post-retirement costs are funded as they are incurred.

A 1% increase in the health care inflation rate would have increased the post-retirement benefit obligation by an additional \$6 million at December 31, 2006 for Canadian plans and \$7 million for U.S. plans. A 1% decrease in the same health care inflation rate would have decreased the post-retirement benefit obligation by \$5 million for each of the Canadian and U.S. plans.

#### **Defined Contribution Arrangements**

NOVA Chemicals has a number of defined contribution arrangements providing pension benefits to certain groups of employees. The total expense for the Corporation's contribution to these plans was \$8 million in 2006 and \$7 million in each of the years 2005 and 2004. In 2007, NOVA Chemicals expects to fund its defined contribution plans by approximately \$8 million.

### **19. Asset Retirement Obligations**

The Corporation's asset retirement obligations are comprised of expected costs to be incurred upon termination of operations and the closure of active manufacturing plant facilities. The total undiscounted amount of estimated cash flows expected to be incurred on closure of active plants in 25 to 40 years is between \$225 million and \$250 million. This amount is based on third-party cost estimates obtained from reputable sources after an in-depth review of active plant sites and required clean-up and restoration activities. In arriving at the estimated asset retirement obligation, a credit-adjusted risk-free rate of 10.5% was used to discount the estimated future cash flows. The estimated asset retirement obligation liability of \$19 million at December 31, 2006 will increase, or accrete, each year over the lives of active plants until it equals the \$225 million to \$250 million expected to be incurred on closure of the plants. In addition to the liability for active sites, the Corporation also has an asset retirement obligation liability for decommissioning and restoration costs associated with plant sites that have been divested or are no longer in use. The accrued liability associated with these sites is \$4 million and is considered to be adequate at this time.

### **20. Contingencies and Commitments**

Various lawsuits and claims are pending by and against the Corporation. It is the opinion of management that final determination of these claims will not materially affect the financial position or operating results of the Corporation.

The Corporation leases office space and transportation equipment under various operating leases. The minimum lease payments are approximately \$520 million in total with annual amounts of \$46 million in 2007, \$43 million in 2008, \$46 million in 2009, \$41 million in 2010, \$35 million in 2011, and \$309 million thereafter. Rental expense under operating leases was \$62 million in 2006 (2005 – \$63 million and 2004 – \$59 million).

The Corporation has entered into agreements for the purchase of minimum amounts of feedstock and other raw materials for short- and long-term supply. The resulting obligations, based on year-end market prices, are approximately \$9,200 million in total with annual amounts of \$3,140 million in 2007, \$999 million in 2008, \$822 million in 2009, \$494 million in 2010, \$438 million in 2011, and \$3,307 million thereafter.

The Corporation is obligated under a long-term styrene monomer supply agreement to supply the NOVA Innovene joint venture with 50% of the joint venture's styrene monomer feedstock requirements.

## 21. Segmented Information

Based on results of a Securities and Exchange Commission (SEC) routine, periodic review of NOVA Chemicals' financial statements, NOVA Chemicals has increased the number of reportable business segments from three to seven. This change increases the amount of detail disclosed but does not impact the operation of the business units or the previously reported financial position, results of operations or cash flows. Prior periods have been restated accordingly.

### **(1) Joffre Olefins**

**Products:** Ethylene and co-products, including propylene, crude C4 and crude C5 hydrocarbons, and hydrogen.

**Applications:** Ethylene is used internally by NOVA Chemicals to produce polyethylene or sold to third parties who use ethylene to produce polyethylene and other products.

### **(2) Corunna Olefins**

**Products:** Ethylene and co-products, including propylene, crude C4 hydrocarbons, C5 dienes, dicyclopentadiene, aromatics, C9 resin oils, hydrogen and fuels. Feedstock mix determines the type and volume of co-products manufactured.

**Applications:** Ethylene is used internally by NOVA Chemicals to produce polyethylene and styrene, or sold to customers who use the ethylene to make other products. Chemical co-products are building blocks that are used by customers to make items such as tires, carpet and clothing fibers, and household goods. Energy co-products are primarily used by customers for fuel.

### **(3) Polyethylene**

**Products:** LLDPE, LDPE, HDPE; (Standard and Performance Products)

**Applications:** Polyethylene is sold to customers for production of a variety of end-use industrial and consumer products. Consumer products include packaging film, plastic bags, bottles, and toys. Industrial applications include storage drums, industrial wrap, retail packaging, and building products.

