

NOVA CHEMICALS CORP /NEW  
Form 20-F  
March 13, 2012

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**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION**  
Washington, D.C. 20549

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**FORM 20-F**

o **REGISTRATION STATEMENT PURSUANT TO SECTION 12(b) OR (g) OF THE SECURITIES EXCHANGE ACT OF 1934**

**OR**

ý **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

**For the fiscal year ended December 31, 2011**

**OR**

o **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

**For the transition period from \_\_\_\_\_ to \_\_\_\_\_**

**OR**

o **SHELL COMPANY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

**Date of event requiring this shell company report  
Commission file number 1-3064**

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**NOVA Chemicals Corporation**

*(Exact name of Registrant as specified in its charter)*

**New Brunswick, Canada**

*(Jurisdiction of incorporation or organization)*

**1000 7<sup>th</sup> Avenue S.W.**

**Calgary, Alberta**

**Canada, T2P 5L5**

*(Address of principal executive offices)*

**Contact Person: Todd D. Karran  
Senior Vice President and Chief Financial Officer**

**1000 7<sup>th</sup> Avenue S.W.**

**Calgary, Alberta**

**Canada, T2P 5L5**

**Telephone: 403-750-3600**

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Fax: 403-269-7410

(Name, telephone, e-mail and/or facsimile number and address of company contact person)

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Securities registered or to be registered pursuant to Section 12(b) of the Act: **None**

Securities registered or to be registered pursuant to Section 12(g) of the Act: **None**

Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act: **None**

As of December 31, 2011, there were 141,494,222 shares of the registrant's common stock outstanding.

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.  Yes  No

If this report is an annual or transition report, indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934.  Yes  No

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.  Yes  No

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files).  Yes  No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer or a non-accelerated filer. See definition of "accelerated filer and large accelerated filer" in Rule 12b-2 of the Exchange Act (check one):

Large accelerated filer

Accelerated filer

Non-accelerated filer

Indicate by check mark which basis for accounting the registrant has used to prepare the financing statements included in this filing:

U.S. GAAP

International Financial Reporting Standards as issued by  
the International Accounting Standards Board

Other

If "Other" has been checked in response to the previous question, indicate by check mark which financial statement item the registrant has elected to follow.

Item 17

Item 18

If this is an annual report, indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).

Yes  No

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## EXPLANATORY NOTES

### *The Corporation*

We are a global company continued under the laws of the province of New Brunswick, Canada, with our head office located at 1000-7<sup>th</sup> Avenue S.W., Calgary, Alberta, Canada T2P 5L5, and our United States commercial center located at 1555 Coraopolis Heights Road, Moon Township, PA 15108. Our telephone number is (403) 750-3600. We maintain a website at [www.novachemicals.com](http://www.novachemicals.com). The information on our website is not a part of this annual report on Form 20-F.

Unless otherwise indicated or required by the context, as used in this Form 20-F, the terms "NOVA Chemicals," the "Corporation," "we," "our" and "us" refer to NOVA Chemicals Corporation and all of its consolidated subsidiaries.

### *Presentation of Financial Information*

The annual audited consolidated financial statements contained in this annual report on Form 20-F are reported in U.S. dollars. For all periods up to and including the year ended December 31, 2010, we prepared our consolidated financial statements in accordance with Canadian generally accepted accounting principles ("Canadian GAAP"). The annual audited consolidated financial statements for the year ended December 31, 2011 are our first annual consolidated financial statements that have been prepared in accordance with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board ("IASB") and IFRS 1, *First Time Adoption of International Financial Reporting Standards*. See *International Financial Reporting Standards - Transition from Canadian GAAP to IFRS* in our "Management's Discussion and Analysis of Financial Condition and Results of Operations" included in this annual report on Form 20-F under "Item 5 - Operating and Financial Review and Prospects."

We have prepared the annual audited consolidated financial statements that comply with IFRS as described in the accounting policies in Note 2 of our annual audited consolidated financial statements. In preparing the annual audited consolidated financial statements, our opening statement of financial position was prepared at January 1, 2010, our date of transition to IFRS. Note 26 of our annual audited consolidated financial statements explains the principal adjustments we made in restating our Canadian GAAP statements of financial position as at January 1, 2010 and December 31, 2010 and our previously published Canadian GAAP consolidated statements of income and comprehensive income for the year ended December 31, 2010.

### *Market and Industry Data*

We obtained the market and competitive position data used throughout this annual report on Form 20-F from our own research and surveys, or studies conducted by third parties and industry or general publications, including data from Chemical Market Associates, Inc., Nexant ChemSystems, the American Chemistry Council, IHS Global Insight and other petrochemical industry and economic consultants. Industry publications and surveys generally state that they have obtained information from sources believed to be reliable. We have not independently verified such data. Similarly, our internal research has not been verified by any independent sources.

## TRADEMARKS

Advanced SCLAIRTECH and SCLAIRTECH are trademarks of NOVA Chemicals.

ARCEL®, Elemix®, DYLARK®, DYLITE®, and NOVACAT® are registered trademarks of NOVA Chemicals Inc.

SCLAIR® and SURPASS® are registered trademarks of NOVA Chemicals Corporation in Canada and of NOVA Chemicals (International) S.A. elsewhere; authorized use/utilisation autorisée.

Responsible Care® is a registered trademark of the Chemistry Industry Association of Canada in Canada ("CIAC") and is a registered service mark of the American Chemistry Council ("ACC") in the United States.

**DISCLOSURE REGARDING FORWARD-LOOKING INFORMATION**

This annual report contains forward-looking information. The words "believe," "expect," "plan," "intend," "estimate," or "anticipate" and similar expressions, as well as future or conditional verbs such as "should," "would," and "could" often identify forward-looking information. Forward-looking information appears in a number of places and includes statements with respect to, among other things:

our cost competitive feedstock position, our other competitive advantages and our ability to compete successfully;

new and conventional feedstock sources, including availability of feedstock generally and the timing of receipt of new feedstock;

our plans to utilize our Joffre ethylene and polyethylene capacity;

the conversion of our Corunna cracker to utilize up to 100% NGLs;

our NOVA 2020 growth plans, including expected costs and timing;

our business strategy, the trends we anticipate and general economic conditions;

ongoing litigation; and

our liquidity.

The forward-looking information is based on our current expectations and is subject to a number of risks, uncertainties and assumptions. There is significant risk that predictions, forecasts, conclusions and projections that constitute forward-looking information will not prove to be accurate, that our assumptions may not be correct and that actual results may vary from the forward-looking information. We caution readers not to place undue reliance on our forward-looking information 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 information.

With respect to forward-looking information contained in this annual report, we have made material assumptions regarding, among other things: future oil, natural gas and natural gas liquids prices; our ability to obtain raw materials; our ability to market products successfully to our anticipated customers; the impact of increasing competition; and our ability to meet time and budget targets for significant capital expenditures. 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 information 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;

starting up and operating facilities and avoiding unplanned facility shutdowns;

meeting time and budget targets for significant capital investments;

safety, health and environmental risks associated with the operation of chemical plants and marketing of chemical products;

changes in, or the introduction of new laws and regulations relating to our business, including environmental, competition and employment laws; and

economic uncertainties;

The information contained in this annual report, including the information provided under the heading "Risk Factors," identifies these and additional risks that could affect our operating results and performance.

The forward-looking information in this annual report is expressly qualified in its entirety by this cautionary statement. In addition, the forward-looking information is made only as of the date of this annual report, and except as required by applicable law, we undertake no obligation to update publicly this forward-looking information to reflect new information, subsequent events or otherwise.

**PART I**

**Item 1. Identity of Directors, Senior Management and Advisors**

Not Applicable

**Item 2. Offer Statistics and Expected Timetable**

Not Applicable

**Item 3. Key Information**

**3.A. SELECTED FINANCIAL DATA**

The selected historical consolidated financial information set forth below has been derived from our annual audited consolidated financial statements for each of the years in the five-year period ended December 31, 2011, which statements have been audited by Ernst & Young LLP, Chartered Accountants.

For the years ended December 31, 2011 and 2010, we have prepared our consolidated financial statements in accordance with IFRS, as issued by the IASB. Our December 31, 2010 consolidated financial statements were initially prepared in accordance with Canadian GAAP, consistent with the prior years and the periods ended December 31, 2009, July 5, 2009 and December 31, 2008 and 2007. We have adjusted our consolidated financial information at and for the year ended December 31, 2010, in accordance with IFRS 1, and therefore the financial information set forth in this annual report on Form 20-F for the year ended December 31, 2010 may differ from information previously published. We adopted IFRS with a transition date of January 1, 2010. For details regarding the adjustments made with respect to the comparative data refer to Note 26 to our annual audited consolidated financial statements contained in this annual report on Form 20-F.

The selected historical consolidated financial information presented below is condensed and may not contain all of the information that you should consider. This selected financial data should be read in conjunction with our annual audited consolidated financial statements, the notes thereto and the section entitled "Item 5 Operating and Financial Review and Prospects."



**In accordance with IFRS**

The tables below set forth selected consolidated financial data under IFRS for the years ended December 31, 2011 and 2010. The information has been derived from our annual audited consolidated financial statements set forth in "Item 17 Financial Statements."

<b>Year ended December 31 (millions of U.S. dollars, unless otherwise noted)</b>	<b>2011</b>		<b>2010</b>	
<b>Consolidated Income Statement Data:</b>				
Revenue	\$	5,241	\$	4,576
Feedstock and operating costs		4,026		3,737
Research and development		41		37
Sales and marketing		29		27
General and administrative		138		178
<b>Total operating expenses</b>		<b>4,234</b>		<b>3,979</b>
Operating profit from continuing operations		1,007		597
Finance costs, net		(166)		(186)
Other (losses) gains, net <sup>(a)</sup>		(18)		(50)
Profit before income taxes from continuing operations		823		361
Income tax expense		(215)		(124)
Profit from continuing operations		608		237
Profit from discontinued operations, net of tax		7		26
<b>Profit</b>	\$	<b>615</b>	\$	<b>263</b>
<b>Selected Financial Data:</b>				
Revenue from continuing operations				
Olefins/Polyolefins	\$	4,957	\$	4,308
Performance Styrenics		327		304
Intersegment eliminations <sup>(b)</sup>		(43)		(36)
<b>Total revenue from continuing operations</b>	\$	<b>5,241</b>	\$	<b>4,576</b>
Operating profit (loss) from continuing operations				
Olefins/Polyolefins	\$	1,125	\$	786
Performance Styrenics		7		3
Corporate		(125)		(192)
<b>Total operating profit from continuing operations</b>	\$	<b>1,007</b>	\$	<b>597</b>
<b>Other Consolidated Financial Data:</b>				
Capital expenditures for continuing operations	\$	158	\$	126
Cash provided by operating activities	\$	950	\$	655
Ratio of earnings to fixed charges <sup>(c)</sup>		5.5		2.8

(millions of U.S. dollars)	December 31 2011	December 31 2010	January 1 2010
<b>Consolidated Statement of Financial Position Data:</b>			
Cash and cash equivalents	\$ 960	\$ 306	\$ 238
Working capital <sup>(d)</sup>	528	501	428
Property, plant and equipment	3,446	3,456	3,560
Total assets	6,208	5,575	5,474
Total debt <sup>(e)</sup>	1,741	1,695	1,946
Equity	2,380	1,971	1,770

Notes:

- (a) Other (losses) gains, net include:

Year ended December 31 (millions of U.S. dollars)	2011	2010
Patent litigation	\$ (20)	\$ (95)
Insurance claim		45
Other	2	
	\$ (18)	\$ (50)

- (b) Intersegment eliminations relate to feedstock requirements for our long-term styrene monomer processing agreement.
- (c) For purposes of computing the ratio of earnings to fixed charges, earnings consist of earnings from continuing operations before income taxes plus fixed charges (excluding capitalized interest during the period). Fixed charges consist of interest expense, capitalized interest and amortization of bond discount and issue costs.
- (d) Working capital equals trade and other receivables, plus income taxes receivable, inventories, and other current assets; less trade and other payables, income taxes payable, other current liabilities and the current portion of provisions.
- (e) Total debt equals long-term debt plus installments on long-term debt due within one year.

#### **In accordance with Canadian GAAP**

The tables below for the periods from July 6, 2009 to December 31, 2009 and from January 1, 2009 to July 5, 2009 and for the years ended December 31, 2008 and 2007 contain selected financial data prepared in accordance with Canadian GAAP, which have been derived from our previously published audited consolidated financial statements for the periods ending on such dates.

#### ***IPIC Transaction***

On February 23, 2009, we entered into an arrangement agreement with International Petroleum Investment Company ("IPIC"), which is wholly owned by the government of the Emirate of Abu Dhabi, providing for the acquisition by IPIC of all of our outstanding common shares for cash consideration of \$6.00 per share. On July 6, 2009, IPIC completed the acquisition of NOVA Chemicals and, through a wholly owned subsidiary, acquired all of our issued and outstanding common shares (the "Acquisition"). Our common shares were delisted from the New York Stock Exchange and the Toronto Stock Exchange on July 6, 2009.

We elected to use push-down accounting under the Canadian Institute of Chartered Accountants ("CICA") 1625, *Comprehensive revaluation of assets and liabilities*, which resulted in our assets and liabilities being comprehensively revalued to be consistent with the values recorded by IPIC in accordance with business combination accounting standards. In this respect, we applied, for the first time and prospectively, the principles of CICA 1582, *Business combinations*, in connection with the push-down accounting. As a result, the carrying values of all identifiable assets and liabilities were adjusted to their respective estimated fair values on July 6, 2009.

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Although we continued as the same legal entity after the Acquisition, our selected financial data for 2009 is presented for two periods: Predecessor and Successor, which relate to the periods preceding and succeeding the Acquisition on July 6, 2009. These separate periods are presented to reflect the new accounting basis established for our company as of July 6, 2009, and highlight the fact that the financial information for these periods has

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been prepared under two different historical-cost bases of accounting. The Successor portion of the financial information also reflects the additional equity contributions from IPIC.

(millions of U.S. dollars, unless otherwise noted)	July 6- Dec. 31 2009	Jan. 1- July 5 2009	Year ended December 31	
	Successor		2008	2007
<b>Consolidated Statement of Income (Loss) Data:</b>				
Revenue	\$ 1,612	\$ 1,345	\$ 5,645	\$ 4,893
Feedstock and operating costs	1,157	1,167	5,055	3,766
Depreciation and amortization	131	117	235	215
Selling, general and administrative	82	175	212	218
Research and development	17	17	44	45
Foreign exchange losses (gains)	104	39	(117)	
Restructuring charges <sup>(a)</sup>	22	41	32	13
<b>Total operating expenses</b>	<b>1,513</b>	<b>1,556</b>	<b>5,461</b>	<b>4,257</b>
Operating income (loss) from continuing operations	99	(211)	184	636
Interest expense, net	(83)	(92)	(149)	(171)
Other gains (losses), net <sup>(b)</sup>		6	(1)	18
<b>Income (loss) from continuing operations before income taxes</b>	<b>16</b>	<b>(297)</b>	<b>34</b>	<b>483</b>
Income tax (expense) recovery from continuing operations	(7)	62	71	(48)
<b>Income (loss) from continuing operations</b>	<b>9</b>	<b>(235)</b>	<b>105</b>	<b>435</b>
Loss from discontinued operations, net of tax	(11)	(4)	(145)	(87)
<b>Net (loss) income</b>	<b>\$ (2)</b>	<b>\$ (239)</b>	<b>\$ (40)</b>	<b>\$ 348</b>
<b>Selected Financial Data:</b>				
Revenue from continuing operations				
Olefins/Polyolefins	\$ 1,482	\$ 1,258	\$ 5,301	\$ 4,533
Performance Styrenics	143	93	388	371
Intersegment eliminations <sup>(c)</sup>	(13)	(6)	(44)	(11)
<b>Total revenue from continuing operations</b>	<b>\$ 1,612</b>	<b>\$ 1,345</b>	<b>\$ 5,645</b>	<b>\$ 4,893</b>
Operating income (loss) from continuing operations				
Olefins/Polyolefins	\$ 223	\$ 43	\$ 371	\$ 792
Performance Styrenics	5	(19)	(49)	(28)
Corporate	(129)	(235)	(138)	(128)
<b>Total operating income (loss) from continuing operations</b>	<b>\$ 99</b>	<b>\$ (211)</b>	<b>\$ 184</b>	<b>\$ 636</b>
<b>Other Consolidated Financial Data:</b>				
Capital expenditures for continuing operations	\$ 55	\$ 35	\$ 144	\$ 126
Cash (used in) provided by operating activities	\$ (20)	\$ (258)	\$ 272	\$ 329
Ratio of earnings to fixed charges <sup>(d)</sup>	1.2	N/A	1.3	3.5
<b>U.S. GAAP Financial Data:</b>				
Revenue	\$ 1,612	\$ 1,345	\$ 5,645	\$ 4,893
Net (loss) income	(2)	(240)	(24)	363

(millions of U.S. dollars)	December 31 2009	December 31 2008	December 31 2007
<b>Consolidated Balance Sheet Data:</b>			
Cash and cash equivalents	\$ 232	\$ 40	\$ 67
Working capital <sup>(e)</sup>	256	(28)	238
Property, plant and equipment	3,553	2,486	2,734
Total assets	5,596	4,082	5,143
Total debt <sup>(f)</sup>	1,824	1,650	1,795
Shareholders' equity	1,793	895	1,072
<b>U.S. GAAP Financial Data:</b>			
Total assets	5,596	4,081	5,177
Total debt <sup>(g)</sup>	1,824	1,650	1,794
Shareholders' equity	1,800	746	987

Notes:

- (a) Restructuring charges include:

(millions of U.S. dollars)	July 6- Dec. 31 2009	Jan. 1- July 5 2009	Year ended December 31	
	Successor	Predecessor	2008	2007
Asset impairments	\$	\$ 17	\$ 17	\$
Severance costs	21	13	6	7
Other	1	11	9	6
	\$ 22	\$ 41	\$ 32	\$ 13

In 2007, restructuring charges consisted of \$7 million associated with the elimination of approximately 90 positions in the U.S. and Europe and \$6 million for other restructuring actions taken to reduce costs. In 2008, restructuring charges consisted of \$32 million related to impairment charges for certain joint venture and equity investments, costs incurred for discontinued capital projects and other restructuring costs related to actions taken to reduce costs. In the period January 1 to July 5, 2009, restructuring charges consisted of \$31 million related to our decision to exit the DYLARK® engineering resin business and \$10 million of severance and other employee related costs related to restructuring of our Performance Styrenics business. In the period July 6 to December 31, 2009, restructuring charges consisted of \$21 million related to severance and other employee related costs due to restructuring activities across the Corporation and \$1 million related to our decision to exit the DYLARK engineering resin business.

- (b) Other gains (losses), net include:

(millions of U.S. dollars)	July 6- Dec. 31 2009	Jan. 1- July 5 2009	Year ended December 31	
	Successor	Predecessor	2008	2007
Gain on sale of Chesapeake	\$	\$	\$	\$ 17
Gain on sale of Cambridge				1
Other		6	(1)	
	\$	\$ 6	\$ (1)	\$ 18

- (c) Intersegment eliminations relate to feedstock requirements for our long-term styrene monomer processing agreement.

- (d) For purposes of computing the ratio of earnings to fixed charges, earnings consist of earnings from continuing operations before income taxes plus fixed charges (excluding capitalized interest during the period). Fixed charges consist of interest expense, capitalized interest and amortization of bond

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discount and issue costs. For the period January 1, 2009 through July 5, 2009, earnings were insufficient to cover fixed charges, and the ratio is not meaningful.

- (e) Working capital equals accounts receivable plus prepaid expenses plus inventories less accounts payable and accrued liabilities.
- (f) Total debt equals long-term debt plus installments on long-term debt due within one year and bank loans.
- (g) Total debt includes long-term debt, installments on long-term debt due within one year and bank loans, all under U.S. GAAP.

**3.B. CAPITALIZATION AND INDEBTEDNESS**

Not Applicable

**3.C. REASONS FOR THE OFFER AND USE OF PROCEEDS**

Not Applicable

**3.D. RISK FACTORS**

**Risks Related to Our Business**

***The cyclical nature of plastics and chemical businesses may cause significant fluctuation in our income and cash flow.***

Our historical operating results reflect the cyclical and volatile nature of plastics and chemical businesses. Our businesses historically experience alternating periods of inadequate capacity and tight supply, causing prices and profit margins to increase, followed by periods of excess capacity and loose supply that lead to declining capacity utilization, prices and profit margins. The markets for ethylene, co-products and polyethylene, are also highly cyclical, resulting in volatile profits and cash flow over the business cycle. Because we derive nearly all of our revenue from sales of these products, our operating results are more sensitive to this cyclical nature than many of our competitors who have more diversified businesses. This cyclical nature is exacerbated by volatility in feedstock prices. We cannot provide assurance that pricing or profitability in the future will be comparable to any particular historical period, including the most recent period shown in our operating results.

Excess industry capacity, especially at times when demand is weak, has in the past and may in the future cause us and other industry participants to lower production rates, which can reduce our margins, income and cash flow.

***Volatility in costs of energy and raw materials may result in increased operating expenses and reduced results of operations.***

We purchase large amounts of energy and raw materials, including natural gas, for our businesses, representing a substantial portion of our operating expenses. The prices of energy and raw materials have historically been highly volatile and cyclical. Although certain of our customer contracts are tied to changes in feedstock costs or provide for surcharges if feedstock costs change, many contracts are tied to market prices. Currently, the price of crude oil is disproportionately higher than the price of natural gas resulting in a higher than historical average ratio between the two, potentially giving natural gas-based producers an advantage over oil-based producers. We cannot predict whether and to what extent energy and/or raw materials prices will rise or fall in the future or whether and to what extent we will be able to pass on cost increases to our customers or to what extent our existing inventory may have a cost basis greater than the current market value due to price decreases. Any significant change in energy and/or raw materials costs could have a material adverse effect on our business, results of operations, financial condition or cash flow.

***Interruptions in our supply of raw materials and feedstock could adversely affect our business.***

We purchase large amounts of raw materials, including natural gas, for our businesses. Some of our long-term ethane supply contracts are expiring in the near to mid-term. We cannot provide any assurance that when these contracts expire we will be able to renew them on terms as favorable as our current terms, or at all. In addition, if temporary shortages due to disruptions in supply caused by weather, transportation, production delays, regulatory changes or other factors require us to procure our raw materials from sources other than our current suppliers, we cannot provide any assurance that we will be able to do so on terms as favorable as our current terms, or at all. Currently, the amount of ethane available as feedstock in Alberta is largely dependent on volumes of natural gas available to be processed at the ethane extraction plants ("Straddle Plants") on the mainline of the TransCanada Alberta pipeline system, as well as the ethane content in that natural gas. Weather and economic conditions drive demand for and the price of natural gas and could lead to short-term supply dislocations. In 2012, due primarily to low selling prices for natural gas in North America, we expect the export flows of natural gas from Alberta to be lower than flows experienced in 2011, which were lower than the average flows experienced in the previous five years. This will likely lead to less than historical levels of natural gas

flowing through the Straddle Plants and therefore less ethane available as feedstock for our ethylene plants in Western Canada. If we are unable to renew existing ethane supply contracts on terms as favorable as our current terms, or at all, or unable to secure additional feedstock supply, our operating results could be negatively impacted.

***Unanticipated problems or delays with projects to source additional feedstock may adversely affect our business.***

We have recently executed agreements to secure additional feedstock. We continue to work with suppliers, relevant governments and pipeline companies to source additional supply for our feedstock needs. Some of the agreements contemplate other parties investing in, designing and constructing pipelines, fractionation facilities, and/or installing or modifying complex equipment. These projects may suffer significant delays as a result of a variety of factors, such as shortages of workers, key equipment, parts and materials, lack of financing, transportation constraints, adverse weather, equipment failures, fires, damage to or destruction of property and equipment, environmental damage, regulatory requirements, unforeseen difficulties or labor issues, any of which could prevent the projects from commencing operations as expected, which could adversely affect our business.

***Our NOVA 2020 growth strategy subjects us to risks.***

NOVA 2020, our strategic plan to take advantage of emerging feedstock supply from a diverse portfolio of new feedstock sources to enhance our market position by expanding our ethylene and polyethylene footprint, includes, in addition to converting our Corunna cracker to utilize up to 100% natural gas liquids ("NGLs"), plans for a potential further expansion of our Corunna cracker, the construction of two new world-scale polyethylene facilities to be built in Alberta and Ontario, and a further debottleneck of our low-density polyethylene asset in Ontario. Feasibility and engineering studies should be completed by the middle of 2012 and start-up of the debottleneck project and polymer expansions are targeted to be completed between late 2014 and 2017. The conversion of the Corunna cracker is expected to cost approximately \$250 million and be completed prior to the other projects in early 2014. The remaining projects in the NOVA 2020 plan are forecasted to cost more than \$1.5 billion over the next seven years.

The development and construction of these projects involves numerous regulatory, environmental, governmental and legal uncertainties beyond our control and will require the expenditure of significant amounts of capital, and financing may not be available on economically acceptable terms, or at all. Any limitations on our access to capital or increase in the cost of that capital could significantly impair our NOVA 2020 growth strategy. When we undertake these projects, they may not be completed on schedule, at the budgeted cost or at all. These projects may suffer significant delays as a result of a variety of factors, such as shortages of workers, key equipment, parts and materials, transportation constraints, adverse weather, equipment failures, fires, damage to or destruction of property and equipment, environmental damage, regulatory requirements, unforeseen difficulties or labor issues, any of which could prevent the projects from commencing operations as expected, which could harm our business. Moreover, our revenues may not increase immediately upon the expenditure of funds on a particular project. For instance, if we build new polyethylene facilities, the construction will occur over an extended period of time, and we will not receive material increases in revenues until the facilities are placed in service. Moreover, we may construct facilities to capture anticipated future growth in production and/or demand in a region in which such growth does not materialize. As a result, new facilities may not be able to attract enough throughput to achieve our expected investment return, which could adversely affect our business, financial condition, results of operations and cash flows. Certain of our growth projects must receive regulatory approval prior to construction. The regulatory approval process is challenging, and we cannot guarantee such authorization will be granted or, if granted, that such authorization will be free of burdensome or expensive conditions.

***Our NOVA 2020 growth projects that we complete may not perform as anticipated.***

Even if we complete our NOVA 2020 growth projects, such projects may not perform as anticipated and could adversely affect our business due to, among other things, the following:

mistaken assumptions about revenues, costs (including operating and administrative, capital, and debt costs), customer demand, growth potential and other factors;



the failure to receive cash flows from a growth project due to delays in the commencement of operations for any reason;

unforeseen operational issues or the realization of liabilities that were not known to us at the time the growth project was completed;

the inability to attract new customers or increase sales to existing customers;

the failure to successfully integrate growth projects into our existing business; or

the impact of regulatory, environmental, governmental and legal uncertainties that are beyond our control.

***We sell our products in highly competitive markets and face significant price pressure.***

We sell our products in highly competitive markets. Due to the commodity nature of a majority of our products, competition in these markets is based primarily on price and to a lesser extent on product performance, product quality, product deliverability and customer service. As a result, we may not be able to protect our market position by product differentiation or pass on cost increases to our customers. Accordingly, increases in raw material costs and other costs may not necessarily correlate with changes in product prices, either in the direction of the price change or in magnitude. Although we strive to maintain or increase our profitability by reducing costs through improving production efficiency, emphasizing higher margin products and controlling selling and administration expenses, we cannot provide any assurance that these efforts will be sufficient to offset fully the effect of any pricing changes on our operating results.

Among our competitors are some of the world's largest chemical companies and major integrated petroleum companies that have their own raw material resources. Some of these companies may be able to produce products more economically than we can. In addition, most of our competitors are larger and have greater financial resources, which may enable them to invest significant capital into their businesses, including expenditures for research and development. If any of our current or future competitors develop proprietary technology that enables them to produce products that compete with our products at a significantly lower cost, segments of our technology could be rendered over time uneconomical or obsolete. The entrance of new competitors into the industry may reduce our ability to capture profit margins in circumstances where capacity utilization in the industry is decreasing. Further, production from low-cost producers in petroleum-rich countries is increasing in the chemical industry and may continue to expand in the future. Any of these developments could affect our ability to enjoy higher profit margins during periods of increased demand. In North America, the emergence of cost-effective raw materials based on shale gas and oil development has resulted in announced production capacity increases which could affect the supply/demand balance in North America.

***External factors beyond our control can cause fluctuations in demand for our products and in our prices and margins, which may negatively affect our income and cash flow.***

External factors can cause significant fluctuations in demand for our products and volatility in the price of raw materials and other operating costs. Examples of external factors include general economic conditions, competitor actions, technological developments, unplanned facility shutdowns, international events and circumstances, and governmental regulation.

Demand for our products is influenced by general economic conditions. A number of our products are highly dependent on durable goods markets, which are themselves particularly cyclical. If the global economy does not continue to improve, demand for our products and our income and cash flow could be adversely affected.

We may reduce production, idle a facility for an extended period of time, or discontinue certain products because of high raw material prices, an oversupply of a particular product, feedstock unavailability and/or lack of demand for that particular product. When we decide to reduce or idle production, reduced operating rates are often necessary for several quarters or, in certain cases, longer and cause us to incur costs, including the expenses of the outages and the restart of these facilities.

***Unfavorable global economic conditions could adversely affect our business, financial condition or results of operations.***

Our results of operations could be adversely affected by general conditions in the global economy and in the global financial markets. The recent global financial crisis caused extreme volatility and disruptions in the capital and credit markets. Our business, financial condition and result of operations were negatively affected in prior periods as a result of the recent downturn. While credit markets have improved, global economic growth declined in 2011. A further slowing of growth or global recession could result in a variety of risks to our business, including deferrals or reductions of customer orders, potential deterioration of customers' ability to pay us or our suppliers' ability to meet their obligations, losses or impairment charges, reduced revenue, reduced demand for our products, deterioration in our cash balances and liquidity, and increased volatility in energy and raw material prices. Any of the foregoing could adversely affect our business.

***Operating problems in our business may adversely affect our income and cash flow.***

The occurrence of significant operating problems at our facilities may have a material adverse effect on the productivity and profitability of a particular manufacturing facility or on our operations as a whole. Our income and cash flow are dependent on the continued operation of our various production facilities. Our operations are subject to the usual hazards associated with chemical manufacturing and the related storage and transportation of raw materials, products and wastes, including pipeline, storage tank and other leaks and ruptures; integrity issues associated with storage caverns; fires; mechanical failure; critical equipment breakdown; labor difficulties; remediation complications; discharges or releases of pollutants, contaminants or toxic or hazardous substances or gases and other environmental risks; explosions; chemical spills; unscheduled downtime; transportation interruptions; and inclement weather and natural disasters.

Some of these hazards may cause personal injury and loss of life, severe damage to or destruction of property and equipment and environmental damage, and may result in suspension of operations and the imposition of civil, regulatory or criminal penalties. Furthermore, we are also subject to present and future claims with respect to workplace exposure, workers' compensation and other matters. We carry insurance against potential operating hazards which is consistent with industry norms. If we were to incur a significant liability that was not covered by insurance, it could significantly affect our productivity, profitability and financial position.

***We are subject to intellectual property and other litigation from time to time in the ordinary course of business.***

We are currently involved in patent litigation.

In 2005, The Dow Chemical Company ("Dow Chemical") filed a complaint against us for alleged patent infringement. The complaint, filed in the Federal District Court in Delaware, alleged that certain grades of our SURPASS® polyethylene film resins infringe two Dow Chemical patents. In June 2010, a jury trial took place resulting in a June 15, 2010, verdict against us which awarded damages in the amount of \$61.8 million based on sales of SURPASS resin in the United States through the end of 2009. On July 30, 2010, the court awarded Dow Chemical pre-judgment interest in the amount of \$14.3 million. In a subsequent bench trial, the judge ruled that Dow Chemical had standing to bring the suit, holding that Dow Chemical continuously owned the patents in suit.

Following the jury verdict, both parties filed certain motions with the District Court in Delaware, including a motion by Dow Chemical seeking a permanent injunction to require us to stop importing and selling certain sLLDPE grades of SURPASS resin in the United States. Given the substantial issues for appeal, including the question of Dow Chemical's standing in the case, the short unexpired term of the patents and the possibility that we would prevail on appeal, the court was not persuaded that entry of a permanent injunction would serve the parties or the public interest and the judge denied Dow Chemical's motion for a permanent injunction. Accordingly, the court's order allowed us to continue to sell the alleged infringing grades of the SURPASS resin to existing customers in the United States pending expiration of the patents in October 2011.

We appealed the verdict to the Court of Appeals for the Federal Circuit ("CAFC") on several grounds. To stay execution (i.e., collection) of the money judgment pending the outcome of the appeal, we posted a bond in

the amount of the jury verdict plus pre-judgment interest as awarded by the court, post-judgment interest at a prescribed statutory rate and costs as determined by the court. The bond is secured with cash collateral in the amount of \$85 million, which is reported as restricted cash on the consolidated statements of financial position. Oral arguments for the appeal were heard on October 4, 2011. In January 2012, a panel of three CAFC judges affirmed the District Court ruling in a 2-1 non-precedential disposition. In February 2012, we petitioned the CAFC for an *en banc* (all members of the CAFC) review of the panel decision and have not yet received a response.

In December 2010, Dow Chemical filed a Statement of Claim against us in Federal Court in Canada alleging that certain grades of our SURPASS polyethylene film resins infringe a Dow Chemical Canadian patent that is related to the U.S. patents subject to the suit in the United States. We filed our statement of defense and counterclaim in March 2011. In April 2011, the Court ordered the trial to commence in January 2013.

Although we believe that we do not infringe Dow Chemical's patents and have meritorious defenses and intend to vigorously defend these patent suits, we can give no assurance that we will be able to achieve a satisfactory outcome.

We are involved in other litigation from time-to-time in the ordinary course of business. Among these items is a claim filed against us in the Court of Queen's Bench of Alberta by Dow Chemical Canada ULC and its European affiliate concerning our third ethylene plant at our Joffre site ("E3"). The amount of the claim was initially \$120 million, but, on August 12, 2010, the court granted an application to amend the amended statement of claim to update the damage claims and add new claims. Accordingly, the amount of the claim is now approximately \$300 million. We initially counterclaimed in the same action for approximately \$300 million. We have filed an amended statement of defense and counterclaim. The amount of our counterclaim is now approximately \$700 million.

Because of the inherent uncertainties of litigation, there can be no assurance on the outcome of any litigation. Any litigation or claims brought by or against us, whether with or without merit, or whether successful or not, could be time consuming, result in substantial costs, require significant amounts of management time, and result in the diversion of significant operational resources, which could have a material adverse effect on our business, financial condition, results of operations or cash flows.

***We are exposed to costs arising from environmental compliance, cleanup and adverse litigation, which may have a substantial adverse effect on our business, financial condition, operating results and cash flow.***

We are subject to extensive foreign, federal, provincial, state and local environmental laws and regulations concerning the manufacturing, processing and importation of certain chemical substances, air emissions, water discharges and the generation, handling, storage, transportation, treatment, disposal and cleanup of regulated substances. Our operations involve the risk of accidental discharges or releases of hazardous materials, personal injury, 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. We cannot provide assurance that we will not incur substantial costs or liabilities as a result of such occurrences or the enforcement of environmental laws.

From time to time, we have entered into consent agreements or been subject to administrative orders for pollution abatement or remedial action. Under some environmental laws, we may be subject to strict and under certain circumstances, joint and several liabilities for the costs of environmental contamination on or from our properties, and at off-site locations where we disposed of or arranged for disposal or treatment of hazardous substances, and may also incur liability for related damages to natural resources. We have 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. We have a provision in our consolidated financial statements to cover the estimated costs of remediation of discontinued sites and future environmental liabilities. Nevertheless, we cannot provide assurance that we will not incur substantial costs and liabilities resulting from future events or unknown circumstances, which exceed our reserves or will be material.

***We could incur significant costs to comply with greenhouse gas emission reduction requirements, which in turn could reduce our operating results and cash flow.***

In 2002, Canada ratified the Kyoto Protocol, and agreed to regulate reductions in air emissions that contribute to climate change. In 2007, the Canadian federal government released its plan for reducing industrial air emissions, including an ultimate goal of reducing greenhouse gas ("GHG") emissions by 20% from the 2006 levels by 2020 and by 60 to 70% by 2050. In December 2010, Canada signed the Copenhagen Accord committing to reduce national GHG emissions by 17% from 2005 levels by 2020. In December 2011, Canada formally withdrew from the Kyoto Protocol indicating a focus on future international agreements.

The Canadian federal government, recognizing the recent global economic recession and Canada's approximate 2% contribution of global GHGs, has indicated an intent to balance national environmental and energy policies between economic renewal and sustainable development. In addition, the Canadian federal government has stated that GHG reduction objectives require a systemic approach of regulating emissions sector by sector and, where appropriate, alignment with the United States. We anticipate legally binding federal GHG emission reduction requirements to be imposed on our operations in Canada, although the scope and timing for such requirements and the related impacts are uncertain.

Many Canadian provinces are also considering or implementing GHG emissions reduction legislation. In Alberta, the *Specified Gas Emitters Regulation* under the *Climate Change and Emissions Management Act* came into effect in 2007, imposing annual reductions requirements. In compliance with the Alberta regulations, we filed annual emission submissions and have satisfied the 12% emission intensity reduction requirements. Recently, the Ontario legislature passed Bill 185, the *Environmental Protection Amendment Act (Greenhouse Gas Emissions Trading)*, providing the foundation for the province's cap and trade program to reduce GHG emissions. On December 1, 2009, Ontario filed its Greenhouse Gas Emissions Reporting Regulation under the Environmental Protection Act. This regulation came into force on January 1, 2010 and provides for the annual reporting of GHGs by prescribed facilities that emit 25,000 tons of carbon dioxide equivalent or more per year.

Although the United States has not ratified the Kyoto Protocol, it is a signatory to the Copenhagen Accord. Additionally, a number of federal laws and regulations related to GHG emissions are being considered by the U.S. Environmental Protection Agency ("EPA") and in Congress.

In September 2009, the EPA issued the Final Mandatory Reporting of Greenhouse Gases Rule requiring facilities that emit more than 25,000 tons of GHGs per year to collect data beginning January 1, 2010 with the first annual reports due March 31, 2011. In May 2010, the EPA released the *Prevention of Significant Deterioration and Title V Greenhouse Gas Tailoring Rule* imposing requirements upon new and modified major stationary sources emitting more than 75,000 tons of GHGs per year. The emissions from NOVA Chemicals' U.S.-based facilities are significantly below the threshold and are not subject to this rule.

Due to the uncertainty of long term regulatory requirements, we cannot provide assurance that we will not incur substantial costs to meet GHG emission reduction requirements or whether they will be material.

***We are dependent upon certain key members of management.***

Our success depends to a significant degree on the abilities and efforts of our senior management. Moreover, our success depends on our ability to attract, retain and motivate qualified management, technical and sales personnel. These people are in high demand and often have competing employment opportunities. The labor market for skilled employees in the plastics and chemical industry is competitive, and we may lose key employees or be forced to increase compensation to retain these people. Employee turnover could significantly increase our employee costs. The loss of key personnel, or the failure to attract qualified personnel, could have a material adverse effect on our business, financial condition or results of operations.

***We may be subject to losses that are not covered by insurance.***

We carry comprehensive liability and property (including fire and extended perils) insurance on all of our facilities, with deductibles and other policy specifications and insured limits customarily carried in the petrochemical industry for similar properties. In addition, some types of losses, such as losses resulting from war are not insured. We determine coverage limits based on what we believe to be a reasonable maximum

foreseeable loss scenario for our operations. In the event that an uninsured loss or a loss in excess of insured limits occurs, we will not be reimbursed for the cost to replace capital invested in that property, nor insured for the anticipated future revenues derived from the manufacturing activities conducted at that property, while we could remain obligated for any indebtedness or other financial obligations related to the property. Any such loss could adversely affect our business, results of operations or financial condition.

***We have made and may continue to make investments in entities that we do not control.***

We have established joint ventures and made minority interest investments designed to, among other things, increase our vertical integration, enhance customer service and increase efficiencies in our marketing and distribution. Our principal jointly controlled asset is the E3 facility. There is a significant risk that, as a result of differing views and priorities, there will be occasions when the joint venture parties do not agree on various matters and any such disagreements may result in delayed decisions, disputes or litigation (such as the litigation concerning the E3 facility discussed earlier in these risk factors), which could adversely affect our business.

***Labor disputes could have an adverse effect on our business.***

As of December 31, 2011, we had approximately 2,450 employees globally. Approximately 300, or 12%, of our North American employees are represented by unions under two separate collective bargaining agreements that expire on March 15, 2012 and March 31, 2013. We expect to renew the contract that is due to expire on March 15, 2012. However, if we are unable to negotiate acceptable contracts with these unions upon expiration of an existing contract or other employees were to become unionized, we could experience work stoppages, a disruption in operations or higher labor costs, which could have an adverse effect on our business, financial condition, results of operations or cash flow.

***Our business is dependent on its intellectual property. If our patents are declared invalid or our trade secrets become known to our competitors, our ability to compete may be adversely affected.***

Proprietary protection of our processes, apparatuses and other technology is important to our business. Consequently, we rely on judicial enforcement for protection of our patents. While a presumption of validity exists with respect to patents issued to us in the United States and Canada, there can be no assurance that any of our patents will not be challenged, invalidated or circumvented. Furthermore, if any pending patent application filed by us does not result in an issued patent, then the use of any such intellectual property by our competitors could have an adverse effect on our businesses, financial condition, results of operations or cash flow. Additionally, our competitors or other third parties may obtain patents that restrict or preclude our ability to produce or sell our products lawfully in a competitive manner, which could have an adverse effect on our business, financial condition, results of operations or cash flow.

There are numerous recent changes to the U.S. patent laws and proposed changes to the rules of the U.S. Patent and Trademark Office ("USPTO"), which may have a significant impact on our ability to protect our technology and enforce our intellectual property rights. For example, on September 16, 2011, President Obama signed the America Invents Act which codifies several significant changes to the U.S. patent laws, including, among other things, changing from a "first to invent" to a "first inventor to file" system, limiting where a patentee may file a patent suit, requiring the apportionment of patent damages, replacing interference proceedings with derivation actions, and creating a post-grant opposition process to challenge patents after they have issued. The effects of these changes are currently unclear as the USPTO must still implement various regulations, the courts have yet to address any of these provisions and the applicability of the act and new regulations on our patents have not been determined and would need to be reviewed.

We also rely upon unpatented proprietary know-how and continuing technological innovation and other trade secrets to develop and maintain our competitive position. While it is our policy to enter into confidentiality agreements with our employees and third parties to protect our intellectual property, these confidentiality agreements may be breached and, consequently, may not provide meaningful protection for our trade secrets or proprietary know-how, or adequate remedies may not be available in the event of an unauthorized use or disclosure of such trade secrets and know-how. In addition, others could obtain knowledge of such trade secrets through independent development or other access by legal means. Although we do not regard any single patent

or trademark as being material to our operations as a whole, the failure of our patents or confidentiality agreements to protect our processes, apparatuses, technology, trade secrets or proprietary know-how could have an adverse effect on our business, financial condition, results of operations or cash flow.

Litigation may be necessary to enforce our intellectual property rights and protect our proprietary information, or to defend against claims by third parties alleging that we infringe third-party intellectual property rights (such as the litigation concerning Dow Chemical's patents discussed earlier in these risk factors). Any intellectual property litigation or claims against us could result in the loss or compromise of our intellectual property and proprietary rights, could subject us to significant liabilities, require us to seek licenses on unfavorable terms, if available at all, prevent us from manufacturing or selling products and require us to redesign, relabel or, in the case of trademark claims, rename our products, any of which could have a material adverse effect on our business, financial condition, results of operations or cash flows.

***Failure to adequately protect critical data and technology systems could materially affect our operations.***

Information technology system failures, network disruptions and breaches of our data security or information technology systems, including our distributed controls systems, could disrupt our operations by causing delays or cancellation of customer orders or impeding the manufacture or shipment of products, processing transactions and reporting financial results. Such failures, disruptions or breaches could result in the unintentional disclosure of customer or our information, or damage to our reputation. While management has taken steps to address these concerns by implementing network security and internal control measures, there can be no assurance that a system failure or data security or information technology system breach will not have a material adverse effect on our financial condition and results of operations.

***Our future required level of pension contributions could be unfavorably impacted by market volatility.***

We currently maintain four defined benefit plans in North America covering various categories of employees and retirees. Funding obligations are determined using actuarial valuations that are based on certain assumptions about the long-term operation of the plans, including future salary increases, mortality rates, future pension increases, termination and retirement rates and the performance of the financial markets and interest rates. If future events differ from the assumptions, the amount we are obligated to contribute to the plans may increase or decrease. If assets underperform our assumptions or if interest rates are lower than assumed, we may have to make larger contributions to the plans than we would otherwise have to make.

In 2008 and early 2009, we experienced significant declines in the value of our pension plan assets due to the adverse conditions in the equity markets globally. In response to the financial pressures and adverse market conditions placed on plan sponsors, U.S. federal and the Canadian provincial legislators enacted temporary funding relief measures. In 2010, our Canadian plans were funded based on these temporary measures. In 2011, some of these measures expired resulting in our funding obligations increasing significantly over 2010. Valuations for funding purposes are required for all defined benefit plans as of December 31, 2011 and these will determine the funding requirements for 2012. It is anticipated the valuations will show further deterioration in the funding status of the plans due to a combination of weak asset growth and significant increases in liabilities as a result of further decreases in interest rates. In 2012, we expect another significant increase in employer contributions as the remaining funding relief measures have expired and larger special payments are required to address the increased shortfall between pension assets and liabilities. In addition, if economic conditions deteriorate further, we will be required to make larger contributions in future years than we would otherwise have to make. Reported results could be materially and adversely affected, and our cash flow available for other uses could be significantly reduced.

***Our business may be adversely affected by fluctuations in currency exchange rates and other risks associated with international operations.***

Although we report our financial results in U.S. dollars, we conduct a significant portion of our business outside the United States, and we are subject to risks normally associated with international operations.

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Our financial results are impacted by transaction currency effects resulting from changes in currency exchange rates. Transaction currency effects occur when one of our subsidiaries incurs costs or earns revenue in a currency different from its functional currency. This can impact our financial results in two ways:

Re-measurement: monetary assets and liabilities which are denominated in a foreign currency are revalued to the period end foreign exchange rates with the resulting gains or losses being reported on the feedstock and operating costs line of our income statements, except for employee benefit plan liabilities for which the resulting gains or losses are reported in other comprehensive income.

Fixed cost exposure: a significant portion of our operating, selling and general and administrative costs are incurred in Canada and are paid in Canadian dollars. As the Canadian dollar fluctuates relative to the U.S. dollar, these costs will be higher or lower in U.S. dollar terms. This impact is recorded in each individual line of our income statements.

Fluctuations in exchange rates may also affect the relative competitive position of a particular manufacturing facility, as well as our ability to market our products successfully in other markets.

Other risks of international operations include trade barriers, tariffs, exchange controls, national and regional labor strikes, social and political risks, general economic risks, required compliance with a variety of foreign laws, including tax laws, and the difficulty of enforcing agreements and collecting receivables through foreign legal systems.

### **Risks Relating to Our Indebtedness**

*We have a significant amount of debt, which could adversely affect our financial condition.*

We have a significant amount of indebtedness. As of December 31, 2011, we had (a) total indebtedness of approximately \$1,741 million and (b) additional amounts of \$565 million available for borrowing under our credit facilities (less \$17 million utilized as of December 31, 2011), subject to customary conditions. In addition, subject to the restrictions in our credit facilities and our indentures, we may incur significant additional indebtedness from time to time, including debt to finance our NOVA 2020 growth projects.

The level of our indebtedness could have important consequences, including:

limiting cash flow available for general corporate purposes, including capital expenditures and acquisitions, because a substantial portion of our cash flow from operations must be dedicated to servicing our debt;

limiting our ability to obtain additional debt financing on satisfactory terms in the future for working capital, capital expenditures, research and development efforts, acquisitions and other general corporate obligations;

limiting our ability to obtain feedstock, materials or services on advantageous terms in the future due to debt levels or changes in credit ratings;

limiting our flexibility in planning for, or reacting to, competitive and other changes in our industry and economic conditions;

exposing us to risks inherent in interest rate fluctuations because some of our borrowings are at variable rates of interest, which could result in higher interest expense in the event of increases in interest rates; and

increasing our vulnerability to general economic downturns and adverse competitive and industry conditions, which could place us at a competitive disadvantage compared to our competitors that are less leveraged.

If new debt is added to current debt levels, the related risks described above would intensify. If financing is not available when required or is not available on acceptable terms, we may be unable to grow our business, take advantage of business opportunities, respond to competitive

pressures or refinance maturing debt, any of which could have a material adverse effect on our operating results and financial condition.



*We will require a significant amount of cash to service our indebtedness and our ability to generate cash depends on many factors beyond our control.*

Our ability to make payments on and to refinance our indebtedness will depend on our ability to generate cash. Our ability to fund working capital and planned capital expenditures will also depend on our ability to generate cash in the future. We have a significant amount of indebtedness, of which as of December 31, 2011, \$760 million is scheduled to mature between 2013 and 2016. We cannot provide any assurance that:

our business will generate sufficient cash flow from operations;

future borrowings will be available under our current or future revolving credit facilities in an amount sufficient to enable us to pay our indebtedness on or before maturity; or

we will be able to refinance any of our indebtedness on commercially reasonable terms, if at all.

Factors beyond our control will affect our ability to make these payments and refinancings. These factors could include those discussed elsewhere in this annual report on Form 20-F, including under this "Risk Factors" section and under "Disclosure Regarding Forward-Looking Information."

If we cannot generate sufficient cash from our operations to meet our debt service obligations, we may need to reduce or delay capital expenditures or curtail research and development efforts. In addition, we may need to refinance our debt, obtain additional financing or sell assets, which we may not be able to do on commercially reasonable terms, if at all. We cannot provide any assurance that our business will generate sufficient cash flow, or that we will be able to obtain funding, sufficient to satisfy our debt service obligations.

***Our debt agreements restrict our ability to take certain actions.***

The agreements governing our indebtedness impose significant operating and financial restrictions on us and our subsidiaries. These restrictions may restrict our ability to pursue our business strategies, such as acquisitions or joint ventures, or engage in other favorable business activities.

***Our indentures***

Our indentures governing our public debt contain various covenants that limit our ability to engage in certain transactions, including the ability to create liens or engage in sale and leaseback transactions and could reduce the available capacity under our revolving credit facilities.

***Our credit facilities***

We currently have three revolving credit facilities aggregating \$565 million of borrowing capacity. As of December 31, 2011, \$17 million of the available \$565 million borrowing capacity was utilized. While each of the credit facilities contains typical affirmative and negative covenants, which are substantially the same, our senior secured revolving credit facility, as well as our accounts receivable securitization programs, contain financial covenants, which require quarterly compliance. Our ability to meet the financial covenants may be impacted by events beyond our control, and we may not be able to satisfy these covenants in the future.

Our credit facilities also contain restrictive covenants that limit our ability, and the ability of our restricted subsidiaries to, among other things: incur additional liens; sell certain assets; make distributions on or repurchase equity; incur additional debt; enter into hedging agreements; enter into operating leases; engage in reorganizations or mergers; and change the character of our business.

A breach of any of these provisions could permit the lenders to declare all amounts outstanding under the credit facilities to be immediately due and payable and to terminate all commitments to extend further credit. If we were unable to repay those amounts, the lenders under our senior secured revolving credit facility could proceed against the collateral granted to them to secure that debt.

*A downgrade in the ratings of our debt securities could result in increased interest and other financial expenses related to future borrowings and could restrict our access to additional capital or trade credit.*

Standard & Poor's Corporation, Moody's Investor Service, Inc., Dominion Bond Rating Service Limited ("DBRS") and Fitch Ratings Ltd. maintain credit ratings for our debt securities. Except for the DBRS rating, each of these ratings is currently below investment grade. Any decision by these or other ratings agencies to downgrade such ratings in the future could result in increased interest and other financial expenses relating to our future borrowings and could restrict our ability to obtain additional financing on satisfactory terms, if at all. In addition, any downgrade could restrict our access to, and negatively impact the terms of, trade credit extended by our suppliers of raw materials.

*We are controlled by IPIC, whose interests may not be aligned with the interests of our debt holders.*

A holding company controlled by IPIC currently owns all of our equity and, therefore, IPIC has the power to control our affairs and policies. It also controls the election of directors, the appointment of management, the entering into mergers, sales of substantially all of our assets and other extraordinary transactions. The directors have authority, subject to the terms of our debt, to issue additional stock, declare dividends and make other decisions.

The interests of IPIC and its affiliates could conflict with the interests of the holders of our debt. For example, if we encounter financial difficulties or are unable to pay our debts as they mature, the interests of IPIC, as equity holders, might conflict with the interests of our debt holders. IPIC and its affiliates may also have an interest in pursuing acquisitions, divestitures, financings or other transactions (including integrating us with another IPIC-controlled petrochemical company) that, in its judgment, could enhance its equity investments, even though such transactions might involve risks. Additionally, IPIC and its affiliates are in the business of making investments in companies, and may from time to time in the future acquire interests in businesses that directly or indirectly compete with certain portions of our business or are suppliers or customers of ours.

#### **Item 4. Information on the Company**

##### **4.A. HISTORY AND DEVELOPMENT OF THE COMPANY**

###### **NOVA Chemicals Corporation**

NOVA Chemicals' predecessor, NOVA Corporation of Alberta, was incorporated in 1954 by Special Act of the Legislative Assembly of the Province of Alberta. On May 10, 1994, NOVA Corporation of Alberta filed articles of arrangement under the Business Corporations Act of Alberta (the "Act") to complete a reorganization pursuant to which it became a wholly owned subsidiary of NOVA Corporation ("NOVA"), changed its name to NOVA Gas Transmission Ltd. and its common shareholders became the common shareholders of NOVA. At the same time, NOVA also became the parent corporation of Novacor Chemicals Ltd. and NOVA Gas International Ltd. Novacor Chemicals Ltd.'s name was changed to NOVA Chemicals Ltd. in March 1996.

On July 2, 1998, NOVA and TransCanada PipeLines Limited ("TransCanada") completed a merger of equals by way of a plan of arrangement (the "TransCanada Arrangement") under the Act. Under the terms of the TransCanada Arrangement, shareholders of NOVA exchanged each NOVA common share for 0.52 of a TransCanada common share. As part of the TransCanada Arrangement, TransCanada distributed to its common shareholders, including all of the former common shareholders of NOVA, all of the common shares of NOVA on the basis of 0.2 of a NOVA common share for each TransCanada common share. At the time of the distribution of NOVA common shares, the only material asset of NOVA was all of the common shares of NOVA Chemicals Ltd.

As a result of the TransCanada Arrangement, NOVA continued to conduct the commodity plastics and chemical businesses through NOVA Chemicals Ltd., and TransCanada began to conduct the energy services businesses formerly carried on by NOVA, through NOVA's former subsidiaries, NOVA Gas Transmission Ltd. and NOVA Gas International Ltd.

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On December 31, 1998, NOVA Chemicals Ltd. changed its name to NOVA Chemicals Corporation. Effective January 1, 1999, NOVA Chemicals Corporation amalgamated with NOVA under the Act and the resulting corporation adopted the name NOVA Chemicals Corporation.

On April 14, 2004, NOVA Chemicals Corporation was continued under the Canada Business Corporations Act.

On July 6, 2009, IPIC, which is wholly owned by the government of the Emirate of Abu Dhabi, completed the acquisition of NOVA Chemicals Corporation by way of a plan of arrangement (the "Arrangement") under the Canada Business Corporations Act. Pursuant to the Arrangement, a wholly owned subsidiary of IPIC, acquired all of our issued and outstanding common shares. On that same day, NOVA Chemicals was continued under the *Business Corporations Act* (New Brunswick), and our common shares were delisted from the New York Stock Exchange and the Toronto Stock Exchange.

We are a corporation continued under the laws of the Province of New Brunswick, Canada, with our principal place of business located at 1000-7<sup>th</sup> Avenue S.W., Calgary, Alberta, Canada T2P 5L5. Our telephone number is (403) 750-3600.

### Development of NOVA Chemicals Corporation

We commenced operation of our first ethylene plant ("E1") in Joffre, Alberta, in 1979.

In 1984, we commenced operation of a second ethylene plant ("E2") in Joffre, Alberta, in tandem with a linear low-density polyethylene plant ("PE1").

In February 1987, we acquired our low-density and high-density polyethylene facility near Mooretown, Ontario, from Union Carbide Canada Ltd. and Union Carbide Corporation.

In September 1988, we acquired Polysar Energy & Chemical Corporation. Through this purchase, we acquired our Corunna, Ontario, olefins facility, our original styrenics business and a rubber business that was subsequently sold to Bayer AG in October 1990.

In June 1994, we acquired our linear low-density and high-density polyethylene facility at the St. Clair River site in Corunna, Ontario, as well as the proprietary SCLAIRTECH technology and a global SCLAIRTECH technology licensing business, from DuPont Canada Inc.

In September 1996, we acquired the styrenics business of ARCO Chemical Company.

In December 1996, we announced that we had developed Advanced SCLAIRTECH polyethylene technology.

In December 1998, we acquired the majority of Huntsman Corporation's U.S. and European styrenics businesses, excluding its North American expandable polystyrene ("EPS") assets.

In January 2000, we acquired the European solid polystyrene and EPS assets, Chilean EPS production and molding assets and associated worldwide sales and marketing operations of The Shell Petroleum Company Limited.

In October 2000, along with Union Carbide Canada Inc. (now Dow Chemical Canada ULC ("Dow")), we commenced operation of a jointly owned, third ethylene plant in Joffre, Alberta.

In July 2001, we commenced operation of our second polyethylene plant ("PE2") at Joffre, Alberta, which operates using Advanced SCLAIRTECH technology.

In August 2004, we sold our ethylene delivery system in Alberta to Taylor NGL Limited Partnership (now AltaGas Ltd.). We continue to transport ethylene on the system and physically operate and maintain the system.

In December 2004, we sold our interest in the Alberta Ethane Gathering System ("AEGS") to Fort Chicago Energy Partners LP (now Veresen Inc. ("Veresen")). We continue to transport ethane on the system and physically operate and maintain the AEGS system.

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In October 2005, NOVA Innovene, a 50:50 joint venture formed by the merger of our European styrenic polymer business with Innovene's, commenced operations. On December 16, 2005, United Kingdom-based INEOS Group Ltd. ("INEOS") announced that it had acquired Innovene. On October 1, 2007, we and INEOS expanded our joint venture to include our respective North American styrene monomer and styrenic polymer assets. On October 31, 2010, we and INEOS entered into an agreement providing for the acquisition by INEOS of our 50% interest in the INEOS NOVA joint venture.

On July 6, 2009, IPIC completed the acquisition of NOVA Chemicals.

### Developments since January 1, 2011

On January 31, 2011, we entered into definitive agreements with Hess Corporation ("Hess") Vantage Pipeline Canada ULC/Vantage Pipeline US LP ("Vantage") to purchase and transport ethane production from Hess' Tioga Gas Plant in North Dakota via a proposed pipeline to Alberta, Canada to be constructed and owned by Vantage. We have the right to purchase 100% of the ethane produced at the Tioga Gas Plant under a long-term arrangement. The pipeline, called the Vantage Pipeline, is expected to be commissioned in the second quarter of 2013, subject to receipt of regulatory and other approvals.

On February 28, 2011, we completed the sale of our 50% interest in the INEOS NOVA joint venture to INEOS.

On March 1, 2011, we and a subsidiary of AltaGas Ltd. ("AltaGas") entered into a definitive agreement for the long-term supply of ethane and other NGLs from AltaGas' co-stream project at its Alberta-based Harmattan-Elkton Gas Plant. The ethane extracted from the natural gas will be delivered through the existing connection to the AEGS system. We expect to receive ethane and other NGLs starting in the second quarter of 2012.

On March 25, 2011, we and a subsidiary of Williams Energy Canada ("Williams") entered into a long-term agreement for a feedstock supply of an ethane/ethylene mix (also called "olefinic ethane") to be extracted from off-gas produced at oil sands upgrading facilities located at Fort McMurray, Alberta. We expect to receive this feedstock supply starting in the first quarter of 2013.

In June 2011, we announced "NOVA 2020" our strategic plan to take advantage of emerging feedstock supply from a diverse portfolio of new feedstock sources to enhance our market position by expanding our ethylene and polyethylene footprint. In addition to the project underway to revamp our Corunna cracker to utilize up to 100% NGLs, we announced engineering and feasibility studies to investigate the following: a further expansion of our Corunna cracker, the construction of two new world-scale polyethylene facilities to be built in Alberta and Ontario, and a further debottleneck of our low-density polyethylene asset. Feasibility and engineering studies should be completed by the middle of 2012 and start-up of the debottleneck project and polymer expansions are targeted to be completed between late 2014 and 2017.

In July 2011, we signed a memorandum of understanding with Statoil Marketing and Trading Inc. ("Statoil") for a long-term supply of ethane from the Marcellus Shale Basin.

During the third quarter of 2011, we entered into a number of key agreements that support the revamp of our Corunna cracker to utilize up to 100% NGLs, including a transportation service agreement with Sunoco Pipeline L.P. ("Sunoco") for the transportation of ethane feedstock from the Marcellus Shale Basin into the Sarnia, Ontario region and definitive agreements for long-term ethane supply from the Marcellus Shale Basin with Caiman Energy, LLC ("Caiman") and a wholly-owned subsidiary of Range Resources Corporation ("Range").

On October 18, 2011, we executed a Second Amending Agreement to our \$425 million senior secured revolving credit facility to, among other things, extend the maturity date from November 17, 2013 to December 17, 2015, and increase the permitted maximum amount of outstanding letters of credit.

On November 14, 2011, we amended our uncommitted revolving standby letter of credit facility to increase the facility limit from \$60 million to \$125 million.

**Events Subsequent to December 31, 2011**

On January 17, 2012, we repaid our \$400 million 6.5% notes using cash-on-hand.

In January 2012, we amended our Canadian accounts receivable securitization program to extend the expiration date from February 2012 to February 2015. In February 2012, we amended our U.S. accounts receivable securitization program to extend the expiration date from February 2012 to January 2014 and increase the maximum funding from \$100 million to \$125 million.

In 2005, Dow Chemical filed a complaint against us for alleged patent infringement in the United States (see "Item 4.B. Business Overview – Legal Proceedings"). In June 2010, a jury trial took place resulting in a June 15, 2010, verdict against us which awarded damages. We appealed the verdict to the Court of Appeals for the Federal Circuit ("CAFC"). In January 2012, a panel of three CAFC judges affirmed the District Court ruling in a 2-1 non-precedential disposition. In February 2012, we petitioned the CAFC for an *en banc* (all members of the CAFC) review of the panel decision and have not yet received a response.

For a description, including the amount invested, of our principal capital expenditures since the beginning of our last two fiscal years, see the "Liquidity and Capital Resources" section in our "Management's Discussion and Analysis of Financial Condition and Results of Operations" included in this annual report under "Item 5 – Operating and Financial Review and Prospects."

**4.B. BUSINESS OVERVIEW**

**General**

Our principal business is the production and marketing of plastics and chemicals. We operate an Olefins/Polyolefins business unit that produces and markets ethylene, polyethylene, higher-value polyethylene manufactured using our Advanced SCLAIRTECH technology, and a variety of chemical and energy products (commonly known as co-products). We also operate a Performance Styrenics business that produces and markets EPS and ARCEL® resin.

Our polyethylene and styrenic polymer resins are used in a wide range of applications including rigid and flexible packaging, containers, plastic bags, plastic pipe, consumer electronics, building and construction materials, housewares and other industrial and consumer goods.

Ethylene is a basic chemical used to manufacture a wide variety of polymers and other chemical products. Ethylene production in excess of our internal consumption requirements is sold to third parties.

We produce polyethylene primarily from our internal ethylene production. We produce the following varieties of polyethylene: high-density polyethylene ("HDPE"), low-density polyethylene ("LDPE") and linear low-density polyethylene ("LLDPE"). In addition, we develop and market higher value LLDPE and HDPE manufactured using our Advanced SCLAIRTECH technology, including SURPASS and some SCLAIR® polyethylene resins.

Styrene monomer is a basic chemical used to manufacture a wide variety of polymers and other chemical products. We have a minority interest in LyondellBasell Industries' ("LyondellBasell") propylene oxide/styrene monomer ("PO/SM") facility in Channelview, Texas and an associated long-term styrene monomer processing agreement to acquire styrene monomer that provides sufficient styrene monomer supply for the operation of our Performance Styrenics business.

In addition to our principal business of producing and marketing plastics and chemicals, we have a licensing business. For example, we offer for license our proprietary polyethylene SCLAIRTECH process technology and catalyst technology. We also license our Performance Styrenics business's technology such as its cup and container bead technology.

**2011 Financial Highlights**

(millions of U.S. dollars)	Revenue from		Operating profit from	
	continuing operations		continuing operations <sup>(1)</sup>	
Olefins/Polyolefins <sup>(2)</sup>	\$	4,957	\$	1,125
Performance Styrenics	\$	327	\$	7

(1) Profit from continuing operations before finance costs, net, income taxes, and other losses, net. See "Supplemental Measures."