### **(4) Styrene Monomer**

**Products:** Styrene Monomer

**Applications:** Styrene monomer is used internally by NOVA Chemicals to produce styrenic polymers, or sold to customers who use styrene to produce styrenic polymers and other products such as synthetic rubber and unsaturated polyesters.

### **(5) North American Solid Polystyrene**

**Products:** SPS

**Applications:** SPS is sold to customers who make products for end-use applications including electronics and food packaging, small appliances, and construction components.

**(6) NOVA Innovene European Joint Venture**

**Products:** SPS and EPS. Neither of these products exceed the quantitative threshold for separate reportable segments.

**Applications:** SPS is sold to customers who make products for end-use applications including electronics and food packaging, small appliances, and construction components. EPS is sold to customers who make products for end-use applications including packaging for food and consumer products, and insulation for the building and construction industry.

**(7) Performance Styrenics**

**Products:** EPS and Styrenic Performance Products which include polymers such as ARCEL<sup>®</sup>, ZYLAR<sup>®</sup> and DYLARK<sup>®</sup>; as well as downstream business ventures. None of these products exceed the quantitative threshold for separate reportable segments.

**Applications:** EPS is sold to customers who make products for end-use applications including packaging for food and consumer products, and insulation for the building and construction industry. Customers for Styrenic Performance Products make protective packaging, automotive interiors, food packaging, consumer goods, medical devices, appliances and components for the construction industry.

The accounting policies of the segments are the same as those described in the summary of significant accounting policies on pages 80 to 84 of the Notes to Consolidated Financial Statements.

Segment performance is evaluated based on measures such as operating income (loss) and net income (loss). In addition, Adjusted EBITDA is reported as it is a measure used by management to evaluate the ability of each segment to generate operating cash flow.

NOVA Chemicals accounts for intersegment sales and transfers as if the sales or transfers were to third parties, that is, at current market price.

The following tables provide information for each segment:

**Revenues<sup>(1)</sup>**

	2006	2005	2004
Joffre Olefins	\$ 881	\$ 963	\$ 799
Corunna Olefins	1,245	897	793
Polyethylene	1,917	1,625	1,464
Performance Styrenics	408	388	394
Styrene Monomer	1,236	962	922
North American Solid Polystyrene	484	521	519
NOVA Innovene European joint venture	672	616	604
Eliminations	(324)	(356)	(225)
Total Revenues from External Customers	\$6,519	\$5,616	\$5,270

(1) Third-party.

**Intercompany and Affiliate Revenues**

	2006	2005	2004
Joffre Olefins	\$ 863	\$ 741	\$ 618
Corunna Olefins	752	533	613
Polyethylene	5	3	5
Performance Styrenics	13	4	—
Styrene Monomer	653	866	898
North American Solid Polystyrene	16	24	33
Eliminations	(2,302)	(2,171)	(2,167)
Total Intercompany and Affiliate Revenues	\$ —	\$ —	\$ —

**Consolidated Revenues<sup>1</sup>**

	2006	2005	2004
Joffre Olefins	\$ 1,744	\$ 1,704	\$ 1,417
Corunna Olefins	1,997	1,430	1,406
Polyethylene	1,922	1,628	1,469
Performance Styrenics	421	392	394
Styrene Monomer	1,889	1,828	1,820
North American Solid Polystyrene	500	545	552
NOVA Innovene European Joint Venture	672	616	604
Eliminations	(2,626)	(2,527)	(2,392)
Total Consolidated Revenues	\$ 6,519	\$ 5,616	\$ 5,270

(1) Before intersegment eliminations.

**Adjusted EBITDA<sup>1</sup>**

	2006	2005	2004
Joffre Olefins	\$558	\$313	\$300
Corunna Olefins	83	67	142
Polyethylene	120	202	188
Performance Styrenics	(24)	(5)	8
Styrene Monomer	(17)	(61)	42
North American Solid Polystyrene	(39)	(18)	2
NOVA Innovene European Joint Venture	(18)	(64)	(11)
Corporate	(54)	13	(98)
Eliminations	(5)	14	(3)
Total Adjusted EBITDA	\$604	\$461	\$570

(1) Net income (loss) before restructuring charges, income taxes, other gains and losses, interest expense and depreciation and amortization.

**Operating Income (Loss)**

	2006	2005	2004
Joffre Olefins	\$ 506	\$ 262	\$ 228
Corunna Olefins	24	17	93
Polyethylene	52	137	128
Performance Styrenics	(36)	(18)	(4)
Styrene Monomer	(72)	(113)	(1)
North American Solid Polystyrene	(60)	(47)	(28)
NOVA Innovene European Joint Venture	(50)	(94)	(42)
Corporate	(1,039)	(155)	(106)
Eliminations	(5)	14	(3)
Total Operating Income (Loss)	\$ (680)	\$ 3	\$ 265

**Net Income (Loss)**

	2006	2005	2004
Joffre Olefins	\$ 324	\$ 154	\$ 132
Corunna Olefins	25	2	56
Polyethylene	32	71	67
Performance Styrenics	(29)	(14)	(6)
Styrene Monomer	(61)	(81)	(12)
North American Solid Polystyrene	(44)	(33)	(16)
NOVA Innovene European Joint Venture	(47)	(92)	(44)
Corporate	(901)	(117)	77
Eliminations	(2)	9	(1)
Total Net Income (Loss)	\$(703)	\$(101)	\$253

**Depreciation and Amortization**

	2006	2005	2004
Joffre Olefins	\$ 52	\$ 51	\$ 72
Corunna Olefins	59	50	49
Polyethylene	68	65	60
Performance Styrenics	12	13	12
Styrene Monomer	55	52	43
North American Solid Polystyrene	21	29	30
NOVA Innovene European Joint Venture	32	30	31
Total Depreciation and Amortization	\$299	\$290	\$297

**Interest Expense (Net)**

	2006	2005	2004
Joffre Olefins	\$ 50	\$ 25	\$ 25
Corunna Olefins	20	11	10
Polyethylene	34	30	29
Performance Styrenics	10	7	7
Styrene Monomer	21	14	15
North American Solid Polystyrene	11	9	8
NOVA Innovene European Joint Venture	22	17	14
Total Interest Expense (Net)	\$168	\$113	\$108

(1) Management primarily relies on interest expense, rather than gross interest revenue and expense amounts, in managing the segments, thus only the net interest expense amount is disclosed.

**Income Tax Expense (Recovery)**

	2006	2005	2004
Joffre Olefins	\$ 131	\$ 82	\$ 72
Corunna Olefins	(19)	4	26
Polyethylene	(14)	37	32
Performance Styrenics	(18)	(12)	(5)
Styrene Monomer	(33)	(46)	(3)
North American Solid Polystyrene	(26)	(20)	(21)
NOVA Innovene European Joint Venture	(24)	(19)	(11)
Corporate	(138)	(32)	(8)
Eliminations	(3)	5	(1)
Total Income Tax Expense (Recovery)	\$ (144)	\$ (1)	\$ 81

**Capital Expenditures**

	2006	2005	2004
Joffre Olefins	\$ 25	\$ 18	\$ (2)
Corunna Olefins	45	204	105
Polyethylene	23	34	25
Performance Styrenics	81	86	35
Styrene Monomer	6	55	46
North American Solid Polystyrene	7	7	16
NOVA Innovene European Joint Venture	11	15	17
Total Capital Expenditures	\$198	\$419	\$242

**Assets**

	2006	2005	2004
Joffre Olefins	\$ 743	\$ 819	\$ 750
Corunna Olefins	1,092	1,074	781
Polyethylene	946	1,009	993
Performance Styrenics	429	332	262
Styrene Monomer	334	720	687
North American Solid Polystyrene	82	312	475
NOVA Innovene European Joint Venture	216	554	594
Corporate	331	412	527
Eliminations	(18)	(15)	(22)
Total Assets	\$4,155	\$5,217	\$5,047

## Geographic Information

### Revenues from External Customers<sup>(1)</sup>

	2006	2005	2004
Canada	\$2,304	\$1,976	\$1,706
United States	2,757	2,478	2,390
Europe and Other	1,458	1,162	1,174
	\$6,519	\$5,616	\$5,270

(1) Based on location of customer.

### Assets<sup>(1)</sup>

	2006	2005	2004
Canada	\$2,827	\$3,163	\$2,943
United States	857	1,252	1,320
Europe and Other	471	802	784
	\$4,155	\$5,217	\$5,047

(1) Based on location of operating facility.

## 22. Financial Instruments

### Financial Instrument Fair Values

Financial instrument fair values represent a reasonable approximation of amounts NOVA Chemicals would have received or paid to counterparties to unwind positions prior to their maturity. NOVA Chemicals has no plans to unwind these positions prior to maturity and has no significant exposure to any individual customer or counterparty.

The carrying amounts reported on the balance sheets for cash and cash equivalents, accounts receivable, bank loans, and accounts payable approximate their fair value. Fair values and carrying amounts for long-term debt are as follows:

December 31 (millions of dollars)	Carrying Amount <sup>(1)</sup>			Estimated Fair Value <sup>(2)</sup>		
	2006	2005	2004	2006	2005	2004
Long-term debt	\$1,877	\$2,038	\$1,714	\$1,852	\$2,050	\$1,798

(1) Includes debt installments due within one year.