(2) Olefins/Polyolefins consists of the Joffre Olefins, Corunna Olefins, and Polyethylene segments.

**Properties and Production Facilities**

Our products are manufactured at seven sites in North America. All production facilities are owned by us (except LyondellBasell's PO/SM facility in Channelview, Texas, in which we have a minority interest, and the E3 manufacturing plant at Joffre, Alberta, in respect of which we and Dow each own 50%). With the exception of the Channelview facility, we own the land on which our production facilities are located.

In addition to our production facilities, we lease or own office space in numerous locations, mostly in North America. Our head office is located in Calgary, Alberta. Our United States commercial center is located in Moon Township, Pennsylvania.

The following chart and tables show our plastics and chemical product flow and production facilities.

**NOVA Chemicals Product Flow Chart**


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Notes:

(1)



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E3 is a joint venture between us and Dow. Nameplate capacity is 2.8 billion pounds per year. Our share of the production capacity is 50% and is used internally or sold to merchant ethylene customers.

- (2) PE1 and PE2 consume approximately half of E1, E2 and our share of E3 ethylene production capacity.
- (3) A small portion of Joffre co-products is shipped to Corunna for feedstock.
- (4) We have a minority interest in this LyondellBasell PO/SM facility. Our Performance Styrenics business receives styrene monomer from the facility pursuant to a long-term styrene monomer processing agreement.

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- (5) In addition to receiving styrene monomer from Channelview, the Painesville facility has the flexibility to source styrene monomer from other suppliers.
- (6) In addition to producing ARCEL resin at our Monaca, Pennsylvania, facility, we have entered into an agreement with Ningbo Chang-Qiao Engineering Plastics Co., Ltd., an affiliate of Loyal Chemical Industrial Corporation, pursuant to which base resin produced at the Monaca, Pennsylvania, facility is shipped to a plant near Shanghai, China to undergo a finishing step to become ARCEL resin.

### Facility Profile (Olefins/Polyolefins)

Site	Feedstocks	Main Products	Rated Capacity	
			(mmlbs/year)	(kilotonnes/year)
1. Joffre, Alberta	Ethane/Propane	Ethylene (E1)	1,600	730
		Ethylene (E2)	1,800	820
	Ethane	Ethylene (E3) <sup>(1)</sup>	1,400	640
		Co-products <sup>(2)</sup>	830	380
		LLDPE (PE1)	1,480	670
2. Corunna, Ontario	Ethane, Butane, Propane, Crude Oil, Naphtha, Condensates	LLDPE & HDPE (PE2)	950	430
		Ethylene <sup>(3)</sup>	1,800	820
		Co-products <sup>(3)</sup>	4,700	2,130
3. St. Clair River, Corunna, Ontario	Ethylene	HDPE	450	205
4. Mooretown, Ontario	Ethylene	HDPE	465	210
		LDPE	375	170
<b>TOTAL ETHYLENE PRODUCTION CAPACITY (Design Production)</b>			<b>6,600</b>	<b>2,990*</b>
<b>TOTAL POLYETHYLENE PRODUCTION CAPACITY</b>			<b>3,720</b>	<b>1,685*</b>

Notes:

- (1) The annual design production capacity of E3 totals 2.8 billion pounds and is divided between Dow and us. Our share of the production capacity is 50%.
- (2) Production capacity is variable and depends on the feedstock used.
- (3) Ethylene design capacity is 1.8 billion pounds per year and propylene design capacity is 900 million pounds per year, resulting in 4.7 billion pounds per year of co-product capacity. In both cases, capacity is dependent on feedstock mix.

\* Difference between total and individual plant values attributable to rounding.

### Facility Profile (Performance Styrenics)

Site	Feedstocks	Main Products	Rated Capacity	
			(mmlbs/year)	(kilotonnes/year)
<b>Styrene Monomer</b>				
1. Channelview, Texas <sup>(1)</sup>	Benzene, Ethylene	Styrene Monomer	400	180
<b>TOTAL STYRENE MONOMER PRODUCTION CAPACITY</b>			<b>400</b>	<b>180</b>
<b>Styrenic Polymers</b>				
1. Monaca, Pennsylvania	Styrene Monomer	ARCEL and EPS	250	115
2. Painesville, Ohio	Styrene Monomer	EPS	100	45
<b>TOTAL STYRENIC POLYMERS PRODUCTION CAPACITY</b>			<b>350</b>	<b>160</b>

Note:

- (1) This represents a minority interest in the LyondellBasell Channelview, Texas PO/SM facility and the long-term styrene monomer processing agreement associated with that interest.

## Our Business Segments

### OLEFINS/POLYOLEFINS

Our Olefins/Polyolefins business unit produces ethylene and polyethylene. As part of the ethylene production process, and in the preparation of feedstocks for this process, we also produce a number of co-products.

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Our Joffre, Alberta, site is integrated with the AEGS pipeline system, which connects large-scale ethane extraction plants and ethane storage facilities to our ethylene plants.

We have contracts for ethylene and ethane storage for our Joffre facility. During 2011, we agreed to additional new long-term storage arrangements to supplement our current storage capacity.

The Joffre Feedstock Pipeline ("JFP"), which began operations in 2005, is also integrated with the Joffre site and connects NGLs production and storage facilities in Fort Saskatchewan, Alberta to the Joffre site. JFP is currently used to transport propane feedstock to Joffre, and we are the sole shipper on the pipeline. Ethylene produced at Joffre is fed directly to onsite polyethylene production at Joffre, as well as to customers at Joffre, Prentiss, Edmonton and Scotford, Alberta, and to storage and customers at Fort Saskatchewan, Alberta through the ethylene delivery system ("EDS") that is integrated with our Joffre site. Both JFP and EDS are owned by AltaGas, but we operate both assets.

Our Corunna, Ontario, ethylene facility is connected to multiple pipeline and rail systems that, in conjunction with the facility's flexible feedstock capabilities, enable us to optimize our feedstock slate. The Corunna facility provides ethylene by pipeline to our polyethylene production facilities in Mooretown, Ontario, and our St. Clair River site in Corunna, Ontario. The Corunna facility also sells ethylene into the Sarnia, Ontario area.

We have onsite storage for our feedstock and products which we supplement with some short-term storage contacts at nearby third-party facilities. During 2011, we agreed to additional new long-term storage arrangements to supplement our current storage capacity. We expect this new storage to be available to us by the middle of 2012.

For financial reporting purposes, we have three reportable segments as part of our Olefins/Polyolefins business unit: Joffre Olefins, Corunna Olefins and Polyethylene.

### *Ethylene*

We have annual production capacity of approximately 6.6 billion pounds of ethylene (excluding Dow's share of E3). Ethylene is a commodity chemical that we produce through thermal cracking, or pyrolysis, of various feedstocks, a process that uses high temperatures to break down the carbon chains. The feedstocks used to produce ethylene are NGLs, including ethane, propane and butane, and crude oil derived feedstocks, including naphtha and gas oils. The most common feedstocks used by us are ethane and, to a lesser extent other NGLs, crude oil and naphtha. Ethylene is used in the manufacture of polyethylene, styrene monomer, styrenic polymers and polyvinyl chloride, as well as chemical intermediates such as ethylene oxide, ethylene glycol, ethylene dichloride and vinyl acetate.

### *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 various household goods. Energy co-products include gasoline additives and fuel oil. The profitability of co-products depends on energy prices and the supply and demand balance for each co-product. Co-product production depends on the feedstock mix. Total co-product production capacity is approximately 5.5 billion pounds per year and depends on the feedstock mix used in the facilities. The majority of the co-products produced at our Joffre, Alberta, and Corunna, Ontario, facilities are sold to third parties in markets in Alberta, Ontario and the U.S. However, some co-products are consumed internally by us either as fuel or for the production of other products.

We produce ethylene and co-products at two locations, Joffre, Alberta, and Corunna, Ontario. At Joffre, Alberta, we have three production units, E1, E2, and E3. In Corunna, Ontario, we have one production unit.

### *Polyethylene*

We have annual production capacity of approximately 3.7 billion pounds of polyethylene. Polyethylene is produced through the polymerization of ethylene. We produce polyethylene from ethylene supplied from our Joffre, Alberta, and Corunna, Ontario, facilities at three locations in Canada: Joffre, Alberta; St. Clair River, Corunna, Ontario; and Mooretown, Ontario.

We have two polyethylene plants located at Joffre, Alberta, PE1 and PE2. PE1 has annual production capacity of approximately 1.48 billion pounds and produces LLDPE from ethylene supplied from E1, E2 and E3. PE1 currently utilizes the NOVACAT® family of catalysts that was developed by us and our catalyst development partner, INEOS, as well as our proprietary gas-phase process technology originally licensed from Union Carbide Corporation ("UCC"). The licenses from UCC are fully paid and the obligations of confidence and non-use pursuant to these licenses have expired. Accordingly, we pay no royalties for the use of this technology and independently sustain and develop this technology as used in our facilities. PE2 has annual production capacity of approximately 950 million pounds. PE2 uses Advanced SCLAIRTECH technology to produce our SURPASS and some SCLAIR polyethylene resins from ethylene supplied from E1, E2 and E3.

We have a polyethylene plant located at the St. Clair River site in Corunna, Ontario, which has annual production capacity of approximately 450 million pounds. The St. Clair plant utilizes our proprietary SCLAIRTECH technology and typically manufactures HDPE at this plant, but can also manufacture LLDPE. Ethylene feedstock is supplied from the Corunna, Ontario, olefins facility.

We have a polyethylene site located near Mooretown, Ontario, that has an annual production capacity of approximately 840 million pounds. Ethylene feedstock is supplied from our Corunna, Ontario olefins facility. One of the lines at the site currently uses our proprietary gas-phase process technology originally licensed from UCC to produce HDPE and the other line at the site currently uses our proprietary high pressure process technology, also originally licensed from UCC, to produce LDPE. These licenses from UCC are fully paid and the obligations to UCC of confidence and non-use pursuant to these licenses have expired. In 2010, we completed a modernization and expansion project on our LDPE line. In late 2011, our Mooretown LDPE facility suffered an unplanned shutdown. We will need to perform extensive repairs to return the facility to full operations, which we expect will be completed in the second quarter of 2013. In the interim, we have modified the facility and are in the process of recommissioning to test the capability of the modified facility. It is our intent to operate the modified facility with lower production rates and a reduced product slate until the final repairs are completed.

### *Advanced SCLAIRTECH Technology*

After acquiring SCLAIRTECH technology in 1994, we further developed the technology and, in December 1996, announced that we had developed Advanced SCLAIRTECH technology. Advanced SCLAIRTECH solution-phase technology yields higher value polyethylene resins that we believe provide several advantages over standard polyethylene resins, such as clarity and toughness in end-use products manufactured by our customers.

Advanced SCLAIRTECH technology used at PE2 includes two proprietary catalyst systems. The Ziegler-Natta ("Z-N") catalyst introduced in 2001 is used to make our line of SCLAIR polyethylene products. These are octene-based polyethylene grades used primarily for film applications. In 2003, we commercialized a single-site catalyst using Advanced SCLAIRTECH technology and introduced a series of new polyethylene products under the trademark SURPASS. SURPASS resins have been commercialized for film, rotational molding and thin wall injection molding applications.

### *Joffre, Alberta Facility*

We have three ethylene production facilities at Joffre, Alberta: E1, E2 and E3 (E3 is 50% owned by Dow). These three plants have an annual production capacity of approximately 1.6, 1.8 and 2.8 billion pounds of ethylene (including Dow's share of E3 production capacity), respectively, for a total annual combined capacity of 6.2 billion pounds. The combined co-product production capacity of E1, E2 and E3 is approximately 830 million pounds per year, depending on the feedstock used.

Approximately half of the ethylene production capacity at these facilities (excluding Dow's share of E3 production capacity) is used internally to support our Joffre polyethylene production and the rest is sold to third parties. Third-party sales are facilitated through a variety of medium to long-term contracts. These contracts typically contain pricing mechanisms that include a cost recovery component and a market-based component.

All of the ethylene plants at the Joffre site use ethane as their primary feedstock. Ethane is typically supplied under contracts with the owners of NGLs extraction and fractionation plants located in Alberta. While some of these arrangements are expiring in the next few years, most of these supply agreements have five to 10 years remaining on their terms with the possibility of renewal by the parties. The price we pay under these agreements typically consists of two components: (1) the cost to replace the energy content of the ethane extracted from the gas stream (this component varies with the price of natural gas; we may pay the owner for replacement natural gas or purchase or swap natural gas to physically replace the energy content of the ethane) and (2) a fee to cover an agreed upon portion of the costs of plant operation and return on invested capital (this component may be fixed or vary with production). We supplement our ethane supplies through spot purchases. Virtually all of the ethane requirements for the Joffre site are transported via AEGS. Under a transportation agreement, we have the right to ship ethane on AEGS. We have also entered into an operating agreement with Veresen, the owner of AEGS, under which we are responsible for the physical operation of AEGS, while Veresen has responsibility for all commercial aspects of AEGS operations. We have the flexibility to use propane, via JFP, in addition to ethane for a portion of the Joffre feedstock requirements.

We continuously look for opportunities to expand and diversify our feedstock flexibility and supply to enhance our operational flexibility and support longer-term growth opportunities. In July 2007, the Alberta government released details of its "incremental ethane extraction policy" that provides incentives for value-added production and use of ethane in the province, and in 2011 the policy was modified to include ethane/ethylene mix from oil sands off-gas. During 2011, we took advantage of this program and entered into a long-term agreement with Williams for a feedstock supply of an ethane/ethylene mix (also called "olefinic ethane") to be extracted from off-gas produced at oil sands upgrading facilities located at Fort McMurray, Alberta. We plan to continue to explore opportunities to take advantage of this policy in an effort to enhance and diversify the feedstock supplies for the ethylene crackers at our Joffre manufacturing facility. We cannot provide any assurance that we will be successful in this endeavor or that the policy will not be amended or modified to our detriment or discontinued.

We continue work with suppliers, the Alberta government and pipeline companies to source additional supply for our feedstock needs. These sources could include, among others: additional supplies of ethane recovered from natural gas production that is associated with rapidly increasing shale based crude oil production in North Dakota; ethane from off-gas produced at Alberta's oil sands; the streaming of natural gas with low ethane content for industrial consumption in Alberta, with the expected result that high ethane content natural gas will flow through the Straddle Plants; and ethane from large new gas finds in Alberta, British Columbia and northern sources. There can be no assurances on the timing, volume or ethane content from any of these sources.

During 2011, we made significant progress in both sourcing additional ethane and diversifying our feedstock supply from ethane based on natural gas flows exported from Alberta, which support our efforts to increase the utilization of our Joffre based facilities. In 2012 and 2013, we will work to operationalize these new sources.

Two examples of new sources of feedstock that we secured in 2011 in an effort to reduce our reliance on ethane derived from natural gas exports from Alberta, Canada, are:

1. Ethane from natural gas associated with oil production in the Williston shale basin. On January 31, 2011, we executed definitive agreements with Hess and Vantage to purchase ethane production from Hess' Tioga Gas Plant in North Dakota and transport this ethane to Alberta, Canada via a pipeline to be constructed and owned by Vantage. We have the right to purchase 100% of the ethane produced at the Tioga Gas Plant under a long-term arrangement. The pipeline, called the Vantage Pipeline, is expected to be commissioned in the second quarter of 2013, subject to receipt of regulatory and other approvals.

2.

Ethane/ethylene mix that will be extracted from the oil sands. On March 25, 2011, we entered into a long-term agreement with Williams for a feedstock supply of an ethane/ethylene mix to be extracted from off-gas produced at oil sands upgrading facilities located at Fort McMurray, Alberta. Under the terms of the agreement, up to 17,000 barrels per day of an ethane/ethylene mix will be supplied and transported via the JFP to our Joffre, Alberta petrochemical facilities. We expect to receive this feedstock supply starting in the first quarter of 2013.

In addition to the new diverse sources of feedstock discussed above, on March 1, 2011, we entered into a definitive agreement with AltaGas for incremental long-term supply of ethane and other NGLs from AltaGas' Alberta-based Harmattan-Elkton Gas Plant. We expect to begin receiving these volumes starting in the second quarter of 2012.

As part of the ethylene production process at Joffre, we produce approximately 830 million pounds of co-products per year, depending on the feedstock used. Co-products, other than hydrogen and carbon dioxide, are shipped by railcar to markets in Alberta, Ontario and the U.S. Gulf Coast.

#### ***Corunna, Ontario Facility***

Our Corunna, Ontario olefins facility, located near Sarnia, Ontario, has an annual production capacity of approximately 1.8 billion pounds of ethylene and 900 million pounds of propylene. In both cases, capacity is dependent on feedstock mix. The Corunna olefins facility has the flexibility to process a wide range of hydrocarbon feedstocks including ethane, propane, butane, crude oil, naphtha and condensates, to produce ethylene and co-products for use by our downstream operations and for sale to third parties. The feedstock chosen depends on market conditions and is determined by using a linear program that calculates the optimal feedstock mix to produce the most profitable mix of products. The majority of ethylene production from the Corunna olefins facility is used internally by us to produce polyethylene.

The blend of feedstocks processed in the Corunna, Ontario olefins facility determines the range of co-products obtained, with heavier feedstocks such as naphtha producing more co-products. The facility has a production capacity of approximately 4.7 billion pounds of co-products per year.

Feedstocks for the Corunna, Ontario olefins facility are obtained from a wide variety of sources. Crude oil, condensate and naphtha are the main heavy feedstocks processed at the facility. Propane and butane are the main NGL feedstocks processed at the Corunna facility. Our feedstocks are sourced from western Canadian and local producers, as well as United States sources, principally by pipeline and rail. During 2012, we expect to utilize ethane/propane mix (also called "EP") from Conway, Kansas as part of our strategy to shift towards lighter feedstocks.

In 2011, we signed definitive agreements for the long-term supply of ethane from the Marcellus Shale Basin with Caiman and Range. We also signed a transportation services agreement with Sunoco to transport the ethane from Pennsylvania to the Sarnia, Ontario, region. Between these two ethane supply agreements and a third memorandum of understanding with Statoil for a long-term supply of ethane from the Marcellus Shale Basin, we have secured substantially all of the ethane we require to support the conversion of our Corunna cracker to utilize up to 100% NGLs. The conversion, which is expected to cost approximately \$250 million, is currently underway with an expected completion date in the first quarter of 2014. We expect to begin to use ethane supplied from the Marcellus Shale Basin to supplement our other sources of feedstock beginning before the end of 2013.

After the completion of this project we will utilize NGLs as our primary feedstocks and while we will retain the flexibility to use heavier feedstocks such as naphtha when market conditions are favorable, the use of heavy feedstocks is expected to be minimal, if at all. This change to lighter feedstocks will reduce the total volume of co-products produced at the facility.

#### ***Joffre, Alberta Cogeneration Plant***

In June 2000, we, ATCO Power Canada Ltd. ("ATCO"), and Capital Power (Alberta) Limited Partnership ("Capital Power") opened a natural gas-fired cogeneration power plant with a nominal installed peak capacity of 480 megawatts at our production site at Joffre, Alberta. The power plant supplies the electrical needs for the

entire Joffre site, with excess power sold to Alberta's provincial power grid. The facility also provides steam to certain production facilities within the site. We jointly own the cogeneration facility with ATCO and Capital Power, with ATCO serving as the facility operator. Our interest is 20% while ATCO and Capital Power each have a 40% interest.

### **PERFORMANCE STYRENICS**

Our Performance Styrenics segment includes our EPS and ARCEL resin assets and our minority interest in LyondellBasell's PO/SM facility in Channelview, Texas.

The long-term styrene monomer processing agreement associated with our interest in LyondellBasell's PO/SM facility provides sufficient styrene monomer supply for the operation of our Performance Styrenics business. We sell our excess styrene to third-party customers.

#### ***North American Polymers***

We produce EPS at our Beaver Valley site at Monaca, Pennsylvania, and at our Painesville, Ohio, facility. EPS resins are used in applications such as foam cups, noodle bowls, takeout and ice cream containers, insulation board and foam packaging. Our EPS cup and container resin is sold under the trademark DYLITE®.

Our Beaver Valley site in Monaca, Pennsylvania, also produces ARCEL resin, which contains polystyrene and polyethylene. This expandable bead is sold into the protective packaging market. In addition to producing ARCEL resins at our Beaver Valley site, ARCEL resin is also produced near Shanghai, China under an agreement with Ningbo Chang-Qiao Engineering Plastics Co., Ltd., an affiliate of Loyal Chemical Industrial Corporation.

### **Distribution of Products**

Our products are marketed primarily through our sales force, with support from established distributors, agents and traders. Canadian products are sold into the United States primarily through our subsidiary, NOVA Chemicals Inc., for resale through distribution arrangements. Our subsidiary, NOVA Chemicals (International) S.A., sells in Europe, Asia, Africa, Australia, and Latin America either directly or through distribution arrangements. Distribution agreements among our affiliates provide for arm's length pricing.

The following table summarizes, for the years ended December 31, 2011 and 2010, the geographic segments in which we sell our products and the percentage of sales from continuing operations in each segment.

Geographic Segment	Percentage of Sales, Year ended Dec. 31	
	2011	2010
Canada	46%	43%
United States	49%	52%
Europe and Others	5%	5%

No significant portion of our business is dependent upon a single customer. Sales to Canadian and United States federal, state, provincial and local governmental bodies account for less than 1% of annual sales.

As of December 31, 2011, we leased or owned approximately 6,350 rail hopper and tank cars for use in transportation and delivery of our polyethylene, co-products and styrenic polymer products to customers in North America. Trucks are used for distributing products sold in bags and boxes and smaller loads of bulk products. Marine vessels are used to transport bulk product and products sold in bags and boxes, mostly to Asia. We do not own or lease trucks or ships, but do pay transportation fees under short-term arrangements.

### **Competition**

We compete with other chemical producers on the basis of price, service, product quality, performance and deliverability. Among our competitors are some of the world's largest plastics and chemical companies and major integrated oil companies that are larger and have greater financial resources. Some also have their own



raw material resources. The keys to competing successfully in this industry are scale of facilities, low-cost feedstocks and differentiated product and process technologies.

Prices for our standard chemical and polymer products are determined in part by market factors, such as supply/demand balances and feedstock costs that are beyond our control. We generally sell these products at prevailing market prices but, on occasion, products are sold based on negotiated prices.

### **Cyclicality**

Our historical operating results reflect the cyclical and volatile nature of the plastics and chemical businesses. The markets for ethylene, polyethylene, co-products and styrenic polymers historically experience alternating periods of inadequate capacity and tight supply, causing prices and profit margins to increase, followed by periods of oversupply resulting from capacity additions. Prolonged oversupply leads to declining capacity utilization rates, prices and profit margins. Because we derive nearly all of our revenue from sales of these products, our operating results are more sensitive to this cyclicality than many of our competitors that have more diversified businesses. The primary driver of cyclical upswings in the ethylene and styrenics sectors is the combination of limited supply growth and improved demand growth, which is driven by sustained gross domestic product and industrial production growth.

Cyclicality is exacerbated by volatility in feedstock prices. In response to higher feedstock prices and other market factors, plastics and chemical producers will generally announce price increases. However, the implementation of announced price increases depends on many factors, including market conditions, the supply/demand balance for a particular product and feedstock costs that may be beyond our control.

### **Seasonality**

We sell primarily into non-durable markets such as flexible packaging, containers, plastic bags, and housewares. As a result, the effect of seasonality is minimal.

### **Intellectual Property**

#### *Overview*

We own directly, or license from affiliates, a large number of patents in Canada, the United States and other countries. We also own or license a number of trademarks, which are used to identify various chemical and plastic products. While these patents and trademarks constitute valuable assets, we do not regard any single patent or trademark as being material to our operations as a whole.

We actively support all of our technologies to maintain our competitive position.

We were initially a licensee of the technology used in our manufacturing operations. However, over time, we have acquired a variety of business units with associated technology assets in areas including process and catalyst technology, as well as polymer technologies. In addition, since 1994 we have expanded our research and development activities. The result is a technology portfolio with approximately 600 patents, leading-edge solution polyethylene process technologies such as Advanced SCLAIRTECH technology, proprietary single-site catalyst positions, and proprietary cracking technology and advanced oligomerization technology.

We own two key technologies for the production of solution polyethylene SCLAIRTECH technology and Advanced SCLAIRTECH technology. In addition to these technologies, we conduct research and development on other polyethylene technologies including gas-phase and high-pressure technology.

We acquired our proprietary SCLAIRTECH technology and a global SCLAIRTECH technology licensing business from DuPont Canada Inc. in 1994. Our St. Clair River site utilizes SCLAIRTECH technology to produce SCLAIR HDPE resins. In addition, our SCLAIRTECH technology is currently licensed for use worldwide.

In 2001, we began commercial operation of our new, proprietary Advanced SCLAIRTECH technology for the production of polyethylene. The first step in the introduction of this technology was to utilize a proprietary

Z-N catalyst to manufacture new polyethylene products. In 2002, a line of new, Z-N catalyzed, octene-based SCLAIR resins was launched intended for higher-value polyethylene film applications.

In April 2003, we announced the commercial introduction of our first polyethylene resins produced with Advanced SCLAIRTECH technology and utilizing our new proprietary single-site catalyst. We manufacture and sell these polyethylene resins under the trademark SURPASS. SURPASS resins have been commercialized for film, rotational molding and thin wall injection molding applications.

We continue to focus on developing and commercializing higher value polyethylene manufactured using Advanced SCLAIRTECH technology, including those used in film, injection molding and rotational molding.

### *Polyethylene Catalysts*

We have developed three key proprietary families of catalyst technologies for polyethylene production. The first is a family of proprietary single-site catalysts for Advanced SCLAIRTECH technology and other polymer technologies including gas-phase polyethylene. These single-site catalysts impart unique properties and create products that compete with many metallocene-based polyethylene products. The second family of catalysts includes proprietary Z-N catalysts used for SCLAIRTECH technology and Advanced SCLAIRTECH technology. Finally, the NOVACAT family of catalysts was developed by us and our catalyst development partner, INEOS, for use in gas-phase polyethylene. NOVACAT catalysts provide enhanced throughput, product range and properties when compared to traditional Z-N catalysts in commercial gas-phase polyethylene production facilities. Variants of the catalyst are available for the manufacture of conventional and higher value LLDPE and narrow molecular weight HDPE. The NOVACAT family of catalysts is currently being run on several different gas-phase technologies by us and licensees.

### *Olefins Technology*

We have developed a world class furnace tube technology for use in the production of olefins via steam cracking. The technology permits extremely long run times between decoking steps.

### *Styrenic Polymer Technologies and Products*

We own or have the rights to a significant portfolio of styrenics technology, in the fields of both polymer production and styrenic polymer applications.

Examples of styrenic polymer technologies are ARCEL resins that are sold into the protective packaging market and DYLITE premium cup and container grade resins used for EPS cups.

## **Research and Development**

The following table summarizes, for the years ended December 31, 2011, and 2010, the amount we spent on research and development activities and technical support from continuing operations, including activities to improve our existing products.

<b>Year ended December 31 (millions of U.S. dollars)</b>	<b>2011</b>		<b>2010</b>	
Research and Development	\$	33	\$	31
Technical Support	\$	8	\$	6

### *Olefins/Polyolefins*

Our Olefins/Polyolefins business unit conducts research at the NOVA Chemicals Research & Technology Center and the NOVA Chemicals Technical Center, both located in Calgary, Alberta. Both centers are equipped with state of the art facilities for the development of new catalysts, olefin and polyolefin processes as well as full scale testing of new products. The demonstration plant for Advanced SCLAIRTECH technology is located at the St. Clair River site in Corunna, Ontario, and is capable of testing new catalysts, new polyethylene products and reactor processes.

### *Performance Styrenics*

The Performance Styrenics business operates a technical center and a pilot plant at the Beaver Valley site in Monaca, Pennsylvania.

### **Responsible Care® and Environmental Regulations**

In 1985, we adopted the Responsible Care initiative as the basis for our overall safety, health, environment, security and risk program. Responsible Care is a global chemical industry performance initiative created by the Chemistry Industry Association of Canada in 1985 and adopted by the American Chemistry Council in the United States in 1988. Responsible Care is currently practiced by chemical industry associations in over 50 countries worldwide. Responsible Care requires participants to commit to the responsible management of the total life cycle of their products.

Since 1990, we have utilized an internal environment, health and safety audit program to manage regulatory compliance at our operating facilities. Our Responsible Care Audit Program was evaluated by a leading international environment, health and safety consulting firm in 1997, 2001, 2003, 2007 and 2011. Based on the 2011 assessment, the consulting firm concluded that the Responsible Care Audit Program is a top quartile program that has all of the hallmarks of an industry leading program.

Like other companies in our industry, we are subject to extensive environmental laws and regulations at all levels of government. These laws and regulations concern the manufacture, processing and importation of certain chemical substances, discharges or releases to air, land or water and the generation, handling, storage, transportation, treatment, disposal and clean-up of regulated materials.

Although we believe that our 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 chemical products involve the risks of accidental discharges of hazardous materials, personal injury and property and environmental damage.

IFRS requires 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. On December 31, 2011, we had \$101 million of accumulated reserve for activities anticipated to be required for the decommissioning and site restoration of currently active plant sites.

We review our accumulated reserves for decommissioning and site restoration at the end of each reporting period to determine if adjustments are required. 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 future land uses may mitigate future environmental liabilities and potential costs.

Our environmental capital expenditures, including pollution abatement and remedial programs, were approximately \$7 million in 2011 (2010 \$3 million). Operating expenses relating to environmental protection were approximately \$9 million in 2011 (2010 \$8 million). Total remedial expenditures to dismantle and remediate discontinued facilities and sites totaled approximately \$1 million in 2011 (2010 \$1 million).

### **Foreign Operations**

Foreign operations are subject to various risks differing from those in Canada and the United States including political events, tax changes, labor difficulties, price controls and other governmental actions. We actively address these risks as part of our risk management system.

We sell our products worldwide. We have established our international commercial headquarters in Switzerland to coordinate commercial activities outside of North America and maintain sales support operations globally.

## Legal Proceedings

We are currently involved in patent litigation.

In 2005, Dow Chemical filed a complaint against us for alleged patent infringement. The complaint, filed in the Federal District Court in Delaware, alleged that certain grades of our SURPASS polyethylene film resins infringe two Dow Chemical patents. In June 2010, a jury trial took place resulting in a June 15, 2010, verdict against us which awarded damages in the amount of \$61.8 million based on sales of SURPASS resin in the United States through the end of 2009. On July 30, 2010, the court awarded Dow Chemical pre-judgment interest in the amount of \$14.3 million. In a subsequent bench trial, the judge ruled that Dow Chemical had standing to bring the suit, holding that Dow Chemical continuously owned the patents in suit.

Following the jury verdict, both parties filed certain motions with the District Court in Delaware, including a motion by Dow Chemical seeking a permanent injunction to require us to stop importing and selling certain sLLDPE grades of SURPASS resin in the United States. Given the substantial issues for appeal, including the question of Dow Chemical's standing in the case, the short unexpired term of the patents and the possibility that we would prevail on appeal, the court was not persuaded that entry of a permanent injunction would serve the parties or the public interest and the judge denied Dow Chemical's motion for a permanent injunction. Accordingly, the court's order allowed us to continue to sell the alleged infringing grades of the SURPASS resin to existing customers in the United States pending expiration of the patents in October 2011.

We appealed the verdict to the Court of Appeals for the Federal Circuit ("CAFC") on several grounds. To stay execution (i.e., collection) of the money judgment pending the outcome of the appeal, we posted a bond in the amount of the jury verdict plus pre-judgment interest as awarded by the court, post-judgment interest at a prescribed statutory rate and costs as determined by the court. The bond is secured with cash collateral in the amount of \$85 million, which is reported as restricted cash on the consolidated statements of financial position. Oral arguments for the appeal were heard on October 4, 2011. In January 2012, a panel of three CAFC judges affirmed the District Court ruling in a 2-1 non-precedential disposition. In February 2012, we petitioned the CAFC for an *en banc* (all members of the CAFC) review of the panel decision and have not yet received a response.

The patents at issue in the U.S. patent litigation expired on October 15, 2011. No accruals have been made beyond that date on the sales of the alleged infringing grades of SURPASS resin in the United States. As of December 31, 2011, \$107 million (December 31, 2010 \$92 million; January 1, 2010 \$0 million) has been accrued with respect to this claim, which represents the \$76 million award plus \$31 million based on sales and interest through December 31, 2011 (December 31, 2010 \$16 million; January 1, 2010 \$0 million). As of December 31, 2011 and 2010, both the provision and restricted cash are reported as current and non-current, respectively, on the consolidated statements of financial position.