(2) The fair value of long-term debt is based on quoted market prices, where available. If market prices are not available, fair values are estimated using discounted cash flow analysis, based on NOVA Chemicals' current incremental borrowing rates for similar borrowing arrangements.

### Foreign Exchange Risk Management

NOVA Chemicals has U.S., Canadian and European-based petrochemical operations. As a result, a portion of the Corporation's expenditures are incurred in Canadian dollars and Euros. At December 31, 2006, NOVA Chemicals had no outstanding foreign currency forward exchange contracts.

### Stock Price Volatility Risk Management

In 2005, the Corporation entered into cash-settled share forward transactions to manage its exposure to fluctuations in its stock-based compensation costs related to its two cash-settled stock-based incentive compensation plans (the restricted stock unit plan and the equity appreciation plan). Compensation costs associated with the plans fluctuate as a result of changes in the market price of the Corporation's common stock. In 2005, the Corporation entered into forward transactions for a total of 3,612,100 notional common shares with an average forward price of U.S. \$45.66. The forward transactions are cash-settled at the end of a 3-year term (November 2008), or at any time prior to that date, at the option of the Corporation, based on the difference between the Corporation's common stock price on the NYSE and the average execution price. If the Corporation's common stock price is in excess of the average execution price on the settlement date, the Corporation will receive the difference per share in cash, and if the Corporation's common stock price is less than the average execution price, the Corporation will pay the difference per share in cash. The forward transactions include an interest component which is accrued and payable by the Corporation on settlement of the forward transactions. The average execution price is determined by reference to the average forward price, less the interest

component, and is \$37.56. If the Corporation's common stock price is in excess of the average execution price, an unrealized gain is recorded and if the Corporation's common stock price is below the average execution price, an unrealized loss is recorded. Unrealized gains and losses associated with the share forward transactions are recorded as part of selling, general and administrative expenses, offsetting unrealized losses or gains on the cash-settled stock-based incentive compensation plans, and as long-term receivables or payables. At December 31, 2006, the mark-to-market value of the share forward transactions was a \$35 million (December 31, 2005 – \$15 million) unrealized loss, resulting in a liability, which is reported in long-term liabilities.

### Commodity Price Risk Management

NOVA Chemicals uses commodity-based derivatives to manage its exposure to price fluctuations on crude oil, refined products and natural gas transactions. The instruments are used to moderate the risk of adverse short-term price movements. Occasionally, longer-term positions will be taken to manage price risk for anticipated supply requirements.

At December 31, 2006, 2005, and 2004, the notional volume and estimated fair value of outstanding derivative contracts for natural gas are as follows:

December 31		2006	2005	2004
<b>Basis swaps</b>				
Notional volume	mcf millions	—	—	12.6
Weighted-average basis differential per mcf <sup>(1)</sup>	U.S.	\$ —	\$ —	\$0.61
Estimated fair value <sup>(2)</sup>	U.S. millions	\$ —	\$ —	\$ (3)
Term to maturity	Months	—	—	1-3
<b>Options</b>				
Notional volume – calls	mcf millions	—	—	1.1
Notional volume – puts	mcf millions	—	—	8.6
Weighted-average price per mcf – calls	U.S.	\$ —	\$ —	\$5.05
Weighted-average price per mcf – puts <sup>(3)</sup>	U.S.	\$ —	\$ —	\$2.50
Estimated fair value <sup>(4)</sup>	U.S. millions	\$ —	\$ —	\$ 1
Term to maturity	Months	—	—	1-3

(1) The Corporation will pay or receive the difference between the NYMEX market price and the U.S. export market price, plus a fixed differential established in the contract.

(2) The Corporation crystallized the losses on all of the basis swaps by placing offsetting positions. These crystallized losses will be recognized in income at their originally intended maturity dates.

(3) The Corporation will pay the difference between the NYMEX market price and the contract price (if contract is higher than market).

(4) Unrealized before-tax gain (loss).

At December 31, 2006, 2005, and 2004, the notional volume and estimated fair value of outstanding derivative contracts for crude oil, refined products, and alternative feedstock are as follows:

December 31		2006	2005	2004
Notional volume <sup>(1)</sup>	bbls millions	17.8	5.4	4.0
Weighted-average price per bbl	U.S.	\$52.69	\$51.56	\$42.67
Estimated fair value <sup>(2)</sup>	U.S. millions	\$ (2)	\$ 19	\$ 12
Mark-to-market <sup>(3)</sup>	U.S. millions	\$ (2)	\$ 19	\$ 9
Term to maturity	Months	1-21	1-19	1-24

(1) 2006 includes 7.5 million bbls (2005 – 2.3 million) of crude contracts and 10.3 million bbls (2005 – 3.1 million) of LPG contracts.