In December 2010, Dow Chemical filed a Statement of Claim against us in Federal Court in Canada alleging that certain grades of our SURPASS polyethylene film resins infringe a Dow Chemical Canadian patent that is related to the U.S. patents subject to the suit in the United States. We filed our statement of defense and counterclaim in March 2011. In April 2011, the Court ordered the trial to commence in January 2013. As this litigation is still in its early stages, and we believe it is not probable that Dow Chemical's action will succeed, no amount has been accrued as of December 31, 2011 with respect to this claim.

Although we believe that we do not infringe Dow Chemical's patents and have meritorious defenses and intend to vigorously defend these patent suits, we can give no assurance that we will be able to achieve a satisfactory outcome.

We are involved in other litigation from time-to-time in the ordinary course of business. Among these items is a claim filed against us in the Court of the Queen's Bench of Alberta by Dow Chemical Canada ULC and its European affiliate concerning our third ethylene plant at our Joffre site. The amount of the claim was initially \$120 million, but, on August 12, 2010, the court granted an application to amend the amended statement of claim to update the damage claims and add new claims. Accordingly, the amount of the claim is now approximately \$300 million. We initially counterclaimed in the same action for approximately \$300 million. We have filed an amended statement of defense and counterclaim. The amount of our counterclaim is now approximately \$700 million.

**4.C. ORGANIZATIONAL STRUCTURE**

IPIC is the ultimate parent of the NOVA Chemicals group of companies. The following list includes all significant subsidiaries of NOVA Chemicals and indicates their respective jurisdictions of incorporation, continuance or organization. All of the voting securities of each significant subsidiary are held directly or indirectly by NOVA Chemicals:

<b>Name</b>	<b>Jurisdiction</b>
NOVA Chemicals (Canada) Ltd./NOVA Chimie (Canada) Ltée.	Canada
NOVA Chemicals Inc.	Delaware, USA
NOVA Petrochemicals Ltd.	Alberta, Canada
NC Holdings USA Inc.	Delaware, USA

**4.D. PROPERTY, PLANTS AND EQUIPMENT**

We own a number of plants and facilities for the production of chemicals and plastics. For a detailed discussion regarding the use, capacity and products of these facilities, see "Item 4.B. Business Overview." In addition to our production facilities, we lease or own approximately 500,000 square feet of office space in numerous locations, mostly in North America. Our head office is located in Calgary, Alberta. Our United States commercial center is located in Moon Township, Pennsylvania. For further information on environmental issues that may affect our utilization of our assets, see "Item 3.D. Risk Factors" and "Item 4.B. Business Overview Responsible Care and Environmental Regulations."

**Item 4A. Unresolved Staff Comments**

Not Applicable

**Item 5. Operating and Financial Review and Prospects****MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS**

The following Management's Discussion and Analysis of Financial Condition and Results of Operations ("MD&A") should be read in conjunction with the information contained in the annual audited consolidated financial statements and the notes thereto included in this annual report on Form 20-F. This MD&A is based upon our annual audited consolidated financial statements prepared in accordance with International Financial Reporting Standards ("IFRS"). Throughout this MD&A, references are made to certain measures that do not have any standardized meaning prescribed by IFRS. These measures are discussed in "Supplemental Measures." Unless otherwise indicated or required by the context, as used in this MD&A, the terms "NOVA Chemicals," the "Corporation," "we," "our" and "us" refer to NOVA Chemicals Corporation and all of its consolidated subsidiaries. All amounts are presented in U.S. dollars unless otherwise noted.

For all periods up to and including the year ended December 31, 2010, we prepared our consolidated financial statements in accordance with Canadian generally accepted accounting principles ("Canadian GAAP"). The annual audited consolidated financial statements for the year ended December 31, 2011 are our first annual consolidated financial statements that have been prepared in accordance with IFRS as issued by the International Accounting Standards Board ("IASB") and IFRS 1, *First Time Adoption of International Financial Reporting Standards*.

We have prepared the annual audited consolidated financial statements that comply with IFRS as described in the accounting policies in Note 2 of our annual audited consolidated financial statements. In preparing the annual audited consolidated financial statements, our opening statement of financial position was prepared as of January 1, 2010, our date of transition to IFRS. Note 26 in the annual audited consolidated financial statements explains the principal adjustments we made in restating our Canadian GAAP statements of financial position as of January 1, 2010 and December 31, 2010 and our previously published Canadian GAAP consolidated statements income and comprehensive income for the year ended December 31, 2010.

## **NOVA Chemicals Corporation**

We are a plastics and chemical company whose products are used in a wide variety of applications, including food and electronics packaging, industrial materials, appliances and a variety of consumer goods. We operate two business units: Olefins/Polyolefins and Performance Styrenics.

### **Business Units**

**Olefins/Polyolefins** manufactures and sells ethylene and polyethylene ("PE"), as well as chemical and energy products, which are commonly known as co-products.

**Performance Styrenics** manufactures and sells expandable polystyrene ("EPS") and ARCEL® resin.

### **IPIC Transaction**

On February 23, 2009, we entered into an arrangement agreement with International Petroleum Investment Company ("IPIC"), which is wholly owned by the government of the Emirate of Abu Dhabi, providing for the acquisition by IPIC of all of our outstanding common shares for cash consideration of \$6.00 per share. On July 6, 2009, IPIC completed the acquisition of NOVA Chemicals and, through a wholly owned subsidiary, acquired all of our issued and outstanding common shares.

### **Sale of Interest in INEOS NOVA Joint Venture**

We held a 50% interest in a joint venture with INEOS Group Limited ("INEOS"), called INEOS NOVA that manufactured and sold styrene, solid polystyrene and EPS. On October 31, 2010, we entered into an agreement with an affiliate of INEOS providing for the sale of our 50% interest in the INEOS NOVA joint venture. The sale closed on February 28, 2011. Associated results of operations and cash flows are separately reported as discontinued operations for all periods presented and the associated financial position is separately reported as assets and liabilities held for sale as of December 31, 2010. See Note 5 in the annual audited consolidated financial statements for further disclosure of the discontinued operations.

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

Our earnings and cash flow are influenced primarily by the margins earned on the products we manufacture. Margin is the difference between the selling price of products and the direct cost to produce and distribute them. Margins for companies in the plastics and chemical industry are driven by the supply/demand balance and tend to be cyclical.

#### **Supply/Demand Balance The Key Driver of Profitability**

The supply/demand balance, as measured by industry operating rates, is generally the best indicator of profitability in the plastics and chemical industry. During peak conditions, when operating rates tend to be high, prices and margins generally increase as customers attempt to secure scarce supply to meet their production needs. Conversely, during trough conditions, which tend to occur when operating rates are low, margins generally decrease since there is ample supply to meet customer demand.

#### **Plastics and Chemical Industry Earnings are Cyclical**

By its nature, profitability in the plastics and chemical industry is cyclical. Demand growth is driven by economic growth, which tends to be relatively consistent over time. In contrast, new product supply grows in large increments through the construction of large, complex new plants, which generally require significant capital and lead-time of four to six years to complete.

As industry operating rates increase, prices and producers' margins tend to increase. Extended periods of profitability encourage new investment in plants to serve growing demand. New supply added in excess of demand growth causes industry operating rates and profitability to decline. Periods of reduced profitability deter investment in new plants and force high-cost, unprofitable producers to rationalize capacity. Continued demand growth and lack of new investment lead to tightening capacity utilization and a return to increased profitability.

This alternating pattern of supply surplus and shortage creates the earnings cycles that are typical in commodity industries.

**Price, Volume and Cost Influence Profitability**

*Price is driven by feedstock costs and the supply/demand balance*

Pricing for our polymer and chemical products is based on the amount our customers are willing to pay for these products compared to similar available or competing products. Prices can rapidly change as a result of feedstock costs and fluctuations in the supply/demand balance. While feedstock costs heavily influence the price of our products, margins drive profitability.

*Volume is driven by economic growth*

Sales volumes for plastics and chemical products are most heavily influenced by economic growth, a key driver of demand. In general, demand increases when the economy is expanding, but may decline or experience slower growth when the economy contracts. Sales volumes also may be influenced by short-term changes in customer buying patterns which primarily are driven by expectations of price volatility. Anticipation of higher prices or limited product availability can motivate customers to purchase beyond short-term needs and build inventories. Conversely, expectations of lower prices can motivate customers to delay purchases and consume inventories. These short-term buying patterns can create quarterly earnings volatility for plastics and chemical producers and are not necessarily representative of longer-term profitability.

*Costs feedstock cost advantage is critical to sustained profitability*

Feedstock costs are the single largest component of our costs and account for 70-80% of the total cost of our products. Our primary feedstocks include ethane, other natural gas liquids ("NGLs"), crude oil, naphtha and condensates. Feedstock costs heavily influence the price of our products. Because feedstock costs represent the most significant portion of total production costs, a feedstock cost advantage can lead to enhanced profitability relative to industry peers and is the key to our profitability throughout the cycle.

The remaining 20-30% of the total cost of our products consists of variable conversion costs and fixed costs such as: plant operating and distribution costs; sales and marketing costs, general and administrative costs; and research and development costs ("R&D"). Sales and marketing and general and administrative 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 feedstock costs could affect our after-tax profit assuming all other factors are held constant. The sensitivity is based on 2011 actual consumption volumes (excluding hedged items and respective hedging instruments, if any) and the periodic effects are determined by relating a reasonably possible change in the risk variables.

(millions of U.S. dollars, except as noted)	Change <sup>(1)</sup>	Decrease in after-tax profit
Crude oil	+10%	\$ 77
Natural gas	+10%	\$ 15
Propane	+10%	\$ 20
Butane	+10%	\$ 40

(1) A 10% decrease in feedstock costs would have the opposite effect.

**Currency Sensitivity**

Our investing, financing and operating activities are exposed to currency risks. Foreign currency risk is the risk that the fair value of future cash flow of a financial instrument will fluctuate because of changes in foreign exchange rates. Our exposure to the risk of changes in foreign exchange rates relates primarily to our operating activities (when revenue or expenses are denominated in a different currency from our functional currency).

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The following table demonstrates the sensitivity to a 10% strengthening of the Canadian dollar against the U.S. dollar, with all other variables held constant, of our after-tax profit and other comprehensive income. The impact of translating the net assets of foreign operations into our reporting currency is excluded from the sensitivity analysis. Any change in the Euro would not be material.

(millions of U.S. dollars, except as noted)	Change <sup>(1)</sup>	Decrease in after-tax profit	Decrease in other comprehensive income
2011	+10%	\$ 64	\$ 28
2010	+10%	\$ 62	\$ 19

(1) A 10% weakening of the Canadian dollar against the U.S. dollar would have the opposite effect.

### Research and Development

The following table summarizes, for the years ended December 31, 2011, and 2010, the amount we spent on research and development activities and technical support from continuing operations, including activities to improve our existing products.

Year ended December 31 (millions of U.S. dollars)	2011	2010
Research and Development	\$ 33	\$ 31
Technical Support	\$ 8	\$ 6

### NOVA Chemicals' Highlights

(millions of U.S. dollars)	2011	2010
Total assets	\$ 6,208	\$ 5,575
Total long-term liabilities	\$ 2,569	\$ 3,059
Revenue	\$ 5,241	\$ 4,576
Operating profit (loss) from continuing operations <sup>(1)</sup>		
<b>Olefins/Polyolefins</b>		
Joffre Olefins	\$ 902	\$ 383
Corunna Olefins	227	137
Polyethylene	33	298
Eliminations	(37)	(32)
Total Olefins/Polyolefins	1,125	786
<b>Performance Styrenics</b>	7	3
<b>Corporate</b>	(125)	(192)
Operating profit from continuing operations <sup>(1)</sup>	\$ 1,007	\$ 597
Profit from continuing operations	\$ 608	\$ 237

(1) See "Supplemental Measures."



**Changes in Our Profit**

Year ended December 31 (millions of U.S. dollars)	2011 vs. 2010
Higher operating margin from continuing operations <sup>(1)</sup>	\$ 376
Higher research and development	(4)
Higher sales and marketing	(2)
Lower general and administrative	40
Lower finance costs, net	20
Lower other losses, net	32
Higher income tax expense	(91)
Higher profit from continuing operations	371
Lower profit from discontinued operations, net of tax	(19)
Increase in profit	\$ 352

(1) Operating margin equals Revenue less Feedstock and operating costs (includes impact of realized and unrealized gains and losses on mark-to-market feedstock derivatives).

**Discussion of Consolidated Financial Results of Continuing Operations****2011 Versus 2010**

*Profit from continuing operations* in 2011 was \$608 million compared to \$237 million in 2010. The improvement was primarily the result of improved margins for our products.

*Revenue* in 2011 was \$5,241 million, an increase from \$4,576 million in 2010 primarily due to higher sales prices in all segments together with higher PE sales volumes.

*Feedstock and operating costs* in 2011 were \$4,026 million compared to \$3,737 million in 2010. The increase in feedstock and operating costs was due to higher average prices for feedstocks.

*General and administrative expenses* in 2011 decreased as compared to 2010 primarily due to an impairment charge of \$8 million in 2010 relating to a note receivable (see *Impairment Charges*), year-end pension adjustments, the classification of profit sharing expense as a general and administrative cost, prior to the plan being terminated in January 2011 (see *Corporate Operating Costs*), and reductions in consulting expenses and miscellaneous other general and administrative costs.

*Finance costs, net*, decreased in 2011 as compared to 2010 due the termination and repayment of the \$75 million total return swap in March 2010, the maturity and repayment of the Cdn\$250 million 7.85% notes in August 2010, and a decrease in finance costs on our revolving credit facilities.

*Other losses, net*, decreased in 2011 as compared to 2010 primarily due to losses recognized related to a jury verdict which resulted in awarded damages, offset by an arbitration award in 2010 which resulted from an insurance claim involving our Corunna facility that dated back to 2005 (see "Other Losses, Net").

*Income tax expense* was higher in 2011 as compared to 2010 due to the increase in profit before income taxes from continuing operations.

**Olefins/Polyolefins Business Unit**

Our Olefins/Polyolefins business unit produces and sells ethylene, PE and co-products from its two manufacturing centers located in Alberta and Ontario, Canada. The business is built on its cost competitive feedstock (ethane prices in Alberta are primarily based on natural gas prices, compared to the U.S. Gulf Coast ("USGC") where ethane tends to trade in a more correlated relationship with the crude oil price), world-scale and energy-efficient manufacturing facilities in Alberta and proprietary technology such as Advanced SCLAIRTECH and gas-phase PE process technology, as well as PE catalyst technology.

Our Olefins/Polyolefins business unit contains three operating segments:

- (1) *Joffre Olefins*, which produces and sells ethylene and co-products 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.

*Olefins/Polyolefins Business Unit Snapshot*

Reporting Segment	Primary Products	Capacity	Manufacturing Sites	Primary Feedstock
Joffre Olefins	Ethylene Co-Products <sup>(1)</sup>	4.8 Blbs 0.8 Blbs	Joffre, Alberta	Ethane
Corunna Olefins	Ethylene Co-Products <sup>(1)</sup>	1.8 Blbs 4.7 Blbs	Corunna, Ontario	Ethane, Propane, Butane, Crude oil, Naphtha and Condensates <sup>(2)</sup>
Polyethylene	Linear low-density PE Low-density PE High-density PE	3.7 Blbs	Joffre, Alberta Mooretown, Ontario St. Clair River, Ontario	Ethylene (Internally supplied)

(1) The choice of ethylene feedstock mix determines the type and volume of co-products manufactured.

(2) We are currently undertaking a project to convert the Corunna, Ontario, cracker to utilize up to 100% NGLs. The use of crude oil, naphtha and condensates will be minimal, if at all, after the completion of the project, which is anticipated to occur in early 2014.

**Market Overview**

*Ethylene* is the most widely produced petrochemical in the world and is the primary feedstock used in the production of PE. 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 expand when operating rates are at or above 90% of nameplate capacity.

*Polyethylene* is used to produce every day, consumer staple oriented items such as food packaging, packaging for personal care items, 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 resin is globally traded in established merchant markets. PE margins typically expand when operating rates are at or above 90% of nameplate capacity.

*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 and are the building blocks that are used to make items such as tires, carpet and clothing fibers, and household goods. Energy co-products include gasoline blending components and fuel oil. The profitability of co-products depends on energy prices and the supply/demand balance for each co-product. The choice of ethylene feedstock mix determines the type and volume of co-products manufactured.

**Business Overview**

Our largest volume product is ethylene, which is the key feedstock for the production of PE. We produce ethylene and co-products at our Joffre, Alberta, and Corunna, Ontario, manufacturing facilities.

**Joffre Olefins**

Joffre Olefins produces and sells ethylene and co-products and includes three world-scale ethylene crackers in Joffre, Alberta. Our share of production capacity from the Joffre crackers, which excludes Dow Chemical Canada ULC's ("Dow's") 50% interest in the Ethylene 3 cracker, is 4.8 billion pounds per year and represents approximately 75% of our total nameplate ethylene production capacity. Approximately half of our production capacity at Joffre supports internal PE production, while the remainder is sold to third parties. The Joffre crackers have the capacity to produce approximately 830 million pounds per year of co-products such as hydrogen, propylene and other hydrocarbons.

The primary feedstock of the Joffre ethylene crackers is ethane, which is typically extracted from natural gas by third-party field and straddle plant operators and delivered to the Joffre site via pipeline. The majority of ethane used at the Joffre site is extracted and delivered under medium- to long-term contracts. While some of these arrangements are expiring in the next few years, most of these supply agreements have five to ten years remaining on their terms with the possibility of renewal by the parties. We can also directly purchase ethane and



have the flexibility to use propane to meet a portion of our feedstock requirements when the economics are favorable.

The only major use for ethane is as a feedstock for production of ethylene. In Alberta, we typically acquire ethane by purchasing natural gas to replace the energy content of the ethane removed from the gas stream plus pay a fee for extraction and delivery. Therefore, our feedstock costs are directly linked to the natural gas price in Alberta. Alberta has historically had lower cost of natural gas, due to structural transportation differentials, and more efficient ethane extraction plant infrastructure compared to the USGC. In comparison, USGC ethane prices are influenced by the prices of alternative ethylene feedstocks such as propane and naphtha, which typically track crude oil prices. Ethane prices are also affected by more traditional supply and demand dynamics. As a result, the price for ethane on the USGC can be at a substantial premium to the underlying natural gas value.

### ***Corunna Olefins***

Corunna Olefins produces and sells ethylene and co-products that result from the manufacture of ethylene and processing of crude oil and other feedstocks. The Corunna ethylene flexi-cracker has annual production capacity of 1.8 billion pounds of ethylene and 4.7 billion pounds of co-products, depending on the feedstock mix used. Most of Corunna's ethylene production is consumed by our PE plants while the majority of its co-products are sold to third parties.

Corunna's flexi-cracker can process a large range of feedstocks and produce a diverse range of chemical and energy co-products. We are able to adjust Corunna's feedstock slate among NGLs, crude oil and crude oil derivatives, as market conditions fluctuate. Corunna's crude oil processing unit allows us to purchase crude oil and produce our own naphtha when it is economically favorable to do so. The Corunna facility can access NGLs, such as propane and butane from local producers, Western Canada or the United States. The Corunna facility can also access crude oil, condensates and naphtha from various North American supply sources. In 2011, we began a project to convert the Corunna flexi-cracker to use up to 100% NGL feedstock, with ethane as the primary feedstock. The project is expected to be completed in early 2014. After the completion of this project, we will utilize NGLs as our primary feedstocks. While we will maintain the flexibility to use heavier feedstocks such as naphtha when market conditions are favorable, it is expected that the use of heavy feedstocks will be minimal, if at all. This change to lighter feedstocks will reduce the total volume of co-products produced at the facility.

### ***Polyethylene***

The Polyethylene segment produces and sells linear low-density polyethylene ("LLDPE"), low-density polyethylene ("LDPE") and high-density polyethylene.

We have approximately 3.7 billion pounds of annual PE production capacity from our two units in Joffre, Alberta, and our Mooretown and St. Clair River sites in Ontario.

### ***Advanced SCLAIRTECH Technology***

One of the Joffre PE plants, PE2, utilizes Advanced SCLAIRTECH technology to manufacture and sell higher value SURPASS® and SCLAIR® PE resins. SURPASS resins deliver a unique combination of properties not found in traditional PE resins and are used in film applications, such as 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.

We are one of only three PE companies worldwide with independent, patented process and single-site catalyst technologies which enable us to produce differentiated higher value PE resins on a commercial scale.

### ***PE exports***

Our PE is primarily sold into North American markets. We also sell a small portion of our production outside North America to China, Southeast Asia, Central and Latin America and Europe.

***PE Technology Licensing***

We license our proprietary SCLAIRTECH technology and NOVACAT® family of catalysts. Our SCLAIRTECH technology is licensed for use around the world.

NOVACAT catalysts are a series of advanced Ziegler-Natta catalysts designed specifically for gas-phase PE reactors that can produce butene and hexene LLDPE with improved performance characteristics and manufacturing economics.

***Outlook for Olefins/Polyolefins Business Unit***

We believe that there are several factors that affect the long-term earnings potential of our Olefins/Polyolefins business unit.

1.

**Supply/Demand Balance** In North America, there has been limited olefin and PE supply expansions over the past decade, while demand growth for PE has continued at approximately the same rate as industrial production growth. With North American PE industry operating rates above 90%, product to support domestic demand growth has come at the expense of exports, supporting a balanced to tight domestic supply/demand balance.

The emergence of cost effective and abundant natural gas and NGLs from shale formations has dramatically improved the view of future manufacturing of olefins and PE in North America. There have been recent announcements of capacity debottlenecks and new facility construction, including our own announcements relating to our NOVA 2020 strategic growth plan. Over the next decade, new supply of ethylene and PE will begin and supply growth may begin to outpace demand growth for a period of time, but we expect the domestic supply/demand balance to remain balanced to tight at least until such new supply comes online. In addition, we expect the price of crude oil to remain high relative to the price of natural gas and the North American industry to remain competitive on a worldwide basis. As a result, even with the new supply, we anticipate export opportunities will alleviate any short-term excess of supply in North America.

2.

**Cost Competitive Feedstocks** According to industry experts, the cost of natural gas in North America is expected to remain low relative to crude oil for at least the next several years. This should allow us to be feedstock advantaged compared to other North American competitors that use crude oil and NGL feedstocks that are priced based on a relationship to crude oil. We expect the structural transportation differentials, and more efficient ethane extraction plant infrastructure in Western Canada compared to the USGC to continue, which should also help maintain our competitiveness in North America. In addition, well over 50% of global capacity uses feedstock derived from crude oil that is relatively high cost. Because market prices are often set by the highest cost producers, our cost position should lead to higher margins for our business relative to those high cost producers when selling at market prices.

3.

**Natural Gas Flows from Alberta** In 2011, the export flows of natural gas across the Alberta border were lower than historical flows, and we expect the export flows to be even lower in 2012 due primarily to lower selling prices for natural gas in North America and higher than average natural gas storage inventory. This will likely lead to natural gas flows through the ethane extraction plants ("Straddle Plants") on the mainline of the TransCanada Alberta pipeline system that are lower than historical, five-year average flows, resulting in less than historical ethane supply from conventional sources available as feedstock for our ethylene plants in Western Canada.

We are working and will continue to work with suppliers, the Alberta government and pipeline companies to source additional supply for our feedstock needs in Western Canada from conventional sources, as well as from new sources. We have signed agreements for several new sources that should begin flowing to our Joffre, Alberta facility in the next two years. These new sources currently include ethane derived from natural gas associated with oil production in the Williston Shale Basin in North Dakota, United States and ethane/ethylene mix that will be extracted from off-gas produced at oil sands upgrading facilities located at Fort McMurray, Alberta, Canada. Additionally, in 2011, we entered into a definitive agreement with AltaGas Ltd. ("AltaGas") for the long-term supply of ethane and other NGLs from AltaGas' Alberta-based

Harmattan-Elkton Gas Plant. We expect to receive supply of this conventional source of ethane and other NGLs starting in the second quarter of 2012.

Additional new feedstock sources could also include, among others, the streaming of natural gas with low ethane content to industrial consumers in Alberta, with the expected result that high ethane content natural gas will flow through the Straddle Plants, and ethane from large new gas finds in Alberta, British Columbia and northern sources. There have also been increases in western Canadian drilling activity in shale formations that contain relatively high levels of NGLs. As these activities develop, they are expected to provide additional feedstock volumes to the Alberta region.

The feedstock supply from the Williston Shale Basin and the oil sands off-gases will help to diversify our sources and lower our reliance on ethane extracted from natural gas exported from Alberta. As a result, we believe our future ethane supply should be less variable regardless of natural gas usage outside of Alberta.

We believe that once these new sources of feedstock come online they will allow us to fully utilize our current available Joffre PE capacity. We also believe that that with the additional feedstock that will be available over the next several years we can begin to fully utilize our current Joffre ethylene cracker capacity, which exceeds the current derivative capacity, resulting in enough ethylene production capability to expand our PE capacity in Joffre to include another PE facility. In 2011, we began a feasibility study for another PE facility in Joffre. We expect this study to be completed by the middle of 2012. This proposed new PE facility is one component of our NOVA 2020 strategic growth plan.

4.

Ethane from the Marcellus Shale Basin In 2011, we signed definitive agreements for the long-term supply of ethane from the Marcellus Shale Basin with Caiman Energy, LLC and a wholly-owned subsidiary of Range Resources Corporation. We also signed a transportation services agreement with Sunoco Pipeline L.P. to transport the ethane from Pennsylvania to the Sarnia, Ontario, region. Between these two definitive ethane supply agreements and a third memorandum of understanding with Statoil Marketing and Trading Inc. for a long-term supply of ethane from the Marcellus Shale Basin, we have secured substantially all of the ethane we require to support the conversion of our Corunna cracker to utilize up to 100% NGLs. The conversion, which is expected to cost approximately \$250 million, is currently underway with an expected completion date in the first quarter of 2014. We anticipate that we will begin to use ethane supplied from the Marcellus Shale Basin to supplement our other sources of feedstock beginning before the end of 2013.

We believe that this new source of feedstock from the Marcellus Shale Basin will allow Corunna to be cost competitive with other facilities in North America. We also believe that this feedstock and additional feedstock from similar sources will allow us to expand our Corunna cracker to produce enough ethylene to support a new PE facility and a debottleneck of our Mooretown LDPE facility. These projects are currently in the feasibility study stage, which we expect to complete by the middle of 2012. These proposed projects are also components of our NOVA 2020 strategic growth plan.

*Olefins/Polyolefins Financial Highlights From Continuing Operations*

Year ended December 31 (millions of U.S. dollars, except as noted)	2011		2010	
<b>Revenue</b>				
Joffre Olefins <sup>(1)</sup>	\$	2,002	\$	1,520
Corunna Olefins <sup>(1)</sup>		2,309		2,005
Polyethylene <sup>(1)</sup>		2,182		1,947
Eliminations <sup>(2)</sup>		(1,536)		(1,164)
	\$	4,957	\$	4,308
<b>Operating Profit (Loss)<sup>(3)</sup></b>				
Joffre Olefins	\$	902	\$	383
Corunna Olefins		227		137
Polyethylene		33		298
Eliminations <sup>(2)</sup>		(37)		(32)
	\$	1,125	\$	786
<b>Polyethylene Sales Volumes</b> (millions of pounds)		3,156		3,096

## Notes:

- (1) Before intersegment eliminations within the Olefins/Polyolefins business unit.
- (2) Represents intersegment eliminations.
- (3) See "Supplemental Measures."

*Olefins/Polyolefins Average Benchmark Prices*

(U.S. dollars per pound, except where noted)	2011				Annual	Annual
	Q1	Q2	Q3	Q4	2011	2010
<b>Benchmark Principal Product Prices:<sup>(1)</sup></b>						
Ethylene <sup>(2)</sup>	\$ 0.49	\$ 0.58	\$ 0.56	\$ 0.55	\$ 0.54	\$ 0.46
PE linear low-density butene lin <sup>(3)</sup>	\$ 0.70	\$ 0.77	\$ 0.71	\$ 0.68	\$ 0.71	\$ 0.65
PE weighted-average benchmark <sup>(3)</sup>	\$ 0.72	\$ 0.78	\$ 0.73	\$ 0.70	\$ 0.73	\$ 0.67
<b>Benchmark Raw Material Prices:<sup>(1)</sup></b>						
AECO natural gas (dollars per mmBTU) <sup>(4)</sup>	\$ 3.81	\$ 4.00	\$ 3.74	\$ 3.10	\$ 3.66	\$ 3.88
NYMEX natural gas (dollars per mmBTU) <sup>(4)</sup>	\$ 4.14	\$ 4.36	\$ 4.19	\$ 3.61	\$ 4.07	\$ 4.42
WTI crude oil (dollars per barrel) <sup>(5)</sup>	\$ 94.10	\$ 102.56	\$ 89.76	\$ 94.06	\$ 95.12	\$ 79.53

## Notes:

- (1) Average benchmark prices do not necessarily reflect actual prices realized by us or any other petrochemical company.
- (2) Source: Chemical Market Associates, Inc. ("CMAI") USGC Net Transaction Price.
- (3) Source: Townsend Polymer Services Information; Benchmark prices weighted according to our sales volume mix in North America.



- (4) Source: Canadian Gas Price Reporter. AECO gas is weighted-average daily spot gas price. NYMEX gas is Henry Hub 3-Day Average Close.
- (5) Source: Platt's. NYMEX WTI daily spot-settled price average for calendar month.

***Discussion of Financial Results of Olefins/Polyolefins Business Unit***

Beginning on January 1, 2011, we changed our method of calculating the intercompany transfer price on sales of ethylene from our Joffre Olefins segment to our Polyethylene segment to be consistent with our method of calculating the intercompany transfer price on sales of ethylene from our Corunna Olefins segment to our Polyethylene segment.

While the application of our new intercompany transfer pricing policy did not change the revenue or operating performance of our Olefins/Polyolefins business unit, it impacted the allocation of operating profit between the Joffre Olefins and Polyethylene segments. We accounted for the change on a prospective basis.

If we had accounted for the change on a retrospective basis, for 2010, operating profit would have been approximately \$180 million higher for the Joffre Olefins segment, approximately \$165 million lower for the Polyethylene segment and eliminations would have been approximately \$15 million higher than reported. If we had accounted for the change on a retrospective basis by revaluing inventory as of January 1, 2011, operating profit for the Polyethylene segment and eliminations would have been approximately \$30 million lower for 2011.

### *Joffre Olefins*

#### **2011 Versus 2010**

*Revenue* was \$2,002 million in 2011, up from \$1,520 million in 2010, primarily due to higher ethylene and co-product sales prices. Revenue was also higher due to the prospective change in transfer pricing described above. During 2011, ethylene supply remained balanced to tight, while demand increased. This resulted in industry average prices for ethylene that were 18% higher in 2011 compared to 2010.

*Feedstock and operating costs* were \$1,090 million in 2011, down from \$1,122 million in 2010. Costs decreased in 2011 primarily due to lower natural gas and ethane costs in Alberta. Average AECO natural gas prices decreased by approximately 5% in 2011 compared to 2010.

*Operating profit* was \$902 million in 2011, up from \$383 million in 2010. Margins in 2011 were higher than 2010 as sales prices of ethylene and co-products increased while feedstock costs fell. This was due to steady demand for ethylene and co-products with balanced to tight ethylene supply, and very tight propylene and butadiene supply/demand balances. Operating profit was also higher in 2011 due to the prospective change in transfer pricing described above.

### *Corunna Olefins*

#### **2011 Versus 2010**

*Revenue* was \$2,309 million in 2011, up from \$2,005 million in 2010. The change was due primarily to an increase in ethylene and co-product sales prices, offset slightly by lower sales volume. Co-product pricing increased due to tight supply as the industry used a lighter feedstock mix that resulted in less co-product production. The lower sales volume was due to a planned major maintenance turnaround in 2011.

*Feedstock and operating costs* were \$2,072 million in 2011, up from \$1,858 million in 2010. Feedstock prices increased along with the average WTI crude oil price, which was almost 20% higher in 2011 than in 2010.

*Operating profit* was \$227 million in 2011 up from \$137 million in 2010. The improvement was primarily due to higher margins during 2011 that resulted from selling prices that increased more than feedstock costs. Unusually high differentials between Brent and WTI crude oil resulted in higher than expected margins for energy co-products produced at Corunna.

### *Polyethylene*

#### **2011 Versus 2010**

*Revenue* was \$2,182 million in 2011, up from \$1,947 million in 2010. The increase was due to higher PE prices and increased sales volumes. The industry average PE sales price was approximately 9% higher during 2011 compared to 2010, as feedstock costs increased and demand improved.

*Feedstocks and operating costs* were \$2,094 million in 2011, up from \$1,591 million in 2010. Feedstock and operating costs were higher in 2011 primarily due to higher sales volumes and industry average ethylene costs that were approximately 18% higher than in 2010.

*Operating profit* in 2011 was \$33 million, down from \$298 million in 2010. The decrease was primarily due to average feedstock costs rising more than selling prices. In the second half of 2011, ethylene costs declined much

less than PE prices, resulting in lower PE margins. In 2011, each of our PE facilities was shut down for some period of time for planned maintenance turnaround work. In addition, operating profit was lower in 2011 due to the prospective change in transfer pricing described above.

**Performance Styrenics Segment**

***Business Overview***

Our Performance Styrenics segment produces EPS and ARCEL resins in North America. The segment markets EPS resins in North and South America and Asia and ARCEL globally via direct sales and various distribution and agency agreements.

EPS resins are used in packaging for food and consumer products and in insulation for the building and construction industry. Currently, sales of our EPS resins account for the majority of Performance Styrenics' revenue. As a result, profitability of this business unit is dependent on the cyclical supply/demand balance for EPS.

ARCEL resins apply proprietary technology to enable customers to reduce their costs and environmental impact in high performance protective packaging applications. ARCEL resin is used for protective packaging of damage sensitive goods such as computers, printers, electronics, appliances and furniture. Due to its unique properties, ARCEL resin can earn higher margins over standard, non-differentiated products.

We have the capacity to produce 350 million pounds per year of standard EPS and ARCEL resins at our production facilities in Monaca (Beaver Valley), Pennsylvania, and Painesville, Ohio.

***Styrene Feedstock***

Styrene is the primary feedstock for the production in this business. Our minority interest in LyondellBasell Industries' Channelview, Texas, propylene oxide/styrene monomer facility supplies 400 million pounds per year of cost-based styrene to our Performance Styrenics business, which is sufficient to meet our anticipated styrene requirements. We sell our excess styrene to third-party customers.

***Outlook for Performance Styrenics Segment***

In 2011, demand for EPS increased versus 2010. In 2012, we expect EPS demand to be flat to 2011.

We are continuing to evaluate this business unit and are exploring strategic options.

***Performance Styrenics Financial Highlights From Continuing Operations***

<b>Year ended December 31 (millions of U.S. dollars, except as noted)</b>	<b>2011</b>		<b>2010</b>	
Revenue	\$	327	\$	304
Operating profit <sup>(1)</sup>	\$	7	\$	3
Sales Volumes <sup>(2)</sup> (millions of pounds)		255		260

Notes:

- (1) See "Supplemental Measures."
- (2) Third-party sales.

*Performance Styrenics Average Benchmark Prices*

(U.S. dollars per pound)	2011				Annual	Annual
	Q1	Q2	Q3	Q4	2011	2010
<b>Benchmark Principal Product Prices:<sup>(1)</sup></b>						
Styrene <sup>(2)</sup>	\$ 0.74	\$ 0.76	\$ 0.73	\$ 0.64	\$ 0.72	\$ 0.63
EPS <sup>(2)</sup>	\$ 0.99	\$ 1.05	\$ 1.04	\$ 1.00	\$ 1.02	\$ 0.91

Notes:

- (1) Average benchmark prices do not necessarily reflect actual prices realized by us or any other petrochemical company.
- (2) Source: CMAI Contract Market.

*Discussion of Financial Results of Performance Styrenics Segment**2011 Versus 2010*

Revenue was \$327 million in 2011 sales, up from \$304 million in 2010. The increase was due to higher average selling prices, offset by slightly lower volumes.

Feedstock and operating costs were \$307 million in 2011, up from \$288 million in 2010. Costs were higher in 2011 primarily due to higher styrene monomer costs resulting from higher benzene costs.

Operating profit in 2011 was \$7 million, up from \$3 million in 2010, primarily due to slightly increased margins and lower depreciation and amortization expense as a result of a 2010 impairment charge.

**Corporate Operating Loss and Other Items from Continuing Operations**

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

Year ended December 31 (millions of U.S. dollars)	2011	2010
Corporate operating costs	\$ (112)	\$ (143)
Mark-to-market feedstock derivatives	2	(15)
Impairment charges	(6)	(28)
Foreign exchange gain		2
Insurance credit		1
Depreciation and amortization	(9)	(9)
Operating loss	\$ (125)	\$ (192)

*Corporate Operating Costs**2011 Versus 2010*

Corporate operating costs were lower in 2011 compared to 2010, primarily due to additional costs incurred during 2010 triggered by the change in control of NOVA Chemicals, year-end pension and other liability adjustments, and the classification of profit sharing expense as a corporate cost. We had a profit sharing program that was available to most employees. Profit sharing expense in 2010 was \$13 million and is included in corporate operating costs. We terminated the profit sharing program effective January 1, 2011, and therefore there was no profit sharing expense in 2011. Since terminating the profit sharing program, our incentive compensation program was restructured resulting in a higher allocation of incentive compensation expenses to the business segments.

*Mark-To-Market Feedstock Derivatives*

We maintain a derivative program to manage risk associated with feedstock purchases. We lock in a portion of our propane and butane feedstock requirements as a percentage of crude oil using forward contracts that

extend to 2012. In 2011 and 2010, our portfolio also included trades to re-price excess feedstock inventory, and a small volume of our winter natural gas requirements was locked in at a fixed price. The gain or loss resulting from changes in the market value of these derivatives is recorded through profit and loss each period. We classify 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. Once positions are realized, any income effects are recorded in business results.

Changes in forward propane and butane prices as a percentage of forward crude oil prices and a decrease in the notional volumes drove the mark-to-market change in 2011 as compared to 2010.

#### ***Impairment Charges***

In 2011, impairment charges of \$6 million related to assets within our Performance Styrenics segment. In 2010, impairment charges consisted of a \$20 million charge related to assets within our Performance Styrenics segment and an impairment charge of \$8 million on a note receivable.

#### ***Foreign Exchange Gain***

In January 2010, we entered into a series of foreign currency forwards to hedge the foreign currency exposure on the Cdn\$250 million 7.85% notes which were due in August 2010 (the "Canadian Notes"). The foreign currency forwards locked in repayment of the Canadian Notes at U.S.\$237 million. The forward contracts substantially offset the foreign exchange exposure during 2010 on the Canadian Notes. On August 30, 2010, we repaid the Canadian Notes for U.S.\$237 million and the related foreign currency forwards were settled.

Net foreign exchange gain and losses included in the Corporate segment were not significant in 2011 and 2010.

#### ***Insurance Credit***

We are one of many participants in OIL, an insurance pool for property and liability risks. We were one of many participants in sEnergy, an insurance pool for business interruption. sEnergy wound up its operations in February 2011. During 2010, we received \$7 million for a portion of our investment in sEnergy. Upon dissolution of sEnergy in February 2011, we received an additional \$5 million, which represented the remaining amount of our investment.

We believe our reserves are adequate to cover any outstanding claims.

In 2010, we recorded a \$1 million credit due to the reduction of estimated future claims payments during 2010.

#### **Other Losses, Net**

In 2011 and 2010, we recognized a loss of \$20 million and \$95 million, respectively, related to a jury verdict that we infringed The Dow Chemical Company's ("Dow Chemical") patents, resulting in awarded damages in the amount of \$61.8 million, plus interest of \$14.3 million in 2010, as well as amounts based on sales of alleged infringing grades of SURPASS polyethylene film resins plus interest of \$15 million during 2011 (2010 \$16 million) and other related costs of \$5 million during 2011 (2010 \$3 million).

Also during 2010, we recognized a \$45 million gain related to an arbitration award which resulted from an insurance claim involving our Corunna facility that dated back to 2005.

#### **Discontinued Operations**

##### ***INEOS NOVA Joint Venture***

INEOS NOVA manufactured and sold styrene and solid polystyrene ("SPS") in North America and SPS and EPS in Europe.

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We sold our 50% interest in the INEOS NOVA joint venture on February 28, 2011 to INEOS. The negotiated sale price was subject to several deductions. Some of these deductions were fixed as of October 31, 2010, such as our 50% share of the joint venture's net indebtedness and some were estimated on the closing date, such as indemnified and unindemnified pension liabilities. The anticipated windup of certain indemnified pension liabilities resulted in us increasing the estimated amount of our liabilities by \$11 million in December 2010.

At closing, we received approximately \$65 million (€47 million). During 2011, we finalized estimates for all but one of the remaining pension liabilities and paid INEOS a net of \$10 million, resulting in net proceeds on the sale totaling \$55 million. This amount does not represent our final net proceeds from the sale, because one of the pension liabilities which was estimated as of closing has not been finalized. The final determination of this liability is not expected to be completed until necessary regulatory approval is received, at which time the proceeds will again be adjusted. We do not expect the adjustment to be material. We recognized a loss on the sale of \$1 million during 2011. Associated results of operations and cash flows are separately reported as discontinued operations for all periods presented and the associated financial position is separately reported as assets and liabilities held for sale as of December 31, 2010.

We had a Euro denominated, unsecured note receivable bearing interest at 4.5% per annum issued by the INEOS NOVA joint venture, which was assumed by INEOS at closing of the sale of our interest in the joint venture. The balance of the note at December 31, 2011 was \$46 million (December 31, 2010 \$47 million; January 1, 2010 \$58 million). The note is scheduled to mature and be repaid in November 2012.

### **SYNTHEON**

During the second quarter of 2010, our Board of Directors approved the sale, subject to certain conditions, of our building and construction businesses, collectively known as SYNTHEON. The SYNTHEON portfolio of businesses, which was part of our Performance Styrenics segment, includes SYNTHEON Inc.; Accelerated Building Technologies LLC; NCE Inc.; NOVA Chemicals Chile Limitada; our 50% interest in both Novidesa S.A. de C.V. and Reliance Innovative Building Solutions Pvt. Ltd (both joint ventures); and intellectual property relating to both the building and construction products and the Elemix® concrete additive. We initially anticipated that this sale would be completed in 2010; however, negotiations with the intended acquirer ended without a sale being completed. Management has since developed a formal plan for the sale of SYNTHEON assets. Associated results of operations, financial position and cash flows are separately reported as discontinued operations and assets and liabilities held for sale as of and for the years ended December 31, 2011 and 2010.

Summarized financial information for our 50% share of the INEOS NOVA joint venture ("INJV") and SYNTHEON are shown below:

Year ended December 31 (millions of U.S. dollars)	2011			2010		
	INJV	SYNTHEON	TOTAL	INJV	SYNTHEON	TOTAL
Total revenues	\$	\$ 20	\$ 20	\$	\$ 14	\$ 14
Profit (loss) from discontinued operations, before tax	\$ 22	\$ (13)	\$ 9	\$ 39	\$ (14)	\$ 25
Loss on disposal, before tax	(1)		(1)			
Income tax (expense) recovery	(4)	3	(1)		1	1
Profit (loss) from discontinued operations, net of tax	\$ 17	\$ (10)	\$ 7	\$ 39	\$ (13)	\$ 26

### **Liquidity and Capital Resources**

Our principal sources of liquidity are cash flows from operations, cash-on-hand, borrowings under our revolving credit facilities and accessing capital markets. We use our accounts receivable securitization programs as additional sources of financing. Our principal uses of cash are operating expenditures, capital expenditures, debt service and funding our defined benefit pension obligations.

**Cash Flow**

The following is a summary of cash flow:

<b>Year ended December 31 (millions of U.S. dollars)</b>	<b>2011</b>	<b>2010</b>
Funds from continuing operations	\$ 1,233	\$ 890
Interest received	3	6
Income tax paid, net of refunds	(145)	(16)
Operating working capital and other	(128)	(209)
<b>Cash provided by operating activities from continuing operations</b>	<b>963</b>	<b>671</b>
Cash used in operating activities from discontinued operations	(13)	(16)
Proceeds on sales of assets, investments and other capital transactions	56	1
Capital expenditures and turnaround costs	(238)	(149)
Proceeds from dissolution of other investments	5	7
Intangible asset additions	(2)	(5)
<b>Cash used in investing activities from continuing operations</b>	<b>(179)</b>	<b>(146)</b>
Cash using in investing activities from discontinued operations	(1)	
Long-term debt repayments	(10)	(315)
Increase in accounts receivable securitization funding	28	32
Interest paid	(134)	(158)
<b>Cash used in financing activities</b>	<b>(116)</b>	<b>(441)</b>
<b>Increase in cash and cash equivalents</b>	<b>654</b>	<b>68</b>
Cash and cash equivalents, beginning of year	306	238
<b>Cash and cash equivalents, end of year</b>	<b>\$ 960</b>	<b>\$ 306</b>

**Inflows and Outflows of Cash from Continuing Operations**

We expect our working capital will be sufficient for our requirements for at least the next 12 months.

In 2011, we generated \$1,233 million in funds from continuing operations. During the year, working capital increased by \$128 million primarily due to increases in accounts receivable and inventory. The increase in inventory was primarily due to higher raw material and finished goods prices, and a higher volume of raw materials. The increase in accounts receivable was primarily due to higher sales volumes. During 2011, we sold our investment in the INEOS NOVA joint venture and received net proceeds from the sale of \$55 million. Capital expenditures for 2011 were \$158 million and turnaround costs were \$80 million. Capital expenditures increased in 2011 due to increased spending to sustain our manufacturing facilities and increased spending on our Corunna cracker revamp project. Turnaround costs increased in 2011 due to a major planned turnaround at our Corunna cracker. In 2011, we increased our accounts receivable securitization funding by \$28 million. The net increase in cash and cash equivalents in 2011 was \$654 million.

In 2010, we generated \$890 million in funds from continuing operations. During the year, working capital increased by \$209 million primarily due to an increase in accounts receivable and a decrease in accounts payable, offset somewhat by lower inventory. The increase in accounts receivable was primarily due to higher sales prices for our products. The decrease in accounts payable was primarily due to lower purchased crude volumes, somewhat offset by higher costs for raw materials, and the reduction in inventory was primarily due to a reduction in crude oil inventory as we moved from an overseas supply source to regional supply sources (which significantly shortened our supply chain), somewhat offset by an increase in PE inventory to allow us to better serve our customers. This change in working capital includes \$85 million of cash collateral posted to secure a bond pending the outcome of our appeal of the Dow Chemical patent litigation, which is reported as restricted cash on the consolidated statement of financial position. Capital expenditures for 2010 were \$126 million and turnaround costs were \$23 million. In 2010, we repaid our \$75 million total return swap and our Cdn\$250 million 7.85% notes using cash-on-hand and increased our accounts receivable securitization funding by \$32 million.



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There were no dividend payments during 2010. The net increase in cash and cash equivalents in 2010 was \$68 million.

### *Commitments*

We have various contractual cash obligations, including long-term debt repayments and associated interest, contributions to pension plans, 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. On January 17, 2012, we repaid our \$400 million 6.5% notes using cash-on-hand. The remaining obligations due in 2012 are expected to be paid for using cash-on-hand and cash flow from continuing operations.

### *Cash Distributions*

In the fourth quarter of 2011, our Board of Directors approved a \$75 million distribution to our shareholder, which is scheduled to be paid at the end of March 2012.

### *Contractual Cash Obligations*

As of December 31, 2011 (millions of U.S. dollars)	Payments Due By Period				
	Total	2012	2013 to 2014	2015 to 2016	After 2017
Long-term debt <sup>(1)</sup>	\$ 1,811	\$ 582	\$ 405	\$ 355	\$ 469
Interest payments <sup>(2)</sup>	638	122	194	154	168
Contributions to defined benefit plans <sup>(3)</sup>	110	110			
Contributions to defined contribution plans <sup>(3)</sup>	14	14			
Operating leases <sup>(4)</sup>	334	45	79	68	142
Unconditional purchase obligations <sup>(5)</sup>	11,670	1,406	1,900	1,793	6,571
<b>Total contractual cash obligations</b>	<b>\$ 14,577</b>	<b>\$ 2,279</b>	<b>\$ 2,578</b>	<b>\$ 2,370</b>	<b>\$ 7,350</b>

Notes:

- (1) Includes current portion. Our accounts receivable securitization programs included in the 2012 year were extended, and in January 2012, we repaid our \$400 million 6.5% notes using cash-on-hand. See *Liquidity* below for further details.
- (2) Interest payments were calculated using interest rates that were in effect as of December 31, 2011.
- (3) Estimated for 2012.
- (4) Includes property, railcar and other equipment leasing commitments. Certain railcar lease agreements contain financial covenants for our subsidiary, NOVA Chemicals Inc.
- (5) Raw material agreements are typically market-based. Obligations have been calculated using current pricing.

### *Liquidity*

We define liquidity as total available revolving credit facilities, less utilization (including letters of credit), plus cash and cash equivalents. As of December 31, 2011, our total liquidity was \$1,508 million. Our future liquidity is dependent on many factors such as cash generated from ongoing operations and the availability of existing credit facilities and of other potential sources of financing.

A significant portion of our operations is conducted by our subsidiaries, and we are dependent to a large extent upon cash dividends and distributions or other transfers from our subsidiaries. Accordingly, our ability to service indebtedness and fund operations is dependent upon the results of operations of our subsidiaries and their ability to provide cash to us. Payments of any dividends, loans or other distributions from our

subsidiaries are not currently subject to material contractual, restrictive governmental regulations or other restrictions.

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In October 2009, we issued \$350 million of 8.375% senior notes due 2016 ("unregistered 2016 Notes") and \$350 million of 8.625% senior notes due 2019 ("unregistered 2019 Notes") in a transaction exempt from registration under the Securities Act of 1933, as amended. On May 12, 2010, we completed an exchange offer, which resulted in \$345 million of the unregistered 2016 Notes and \$344.7 million of the unregistered 2019 Notes being exchanged for the same amount of registered and freely tradable 2016 and 2019 notes.

On March 20, 2010, \$95 million of our undrawn unsecured bilateral credit facilities expired and were not extended.

We had entered into a total return swap with respect to the Series A preferred shares of our subsidiary, NOVA Chemicals Inc. The equity notional amount of the total return swap was \$75 million. We allowed the total return swap to terminate in accordance with its terms on March 31, 2010 and repaid the equity notional amount of \$75 million. The associated Series A preferred shares were returned to NOVA Chemicals Inc. and cancelled.

On August 30, 2010, we repaid our Cdn\$250 million 7.85% notes using cash-on-hand. Foreign currency forwards, entered into in January 2010, to lock in this payment at U.S.\$237 million also settled on August 30, 2010.

On September 8, 2010, we entered into a new unsecured bilateral credit facility for \$100 million with a maturity date of September 20, 2015.

On March 20, 2011, one of our \$100 million unsecured bilateral credit facilities expired undrawn and was not extended, and on September 20, 2011, a \$30 million tranche of one of our unsecured bilateral credit facilities expired undrawn and was not extended.

On January 17, 2012, we repaid our \$400 million 6.5% notes using cash-on-hand.

### ***Credit Facilities***

During 2011, we amended our senior secured revolving credit facility to extend the maturity date two years to December 17, 2015. Accordingly, as of December 31, 2011, we had the following three revolving credit facilities totaling \$565 million (of which \$17 million is utilized):

\$425 million senior secured revolving credit facility provided by a syndicate of lenders, which matures on December 17, 2015;

\$40 million unsecured bilateral credit facility which expires on September 20, 2013; and

\$100 million unsecured bilateral credit facility, which expires on September 20, 2015.

### ***Standby Letter of Credit Facility***

On November 19, 2010, we entered into an uncommitted revolving standby letter of credit and/or guarantee facility with one of the banks in the syndicate of lenders for our senior secured revolving credit facility. During 2011, we increased the size from \$60 million to \$125 million. The facility is supported by an account performance security guarantee issued by Export Development Canada. The facility is only available for issuance of standby letters of credit (and/or guarantees) by the bank on our behalf. As of December 31, 2011, we utilized \$43 million (December 31, 2010 \$26 million) of this facility. This facility is not included in our liquidity calculation.

### ***Accounts Receivable Securitization Programs***

We engage in accounts receivable securitization programs to obtain lower financing rates than those available from other sources. In February 2010, we entered into two new accounts receivable securitization programs (one in the U.S. and one in Canada) to replace our prior programs before they expired. In January 2012, we amended our Canadian accounts receivable securitization program to extend the term for three years to February 11, 2015. The Canadian program allows for maximum funding of \$100 million. In February 2012, we amended our U.S. accounts receivable securitization program to extend the term for two years to January 30, 2014 and to increase the maximum funding from \$100 million to \$125 million. We do not

include any undrawn amounts under the accounts receivable securitization programs as part of liquidity. As of December 31, 2011 and 2010, the maximum availability of the programs was \$200 million. At December 31, 2011 and December 31, 2010, \$182 million and \$154 million, respectively, were funded under the programs. Of the total amount, \$100 million and \$98 million, respectively, were funded via a special purpose entity ("SPE") that is 100% owned by us and consolidated in our consolidated financial statements. No other business is conducted through SPE's.

Under International Accounting Standard ("IAS") 39, *Financial Instruments*, the receivables transferred to financial counterparties do not meet the derecognition criteria, therefore the funded amounts under the programs are recognized as a secured financing and included in long-term debt on the consolidated statement of financial position.

#### ***Advanced Manufacturing Investment Strategy Loan***

In June 2009, our subsidiary, NOVA Chemicals (Canada) Ltd., entered into a loan agreement for a loan in the principal amount of Cdn\$10 million made available under the Province of Ontario's Advanced Manufacturing Investment Strategy. We were permitted to use the loan proceeds only to finance certain eligible costs associated with the modernization and expansion of our LDPE capability at our Mooretown facility that was completed in 2010. We drew down the full Cdn\$10 million in the fourth quarter of 2009. The maturity date of the loan is December 1, 2019.

#### ***Covenants***

At December 31, 2011 and 2010, our senior secured revolving credit facility and our accounts receivable securitization programs were governed by the following financial covenants, which require quarterly compliance:

a maximum senior debt-to-cash flow ratio of 3:1, computed on a rolling 12 month basis; and

a debt-to-capitalization ratio not to exceed 60%.

The table below shows our actual financial covenant ratios as of the end of each quarter during 2011.

	<b>March 31 2011</b>	<b>June 30 2011</b>	<b>September 30 2011</b>	<b>December 31 2011</b>
Senior debt-to-cash flow ratio	0.19	0.17	0.16	0.16
Debt-to-capitalization ratio	39.0	34.5	26.8	25.2

See "Supplemental Measures" for a discussion of the computations used to calculate these financial ratios.

We expect to be in compliance with the financial covenants over the next 12 month period.

#### ***Current Debt Maturities or Redemptions***

As of December 31, 2011, we had \$582 million of debt scheduled to mature in 2012. On January 17, 2012, we repaid our \$400 million 6.5% senior notes using cash-on-hand. Our next notes due are our \$400 million floating rate senior notes due in November 2013.

As of December 31, 2011, \$182 million is included in current debt maturities for our accounts receivable securitization programs. In January 2012, we amended our Canadian accounts receivable securitization program to extend the term for three years to February 11, 2015, and in February 2012, we amended our U.S. accounts receivable securitization program to extend the term for two years to January 30, 2014 and to increase the maximum funding from \$100 million to \$125 million.

#### ***Off-Balance Sheet Arrangements***

Our off-balance sheet arrangements consist of letters of credit and other guarantees entered into in the ordinary course of business. In addition, we previously had guarantees related to our interest in the INEOS

NOVA joint venture, which were terminated when we sold our interest in that joint venture on February 28, 2011 (December 31, 2010 \$25 million; January 1, 2010 \$44 million). See Note 22 of our annual audited consolidated financial statements for additional information.

We have no unconsolidated special purpose financing or other entities that are likely to create material contingent obligations.

### Supplemental Measures

We present certain supplemental measures below, which do not have any standardized meaning prescribed by IFRS and are therefore unlikely to be comparable to similar measures presented by other companies. We believe that certain non-GAAP financial measures, when presented in conjunction with comparable IFRS financial measures, are useful to readers because the information is an appropriate measure for evaluating our operating performance. Internally, we use this non-GAAP financial information as an indicator of business performance, with specific reference to these indicators. These measures should be considered in addition to, and not as a substitute for or superior to, measures of financial performance prepared in accordance with IFRS.

Operating profit from continuing operations equals profit from continuing operations before finance costs net, other gains and losses, net and income taxes. This measure assists readers in analyzing our profit from continuing operations.

### Reconciliation of operating profit from continuing operations to profit from continuing operations

Year ended December 31 (millions of U.S. dollars)	2011		2010	
Operating profit from continuing operations	\$	1,007	\$	597
Finance costs, net		(166)		(186)
Other losses, net		(18)		(50)
Income tax expense		(215)		(124)
Profit from continuing operations	\$	608	\$	237

Senior Debt-to-Cash Flow equals the drawn amount on any secured credit facilities of the Corporation (including letters of credit), plus the funded amount of our accounts receivable securitization programs, divided by Consolidated Cash Flow. The Consolidated Cash Flow calculation is performed on a rolling 12 months. This measure is provided to assist readers in calculating our financial covenant.

Consolidated Cash Flow equals consolidated profit (loss) plus finance costs, income taxes and depreciation amortization, less all non-cash items. This measure excludes any extraordinary gains and losses (including gains and losses resulting from the sale of assets) and excludes certain subsidiaries. This measure is provided to assist readers in calculating our Senior Debt-to-Cash Flow financial covenant.

Debt-to-Capitalization equals Net Consolidated Debt, divided by the aggregate of Consolidated Shareholder's Equity, Net Consolidated Debt and Subordinated Shareholder Debt. This measure is provided to assist readers in calculating our financial covenant.

Net Consolidated Debt equals long-term debt due within one year and long-term debt as reflected on the most recent quarterly consolidated statement of financial position of the Corporation (excluding debt of certain subsidiaries and any non-recourse debt), less cash and cash equivalents as reflected on the consolidated statement of financial position of the Corporation (excluding cash and cash equivalents of certain subsidiaries). This measure is provided to assist readers in calculating our Debt-to-Capitalization financial covenant.

Consolidated Shareholder's Equity equals consolidated equity as reflected on the most recent quarterly consolidated statement of financial position of the Corporation (excluding equity allocable to certain subsidiaries or equity allocable to assets that secure non-recourse debt). This measure is provided to assist readers in calculating our Debt-to-Capitalization financial covenant.

## Critical Accounting Policies and Estimates

### *International Financial Reporting Standards Transition from Canadian GAAP to IFRS*

For all periods up to and including the year ended December 31, 2010, we prepared our consolidated financial statements in accordance with Canadian GAAP. On January 1, 2011, we changed our financial reporting principles from Canadian GAAP to IFRS. The annual audited consolidated financial statements for the year ended December 31, 2011 are our first annual consolidated financial statements that have been prepared in accordance with IFRS as issued by the IASB and IFRS 1, *First Time Adoption of International Financial Reporting Standards*.

While IFRS uses a framework similar to Canadian GAAP, there are significant differences in recognition, measurement and disclosures. We have prepared our annual audited consolidated financial statements that comply with IFRS as described in the accounting policies in Note 2 of our annual audited consolidated financial statements. In preparing the annual audited consolidated financial statements, our opening statement of financial position was prepared at January 1, 2010, our date of transition to IFRS. Note 26 in the annual audited consolidated financial statements explains the principal adjustments we made in restating our Canadian GAAP statements of financial position as at January 1, 2010 and December 31, 2010 and our previously published Canadian GAAP consolidated statements income and comprehensive income for the year ended December 31, 2010.

IFRS 1 allows first-time adopters of IFRS certain optional exemptions from retrospective application of certain IFRS standards. In Note 26 of our annual audited consolidated financial statements, we disclose the optional exemptions available under IFRS 1 that we elected on transition to IFRS.

### *Significant Accounting Judgments, Estimates and Assumptions*

The preparation of our consolidated financial statements requires management to make judgments, estimates and assumptions that affect the reported amounts of revenues, expenses, assets and liabilities, and the disclosure of contingent liabilities at the end of the reporting periods. Uncertainty about these assumptions and estimates could result in outcomes that require a material adjustment to the carrying amount of the asset or liability affected in future periods. The following represents the estimates and judgments most critical to the application of our accounting policies. For a summary of our significant accounting policies, see Note 2 in the annual audited consolidated financial statements.

*Property, Plant and Equipment ("PP&E").* Judgmental aspects of accounting for PP&E involves selection of an appropriate method of depreciation, estimates of the life of assets and determining whether an impairment of our assets exists and measuring such impairment. We are 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 consistent with the pattern of economic benefits that are expected from the use of our plants and equipment, requires less estimation and judgment, and is a systematic and rational basis for allocating the depreciable cost over the period in which the assets' benefit is realized. We review the estimated useful lives and the depreciation method of PP&E at each financial year end and make adjustment prospectively when appropriate. This review is completed by NOVA Chemicals' engineers familiar with the plant sites and requires management's assessment of economic utility. We made no changes to the estimated useful lives or depreciation methods for PP&E during 2011.

*Intangibles.* Judgmental aspects of accounting for intangibles involves selection of an appropriate method of amortization, estimates of the life of assets and determining whether an impairment of our assets exists and measuring such impairment. The amortization period and the amortization method for intangible assets with a finite useful life are reviewed each financial year end. We made no changes to the amortization periods or methods for intangible assets during 2011 and 2010, and have no intangible assets with indefinite use lives.

*Impairment of non-financial assets.* Impairment exists when the carrying value of an asset or cash generating unit ("CGU") exceeds its recoverable amount, which is the higher of its fair value less costs to sell and its value in use. The fair value less costs to sell calculation is based on available data from binding sales

transactions in an arm's length transaction of similar assets or observable market prices less incremental costs for disposing of the asset. The value in use calculation is based on a discounted cash flow model. The cash flows are derived from the budget for the next five years and do not include restructuring activities that we have not yet committed to or significant future investments that will enhance the performance of the asset or CGU being tested. The recoverable amount is most sensitive to the discount rate used for the discounted cash flow model as well as the expected future cash-inflows and the growth rate used for extrapolation purposes. Other factors that management must estimate include: industry and market conditions, sales volumes and prices, costs to produce, inflation, etc. We use reasonable, supportable and where available third-party, industry expert assumptions when performing impairment reviews.

We assessed all of our non-financial assets for indicators of impairment and determined that certain impairment indicators exist in our Performance Styrenics segment during the fourth quarter of 2011. In accordance with IFRS 1 (see Note 26 of our annual audited consolidated financial statements), we elected to use the fair values of assets and liabilities, as determined in connection with the IPIC acquisition of us on July 6, 2009, as "deemed cost" for the assets and liabilities that could be recognized under IFRS, which included PP&E of our Performance Styrenics segment. Since July 6, 2009, the market for certain products has not improved significantly, but we continue to spend a significant amount on capital expenditures for the business and other common facilities at our manufacturing sites, resulting in a carrying value of these assets at December 31, 2011, of \$10 million prior to any impairment charge. The carrying value of these assets at December 31, 2011 was written down to their estimated fair value of \$4 million, resulting in an impairment charge of \$6 million. The impairment charge is included in feedstock and operating costs on the consolidated income statements.

We also assessed impairment indicators at the end of 2010 and determined that although the Performance Styrenics segment continued to add new packaging applications for items such as televisions and computer equipment, demand had not materialized as expected due to poor economic conditions and competitive pressure, which resulted in lower sales volumes during 2010. Accordingly, during the fourth quarter of 2010, management determined that the carrying value of certain assets within the Performance Styrenics segment were greater than the estimated future cash flows. These assets' carrying value at December 31, 2010 prior to write-down was \$26 million. The fair value was estimated to be \$6 million. Thus, the assets were written down to their estimated fair value, resulting in an impairment charge of \$20 million during 2010. The impairment charge is included in feedstock and operating costs on the consolidated income statements.

The write-downs will reduce future depreciation charges in the Performance Styrenics segment by approximately \$3 million per year from 2012 to approximately 2019.

*Fair value of financial instruments.* Where the fair value of financial assets and financial liabilities recorded in the consolidated statement of financial position cannot be derived from active markets, their fair value is determined using quoted prices in active markets adjusted for factors specific to the asset or liability, such as basis and location differentials. This includes over-the-counter derivatives with values based upon observable commodity futures curves and derivatives with input validated by broker quotes or other publicly available market data providers. This also includes fair values determined using valuation techniques, such as regression or extrapolation formulas, where the inputs are readily observable, including commodity prices for similar assets or liabilities in active markets. The key inputs to valuation models and regression or extrapolation formulas include interest rate yield curves, currency rates, credit spreads, implied volatilities, and commodity prices for similar assets or liabilities in active markets, as applicable. Changes in assumptions about these factors could affect the reported fair value of financial instruments.

*Provision for decommissioning.* Provisions for decommissioning costs are recognized at the time of acquisition or construction of manufacturing facilities. Decommissioning liabilities are provided at the present value of the expected costs to settle the obligation and are recognized as part of the cost of the particular asset. The expected costs are discounted at a current pre-tax rate that reflects the risks specific to the decommissioning liability (which we interpret to be a risk-free rate). The unwinding of the discount is recognized in the consolidated income statement in finance costs, net as it occurs. The estimated future costs of decommissioning are reviewed annually and adjusted as appropriate. Changes in the estimated future costs or in the discount rate applied are added to or deducted from the cost of the asset.