(2) Unrealized gain (loss).

(3) Recognized before-tax gain (loss), which for 2005 and 2004 is net of deferred transitional gains.

At December 31, 2006, 2005, and 2004, the notional volume and estimated fair value of outstanding derivative contracts for benzene are as follows:

December 31		2006	2005	2004
Notional volume	gls millions	—	—	0.2
Weighted-average price per gl <sup>(1)</sup>	U.S.	\$ —	\$ —	\$3.05
Estimated fair value <sup>(2)</sup>	U.S. millions	\$ —	\$ —	\$ (2)
Mark-to-market <sup>(3)</sup>	U.S. millions	\$ —	\$ —	\$ (2)
Term to maturity	months	—	—	1-3

(1) Benzene swaps, options, collars.

(2) Unrealized loss.

(3) Recognized before-tax loss.

In addition to the crystallized and outstanding positions described in the tables above, the Corporation had liquidated certain natural gas and crude oil positions. Gains on these positions attributable to changes in value prior to January 1, 2004 were deferred and are being recognized in income loss at the original maturity dates. The unamortized portion of liquidated gains was \$nil million at December 31, 2006 (2005 – \$nil million and 2004 – \$3 million).

The Corporation has recognized a net pre-tax net (loss) of \$(6) million from commodity risk management activities in income (loss) for the year ended December 31, 2006 (2005 – \$19 million gain and 2004 – \$22 million gain). This net (loss) gain is the result of \$15 million (2005 – \$7 million and 2004 – \$16 million) of realized net gains from settled, crystallized, and liquidated positions and \$(21) million loss (2005 – \$12 million gain and 2004 – \$6 million gain) of net mark-to-market gains (losses) on unrealized positions. Gains and losses on commodity-based derivatives are included in feedstock and operating costs.

#### **Interest Rate Risk Management**

When deemed appropriate, NOVA Chemicals enters into interest rate swap agreements to manage its interest rate price risk exposure on certain fixed-rate debt. The agreements generally involve the receipt of fixed-rate amounts in exchange for floating-rate LIBOR based payments over the terms of the related debt. In 2006, the Corporation had fixed-for-floating interest rate swaps outstanding on \$300 million (2005 – \$300 million and 2004 – \$300 million) of medium-term notes, which expired upon repayment of the related debt in May 2006. These positions had an estimated fair-market value of \$nil million at December 31, 2006 (\$3) million at December 31, 2005 and \$(2) million at December 31, 2004).

In prior years, a series of interest rate swaps on \$550 million of fixed-rate debt were liquidated, resulting in a before-tax gain of \$40 million in total. The gains have been deferred and are being recognized in income (loss) as a reduction of interest expense over the terms of the related debt instruments, of which \$300 million matured in 2006 and \$250 million matures in 2009.

#### **Credit Risk Management**

Credit exposure on financial instruments arises from the possibility that a counterparty to an instrument in which NOVA Chemicals is entitled to receive payment of an unrealized gain fails to perform. NOVA Chemicals has established a limit on contingent exposure for each counterparty based on the counterparty's credit rating. Credit exposure is managed through credit approval and monitoring procedures. NOVA Chemicals does not anticipate any counterparties that it currently transacts with will fail to meet their obligations. At December 31, 2006, 2005, and 2004, NOVA Chemicals' credit exposure was \$nil million for foreign currency instruments, \$nil million for interest rate instruments, and \$nil million (2005 – \$19 million and 2004 – \$11 million) for commodity-based instruments and \$nil million for share-based instruments.

Concentration of credit risk relates primarily to the Corporation's receivables, as certain customer groups are located in the same geographic area and operate in the same industry. The Corporation manages its credit risk relating to these receivables through credit approval and monitoring procedures.

## 23. United States Generally Accepted Accounting Principles

### Reconciliation To Accounting Principles Generally Accepted In The United States

The Corporation prepares its consolidated financial statements in accordance with Canadian GAAP, which, in some respects, are different from U.S. GAAP. The effect of these differences on the Corporation's consolidated net income (loss) and balance sheet are as follows:

<i>year ended December 31 (millions of dollars, except per share amounts)</i>	2006	2005	2004
Net income (loss) in accordance with Canadian GAAP	\$ (703)	\$ (101)	\$ 253
Add (deduct) adjustments for:			
Start-up costs <sup>(1)</sup>	(3)	(13)	5
Derivative instruments and hedging activities <sup>(2)</sup>	(2)	(3)	—
Inventory costing <sup>(3)</sup>	(2)	4	4
Stock-based compensation <sup>(4)</sup>	(1)	—	—
Restructuring <sup>(5)</sup>	11	—	—
Change in accounting policies <sup>(6)</sup>	—	—	(7)
Other	1	1	—
Net income (loss) in accordance with U.S. GAAP	\$ (699)	\$ (112)	\$ 255
Earnings (loss) per share using U.S. GAAP			
— Basic	\$ (8.47)	\$ (1.36)	\$ 2.94
— Diluted	\$ (8.47)	\$ (1.36)	\$ 2.74
Comprehensive income (loss) (net of tax) <sup>(7)</sup>			
Net income (loss) in accordance with U.S. GAAP	\$ (699)	\$ (112)	\$ 255
Cumulative translation adjustment <sup>(8)</sup>	54	(29)	121
Pension liability adjustments (less tax of \$(4), \$6 and \$nil) <sup>(9)</sup>	8	(9)	1
Comprehensive income (loss) in accordance with U.S. GAAP	\$ (637)	\$ (150)	\$ 377
Accumulated other comprehensive income <sup>(7)</sup>			
Cumulative translation adjustment <sup>(8)</sup>	\$ 357	\$ 303	\$ 332
Pension liability adjustments <sup>(9)</sup>	(82)	(12)	(3)
Accumulated other comprehensive income	\$ 275	\$ 291	\$ 329
<i>December 31 (millions of dollars)</i>	2006	2005	2004
Balance sheet items in accordance with U.S. GAAP			
Current assets <sup>(3)</sup>	\$ 1,370	\$ 1,455	\$ 1,482
Investment and other assets <sup>(1)(9)</sup>	82	159	139
Plant, property, and equipment (net) <sup>(1)(5)</sup>	2,719	3,604	3,429
Current liabilities <sup>(2)</sup>	(1,186)	(1,271)	(875)
Long-term debt <sup>(2)</sup>	(1,617)	(1,742)	(1,625)
Future income taxes	(397)	(635)	(677)
Deferred credits and long-term liabilities <sup>(2)(4)(9)</sup>	(501)	(363)	(380)
Common shareholders' equity	\$ 470	\$ 1,207	\$ 1,493