We have recognized a provision for decommissioning obligations associated with our manufacturing facilities. In determining the amount of the provision, assumptions and estimates are made in relation to discount rates, the expected cost to dismantle and remove the plant, restore the site, and the expected timing of those obligations. The carrying amount of the provision as at December 31, 2011 was \$101 million (December 31, 2010 \$99 million; January 1, 2010 \$86 million).

*Pension Plans.* We sponsor both defined benefit and defined contribution pension arrangements covering substantially all of our employees. The cost and obligations for the defined benefit pension plans and other post-employment medical benefits and the present value of the pension obligation are determined using actuarial valuations. An actuarial valuation involves making various economic and demographic assumptions to estimate future liabilities and which are discounted back to today's value using interest rates as of the valuation date. Some of the assumptions used in the valuations include future salary increases, mortality rates, future pension increases, and termination and retirement rates. Given the long term nature of the obligations and the fact that assumed rates can vary from short term actual experience, the liabilities are subject to volatility and are particularly sensitive to changes in interest rates. In addition, given the assets are allocated to equities and bonds, the market value of the plans' assets are sensitive to changes in capital markets. All significant assumptions and asset values are reviewed at each reporting date.

In determining the appropriate discount rate, management considers the yields of high quality corporate bonds, in the respective country, with terms to maturity that approximate the duration or projected cash flows of our pension obligations. The mortality rate is based on publicly available mortality tables for each country. Future salary increases are based on our long term view of compensation trends and pension indexation, which is only applicable to the Canadian defined benefit plans, is based on expected future inflation rates. Retirement and termination rates are based on actual experience or standardized tables which are reflective of our experience.

Given the decline in interest rates during 2011, management decreased the discount rates used in determining pension and post retirement obligations and applied actual asset values, which reflected weak investment returns, as of December 31, 2011 as compared to December 31, 2010. These changes increased our employee benefit plan liability and decreased other comprehensive income and retained earnings by approximately \$125 million at December 31, 2011.

A total of \$58 million and \$33 million was contributed in 2011 and 2010, respectively, to all of our defined benefit pension plans. The contributions were based on the most recently filed valuations with pension regulators in each country. We contributed \$11 million and \$10 million in 2011 and 2010, respectively, to our defined contribution plans.

For 2012, funding for the defined benefit plans is expected to be approximately \$110 million as employees accrue additional pension benefits and special payments are made to cover the shortfall between assets and liabilities. Special payments are expected to increase significantly in 2012 due to the expiration of funding relief for one of the Canadian plans at the end of 2011 and due to a deterioration of the funded position of the plans as a result of further declines in interest rates and weak asset growth in 2011. Contributions to defined contribution plans for 2012 are expected to be \$14 million. The increase in defined contribution plan contributions in 2012 largely reflects an increase in the employer contribution rate for our Canadian plans.

*Taxes.* Uncertainties exist with respect to the interpretation of complex tax regulations, changes in tax laws, and the amount and timing of future taxable income. Given the wide range of international business relationships and the long-term nature and complexity of existing contractual agreements, differences arising between the actual results and the assumptions made, or future changes to such assumptions, could necessitate future adjustments to tax income and expense already recorded. We establish provisions, based on reasonable estimates, for possible consequences of audits by the tax authorities of the respective countries in which we operate, if it is probable that an outflow of resources will be required to settle the obligation. The amount of such provisions is based on various factors, such as experience of previous tax audits and differing interpretations of tax regulations by the taxable entity and the responsible tax authority. Such differences of interpretation may arise on a wide variety of issues depending on the conditions prevailing in the respective company's domicile. We



review the adequacy of these provisions at the end of each reporting period and include any required liability in deferred tax liabilities.

Deferred tax assets are recognized for all unused tax losses to the extent that it is probable that taxable profit will be available against which the losses can be utilized. Significant management judgment is required to determine the amount of deferred tax assets that can be recognized, based upon the likely timing and the level of future taxable profits together with future tax planning strategies.

We have tax loss carry forwards, in the United States, amounting to \$117 million at December 31, 2011 (December 31, 2010 \$131 million; January 1, 2010 \$141 million). In addition, at December 31, 2011, we have \$205 million of unrecognized losses in Switzerland (December 31, 2010 \$256 million; January 1, 2010 \$319 million). These relate to subsidiaries that have had a history of losses and expire in 2028.

If we were able to recognize all unrecognized deferred tax assets, profit would have increased by \$65 million for the year ended December 31, 2011.

*Legal claims.* When assessing the possible outcomes of legal claims that are filed against us, we rely on the opinions of our legal counsel. The opinions of our legal counsel are based on the best of their professional judgment, and take into consideration the current stage of the proceedings and the legal experience accumulated with respect to the various matters. As the results of the claims may ultimately be determined by the courts or otherwise settled, they may be different from such estimates

*New feedstock, transportation and storage agreements.* The "NOVA 2020 Project" includes plans for growth of our proprietary polyethylene technology to serve North American markets. As a part of our strategy to capitalize on emerging feedstock opportunities and growing North American demand, we have begun feasibility and engineering work for the construction of two new polyethylene assets to be located at our sites in Alberta and Ontario. We will also complete studies for a further debottleneck of our LDPE line located at our Mooretown, Ontario facility.

Throughout 2011, we entered into a number of key agreements, including agreements for additional sources of ethane supply and related pipeline transportation services for our Joffre complex which should provide sufficient ethane for us to move towards full utilization of our Joffre PE assets; and agreements to support the revamp of our Corunna cracker to utilize up to 100% NGL feedstock, including definitive agreements for long-term ethane supply from the Marcellus Shale Basin, a transportation service agreement for the transportation of ethane feedstock from the Marcellus Shale Basin into the Sarnia, Ontario region and related storage agreements.

These agreements have been evaluated in relation to various IFRS principles, the most significant of which was International Financial Reporting Interpretations Committee ("IFRIC") 4, *Determining Whether an Arrangement Contains a Lease*. IFRIC 4 requires that determining whether an arrangement is, or contains, a lease shall be based on the substance of the arrangement and requires an assessment of whether:

- a) fulfillment of the arrangement is dependent on the use of a specified asset or assets; and
- b) the arrangement conveys a right to use the asset

Management has determined that based on evaluation of the terms and conditions of the arrangements that the feedstock and pipeline arrangements do not meet both criteria under IFRIC 4 and therefore do not contain leases, but that a material storage cavern arrangement contains a lease. Currently, there is only one material storage agreement that has been signed and management has determined this to be an operating lease.

*Discontinued operations.* On October 31, 2010, we entered into an agreement with an affiliate of INEOS providing for the sale of our 50% interest in the INEOS NOVA joint venture. The sale closed on February 28, 2011. Associated results of operations and cash flows are separately reported as discontinued operations for all periods presented and the associated financial position is separately reported as assets and liabilities held for sale as of December 31, 2010.

During the second quarter of 2010, our Board of Directors approved the sale, subject to certain conditions, of our building and construction business, collectively known as SYNTHEON. The SYNTHEON portfolio of businesses, which was part of our Performance Styrenics segment, includes SYNTHEON Inc.; Accelerated Building Technologies LLC; NCE Inc.; NOVA Chemicals Chile Limitada; our 50% interest in both Novidesa S.A. de C.V. and Reliance Innovative Building Solutions Pvt. Ltd (both joint ventures); and intellectual property relating to both the building and construction products and the Elemix concrete additive. We initially anticipated that the sale would be completed in 2010; however, negotiations with the intended acquirer ended without a sale being completed. Management has since developed a formal plan for the sale of SYNTHEON assets. Associated results of operations, financial position and cash flows are separately reported as discontinued operations and assets and liabilities held for sale as of and for the years ended December 31, 2011 and 2010. SYNTHEON assets are available for immediate sale and can be sold to a potential buyer(s) in their current condition. Management has initiated an active plan to locate a buyer(s) and expects any potential disposal to be completed within the next 12 months. Accordingly, management considers that SYNTHEON meets the criteria to be classified as held for sale as of December 31, 2011.

For more details on discontinued operations, refer to Note 5 in the annual audited consolidated financial statements.

## **Changes in Accounting Policies and Disclosures**

### *New and amended standards and interpretations*

Our accounting policies adopted are consistent with those of the prior period, except for the following amended IFRIC interpretations effective as of January 1, 2011 and described below:

IFRIC 14, *Prepayments of a Minimum Funding Requirement (Amendment)*, is effective for annual periods beginning on or after January 1, 2011 with retrospective application. This amendment permits entities to treat the benefit of prepayments of minimum funding requirements as an asset and provides guidance on assessing the recoverable amount of a net pension asset. This amendment was adopted as of January 1, 2011 and did not have an impact on our consolidated financial statements.

IFRIC 24, *Related Party Disclosures (Amendment)*, is effective for annual periods beginning on or after January 1, 2011, with retrospective application. Among other things, this amendment clarifies the definition of a related party to simplify the identification of such relationships and to eliminate inconsistencies in its application. This amendment was adopted as of January 1, 2011 and did not have an impact on our consolidated financial statements.

### *Standards issued but not yet effective*

Standards issued up to the date of issuance of our consolidated financial statements but not effective as of December 31, 2011 are listed below. We intend to adopt these standards when they become effective.

*Amendments to IAS 12: Deferred Tax Recovery of Underlying Assets*, amends IAS 12 *Income Taxes*, by creating an exception to the principle that the measurement of deferred tax liabilities and deferred tax assets should reflect the tax consequences that would follow from the manner in which the entity expects to recover or settle the carrying amount of its assets and liabilities. In specified circumstances, such as when the deferred tax liability or asset arises from investment property or property, plant and equipment or intangible assets, the measurement of deferred tax liabilities and assets should reflect a rebuttable presumption that the carrying amount of the underlying asset will be recovered entirely by sale. Standing Interpretations Committee ("SIC") 21, *Income Taxes Recovery of Revalued Non-Depreciable Assets*, is no longer applicable to investment properties carried at fair value. The remaining guidance from SIC 21 was added to IAS 12, which requires businesses to measure the deferred tax relating to an asset to be measured based upon the expectation that the carrying amount of the asset will be recovered by selling the asset or using it. The amendments are effective January 1, 2012. We do not expect the application of the revised standard to have an impact on our consolidated financial statements.

In January 2011, the IASB amended IFRS 7, *Financial Instruments: Disclosures*. The amendment is effective for annual periods beginning on or after July 1, 2011, with earlier adoption permitted. The amendment relates to

required disclosures for transfers of financial assets to help users of the financial statements evaluate the risk exposures relating to such transfers and the effect of those risks on an entity's financial position. We are currently evaluating the impact of adopting this amended standard.

IFRS 9, *Financial Instruments: Classification and Measurement*, as issued, reflects the first phase of the IASB work on the replacement of IAS 39, *Financial Instruments*. In subsequent phases, the IASB will address hedge accounting and derecognition. IFRS 9 introduces new requirements for the classification and measurement of financial assets and is effective for annual periods beginning on or after January 1, 2015, with early adoption permitted. The adoption of this standard will have an effect on the classification and measurement of our financial assets and financial liabilities. We are currently evaluating the impact and will quantify the effect in conjunction with the other phases, when issued, to present a comprehensive picture.

In May 2011, the IASB issued several standards, all of which are effective for annual periods beginning on or after January 1, 2013 with earlier application permitted:

IFRS 10, *Consolidated Financial Statements*, establishes principles for the presentation and preparation of consolidated financial statements when an entity controls one or more other entities and replaces the consolidation requirements in SIC 12, *Consolidation - Special Purpose Entities* and IAS 27, *Consolidated and Separate Financial Statements*. IFRS 10 builds on existing principles by identifying the concept of control as the determining factor in whether an entity should be included within the consolidated financial statements of the parent company. This standard also provides additional guidance to assist in the determination of control where this is difficult to assess. We are currently evaluating the impact of adopting this standard.

IFRS 11, *Joint Arrangements*, provides for a more realistic reflection of joint arrangements by focusing on the rights and obligations of the arrangement, rather than its legal form (as is currently the case). IFRS 11 addresses inconsistencies in the reporting of joint arrangements by requiring a single method (the equity method) to account for interests in joint ventures. In conjunction with the issuance of IFRS 11, IAS 28, *Investments in Associates and Joint Ventures*, was amended. An entity should apply IFRS 11 to determine the type of joint arrangement in which it is involved. Once it has determined that it has an interest in a joint venture, the entity should recognize an investment and account for it using the equity method in accordance with IAS 28 (as amended in 2011), unless the entity is exempt from applying the equity method as specified in the standard. We are currently evaluating the impact of adopting this standard and amendment.

IFRS 12, *Disclosure of Interests in Other Entities*, is a new and comprehensive standard on disclosure requirements for all forms of interests in other entities, including subsidiaries, joint arrangements, associates and unconsolidated structured entities. IFRS 12 will require an entity to disclose information that enables users of financial statements to evaluate the nature of, and risks associated with, its interests in other entities, and the effects of those interests on its financial position, financial performance and cash flows. We are currently evaluating the impact of adopting this standard.

IFRS 13, *Fair Value Measurement*, provides new guidance on fair value measurement and disclosure requirements. IFRS 13 will improve consistency and reduce complexity by providing a precise definition of fair value and a single source of fair value measurement and disclosure requirements. We are currently evaluating the impact of adopting this standard.

In June 2011, the IASB issued the following amended standards:

IAS 19, *Employee Benefits*, provides the accounting and disclosure requirements by employers for employee benefits. The amendments to IAS 19 will provide investors and other users of financial statements with a better understanding of an entity's obligations resulting from the provision of defined benefit plans and how those obligations will affect its financial position, financial performance and cash flow. Among other things, the amendment eliminates the option to defer the recognition of gains and losses, known as the 'corridor method', and further aligns IFRS with Generally Accepted Accounting Principles in the United States ("US GAAP"). The amendments to IAS 19 are effective for annual periods beginning on or after January 1, 2013, with earlier application permitted. We are currently evaluating the impact of adopting this amended standard.

IAS 1, *Presentation of Financial Statements*, was amended to improve the quality of the presentation of other comprehensive income ("OCI") and align the presentation of OCI in financial statements prepared in

accordance with IFRS with those prepared in accordance with US GAAP. The amendments require companies preparing financial statements in accordance with IFRS to group together items within OCI that may be reclassified to the profit or loss section of the income statement. The amendments also reaffirm existing requirements that items in OCI and profit or loss should be presented as either a single statement or two consecutive statements. The amendments to IAS 1 are effective for annual periods beginning on or after July 1, 2012. We are currently evaluating the impact of adopting this amended standard.

In December 2011, the IASB amended IAS 32, *Financial Instruments Presentation*, for disclosure requirements for the offsetting of assets and liabilities on the statement of financial position. The amended standard requires entities to disclose both gross information and net information about both instruments and transactions eligible for offset in the statement of financial position and instruments and transactions subject to an agreement similar to a master netting arrangement. The scope includes derivatives, sale and repurchase agreements and reverse sale and repurchase agreements and securities borrowing and securities lending agreements. The amendments to IAS 32 are effective for annual periods beginning on or after January 1, 2014 and require retrospective application. We are currently evaluating the impact of adopting this amended standard.

#### **Anticipated Changes to IFRS Leases**

In August 2010, as part of the global convergence project, the IASB and the Financial Accounting Standards Board ("FASB") issued a joint exposure draft proposing that lessees would be required to recognize all leases on the statement of financial position. Such standard, if adopted as proposed, would result in a significant increase in total assets and liabilities on our statement of financial position. The IASB and FASB currently expect to issue a final standard in 2012.

#### **Market and Regulatory Risk**

The Audit Committee of our Board of Directors regularly reviews foreign exchange, interest rate and commodity hedging activity and monitors compliance with the our hedging policy. Our policy prohibits the use of financial instruments for speculative purposes and limits hedging activity to the underlying net economic exposure. See Note 24 in our annual audited consolidated financial statements for additional information.

##### ***Interest Rate Risk Management***

Interest rate risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market interest rates. Changes in the market interest rates of long-term debt with fixed interest rates only affects our profit if such debt is measured at fair value. All of our fixed-rate long-term debt is carried at amortized cost and therefore is not subject to interest rate risk. Our exposure to the risk of changes in market interest rates relates primarily to our long-term debt obligations with floating interest rates.

We manage our interest rate risk by balancing our exposure to fixed and variable rates while attempting to minimize our interest costs. When deemed appropriate, we enter into interest rate swap agreements to manage our 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 2011 and 2010, we had no floating-for-fixed interest rate swaps outstanding.

For the disclosure of market risks, management has prepared a sensitivity analysis that shows the effects of reasonably possible changes in relevant risk variables on after-tax income and equity. The periodic effects are determined by relating the reasonably possible changes in the risk variables to the balance of financial instruments at the reporting date. For purposes of this analysis, long-term debt balances as of December 31, 2011 and 2010, were used.

Changes in market interest rates would affect interest expense on our variable rate, long-term debt which is included in the sensitivity analysis calculation.

At December 31, 2011 and 2010 if interest rates at that date had been 0.5% higher, with all other variables held constant, after-tax profit and equity for each year would have been \$2 million lower, arising mainly as a result of higher interest expense on variable rate borrowings.

**Foreign Currency Hedging**

Foreign currency risk is the risk that the fair value of future cash flow of a financial instrument will fluctuate because of changes in foreign exchange rates. Our exposure to the risk of changes in foreign exchange rates relates primarily to our operating activities (when revenue or expenses are denominated in a different currency from our functional currency). We have established a policy that provides a framework for foreign currency management, hedging strategies and approved hedging instruments. Hedging instruments may be used to minimize the gains and losses due to short-term foreign currency exchange rate fluctuations. The exposure that may be hedged in accordance with our foreign exchange policy is limited to operational transaction exposure and is generally used only to balance out our cash positions. Foreign currency risks resulting from the translation of assets and liabilities of foreign operations into our functional currency are generally not hedged; however, we may hedge this risk under certain circumstances.

To address the risks associated with having the U.S. dollar as our functional currency we entered into a series of foreign currency forwards in January 2010, to effectively hedge the foreign currency exposure on the Cdn\$250 million 7.85% notes that were due and settled in August 2010. The foreign currency forwards locked in repayment of the Cdn\$250 million 7.85% notes at U.S.\$237 million.

Translation currency effects occur when we or one of our subsidiaries incurs monetary assets or liabilities in a currency different from its functional currency. These translation gains and losses are recorded in feedstock and operating costs on the consolidated income statement, except for employee benefit plan liabilities for which the resulting gains or losses are reported in other comprehensive income.

Foreign currency risks may also result from certain investing activities such as the acquisition and disposal of investments in foreign companies, and may be caused by financial liabilities in foreign currencies and loans in foreign currencies that are extended to affiliated entities for financing purposes. In recent years, these risks generally have not been hedged.

Our subsidiaries and affiliated entities generally execute their operating activities in their respective local currencies. We historically have not used currency derivatives to hedge such payments.

**Foreign currency sensitivity**

Our investing, financing and operating activities are exposed to currency risks. The following table demonstrates the sensitivity to a 10% strengthening of the Canadian dollar against the U.S. dollar, with all other variables held constant, of our after-tax profit and OCI. The impact of translating the net assets of foreign operations into our reporting currency is excluded from the sensitivity analysis. Any change in the Euro would not be material.

(millions of U.S. dollars, except as noted)	Change <sup>(1)</sup>	Decrease in after-tax profit	Decrease in other comprehensive income
2011	+10%	\$ 64	\$ 28
2010	+10%	\$ 62	\$ 19

(1) A 10% weakening of the Canadian dollar against the U.S. dollar would have the opposite effect.

**Commodity Price Risk Management and Hedging**

We use commodity-based derivatives to manage our 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. The extent to which commodity-based derivatives are used depends on market conditions and requires adherence to our hedging policy. We limit our positions in futures markets to proprietary feedstock requirements and do not use derivative instruments for speculative purposes.

Commodity swaps are sometimes used and designated as fair value hedges intended to hedge the fair value of our feedstock inventory against changes in the market price. At inception of a hedging relationship, we

document the relationship between the hedging instrument and the hedged item, our risk management objective and our strategy for undertaking the hedge. We also require a documented assessment, both at hedge inception and on an ongoing basis, of whether or not the derivatives that are used in hedging transactions are highly effective in offsetting the changes in the fair value of the hedged items. Unrealized gains and losses on derivative instruments designated and qualifying as fair value hedging instruments, as well as the offsetting unrealized gains and losses on the hedged items, are included in income in the same accounting period within feedstock and operating costs in the consolidated income statement. At December 31, 2011 and 2010 and as of January 1, 2010, we had no outstanding commodity-based derivatives designated as fair value hedges.

In addition, we utilize options, swaps and futures instruments as economic hedges of commodity price exposures, but they either do not meet the hedge accounting criteria of IAS 39 or are not designated as qualifying hedges. Gains and losses on commodity-based derivatives are included in feedstock and operating costs in the consolidated income statement.

The notional volume and fair value of outstanding derivative contracts for crude oil and refined products that are not designated or do not qualify for hedge accounting are as follows:

(millions of U.S. dollars, except as noted)	December 31, 2011			December 31, 2010			January 1, 2010		
	Crude oil	Propane	Butane	Crude oil	Propane	Butane	Crude oil	Propane	Butane
Notional volume mm bbls	0.4	0.1	0.3	1.5	0.9	0.9	2.9	2.7	1.9
Weighted-average price per bbl	\$ 107.84	\$ 55.45	\$ 68.02	\$ 94.75	\$ 48.46	\$ 72.67	\$ 88.61	\$ 45.75	\$ 72.25
Fair value	\$ 3	\$	\$ 2	\$ 2	\$ 4	\$ (4)	\$ 16	\$ 17	\$ (15)
Term to maturity months	1-12	10-12	10-12	1-24	1-24	1-24	1-36	1-36	4-36

The notional volume and fair value of outstanding derivative contracts for natural gas that are not designated or do not qualify for hedge accounting are as follows:

(millions of U.S. dollars, except as noted)	December 31, 2011		December 31, 2010		January 1, 2010	
Notional volume mm gjs	1.2		1.8			
Weighted-average price per gj	\$ 3.43		\$ 3.75		\$	
Fair value	\$ (1)		\$		\$	
Term to maturity months	1-2		1-3			

We lock in a portion of our propane and butane feedstock requirements as a percentage of crude oil using forward contracts that extend to 2012. In 2011 and 2010, our portfolio also included trades to re-price excess feedstock inventory, and a small volume of our winter natural gas requirements was locked in at a fixed price. Changes in forward propane and butane prices as a percentage of forward crude oil prices and a decrease in the notional volumes drove the mark-to-market change in 2011 as compared to 2010. At December 31, 2011, each 10% change in the price of crude oil, propane and butane would have impacted the value of our derivative contracts and changed our after-tax profit by approximately \$1 million, \$2 million and \$3 million, respectively. At December 31, 2010, each 10% change in the price of crude oil, propane and butane would have impacted the value of our derivative contracts and changed our after-tax profit by approximately \$11 million, \$4 million and \$4 million, respectively. At December 31, 2011 and 2010, each 10% change in the natural gas price would not have materially impacted the value of our derivative contracts. The sensitivity analysis of our commodity derivative contracts does not consider any adjustments for credit risk. There are no other items except as noted, that are excluded or partially excluded from this analysis. At December 31, 2011, we remain exposed to price risk on open commodity derivatives until their maturity. There have been no other changes in our market risk exposure or how this risk is managed.

### Liquidity Risk

Liquidity risk is the risk that we will not have sufficient funds available to meet our liabilities. We seek to maintain liquidity within a targeted range in the form of cash and cash equivalents and undrawn revolving credit facilities to position us to make scheduled cash payments, pay down debt, ensure ready access to capital, and assist in the solvency and financial flexibility of our operations. Adjustments to the liquidity reserve are made

upon changes to economic conditions, anticipated future debt maturities and funding of our defined benefit pension obligations, underlying risks inherent in our operations and capital requirements to maintain and grow operations. Liquidity totaled \$1,508 million at December 31, 2011, \$982 million at December 31, 2010 and \$802 million at January 1, 2010. Repayment of amounts due within one year may be funded by cash flows from operations, cash-on-hand, undrawn revolving credit facilities and accounts receivable securitization programs. Capital markets transactions may also be used in managing the balance between maturing obligations and available liquidity. Our future liquidity is dependent on factors such as cash generated from ongoing operations and other potential sources of financing. For further discussion about our liquidity, see *Liquidity and Capital Resources*.

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

Counterparty credit risk on financial instruments arises from the possibility that a counterparty to an instrument in which we are entitled to receive payment fails to perform on its obligations under the contract. This includes any cash amounts owed to us by those counterparties, less any amounts owed to the counterparty by us where a legal right of offset exists and also includes the fair value of contracts with individual counterparties which are recorded in the annual audited consolidated financial statements.

For derivative financial instruments, we have 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. We do not anticipate that any counterparties we currently transact with will fail to meet their obligations. At December 31, 2011 and 2010 and at January 1, 2010, we had no credit exposure for foreign currency or interest rate instruments. At December 31, 2011, we had \$5 million credit exposure for commodity-based instruments (December 31, 2010 \$7 million; January 1, 2010 \$17 million).

In order to manage credit and liquidity risk, we invest only in highly rated instruments that have maturities of nine months or less. Limits on the term of an investment, the type of investment and concentration limits per institution are established. Typically we invest only in overnight bank term deposits.

Trade credit risk includes an unexpected loss in cash and earnings if a customer is unable to pay its obligations or the value of security provided declines. Trade receivables over 30 days were approximately 1% of total trade receivables at December 31, 2011 and 2010. There is no indication as of December 31, 2011, that the debtors will not meet their obligations. Historically, trade receivable credit losses (bad debt write-offs) have been immaterial and bad debt expense continued to be immaterial in 2011.

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

We are committed to the Responsible Care® initiative as the basis for our overall safety, health, environment, security and risk program. Responsible Care is a global industry initiative that is currently practiced by the chemical industry in over 50 countries worldwide. Responsible Care was created by the Chemistry Industry Association of Canada in 1985 and adopted by the American Chemistry Council in the United States in 1988. As a participant in Responsible Care, we are committed to the responsible management of our products through their life cycle, the safety of our operations, the continuous reduction of the emissions and wastes from our facilities and sustainability.

Similar to other companies that manufacture and sell plastics and chemicals, we are subject to extensive environmental laws and regulations. These laws and regulations concern the manufacturing, processing and importation of certain substances, discharges or releases to air, land or water and the generation, handling, storage, transportation, treatment, disposal and clean-up of regulated materials.

Although we believe that our 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 hazardous materials, personal injury and property and environmental damage.

From time to time, we have entered into consent agreements or have been subject to administrative orders for pollution abatement or remedial action. Under some environmental laws, we may be subject to strict and, under certain circumstances, joint and several liability for the costs of environmental contamination on or from

our properties and at off-site locations where we disposed of or arranged for disposal or treatment of hazardous substances and may also incur liability for related damages to natural resources. We have 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. Provision has been made in our financial statements to cover the estimated costs. Nevertheless, we cannot provide any assurance that we will not incur substantial costs and liabilities resulting from future events or unknown circumstances which exceed our reserves or will be material.

In 2002, Canada ratified the Kyoto Protocol, and agreed to regulate reductions in air emissions that contribute to climate change. In 2007, the Canadian federal government released its plan for reducing industrial air emissions, including an ultimate goal of reducing greenhouse gas ("GHG") emissions by 20% from the 2006 levels by 2020 and by 60 to 70% by 2050. In December 2010, Canada signed the Copenhagen Accord committing to reduce national GHG emissions by 17% from 2005 levels by 2020. In December 2011, Canada formally withdrew from the Kyoto Protocol indicating a focus on future international agreements.

The Canadian federal government, recognizing the recent global economic recession and Canada's approximate 2% contribution of global GHGs, has indicated an intent to balance national environmental and energy policies between economic renewal and sustainable development. In addition, the Canadian federal government has stated that GHG reduction objectives require a systemic approach of regulating emissions sector by sector and, where appropriate, alignment with the United States. We anticipate legally binding federal GHG emission reduction requirements to be imposed on our operations in Canada, although the scope and timing for such requirements and the related impacts are uncertain.

Many Canadian provinces are also considering or implementing GHG emissions reduction legislation. In Alberta, the *Specified Gas Emitters Regulation* under the *Climate Change and Emissions Management Act* came into effect in 2007, imposing annual reductions requirements. In compliance with the Alberta regulations, we filed the annual emission submissions and have satisfied the 12% emission intensity reduction requirements. Recently, the Ontario legislature passed Bill 185, the *Environmental Protection Amendment Act (Greenhouse Gas Emissions Trading)*, providing the foundation for the province's cap and trade program to reduce GHG emissions. On December 1, 2009, Ontario filed its Greenhouse Gas Emissions Reporting Regulation under the Environmental Protection Act. This regulation came into force on January 1, 2010 and provides for the annual reporting of GHGs by prescribed facilities that emit 25,000 tons of carbon dioxide equivalent or more per year.

Although the United States has not ratified the Kyoto Protocol, it is a signatory to the Copenhagen Accord. Additionally, a number of federal laws and regulations related to GHG emissions are being considered by the U.S. Environmental Protection Agency ("EPA") and in Congress.

In September 2009, the EPA issued the Final Mandatory Reporting of Greenhouse Gases Rule requiring facilities that emit more than 25,000 tons of GHGs per year to collect data beginning January 1, 2010 with the first annual reports due March 31, 2011. In May 2010, the EPA released the *Prevention of Significant Deterioration and Title V Greenhouse Gas Tailoring Rule* imposing requirements upon new and modified major stationary sources emitting more than 75,000 tons of GHGs per year. The emissions from NOVA Chemicals' U.S.-based facilities are significantly below the threshold and are not subject to this rule.

Due to the uncertainty of long term regulatory requirements, we cannot provide assurance that we will not incur substantial costs to meet GHG emission reduction requirements or whether they will be material.



## Summarized Quarterly Financial Information

(millions of U.S. dollars)	2011				2010			
	Oct. 1 to Dec. 31	July 1 to Sept. 30	Apr. 1 to June 30	Jan. 1 to Mar. 31	Oct. 1 to Dec. 31	July 1 to Sept. 30	Apr. 1 to June 30	Jan. 1 to Mar. 31
Revenue	\$ 1,102	\$ 1,448	\$ 1,392	\$ 1,299	\$ 1,170	\$ 1,072	\$ 1,244	\$ 1,090
Operating profit from continuing operations	\$ 144	\$ 254	\$ 348	\$ 261	\$ 132	\$ 118	\$ 207	\$ 140
Profit from continuing operations	\$ 78	\$ 150	\$ 231	\$ 149	\$ 51	\$ 48	\$ 52	\$ 86
Profit	\$ 77	\$ 150	\$ 225	\$ 163	\$ 63	\$ 58	\$ 46	\$ 96

## Fourth Quarter 2011 Overview

Profit from continuing operations in the fourth quarter of 2011 was \$78 million compared to \$51 million in the fourth quarter of 2010. In the fourth quarter of 2011, margins in Olefins/Polyolefins were higher than in the fourth quarter of 2010, but were offset by lower olefins and co-product sales resulting from the planned maintenance turnaround at our Corunna cracker and lower margins in PE.

(millions of U.S. dollars)	Three Months Ended	
	Dec. 31, 2011	Dec. 31, 2010
Revenue	\$ 1,102	\$ 1,170
Operating profit (loss) from continuing operations <sup>(1)</sup>		
Olefins/Polyolefins <sup>(2)</sup>	\$ 190	\$ 210
Performance Styrenics	1	1
Corporate	(47)	(79)
Operating profit from continuing operations	144	\$ 132
Profit from continuing operations	78	\$ 51
Profit	77	\$ 63

Notes:

- (1) See "Supplemental Measures."
- (2) Olefins/Polyolefins consists of Joffre Olefins, Corunna Olefins, and Polyethylene segments. Amounts net of intersegment eliminations within the business unit.

The Olefins/Polyolefins business unit reported operating profit from continuing operations of \$190 million in the fourth quarter of 2011, which was down from \$210 million in the fourth quarter of 2010. This difference was due to an increase in margins in the Joffre Olefins segment, offset by a decrease of margins in PE.

The Joffre Olefins segment reported operating profit from continuing operations of \$235 million in the fourth quarter of 2011 compared to operating profit of \$97 million in the fourth quarter of 2010. Operating profit was higher quarter-over-quarter due to sales prices that increased more than feedstock costs.

The Corunna Olefins segment reported operating profit from continuing operations of \$5 million in the fourth quarter of 2011, which was a decrease from an operating profit of \$16 million in the fourth quarter of 2010. Operating profit was primarily lower quarter-over-quarter due to lower sales volumes resulting from the planned maintenance turnaround of the Corunna cracker.

The Polyethylene segment reported an operating loss from continuing operations of \$77 million in the fourth quarter of 2011, a decrease from operating profit of \$122 million in the fourth quarter of 2010. The decrease was primarily due to increased feedstock costs, offset somewhat by higher sales volumes.

The Performance Styrenics segment reported operating profit from continuing operations of \$1 million in the fourth quarter of both 2011 and 2010. In the fourth quarter of 2011, feedstock prices increased more than sales prices resulting in lower margins, which were offset by lower operating costs.

Corporate operating cost from continuing operations were \$47 million in the fourth quarter of 2011 compared to \$79 million in the fourth quarter of 2010. The lower quarter-over-quarter costs were primarily due to the lower impairment charges and year-end pension and other

liability adjustments.

**Item 6. Directors, Senior Management and Employees****6.A. DIRECTORS AND SENIOR MANAGEMENT****Directors**

The following table sets forth, as of December 31, 2011, the name of each of our directors, his age, residence, principal occupation(s) during the five preceding years and the period during which he has served as a director. The terms of office of the directors continue until their successors are elected or appointed.

<b>Name and Residence</b>	<b>Age</b>	<b>Period During Which a Director of NOVA Chemicals</b>	<b>Principal Occupation During the Preceding Five Years</b>
His Excellency Khadem Al Qubaisi, Chairman Abu Dhabi, United Arab Emirates	40	Since January 1, 2011	Managing Director, IPIC; prior to 2007, Investment Management Division Manager, IPIC
Mohamed Al Mehairi, Abu Dhabi, United Arab Emirates	36	Since July 6, 2009	Director, Investment Department, IPIC
Mark Garrett Vienna, Austria	49	Since November 10, 2009	Chief Executive Officer, Borealis AG; prior to April 2007, Global Segment Head, Water and Paper Treatment, Ciba Specialty Chemicals Inc.
Stephen B. Soules Calgary, Alberta, Canada	59	Since December 1, 2010	Director, President and CEO, Synchronicity Energy; prior to November 2011, Advisor to organizations in the Canadian energy and technology sectors; prior to 2009, Executive Vice President and Director Cambrium Energy Inc.; prior to January 2008, Executive Vice President, Director and Trustee, Esprit Energy Trust
Georg F. Thoma Neuss, Germany	67	Since July 6, 2009	Attorney, Shearman & Sterling LLP
Randy G. Woelfel Pennsylvania, U.S.A.	56	Since November 10, 2009	Chief Executive Officer, NOVA Chemicals; prior to November 16, 2009, Chief Executive Officer, Designate, NOVA Chemicals; prior to October 2009, President, Cereplast, Inc.; prior to March 2008, Managing Director, Houston Technology Center

**Executive Officers**

The following table sets forth, as of December 31, 2011, the name of each of our executive officers, his residence, present positions within the Corporation and principal occupations during the five preceding years.

<b>Name and Residence</b>	<b>Age</b>	<b>Present Principal Occupation</b>	<b>Principal Occupation During the Preceding Five Years</b>
Randy G. Woelfel Pennsylvania, U.S.A.	56	Chief Executive Officer	Chief Executive Officer, NOVA Chemicals; prior to November 16, 2009, Chief Executive Officer Designate, NOVA Chemicals; prior to October 2009, President, Cereplast, Inc.; prior to March 2008, Managing Director, Houston Technology Center

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Name and Residence	Age	Present Principal Occupation	Principal Occupation During the Preceding Five Years
Todd D. Karran Pennsylvania, U.S.A.	47	Senior Vice President and Chief Financial Officer	Senior Vice President and Chief Financial Officer, NOVA Chemicals; prior to June 2010, Senior Vice President, Chief Financial Officer and Treasurer, NOVA Chemicals; prior to November 2009, Vice President, Corporate Development and Treasurer, NOVA Chemicals; prior to November 2007, Vice President, Treasury and Corporate Development, NOVA Chemicals; prior to September 2007, Vice President and Chief Information Officer, NOVA Chemicals
Chris Bezaire Pennsylvania, U.S.A.	46	Senior Vice President, Polyethylene	Senior Vice President, Polyethylene, NOVA Chemicals; prior to January 2011, Vice President, Corporate Planning, NOVA Chemicals; prior to December 2009, Vice President, Technology and Business Integration, NOVA Chemicals; prior to October 2009, Vice President, AST and Licensing, NOVA Chemicals; prior to November 2007, Vice President, Olefins/Polyolefins Finance and Controller, NOVA Chemicals; prior to September 2007, Vice President, Investor Relations
William G. Greene Pennsylvania, U.S.A.	57	Senior Vice President, Operations	Senior Vice President, Operations, NOVA Chemicals; prior to December 2009, Vice President, Manufacturing and Corporate Engineering, NOVA Chemicals; prior to November 2007, Vice President, Manufacturing, NOVA Chemicals
Grant Thomson Alberta, Canada	57	Senior Vice President and President, Olefins and Feedstock	Senior Vice President and President, Olefins and Feedstock, NOVA Chemicals; prior to December 2009, Vice President, President Feedstock and Olefins, NOVA Chemicals; prior to April 2008, Senior Vice President, Olefins and Feedstocks, NOVA Chemicals

There are no family relationships among any of our directors or executive officers. There are no material arrangements or understandings between any two or more directors or executive officers pursuant to which any person was selected as a director or officer.

Each of the officers is appointed by the Board of Directors to serve, subject to the discretion of the Board of Directors, until their successors are appointed or they resign.

## 6.B. COMPENSATION

For purposes of this annual report on Form 20-F, Named Executive Officer ("NEO") means each of the following individuals:

- (a) the chief executive officer ("CEO") of NOVA Chemicals;
- (b) the chief financial officer ("CFO") of NOVA Chemicals; and
- (c) each of NOVA Chemicals' three most highly compensated executive officers, other than the CEO and CFO, who were serving as executive officers at the end of the most recently completed financial year.

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Based on the foregoing, NOVA Chemicals' NEOs for 2011 are:

Randy G. Woelfel, CEO

Todd D. Karran, Senior Vice President and CFO

Christopher P. Bezaire, Senior Vice President, Polyethylene Business

William G. Greene, Senior Vice President, Operations

Grant C. Thomson, Senior Vice President and President, Olefins and Feedstock

The NEOs also comprise the NOVA Management Board ("NMB"), which is the managing body composed of NOVA Chemicals' most senior officers who are responsible for the day-to-day management of the Corporation. The members of the NMB report to the Corporation's Board of Directors (the "Board").

Unless otherwise noted, all compensation amounts paid in Canadian dollars are expressed in U.S. dollars using the average exchange rates over the full year for each of the following financial years:

2011 \$1.00 Canadian = \$1.0169 U.S.;  
2010 \$1.00 Canadian = \$0.9629 U.S.; and  
2009 \$1.00 Canadian = \$0.8718 U.S.

### EXECUTIVE COMPENSATION

#### Compensation Discussion and Analysis

##### *Composition of the Remuneration Committee*

The Remuneration Committee of the Board is responsible for overseeing key compensation and human resources policies including the overall executive compensation strategy of NOVA Chemicals and the on-going monitoring of the strategy's implementation. The Remuneration Committee is governed by a Board-approved charter stating its responsibilities in more detail, a copy of which is available on the Corporation's website.

The Remuneration Committee is composed of Mohamed Al Mehairi (Chairman), Georg Thoma and Mark Garrett. All of the members of the Remuneration Committee are independent of management and the other prescriptive relationships identified in applicable securities legislation as they relate directly to NOVA Chemicals. All of the members of the Remuneration Committee have significant executive compensation experience by virtue of senior level executive positions, service on other boards of directors, education and/or financial and business experience.

##### *Governance*

The Remuneration Committee recognizes the importance of maintaining sound governance practices for the development and administration of executive compensation and compensation programs, and has instituted processes that enhance the Remuneration Committee's ability to effectively carry out its responsibilities. Examples include:

engaging an independent external compensation consultant to conduct a detailed compensation survey for the NEOs and other executives;

reviewing executive succession planning; and

reviewing its charter and making recommendations to the full Board in respect of any amendments or revisions to the charter to reflect evolving executive compensation practices.

The Remuneration Committee directs management to gather executive compensation information and provide initial analyses and commentary. The Remuneration Committee reviews this material along with other information received from external consultants when making executive compensation related decisions. All matters considered, approved or recommended by the Remuneration Committee are reported to the Board.

**External Advice**

The Remuneration Committee has direct access to independent external compensation consultants on executive compensation and human resources matters. These consultants provide objective and expert analysis, advice and information on executive compensation trends, regulatory changes and evolving best practices. They also provide advice on compensation program design and compensation recommendations to assist the Remuneration Committee in making informed, fair and reasonable decisions.

In October 2010, Pay Governance LLC ("Pay Governance"), an independent executive compensation firm, was retained to provide executive compensation consulting services. For several years prior to that, Towers Watson (or its predecessors) provided such executive compensation consulting services. Towers Watson continues to provide actuarial services for NOVA Chemicals' North American defined benefit pension plans, and retirement and benefits consulting services, as required.

**Executive Compensation-Related Fees and All Other Fees**

The following table lists the aggregate fees billed to NOVA Chemicals by Pay Governance and Towers Watson for each of the two most recently completed financial years.

(amounts in U.S. dollars)	Pay Governance		Towers Watson	
	2010	2011	2010	2011
Services related to determining executive officer compensation	26,456	80,558	13,000	1,600
All other fees	N/A	N/A	1,019,100 <sup>(1)</sup>	1,727,100 <sup>(1)</sup>
<b>Total</b>	<b>26,456</b>	<b>80,558</b>	<b>1,032,100</b>	<b>1,728,700</b>

- (1) Represents ongoing and ad hoc human resources consulting work related to pension and post-retirement benefits such as actuarial valuations, accounting disclosures and periodic plan reviews.

**Compensation Philosophy**

NOVA Chemicals' executive compensation policies and programs are designed to attract, retain and motivate the NEOs and other key executives through competitive and cost effective approaches that reinforce executive accountability and reward the achievement of business results.

Executive compensation consists of four main elements: (a) base salary, (b) annual incentive compensation awarded under NOVA Chemicals' Incentive Compensation Plan, (c) long-term incentive compensation, and (d) retirement, benefit and perquisite programs. The relative weighting of each element is aligned with the Corporation's philosophy of linking pay to performance. A substantial percentage of executives' compensation is provided in the form of performance-based variable compensation, with a greater emphasis on variable components for NOVA Chemicals' senior executives. The NEOs' incentive compensation is directly linked to corporate and business results and many of the performance measures are aligned with the interest of NOVA Chemicals' owner, International Petroleum Investment Corporation ("IPIC"), and other key stakeholders, including financial and non-financial goals (see "Incentive Compensation Plan" and "Long-Term Incentive Program"). Executive retirement and benefits programs are generally consistent with broader employee programs. Where certain programs, such as perquisites, are only provided to executives or senior management, they reflect competitive practice and particular business needs and objectives.

The compensation level for all executives, including the NEOs, is reviewed annually by the Remuneration Committee. A benchmarking process that assesses the policy or target levels of base salary, annual incentive compensation and long-term incentive compensation is conducted each year by the external compensation consultant (see "Benchmark Review"). In addition, the Remuneration Committee seeks and obtains input from the CEO on base salary, targeted annual incentive compensation and targeted long-term incentive compensation for the other members of the NMB.

The overall objective in setting executive compensation is to ensure that the total targeted value and mix of compensation for each executive compares to the median (50<sup>th</sup> percentile) of the comparator group (see "Benchmark Review") for the same or similar role. In setting target total compensation, the Remuneration Committee does not consider compensation previously awarded to an individual. In the case of the NEOs, the Remuneration Committee determines the value and mix of compensation with input from the external compensation consultant and considers other factors such as each individual's experience and expertise before making its recommendation to the Board for approval.

Benefits, retirement programs and perquisites are reviewed periodically by the Remuneration Committee to ensure these programs continue to offer competitive benefits that are cost effective and valued by the organization.

#### ***Benchmark Review***

The Remuneration Committee annually monitors comparative total compensation information, using data prepared by the external compensation consultant, to ensure that target levels of overall compensation are competitive with similar North American peer companies. Comparator group information is also used in determining base salaries, annual incentive compensation targets and assessing the competitiveness of NOVA Chemicals' long-term incentive compensation targets for all executives, including the NEOs.

NOVA Chemicals benchmarks against North American peer companies with whom it competes for talent. Many positions are similar across the industry, and the comparator group effectively represents competitive pay levels for comparable positions. In certain cases, the comparator group is expanded to include general industry participants to ensure sufficient data is considered and to reflect the broader market for staff positions.

The Remuneration Committee reviews the composition of the comparator group periodically for continued relevance. During 2010, management and the Remuneration Committee conducted a review of the comparator group and, as a result of that review, additional companies were added to the comparator group. In determining 2011 compensation, NOVA Chemicals' comparator group included the following companies:

Air Products and Chemicals, Inc.	Lanxess Corporation
Ashland Inc.	The Lubrizol Corporation
BASF AG	LyondellBasell Industries N.V.
Bayer Corporation	Momentive Specialty Chemicals Inc.
BP Corporation North America	National Starch Polymers
Cabot Corporation	Occidental Chemical Holding Corporation
Chevron Phillips Chemical Company LLC	PPG Industries, Inc.
The Dow Chemical Company	Praxair, Inc.
Dow Corning Corporation	Rohm and Haas Company
Eastman Chemical Company	Solutia Inc.
E.I. du Pont de Nemours and Company	Solvay North America, LLC
FMC Corporation	Sunoco, Inc.
Georgia Gulf Corporation	TPC Group Inc.
Huntsman Corporation	Total Petrochemicals USA, Inc.

#### ***Key Elements of Compensation***

The major elements of the executive compensation program are base salary, annual incentive compensation and long-term incentive compensation. In addition, the NEOs participate in group benefit and retirement plans. In any particular year, NOVA Chemicals' NEOs and other executives may be paid more or less than executives at comparable companies depending on corporate and individual performance, as well as their relative experience.



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The following table summarizes each component of the total direct compensation<sup>(1)</sup> ("TDC") for the NEOs and other executives:

<b>Base Salary</b>	<b>Incentive Compensation</b>	<b>Long-Term Incentives</b>
The fixed portion of compensation tied to market competitiveness, level of responsibility and demonstrated experience	Annual variable compensation which provides awards contingent on achievement of financial and non-financial metrics that support NOVA Chemicals' corporate and business/functional/individual performance	Long-term variable compensation where grants are awarded to align the interests of management with the long term interests of IPIC and other key stakeholders

(1) NOVA Chemicals does not consider retirement benefits, benefits programs or perquisites to be direct compensation.

The targeted mix of TDC – base salary, targeted annual incentive compensation and targeted annual value of long-term incentive compensation – for 2011 for each Named Executive Officer was as follows:

<b>R.G. Woelfel</b>	<b>T.D. Karran</b>	<b>C.P. Bezaire</b>	<b>W.G. Greene</b>	<b>G.C. Thomson</b>
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Based on the benchmark review for 2011, the Remuneration Committee and the Board determined that the targeted mix of the NEOs' TDC should be modified slightly to increase the targeted long-term incentives for 2011.

### *Base Salaries*

Base salaries for all executives, including the NEOs, are individually benchmarked for each position on the basis of responsibility relative to similar positions in the comparator group. Individual salaries are also determined by each executive's experience, expertise and contribution to NOVA Chemicals. For 2011, based on the benchmark analysis, the NEOs' base salaries were increased to maintain competitive position. See "Summary Compensation Table" below.

### *Incentive Compensation Plan*

Annual incentive compensation is awarded to executives, including the NEOs, under the Incentive Compensation Plan, which is designed to align incentive compensation awards to business results and motivate participants. This plan provides cash awards based on corporate and business/functional/individual performance, measured against objectives that are determined at the beginning of each performance period.

Incentive Compensation Plan awards are based on two categories:

- (a) corporate performance – for 2011, corporate performance was based on the achievement of net profit, net operational cash flow and Responsible Care targets; and
- (b) business/functional/individual performance – based on the achievement of business or functional related objectives such as financial targets, operating performance or other specific team or individual objectives.

The 2011 targeted awards for all Incentive Compensation Plan participants, including the NEOs, were weighted 30% on corporate performance and 70% on business/functional/individual performance.

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For 2011, the Remuneration Committee evaluated corporate performance based on the three corporate objectives identified above that NOVA Chemicals' management believed were important to successfully drive the 2011 operating plan. The Remuneration Committee determined the significance of the objectives and weighted each accordingly as follows:

Weighting	Performance Objective	Reason for Objective
15%	Net Profit	Measures the profitability in the context of operating performance. The emphasis is on delivering strong, recurring profits, and defining and delivering a clear path for profitability growth
10%	Net Operational Cash Flow	Measures how well the Corporation manages its cash flow. NOVA Chemicals consistently aims to manage its working capital efficiently and demonstrate prudent cash management
5%	Responsible Care includes two objectives, each weighted equally	Measures NOVA Chemicals' commitment to providing a safe working environment
	Total Recordable Case Rate	Measures the number of recordable employee and/or contractor injuries or illnesses relative to hours worked
	Process fires	Measures any fire or evidence of a flame reducing process fires reduces the risk of serious injury, or major equipment or environmental damage

Business/functional/individual performance is measured using financial, operational and strategic objectives specific to each participant's role. These objectives are a mix of applicable quantitative and qualitative measures relating to:

financial objectives business unit profitability, fixed and variable costs reductions;

sales volumes, margin growth and market penetration;

business growth and expansion; and

human resources related objectives such as succession planning and effective leadership.

The Remuneration Committee sets a performance range for all corporate objectives. Threshold performance is meant to be a minimum level of performance, above which a payout for that objective may be made. If threshold performance is not achieved, no payout is awarded. Target performance is meant to be challenging yet achievable and, if met, the payout for that objective is 100%. Maximum performance is meant to be a stretch objective resulting in exceptional results. If maximum performance is met or exceeded, the payout is 250% of target for that objective.

For 2011, performance with respect to the corporate objectives was determined to be 222.6% of target: 250% for net profit, 250% for net operational cash flow and 86% for Responsible Care.

Similar to the corporate objectives, the payout range for each business/functional/individual performance objective is from 0% to 250%.

The actual incentive compensation paid each year is determined with reference to achievement of the various objectives in the performance categories described above. Following the performance period, actual performance is assessed against the performance range (threshold, target and maximum performance) for each objective. The performance rating by which the incentive compensation award is calculated is pro-rated between threshold and maximum performance depending on actual performance under each objective.

*Long-Term Incentive Program*

A significant portion of an executive's compensation is awarded as long-term incentives. This supports the compensation objective of linking pay to long-term corporate performance by putting compensation at risk. As an executive's responsibility level increases, long-term incentives represent an increasing portion of TDC.

Prior to the acquisition by IPIC of all issued and outstanding shares of the Corporation's common stock on July 6, 2009, NOVA Chemicals sponsored equity-based, long-term compensation plans. After the acquisition by IPIC, the Remuneration Committee adopted a cash-based, performance driven long-term incentive plan to replace the former equity-based, long-term incentive compensation plans. As an interim measure, the Remuneration Committee decided to grant 2010 long-term incentive awards at target as time based awards without a performance measure. The vesting schedule for the 2010 long-term incentive awards is as follows: 40% vested on February 10, 2011 (and was paid at the end of February 2011); 30% vested on February 10, 2012 (and was paid at the end of February 2012) and the remaining 30% will vest on February 10, 2013.

During 2011, the Remuneration Committee modified the cash-based, performance driven long term incentive plan (the "LTIP") to include a performance measure of return on average capital employed ("ROCE"). ROCE measures the efficiency and profitability of the Corporation's capital investments. Incentive awards under the LTIP vest as to one-third per year commencing one year from the date of grant and are paid as soon as practicable after vesting but no later than December 31 of the year of vesting. The 2011 LTIP awards were granted on February 17, 2011 and the 2012 LTIP awards were granted on February 20, 2012.

The Remuneration Committee set a performance range for the ROCE performance measure. Threshold performance is meant to be a minimum level of performance at which a payout for that objective may be made. If threshold performance is achieved, the payout is 50% but if threshold performance is not met, no payout is awarded. Target performance is meant to be challenging yet achievable and, if met, the payout is 100%. Maximum performance is meant to be a stretch resulting in exceptional ROCE. If maximum performance is met or exceeded, the payout is 250% of target. Following the end of each year, actual ROCE performance is assessed against the performance range (threshold, target and maximum performance). The performance rating by which the long-term incentive award is calculated is pro-rated between threshold and maximum performance depending on actual ROCE performance.

For 2011, ROCE performance was determined to be "maximum" and the payout under the LTIP was determined to be 250% of target.

See the table entitled "Long-term Incentive Plan Awards" below for a summary of the long-term incentives vested for each NEO during the 2011 financial year.

*Retirement Plans*

The NEOs and other executives participate, on a contributory and non-contributory basis, in the retirement plans offered to NOVA Chemicals' salaried employees. Canadian employees hired prior to January 1, 2000 participate in registered plans that offer either defined contribution or defined benefit provisions. Canadian employees hired on or after January 1, 2000 participate in the defined contribution component of the Canadian plans. U.S. salaried employees who were hired prior to January 1, 2008 have accrued pension benefits under NOVA Chemicals' U.S. salaried defined benefit plan and participate in the U.S. salaried defined contribution plan. U.S. salaried employees hired on or after January 1, 2008 participate only in the U.S. salaried defined contribution plan.

Certain of NOVA Chemicals' salaried employees, including the NEOs, also participate in supplemental executive retirement plans ("SERPs"), which are non-registered, unfunded supplemental retirement plans. The primary purpose of the SERPs is to provide retirement benefits that cannot be paid from registered plans due to tax limits. The SERPs also provide retirement benefits to NEOs and other key employees who have relocation arrangements. In addition, U.S. executives may participate in the U.S. Savings Restoration Plan (the "Restoration Plan"), the purpose of which is to continue defined contributions for executives who exceed legislated maximums.

*Benefits and Perquisites*

Non-cash compensation includes employee benefits and perquisites. All NEOs receive an annual perquisite allowance and certain NEOs have been provided with other limited perquisites, including annual tax planning services, club memberships, and parking. Retirement benefits for the NEOs are described under "Supplemental Executive Retirement Plans and Supplemental Pension Agreements". Other than these perquisites and retirement benefits, the NEOs do not receive any non-cash compensation that is different from that received by other employees.

*Managing Compensation Risk*

NOVA Chemicals takes a conservative approach to risk management and focuses on compensation risk to ensure its compensation programs are appropriately structured, encourage the right management behaviors, and avoid excessive risk-taking or extreme payouts.

*Comprehensive and disciplined compensation and risk framework*

The Remuneration Committee assesses each corporate objective for the Incentive Compensation Plan before approving such objectives. The Remuneration Committee also reviews the business/functional/individual performance objectives for each member of the NMB, including assessing whether those objectives can be manipulated, before submitting them to the full Board for review and approval.

For the LTIP, the Remuneration Committee carefully considered the ROCE performance measure and the associated performance range before approving those in 2011.

The corporate objectives for the Incentive Compensation Plan contain a Responsible Care objective that measures NOVA Chemicals' commitment to providing a safe working environment and compliance with safety regulations.

The Corporation awards compensation based on performance.

A significant portion of executive compensation is variable or *at risk*, and is therefore not guaranteed.

The Corporation's compensation program is not overly complex, is applied consistently throughout the organization, and is designed in a way that does not encourage excessive risk-taking by employees.

*Balanced decision-making, threshold performance, and limits on incentive compensation*

The Corporation uses quantitative and qualitative measures to assess performance.

Threshold corporate performance must be delivered to receive a payout under the corporate performance category of the Incentive Compensation Plan and the LTIP.

Awards under the LTIP vest over a three-year period with the first installment vesting one year after the date of grant.

Payouts under the Incentive Compensation Plan and the LTIP are limited to a maximum of 250% of target.

## Summary Compensation Table

The following table sets forth the compensation the Named Executive Officers earned in the fiscal years ended December 31, 2009, 2010 and 2011:

Name and Principal Position	Year	Salary <sup>(1)</sup> (US\$)	Non-Equity Incentive Plan Compensation		Compensatory Changes to Pension Value <sup>(4)</sup>			Total Compensation <sup>(6)</sup> (US\$)
			Awards <sup>(2)</sup> (US\$)	Long-Term Incentive Compensation <sup>(3)</sup> (US\$)	Defined Benefit Value <sup>(5)</sup> (US\$)	Defined Contribution Employer Contributions <sup>(4)</sup> (US\$)	All Other Compensation <sup>(4)</sup> (US\$)	
R.G. Woelfel Chief Executive Officer	2011	530,000	696,818	1,987,500	N/A	88,578	6,498	3,309,394
	2010	425,000	428,700	467,500	N/A	42,903	104,628	1,468,731
	2009	86,164 <sup>(8)</sup>	51,700	N/A	N/A	8,091	50,424	196,379
T.D. Karran Senior Vice President and Chief Financial Officer	2011	345,000	356,040	1,078,125	0	56,310	3,623	1,839,098
	2010	312,000	261,950	312,000	0	48,636	22,000	956,586
	2009	276,167	228,400	189,700	0	39,362	252,888	986,517
C.P. Bezaire Senior Vice President, Polyethylene Business	2011	280,800	230,826	702,000	3,000	40,570	2,893	1,260,089
	2010	243,900	188,900	170,730	91,000	26,085	17,179	737,794
	2009	229,000	135,600	114,500	0	28,652	1,589	509,341
W.G. Greene Senior Vice President, Operations	2011	330,000	335,957	948,750	(89,000)	85,823	4,849	1,616,379
	2010	312,000	264,300	312,000	(4,000)	74,018	21,232	979,550
	2009	312,000	216,700	312,000	(18,000)	71,774	2,962	897,436
G.C. Thomson Senior Vice President, President, Olefins and Feedstock	2011	379,787	379,540	1,091,887	140,000	N/A	1,130	1,992,344
	2010	328,558	287,090	318,323	118,000	N/A	20,694	1,072,665
	2009	281,090	206,268	336,302	60,000	N/A	2,272	885,932

Notes:

- (1) See "Compensation Discussion and Analysis Base Salaries."
- (2) Awards under the Incentive Compensation Plan are earned in the year reported and paid prior to March 15 the following year unless the NEO elected to defer all or a portion of the award to the Restoration Plan. For further information, see "Compensation Discussion and Analysis Retirement Plans." The portions of the awards that each NEO elected to defer are listed below:

	2011	2010	2009
R.G. Woelfel	7%	7%	N/A
T. D. Karran	6%	6%	6%
C.P. Bezaire	10%	0%	0%
W.G. Greene	10%	7%	6%
G.C. Thomson	N/A	N/A	N/A

The Restoration Plan is a U.S. plan and only certain employees resident in the U.S. can participate in this plan. Mr. Thomson resides in Canada and does not participate in the Restoration Plan. Mr. Woelfel's employment commenced on October 19, 2009, and he was not eligible to elect to defer any of his 2009 incentive compensation award to the Restoration Plan.

Where an election was made to defer a portion of an incentive compensation award to the Restoration Plan, the dollar value reported in this column represents the pre-tax value of the incentive compensation award at the time of the award.

For further details on 2011 Incentive Compensation Plan objectives, see "Compensation Discussion and Analysis Incentive Compensation Plan".

- (3) NOVA Chemicals does not sponsor any equity based long-term compensation plans. Prior to the acquisition by IPIC of all issued and outstanding shares of the Corporation's common stock on July 6, 2009, NOVA Chemicals awarded equity-based, long-term incentives, including stock options, Equity Appreciation Units ("EAUs") and Restricted Stock Units ("RSUs"). On completion of the acquisition, all outstanding options and EAUs vested and were cancelled, and all outstanding RSUs vested and were cancelled in exchange for a cash payment of U.S.\$6.00/RSU. The 2010 and 2011 long-term incentive awards are cash-based, which vest and are paid over a three-year period.

(4)

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For further details on pension values, see "Defined Benefit Pension Obligations" and "Defined Contribution Accounts" below.

(5)

Messrs. Karran, Bezaire and Greene participate in NOVA Chemicals' U.S. defined benefit program for salaried employees. Benefits in this program are frozen for Messrs. Karran and Bezaire. For Mr. Greene, benefits in this U.S. defined benefit program are also frozen other than salary escalation, if any, until the earlier of December 31, 2012 or the date his employment is terminated.

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Mr. Thomson resides in Canada and is an active participant in NOVA Chemicals' Canadian defined benefit program. Messrs. Bezaire and Greene, who previously resided in Canada, continue to be participants in the Canadian defined benefit program but are no longer accruing credited service for the purposes of the pension formula following their relocation to the U.S.

For further information on defined benefit pension values, see "Defined Benefit Pension Obligations" below.

- (6) Includes NOVA Chemicals' basic, matching and transition contributions, if applicable, made to the U.S. Savings Plan and the Restoration Plan, see "Defined Contribution Programs" below.
- (7) Each NEO receives benefits and perquisites in addition to base salary and incentive compensation. The value of the perquisites for each NEO does not exceed the lesser of Cdn \$50,000 or 10% of their annual salary.

This column also includes: (i) for 2011, 2010 and 2009, the dollar value of insurance premiums paid by NOVA Chemicals with respect to term life insurance for the benefit of each NEO, (ii) for 2011, certain tax gross-up payments for Messrs. Woelfel and Greene related to cross-border business travel, (iii) for 2010, awards for each NEOs under the Corporation's former profit sharing program that was terminated effective January 1, 2011 and, for Mr. Woelfel, a \$75,000 bonus, and (iv) for 2009, a \$50,000 bonus for Mr. Woelfel and a \$225,000 bonus for Mr. Karran.

- (8) Mr. Woelfel was hired on October 19, 2009. His compensation was pro-rated for the time he was employed in 2009.

### Long-Term Incentive Plan Awards

The following table sets forth the LTIP value vested for each NEO during the 2011 financial year.

Name (amounts in U.S. dollars)	Non-equity incentive plan compensation value vested during the year <sup>(1)</sup>	
R.G. Woelfel	\$	802,750
T.D. Karran	\$	452,975
C.P. Bezaire	\$	285,219
W.G. Greene	\$	409,850
G.C. Thomson	\$	464,814

- (1) Represents the amount for each NEO of the portion of the 2010 and the 2011 LTIP incentive awards vested during 2011 and paid in February and March 2012 (i.e., 30% of the 2010 award that vested on February 10, 2012 and one-third of the 2011 award that vested on February 17, 2012).

### Retirement Plans

#### *Defined Benefit Programs*

NOVA Chemicals sponsors defined benefit programs in Canada and the United States.

#### *Canadian Defined Benefit Program*

The defined benefit pension component under NOVA Chemicals' Canadian pension plans for salaried employees provides retirement income based on the employee's years of service and the average base salary of the highest 36 consecutive months of the employee's final 10 years of service ("Highest Average Earnings") adjusted to reflect benefits payable under government sponsored plans.

The defined benefit pension component provides a benefit formula that is integrated with the Canada Pension Plan. The non-contributory annual benefit is equal to the sum of (a) plus (b) where:

- (a) is 1.0% of credited service multiplied by the lesser of:
- (i)



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Highest Average Earnings; or (ii) Average Maximum Pensionable Earnings (defined below); and

- (b) is 1.6% of credited service multiplied by the amount, if any, by which the Highest Average Earnings exceeds the Average Maximum Pensionable Earnings.

Average Maximum Pensionable Earnings is the three year average of the year's maximum pensionable earnings as determined in accordance with the *Canada Pension Plan Act*.

The normal form of pension for married retirees is a 60% joint and survivor pension benefit, and the normal form of pension for single retirees is an annuity for life guaranteed for five years after the pension

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benefits commence. Pension benefits are indexed, as applicable, after retirement based on a formula of 75% of the increase in the national Canadian consumer price index minus 1% up to a maximum of 5%.

Normal retirement age is 65, however, a member can retire with full benefits at age 62. Members may also elect early retirement and receive a reduced pension if they are between ages 55 and 62.

On December 31, 1999, NOVA Chemicals introduced a defined contribution component to its Canadian pension plans for salaried employees. Employees were required to make a one-time irrevocable election to convert their accrued defined benefits to the defined contribution component or remain with their defined benefit pension. Mr. Thomson currently resides in Canada and is an active participant in the defined benefit pension component. Messrs. Bezaire and Greene, who currently reside in the U.S. but previously resided in Canada, continue to be participants in the Canadian defined benefit program but are no longer accruing credited service for the purposes of the pension formula following their relocation to the U.S. Mr. Karran currently resides in the U.S. but was a Canadian resident at the time of the election and elected to convert his defined benefit to the defined contribution component.