- (1) **Start-up Costs.** Canadian GAAP provides that when an entity starts up a new facility, expenditures incurred during the pre-operating period may be deferred when certain criteria are met. Under U.S. GAAP, all costs (except interest on constructed assets) associated with start-up activities must be expensed as incurred. See Note 5 for information on the Corporation's start-up costs.
- (2) **Derivative Instruments and Hedging Activities.** Canadian GAAP does not require the recognition of derivative instruments on the consolidated balance sheet at fair values, unless the derivative instrument does not qualify for hedge accounting under Canadian Accounting Guideline 13, *Hedging Relationships (AcG-13)*. Non-qualifying derivatives are adjusted to fair value through income (loss). Under U.S. GAAP, entities must follow Statement of Financial Accounting Standards (SFAS) No. 133, *Accounting for Derivative Instruments and Hedging Activities*, which requires the recognition of all derivatives on the balance sheet at fair value. Derivatives that are not hedges must be adjusted to fair value through income (loss). If the derivative is a hedge, depending on the nature of the hedge, changes in the fair value of derivatives will either be offset against the change in fair value of the hedged assets, liabilities, or firm commitments through earnings or recognized in other comprehensive income until the hedged item is recognized in earnings. For derivatives that are designated and qualify as hedging instruments, the Corporation documents the hedging strategy, including hedging instrument and hedged item, based on the risk exposure being hedged. Based upon the designated hedging strategy, effectiveness of the hedge in offsetting the hedged risk is assessed at inception and on an ongoing basis during the term of the hedge. The ineffective portion of a derivative's change in fair value is immediately recognized in earnings.
- The application of SFAS No. 133 for U.S. GAAP reporting results in differences related to foreign exchange, commodity based and other derivative instruments used by the Corporation. For information regarding the Corporation's use of derivatives and hedging activities under Canadian GAAP, see Note 22.
- (3) **Inventory Costing.** Canadian GAAP allows fixed overhead costs associated with production activities to be expensed during the period whereas U.S. GAAP requires an allocation of fixed production overhead to inventory.
- (4) **Stock-based compensation.** Under Canadian GAAP, the Employee Incentive Stock Option Plan is measured using a fair-value-based method, while the Equity Appreciation Plan and the Restricted Stock Unit Plan are marked-to-market based on intrinsic value. U.S. GAAP, SFAS No. 123(R), *Accounting for Share-Based Payment*, effective Jan. 1, 2006, requires the share-based compensation transactions to be accounted for using a fair-value-based method, such as the Black-Scholes method. This standard requires adoption using a modified prospective application. The fair value of awards classified as liability instruments must be remeasured subsequently at each reporting date through the settlement date. Changes in fair value during the requisite service period will be recognized as compensation cost over that period. The cumulative effect for the periods prior to December 31, 2005, of \$5 million after-tax has been charged to reinvested earnings (deficit) at January 1, 2006.
- (5) **Restructuring** Due to differences in the cost basis, under U.S. GAAP, of certain assets for which an impairment charge has been recorded (see Note 14), the resulting charge is lower under U.S. GAAP.
- (6) **Change in Accounting Policies.** In the fourth quarter of 2006, NOVA Chemicals adopted the Canadian recommendations associated with "stock-based compensation for employees eligible to retire before the vesting date" (see Note 2), which rules are essentially the same as those found in the U.S. GAAP standard, SFAS No. 123. Accordingly, no differences arose from this. On January 1, 2004, NOVA Chemicals adopted the fair value method of accounting for equity settled stock-based compensation, as more fully described in Note 2. In 2004, under U.S. GAAP, the cumulative effect of a change in accounting policy on prior period is reflected in net income (loss) for the year, whereas under Canadian GAAP, it is reflected as an adjustment to opening reinvested earnings (deficit) in the year of adoption.
- (7) **Comprehensive Income (Loss).** U.S. GAAP SFAS No. 130, *Reporting Comprehensive Income*, requires the presentation of a statement containing the components of comprehensive income (loss) and the accumulated balance of other comprehensive income (loss). Comprehensive income (loss) includes all changes in equity during the period including items that are not included in net income (loss). This statement is not currently required under Canadian GAAP.
- (8) **Cumulative Translation Adjustment.** Under U.S. GAAP, unrealized gains (losses) resulting from translation of self-sustaining foreign operations are recorded in other comprehensive income (loss) until there is a realized reduction in the investment.
- (9) **Pension Liability Adjustment.** In 2006, for U.S. GAAP reporting, SFAS No. 158, *Employers' Accounting for Defined Benefit Pension and Other Postretirement Plans—an amendment of FASB Statements No. 87, 88, 106, and 132(R)*—was effective. SFAS No. 158 requires an employer to recognize the overfunded or underfunded status of a defined benefit postretirement plan (other than a multiemployer plan) as an asset or liability in its statement of financial position and to recognize changes in that funded status in the year in which the changes occur through accumulated other comprehensive income. Retrospective application is not permitted. Accordingly, at December 31, 2006, the Corporation has recognized an additional pension and post-retirement liability of \$124 million, resulting in a charge of \$82 million (net of tax) to accumulated other comprehensive income. In 2006 (prior to adoption of SFAS No. 158), 2005 and 2004, SFAS No. 87, *Employer's Accounting for Pensions*, was followed with respect to pension accounting, which required an employer to record an additional minimum liability (AML) if the unfunded accumulated benefit obligation exceeded the accrued pension liability or if there was a prepaid pension asset with respect to the plan. If an AML was recognized, an intangible asset, in an amount not exceeding the unrecognized prior service cost, was also recognized. The excess of the AML, over the intangible asset, if any, was charged to other comprehensive income, net of income tax effects.
- (10) **Joint Ventures.** NOVA Chemicals accounts for its interests in joint ventures using the proportionate consolidation method under Canadian GAAP. As permitted by specific United States Securities and Exchange Commission exemptions, adjustments to reflect equity accounting, as required under U.S. GAAP, have not been made. The equity method would not result in any changes in NOVA Chemicals' net income (loss) or shareholders' equity, however, all assets, liabilities, revenue, expenses, and most cash flow items would decrease when compared with the amounts that are presented using proportionate consolidation.

## 24. New Accounting Pronouncements

### **Canadian GAAP**

*CICA 3855, Financial Instruments – Recognition and Measurement and CICA 3865, Hedges*, is applicable for interim and annual periods relating to fiscal years beginning on or after October 1, 2006. CICA 3855 harmonize Canadian and U.S. GAAP and International Financial Reporting Standards (IFRS) by establishing standards for recognition and measurement of financial assets, liabilities and non-financial derivatives. Previous Canadian standards addressed disclosure and presentation matters only. CICA 3865 harmonizes Canadian GAAP with U.S. GAAP FAS 133 by establishing standards for when and how hedge accounting may be applied and recorded, further restricting which hedging relationships qualify for hedge accounting.

*CICA 1530, Comprehensive Income*, is applicable for interim and annual periods relating to fiscal years beginning on or after October 1, 2006. This standard harmonizes Canadian and U.S. GAAP and IFRS. This statement defines the presentation of comprehensive income and its components. Comprehensive income includes all changes in equity during the period including items that are not recognized in net income (loss).

*CICA 1506, Changes in Accounting Policies and Estimates and Errors*, is effective Jan. 1, 2007 and provides that an entity is permitted to change accounting policies only when it is required by a primary source of GAAP, or when the change results in a reliable and more relevant presentation in financial statements.

### **U.S. GAAP**

*SFAS 158, Employers' Accounting for Defined Benefit Pension and Other Post-retirement Plans*, requires recognition of the overfunded or underfunded status of pension and other post-retirement benefit plans on the balance sheet, effective for fiscal years ending after Dec. 15, 2006. In addition, SFAS 158 requires the measurement date, which is the date at which the benefit obligation and plan assets are measured, to be a company's fiscal year-end. This provision is effective for fiscal years ending after Dec. 15, 2008.

*FIN 48, Accounting for Uncertainty in Income Taxes*, clarifies accounting for income taxes by prescribing a minimum recognition threshold that a tax position is required to meet before being recognized. An enterprise would be required to recognize the best estimate of a tax position if that position is more likely than not to be sustained upon examination, based solely on the technical merits of the position. FIN 48 is effective for fiscal years beginning after December 15, 2006. NOVA Chemicals has not yet determined the effect of adopting this standard.

NOVA Chemicals is currently evaluating the effects of adopting these Canadian and U.S. GAAP standards.

# Trademark Information

 **NOVA** Chemicals is a registered trademark of NOVA Brands Ltd.; authorized use/utilisation autorisée.

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Responsible Care® is a registered trademark of the Canadian Chemical Producers' Association (CCPA) in Canada and is a registered service mark of the American Chemistry Council (ACC) in the United States.

# Investor Information

## Annual Meeting

Shareholders are invited to attend NOVA Chemicals' annual meeting on Thursday, April 12, 2007 at 10:30 a.m. at the Sheraton Eau Claire – Wildrose Ballroom, 255 Barclay Parade, SW, Calgary, AB.

## Shareholder Information

For inquiries on stock-related matters, including dividend payments, stock transfers and address changes, contact NOVA Chemicals' Shareholder Relations, toll free, at 1-800-661-8686 or via e-mail to: [shareholders@novachem.com](mailto:shareholders@novachem.com)

## Requests for Additional Information

For copies of NOVA Chemicals' quarterly reports, additional copies of this annual report, or to order a complete shareholder information package, please send an e-mail to: [publications@novachem.com](mailto:publications@novachem.com).

## Rapports annuels en français

On peut obtenir un exemplaire de ce rapport en français auprès du service des affaires publiques ou du service des relations avec les investisseurs au (403) 750-3600 au (412) 490-4000.

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Fax: 403-264-2100  
Internet: [www.cibcmellon.com](http://www.cibcmellon.com)

## Share Registration

NOVA Chemicals' common shares are listed on the New York and Toronto Stock Exchanges under the trading symbol "NCX." On the Toronto Stock Exchange (TSX), NOVA Chemicals is listed and traded in both Canadian and U.S. dollars. On December 31, 2006, approximately 83 million common shares were outstanding and there were some 11,400 registered shareholders. NOVA Chemicals' common shares are transferable at the Vancouver, Calgary, Toronto, Montréal and Halifax offices of CIBC Mellon Trust Company. The common shares are also transferable at Mellon Investor Services LLC, New York, New York.

## Non-Resident Investors

Dividends paid to non-resident shareholders are subject to Canadian withholding tax, generally at the rate of 15% for the United States and other countries where Canadian tax treaties apply, and 25% for non-treaty countries. Certain exemptions or refunds may be available to residents of the United States and other countries where Canadian tax treaties apply. Under regulations in effect in the United States, the Company is generally subject to the U.S. backup withholding rules, which would require withholding at a rate of 28% on dividends and interest paid to certain U.S. persons who have not provided the Company with a taxpayer identification number. Please consult your tax advisor for more information.



**NOVA** Chemicals

[www.novachemicals.com](http://www.novachemicals.com)

*END*