### *U.S. Defined Benefit Program*

All U.S. salaried employees hired prior to December 31, 2007 participate in a defined benefit pension plan. Effective December 31, 2007, NOVA Chemicals froze this defined benefit plan and amended the defined contribution plan (see "Defined Contribution Programs") to provide certain enhancements. Employees who had attained the age of 50 with at least one year of service as of December 31, 2007 ("Transition Employees") qualified for transition benefits, including earnings escalation for purposes of calculating defined benefits, for up to five years.

Mr. Woelfel was hired subsequent to the freeze date and is not eligible to participate in NOVA Chemicals' defined benefit programs. Mr. Greene was eligible for these transition benefits. Messrs. Karran and Bezaire did not qualify for transition benefits. Mr. Thomson currently resides in Canada but resided in the U.S. prior to the freeze date and maintains an accrued benefit in the U.S. defined benefit programs.

The benefit formula for the U.S. defined benefit plan is 1.2% of the Final Average Earnings multiplied by credited service. Final Average Earnings is the average of the highest 36 consecutive months of base salary in the 10 years prior to December 31, 2007 or, for Transition Employees, the earlier of December 31, 2012 and the Transition Employee's termination date. The pension benefit for a single retiree is a single life benefit while a married retiree's benefit is a 100% joint and survivor benefit. Such benefit is provided by reducing the single life benefit during the life of the retiree in order to provide 100% of that reduced benefit to the surviving spouse.

Normal retirement age is 65, however, a member can retire with full benefits at age 62. Members may also elect early retirement and receive a reduced pension if they are between the ages of 55 and 62 and have at least five years' service.

### *Supplemental Executive Retirement Plans and Supplemental Pension Agreements*

NOVA Chemicals' defined benefit pension programs are subject to the *Income Tax Act* or the Internal Revenue Code ("IRC") maximum annual benefit accrual limits. NOVA Chemicals adopted supplemental executive retirement plans to provide supplementary pension payments, computed with reference to the earned pension under NOVA Chemicals' defined benefit pension programs. These supplementary payments are above the maximum annual benefit accrual permitted by the *Income Tax Act* or the IRC and, therefore, are not deductible for income tax purposes by NOVA Chemicals until paid to the respective executive or employee. The aggregate supplementary pension benefits are generally equivalent to the benefit which would be earned under NOVA Chemicals' pension plans without the maximum annual benefit accrual limit described above.

Consistent with the redesign of the U.S. defined benefit pension plan, the U.S. SERP was frozen as of December 31, 2007 other than for transition benefits, and relocation pension arrangements as detailed below. For participants in the U.S. SERP, including Messrs. Karran, Bezaire, and Greene, Final Average Earnings are determined using base salary plus incentive compensation awards as of the freeze date taking into account transition benefits for Mr. Greene, if any. In the case of Mr. Thomson, Final Average Earnings are determined

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using base salary plus incentive compensation awards through the earlier of his date of termination or December 31, 2012.

The SERPs also provide supplementary pension payments to executives who have relocation arrangements. Messrs. Bezaire and Greene relocated from Canada to the U.S., and Mr. Thomson relocated from Canada to the U.S. and then back to Canada. These NEOs have service in Canada and the U.S., and are entitled to receive the greater of (i) the total of their accrued benefits under each defined benefit program in which they have participated or (ii) the accrued benefit under the defined benefit program from which they retire calculated on the basis that all of the executive's service with the Corporation was credited service under that program.

### *Defined Benefit Pension Obligations*

The following table summarizes the defined benefit pensions as of December 31, 2011 for each NEO, other than Mr. Woelfel who does not participate in NOVA Chemicals' defined benefit programs.

Name	Years of Credited Service <sup>(1)</sup>		Final Average Earnings		Accrued (Projected) Annual Pension Benefit <sup>(2)</sup>			Estimated Annual Pension Benefit at Age 65 <sup>(3)(4)</sup>		
	Under the U.S. Defined Benefit Pension Plan		Under the Canadian Defined Benefit Plan		U.S. Defined Benefit Pension Plan	Canadian Defined Benefit Component	SERP <sup>(5)</sup>	U.S. Defined Benefit Pension Plan	Canadian Defined Benefit Pension Plan	SERP <sup>(5)</sup>
	(#)	Component	(#)	(US\$)	(US\$)	(US\$)	(US\$)	(US\$)	(US\$)	(US\$)
T.D. Karran	4.7	N/A	311,500	N/A	11,800	N/A	33,600	11,800	N/A	33,600
C.P. Bezaire <sup>(6)</sup>	9.3	10.5	233,200	264,700	19,100	27,300	21,600	19,100	27,300	21,600
W.G. Greene <sup>(6)</sup>	8.3	14.6	535,500	349,300	24,500	37,900	69,400	24,500	37,900	69,400
G.C. Thomson <sup>(6)</sup>	10.8	11.7	536,200	351,500	25,900	30,300	76,500	25,900	49,700	97,000

Notes:

- (1) Years of credited service is the service used to calculate the defined benefit pension benefit. Service under the U.S. defined benefit program includes service while resident in the U.S. prior to December 31, 2007, the date the U.S. defined benefit pension program was frozen. Credited service under the Canadian defined benefit component includes service while resident in Canada.
- (2) These values represent the single life annuity payable at age 65 for the U.S. program and a 60% joint and survivor annuity for the Canadian defined benefit pension component reflecting pay and service as of December 31, 2011.
- (3) Age 62 is the earliest age an individual can receive full retirement benefits.
- (4) Assuming each NEO remains with NOVA Chemicals until his normal retirement date reflecting projected service, if applicable, and pay as of December 31, 2011.
- (5) Represents the sum of the U.S. and Canadian SERP benefits.
- (6) Messrs. Bezaire, Greene and Thomson are entitled to receive the greater of: the sum of their Canadian and U.S. pension benefits, and their U.S. or Canadian pension benefit assuming all of their service was in the U.S. or Canada depending on the country from which they retire.

The change in the defined benefit pension for each NEO participating in a defined benefit program for 2011 is as follows. These values are based on the same actuarial assumptions, methods and measurement date used by NOVA Chemicals for financial statement reporting purposes, which may be different than the assumptions used to calculate pension benefits payable to an NEO. The values reflect service as of the

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measurement date and future increases in salaries, as applicable. These values do not represent the value of the pension benefit that an NEO would receive on retirement

Name	Number of Years Credited Service <sup>(1)</sup>	Annual Benefits Payable (US\$)		Accrued (Projected) Obligation at Dec. 31, 2010 (US\$)	Compensatory Changes Related to Current Service Cost and Earnings Increases (US\$)	Non-Compensatory Changes Related to Financing Costs and Assumption Changes (US\$) <sup>(2)</sup>		Accrued (Projected) Obligation at Dec. 31, 2011 (US\$)
		At Year End	At Age 65			Change in Obligation since Dec. 31, 2010 (US\$)	Change in Obligation since Dec. 31, 2010 (US\$)	
T.D. Karran <sup>(3)</sup>	4.7	N/A <sup>(4)</sup>	45,400	269,000	0	83,000	83,000	352,000
C.P. Bezaire <sup>(3)</sup>	19.8	N/A <sup>(4)</sup>	68,000	649,000	3,000	204,000	207,000	856,000
W.G. Greene <sup>(3)</sup>	22.9	115,100 <sup>(5)</sup>	131,800	1,545,000	(89,000)	410,000	321,000	1,866,000
G.C. Thomson	22.5	114,800 <sup>(5)</sup>	172,600	1,322,000	140,000	483,000	623,000	1,945,000

Notes:

- (1) Years of credited service is the service used to calculate the defined pension benefit. Service under the U.S. defined benefit pension program was frozen as of December 31, 2007. Years of credited service under the Canadian defined benefit pension component represents credited service as of date of transfer to the U.S.
- (2) Reflects the impact of interest on prior year's obligations, changes in discount rates used to measure the obligations and the impact of assumption and employee demographic changes.
- (3) The assumptions used to calculate pension values for accounting purposes assume future salary increases. These NEOs do not qualify for transition benefits.
- (4) Messrs. Karran and Bezaire were not early retirement eligible and not eligible to receive an annual benefit as at December 31, 2011.
- (5) These values represent Messrs. Greene and Thomson's early retirement annuity immediately payable as at December 31, 2011.
- (6) The key actuarial assumptions used in calculating these values are as follows:

U.S. Defined Benefit Program	December 31, 2011	December 31, 2010
Discount Rate	3.70%	4.60%
Salary Increase	4.00%	4.00%
Percent Electing a Lump Sum	100%	100%
Lump sum interest rate	3.70%	4.60%
Mortality	IRS Prescribed Table for 2012 Lump Sum Distributions	IRS Prescribed Table for 2011 Lump Sum Distributions
Retirement	Age-related table with an average retirement age of 63	Age-related table with an average retirement age of 63
<b>Canadian Defined Benefit Programs</b>		
Discount Rate	4.20%	5.10%
Salary Increase	4.00%	4.00%
Indexing	0.5%	0.50%
Escalation of ITA Maximum Pension for Registered Plan	2.75% (\$2,552 in 2011 per year of service)	2.75% (\$2,494 in 2010 per year of service)
Lump sum interest rate	Non-indexed: 2.60% for 10 years, 4.10% thereafter Indexed: 2.60% for 10 years, 3.20% thereafter	Non-indexed: 3.30% for 10 years, 5.00% thereafter Indexed: 3.10% for 10 years, 4.00% thereafter
Mortality	UP 1994 projected generationally	UP 1994 projected to 2020 using Scale AA
Percent of Retiring Members Electing a Lump Sum	Eastern Region Plan 45% Western Region Plan 60%	Eastern Region Plan 20% Western Region Plan 40%
Retirement	Age-related table with an average retirement age of 62	Age-related table with an average retirement age of 62

The method used to determine estimated pension benefits may not be identical to the method used by other companies. Therefore, the estimated pension benefits may not be directly comparable to other companies' estimated pension benefits.



***Defined Contribution Programs***

NOVA Chemicals sponsors defined contribution programs in Canada and the United States.

*Canadian Defined Contribution Program*

Canadian employees who joined NOVA Chemicals after December 31, 1999, and employees who elected to convert their defined benefits to the defined contribution component of the Canadian pension plans as explained above, participate in the Canadian defined contribution program. NOVA Chemicals currently contributes 9% of a Canadian employee's base salary to a defined contribution account and the employee may elect to make voluntary contributions up to the legislated maximum amount for employee contributions. Contributions are locked in until the employee ceases employment with NOVA Chemicals. Mr. Karran was an active participant until he relocated to the U.S. in 2000. He continues to maintain an account in the Canadian program.

*U.S. Defined Contribution Program (the "U.S. Savings Plan")*

U.S. salaried employees participate in the U.S. Savings Plan, which was redesigned when the U.S. defined benefit pension plan was frozen. Effective January 1, 2008, NOVA Chemicals makes contributions to each U.S. employee's account of 3% of total pay and matching contributions of up to 6% of total pay for a contribution of up to 9% of total pay. Transition Employees receive, until the earlier of December 31, 2012 and the Transition Employee's termination date, an additional transition contribution of 5% of total pay. Total pay includes base salary, incentive compensation awards, shift differential and overtime. In addition, employees may make voluntary employee contributions to the plan up to the legislated maximum amount for employee contributions. All of the NEOs, other than Mr. Thomson who resides in Canada, participated in the U.S. Savings Plan in 2011.

*Canadian Defined Contribution SERP and U.S. Restoration Plan*

NOVA Chemicals' defined contribution programs are also subject to maximum annual contributions under the *Income Tax Act* and the IRC. NOVA Chemicals has adopted a SERP in Canada and the Restoration Plan in the U.S. to provide a mechanism to continue defined contributions for employees who exceed the legislated maximums.

The Canadian SERP provides a notional account for contributions or conversion amounts that exceed the legislated maximums. The accounts are credited with earnings equivalent to the earnings of the balanced fund that is offered as an investment under the Canadian defined contribution program. Mr. Karran has a notional defined contribution account under the Canadian SERP.

In the U.S., when legislated maximums are exceeded, excess Corporation basic contributions are made to the Restoration Plan. In addition, participants may elect, prior to each performance year, to make voluntary employee contributions to the Restoration Plan of up to 50% of their base salary and/or incentive compensation award. If an eligible employee elects to make voluntary contributions, NOVA Chemicals matching contributions are made to the Restoration Plan after legislated maximums are exceeded. All of the NEOs, other than Mr. Thomson who resides in Canada, participated in the Restoration Plan in 2011.

*Defined Contribution Accounts*

The following table summarizes each NEO's defined contribution account for 2011:

	Account Balance Jan. 1, 2011		COMPENSATORY 2011 Corporation Contributions		Account Balance Dec. 31, 2011	
	U.S. Savings Plan / Canadian DC (US\$)	Restoration Plan / Canadian SERP (US\$)	U.S. Savings Plan / Canadian DC (US\$)	Restoration Plan / Canadian SERP (US\$)	U.S. Savings Plan / Canadian DC (US\$)	Restoration Plan / Canadian SERP (US\$)
R.G. Woelfel	75,190	55,175	22,050	66,528	127,020	193,948
T.D. Karran <sup>(1)</sup>	514,095	224,544	22,050	34,260	532,533	280,226
C.P. Bezaire	253,579	146,261	22,050	18,520	294,171	164,124
W.G. Greene <sup>(2)</sup>	257,664	252,400	34,300	51,523	339,095	353,725
G.C. Thomson <sup>(3)</sup>	216,268	6,787	N/A	N/A	225,338	7,071

## Notes:

- (1) Mr. Karran is the only NEO who participates in the Canadian Defined Contribution program and Canadian Defined Contribution SERP.
- (2) Includes for Mr. Greene transition contributions made to the U.S. Savings Plan and the Restoration Plan.
- (3) Mr. Thomson is not an active participant of any defined contribution programs. These values represent Mr. Thomson's defined contribution accounts earned when he resided in the U.S. together with earnings thereon.

**NEO Agreements***Change of Control Agreements*

NOVA Chemicals entered into Key Employee Termination Benefit Agreements (the "COC Agreements") with certain executives, including Messrs. Greene and Thomson, to induce them to remain with NOVA Chemicals in the event of a change of control. IPIC's acquisition of NOVA Chemicals constituted a change of control and the COC Agreements were triggered on July 6, 2009. The COC Agreements provide that in the event of a termination without cause or constructive dismissal of such NEO within three years following the change of control, the NEO is entitled to receive a lump sum severance payment (based on base salary, incentive compensation and other compensation) and continuation of certain benefits during the severance period, which is 21 months for Mr. Greene and 18 months for Mr. Thomson. Mr. Greene is also entitled to receive an additional \$100,000 upon termination of employment for any reason or retirement on or after July 6, 2012. Mr. Thomson is entitled to receive Cdn. \$330,600 within 30 days after July 6, 2012 if he has not resigned or retired prior to such date. If NOVA Chemicals terminates Mr. Thomson for any reason before July 6, 2012, Mr. Thomson will receive an additional \$330,600 in severance.

*Employment Contracts*

NOVA Chemicals and its subsidiaries have entered into employment contracts with certain NOVA Chemicals' executives, including the NEOs. The employment contracts provide for a three year term of service for Mr. Woelfel and an indefinite term of service for the other NEOs.

In the event of termination of the NEOs' employment other than for cause (as defined in the employment contracts), resignation or retirement, the NEOs are entitled to be paid a lump sum payment equal to 18 months' severance (21 months for Mr. Greene), conditional upon execution and delivery of a release. Mr. Woelfel is entitled to an additional 6 months' severance if his employment is terminated without cause between January 1 and December 31, 2012. The lump sum payments are based on: a) base salary in effect at the time of termination; b) Incentive Compensation Plan award calculated at target; c) U.S. Savings Plan contributions; and d) perquisite allowance. In addition, the NEOs are entitled to continued medical, dental and life insurance coverage, financial counseling and outplacement support if they are terminated without cause.

*Payments on Separation of Service*

The following tables set forth the circumstances that trigger payments or provision of benefits under the NEO Agreements and the estimated value of the payments assuming the triggering event occurred on December 31, 2011.

	SEVERANCE AMOUNT					
	Severance Period (# of months)	Base Salary (US\$)	Incentive Compensation Amount (US\$)	Other Employee Benefits (US\$) <sup>(1)</sup>	Additional Lump Sum Value of Pension (US\$) <sup>(2)</sup>	Total Incremental Obligation (US\$)
<b>R.G. Woelfel</b>						
Involuntary Termination without Cause	18	795,000	596,250	243,327	N/A	1,634,577

	SEVERANCE AMOUNT					
	Severance Period (# of months)	Base Salary (US\$)	Incentive Compensation Amount (US\$)	Other Employee Benefits (US\$) <sup>(1)</sup>	Additional Lump Sum Value of Pension (US\$) <sup>(2)</sup>	Total Incremental Obligation (US\$)
<b>T.D. Karran</b>						
Involuntary Termination without Cause	18	517,500	310,500	179,535	21,400	1,028,935

	SEVERANCE AMOUNT					
	Severance Period (# of months)	Base Salary (US\$)	Incentive Compensation Amount (US\$)	Other Employee Benefits (US\$) <sup>(1)</sup>	Additional Lump Sum Value of Pension (US\$) <sup>(2)</sup>	Total Incremental Obligation (US\$)
<b>C.P. Bezaire</b>						
Involuntary Termination without Cause	18	421,200	223,236	160,923	11,600	816,959

	SEVERANCE AMOUNT					
	Severance Period (# of months)	Base Salary (US\$)	Incentive Compensation Amount (US\$)	Other Employee Benefits (US\$) <sup>(1)</sup>	Additional Lump Sum Value of Pension (US\$) <sup>(2)</sup>	Total Incremental Obligation (US\$)
<b>W.G. Greene</b>						
Involuntary Termination without Cause	21	577,500	317,625	289,136	42,600	1,226,861
Termination Following Change of Control	21	577,500	339,180	288,286	42,600	1,247,566

	SEVERANCE AMOUNT					
	Severance Period (# of months)	Base Salary (US\$)	Incentive Compensation Amount (US\$)	Other Employee Benefits (US\$) <sup>(1)</sup>	Additional Lump Sum Value of Pension (US\$) <sup>(2)</sup>	Total Incremental Obligation (US\$)
<b>G.C. Thomson</b>						
Involuntary Termination without Cause	18	569,681	313,325	371,325	341,700	1,596,031
Termination Following Change of Control	18	569,681	262,899	371,325	341,700	1,545,605

Notes:



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- (1) NOVA Chemicals pays annual premiums for post-retirement benefits up to an annual maximum of \$6,000 for single retirees and \$12,000 for married retirees for U.S. employees hired prior to January 1, 2008, who are age 55 or older with five years' service at the time of separation or who meet these requirements during their severance period. Canadian employees who are age 55 or older with five years of service at the time of separation or who meet these requirements during their severance period receive lifetime retiree medical to a maximum amount of \$30,000.
- (2) Does not include pension values accrued under the Retirement Plans, see "Retirement Plans Defined Benefit Pension Obligations."
- (3) Messrs. Greene and Thomson's termination of employment is governed by their COC Agreements until July 6, 2012. See "NEO Agreements Change of Control Agreements."

- (4) Mr. Greene is entitled to receive \$100,000 in addition to his 21 months' severance payment if the Corporation terminates his employment for any reason.
- (5) Mr. Thomson is entitled to receive Cdn. \$330,600 in addition to his 18 months' severance payment if the Corporation terminates his employment for any reason before July 6, 2012.

### COMPENSATION OF DIRECTORS

Directors who are not full time employees of NOVA Chemicals receive compensation for their service as directors. Non-employee director compensation is composed of: (i) an annual retainer; (ii) an annual committee membership retainer, as applicable; and (iii) an annual committee chair retainer, as applicable.

Non-employee directors, other than the Chairman of the Board, are paid an annual retainer of \$168,000. The Chairman of the Board is paid an annual retainer of \$238,000. Committee members who are not the Chair of the Committee(s) on which they serve receive an additional \$27,000 retainer. Committee Chairs receive an additional \$40,000 retainer. The compensation for non-employee directors during 2011 is as follows:

Name	Annual Retainer Fee (US\$)	Annual Committee Retainer Fee (US\$)	Annual Committee Chair Fee (US\$)	Total (US\$)
H. E. Khadem Al Qubaisi <sup>(1)</sup>	238,000			238,000
Mohamed Al Mehairi <sup>(2)(3)</sup>	168,000	27,000	40,000	235,000
Philip J. Brown <sup>(4)</sup>	84,000			84,000
Mark Garrett <sup>(3)(5)</sup>	168,000	24,750		192,750
Georg F. Thoma <sup>(6)</sup>	168,000	54,000		222,000
Stephen Soules <sup>(7)</sup>	168,000		40,000	208,000

#### Notes:

- (1) His Excellency Khadem Al Qubaisi is Chairman of the Board.
- (2) Mr. Al Mehairi is a member of the Audit Committee and Chairman of the Remuneration Committee.
- (3) Messrs. Al Mehairi and Garrett each received an additional \$25,000 for work done to support the Chairman of the Board.
- (4) Mr. Brown resigned on June 30, 2011 and his compensation was pro-rated.
- (5) Mr. Garrett was appointed as a member of the Remuneration Committee effective February 1, 2011 and his committee retainer fee was pro-rated.
- (6) Mr. Thoma is a member of the Audit and Remuneration Committees.
- (7) Mr. Soules is Chairman of the Audit Committee.

#### *Indebtedness of Directors and Executives*

As at March 12, 2012 and during fiscal 2011, none of the current or former directors and executives of NOVA Chemicals or any associate of any such director or executive was indebted to NOVA Chemicals.

#### 6.C. BOARD PRACTICES

***Board of Directors***

The Board of Directors ("Board") currently consists of six members. Directors are elected annually and serve until their successors are elected or appointed, they resign, they are removed from office or their office is earlier vacated in accordance with the by-laws of the Corporation or with the provisions of the *Business Corporations Act* (New Brunswick). Each of the directors has served in his respective capacity since his election; see the tables above in Item 6.A. for the period during which each director has served in that office.

***Directors' Service Contracts***

There are no director service contracts between us and our directors providing for benefits upon termination of employment, other than an employment agreement with Randy Woelfel.

*Committees of the Board*

The Board has established two standing committees (the "Committees") and has delegated certain of its responsibilities to each of the Committees. In this regard, each Committee has been mandated to perform certain advisory functions, and to make recommendations and report to the Board. The two standing committees of the Board are the Audit Committee and the Remuneration Committee.

Each of the Committees has the authority to retain outside advisors to assist in the discharge of its respective responsibilities. Each of the Committees reviews its respective charter at least annually and, as required, recommends changes to the Board. Each of the Committees has a charter; a brief summary of the Committee charters follows, together with current Committee membership.

*Audit Committee*

Chairman: Stephen Soules

Other Members: Mohamed Al Mehairi and Georg Thoma

The Audit Committee of the Board reviews and enquires into matters affecting our financial reporting, our system of internal accounting and financial controls and procedures and our financial audit procedures and plans; oversees the policies and practices relating to corporate compliance and risk management strategies; reviews and approves the external auditor's proposed audit scope and approach and the performance of the external auditors; reviews with management the mandate and appointment of internal auditors; oversees the funding, administration and investment of the trust funds associated with our retirement plans; and reviews with management and reports to the Board of Directors on our financing plans and objectives.

The Audit Committee approves all fees paid to the external auditors in respect of audit services. In addition, in accordance with applicable rules regarding audit committees, the Audit Committee reviews and approves (in advance) the scope and related fees for all non-audit services that are to be provided by the external auditors. In doing so, the Audit Committee considers whether the provision of these non-audit services may impact the objectivity and independence of the external auditor.

All members of the Audit Committee are financially literate, and Mr. Soules is an audit committee financial expert as defined by the U.S. Securities and Exchange Commission rules.

*Remuneration Committee*

Chairman: Mohamed Al Mehairi

Other Members: Mark Garrett and Georg Thoma

The Remuneration Committee of the Board is responsible for overseeing our policies and practices with respect to human resources. In this regard, the Remuneration Committee reviews recommendations for the appointment of persons to senior executive positions, and considers terms of employment including succession planning and matters of compensation. This Committee recommends to the Board the goals and objectives used to determine executive leadership compensation, and evaluates the NOVA Management Board's performance. For additional information relating to the compensation of our senior executives in 2011, see "Item 6.B. Compensation."

**6.D. EMPLOYEES**

As of December 31, 2011, we employed approximately 2,450 full-time employees globally.

Collective bargaining agreements with various unions, covering approximately 300, or 12%, of the approximately 2,435 North American employees, are in place at certain plants located in Ontario and Pennsylvania. A collective bargaining agreement involving approximately 200 employees at our olefins plant in Corunna, Ontario, was re-negotiated in 2010 with an expiration date of March 31, 2013. A collective bargaining agreement involving approximately 100 employees at the polystyrene plant at the Beaver Valley site in Monaca, Pennsylvania, was re-negotiated in 2009 with an expiration date of March 15, 2012. We engage in continuous dialogue with the unions to address current issues and proactively address potential bargaining items. We expect to renew the contract that expires on March 15, 2012.

We provide medical, health, life insurance, retirement plans and other benefits to our employees, which are comparable with other companies in the chemical industry where our operations are located.

#### **6.E. SHARE OWNERSHIP**

IPIC's subsidiary, NOVA Chemicals Holding GmbH, holds all of our issued and outstanding Common Shares, which are our only class of shares issued and outstanding.

#### **Item 7. Major Shareholders and Related Party Transactions**

##### **7.A. MAJOR SHAREHOLDERS**

IPIC's subsidiary, NOVA Chemicals Holding GmbH, holds all of our issued and outstanding Common Shares.

##### **7.B. RELATED PARTY TRANSACTIONS**

#### **Our Agreements with Executive Officers**

For a description of the change of control agreements and employment agreements with the NEOs, see "Item 6.B. Compensation NEO Agreements."

#### **Directors' and Officers' Insurance**

We maintain directors' and officers' liability insurance with policy limits of \$100 million in the aggregate, subject to a deductible in respect of corporate reimbursement of \$1 million for each loss. We are generally to be reimbursed for payments made under corporate indemnity provisions on behalf of our directors and officers, and individual directors and officers (or their heirs and legal representatives) are generally covered for losses arising during the performance of their duties for which they are not indemnified by us. Major exclusions from coverage include claims arising from illegal acts, those acts which result in illegal personal profit, violation of any fiduciary duty under the U.S. Employee Retirement Income Security Act of 1974, pollution damage (except for resultant shareholder actions), claims for financial impairment or while such director or officer is no longer acting in an insured capacity and claims brought by us against a director or officer, except for derivative actions.

#### **Director Indemnity Agreements**

We have indemnity agreements with each of our current directors containing provisions that may require us and from time to time, certain of our affiliates, to, among other things, indemnify such directors against certain liabilities that may arise by reason of their status or service as our directors, and obtain the approval of a court, if required, to meet such indemnity obligations. The directors are entitled to reimbursement for time spent responding to or testifying in connection with any proceedings involving us, tax gross-up payments to the extent such directors are not entitled to certain tax deductions related to the indemnification payments, and reimbursement of their expenses incurred as a result of any proceeding against them as to which they could be indemnified, provided that any expenses not actually incurred shall be repaid. The right to indemnification will only apply where the director acted honestly and in good faith with a view to our best interest and, in the case of a criminal or administrative action, had reasonable grounds for believing that his conduct was lawful. The indemnity agreements further provide that we shall be the indemnitor of first resort and that we are required to advance the full amount of expenses incurred by the directors.

##### **7.C. INTERESTS OF EXPERTS AND COUNSEL**

Not Applicable

#### **Item 8. Financial Information**

##### **8.A. CONSOLIDATED STATEMENTS AND OTHER FINANCIAL INFORMATION**

See "Item 17. Financial Statements" for our Annual Audited Consolidated Financial Statements, related notes and other financial information filed with this annual report on Form 20-F.



**8.B. SIGNIFICANT CHANGES**

Except as otherwise disclosed in this annual report, there have been no material changes in our financial position, operations or cash flows since December 31, 2011.

**Item 9. The Offer and Listing**

**9.A. OFFER AND LISTING DETAILS**

Not Applicable

**9.B. PLAN OF DISTRIBUTION**

Not Applicable

**9.C. MARKETS**

Not Applicable

**9.D. SELLING SHAREHOLDERS**

Not Applicable

**9.E. DILUTION**

Not Applicable

**9.F. EXPENSES OF THE ISSUE**

Not Applicable

**Item 10. Additional Information**

**10.A. SHARE CAPITAL**

Not Applicable

**10.B. MEMORANDUM AND ARTICLES OF ASSOCIATION**

**REGISTOR**

NOVA Chemicals was continued under the provisions of the *Business Corporations Act* (New Brunswick) (the "Act") on July 6, 2009, with a corporation number of 645481. Our Articles of Continuance ("Articles") do not restrict the business which we may carry on.

**ARTICLES AND BY-LAWS**

The following brief description of provisions of the Act, our Articles and General By-Law No. 3 ("By-Laws") does not purport to be complete and is subject in all respects to the provisions of the Act and our Articles and By-Laws.

*Conflicts of Interest*

Our By-Laws provide that a director who is a party to a material transaction or material contract, or proposed material transaction or material contract with us, is a director of, or acts in a capacity similar to a director of, or has a material interest in any person who is a party to a material transaction or material contract or proposed material transaction or material contract with us shall disclose the nature and extent of his interest at the time and in the manner provided in the Act. Except as provided in the Act and explained in the following paragraph, no such director shall vote on any resolution to approve any such transaction. If a material transaction or material contract is made between us and one or more of our directors, or between us and another person of which a director of NOVA Chemicals is a director or in which he has a material interest, the



transaction is neither void nor voidable by reason only of that relationship, or by reason only that a director with an interest in the transaction or contract is present at or is counted to determine the presence of a quorum at a meeting of directors or committee of directors that authorized the transaction, if the director disclosed his interest in accordance with the provisions of the Act and the transaction or contract was approved by the directors or the shareholder and it was reasonable and fair to us at the time it was approved.

The Act provides that a director who is materially interested in a contract may not vote on any resolution to approve the contract unless the contract is (i) an arrangement by way of security for money lent to or obligations undertaken by the director for the benefit of us or an affiliate, (ii) relates primarily to the director's remuneration as a director, officer, employee or agent of the Corporation or an affiliate, (iii) is for indemnity or insurance for the director against liability incurred by the director acting in his or her capacity as director, or (iv) is with an affiliate.

#### ***Borrowing Powers***

Our By-Laws provide that the directors may from time to time: (i) borrow money on our credit, (ii) issue, re-issue, sell or pledge debt obligations or guarantee of NOVA Chemicals, (iii) to the extent permitted by the Act, give, directly or indirectly, financial assistance to any person by means of a loan, a guarantee to secure the performance of an obligation or otherwise, and (iv) mortgage, hypothecate, pledge or otherwise create a security interest in or other interest in or charge upon all or any property (including the undertaking and rights) of NOVA Chemicals, owned or subsequently acquired, to secure any obligation of NOVA Chemicals.

#### ***Shareholder's Meetings***

A holding company controlled by IPIC currently owns all of our equity. Our By-Laws provide that a resolution in writing signed by all the shareholders or signed counterparts of such resolution by all the shareholders entitled to vote on that resolution at a meeting of shareholders is as valid as if it had been passed at a meeting of the shareholders duly called, constituted and held.

Our By-Laws provide that, subject to the Act, an annual meeting of shareholders shall be held on such day and at such time in each year as the Board may from time to time determine, for the purpose of considering the financial statements and reports required by the Act to be placed before the annual meeting, electing directors, appointing auditors and for the transaction of such other business as may properly be brought before the meeting. The Act requires that, subject to certain exceptions, the directors must call a special meeting of shareholders upon the requisition of at least ten percent of our issued shares entitled to vote at the meeting being requisitioned.

The Act provides that for purposes of determining shareholders entitled to receive notice of a meeting of shareholders, the directors may fix a record date in advance so long as the date is not more than 50 or less than 21 days before the date of the meeting. Where no record date is fixed, the record date is the close of business on the day immediately preceding the day notice is given or the day of the meeting itself if no notice is given. The Act and our By-Laws provide that notice of the time and place of each shareholder meeting shall be sent not less than 21 nor more than 50 days before the meeting to (i) each shareholder entitled to vote, (ii) each director, and (iii) our auditor. If special business is to be transacted, the notice must state or be accompanied by a statement of the nature of that business in sufficient detail to permit the shareholder to form a reasoned judgment on the proposal. All business transacted at a special meeting of shareholders and all business transacted at an annual shareholder meeting, except consideration of the financial statements and auditor's report, election of directors and reappointment of the auditor constitutes special business.

Our By-Laws provide that a quorum for the transaction of business at any meeting of shareholders shall be met if the holders of not less than 10% of the shares entitled to vote at the meeting are present in person or represented by proxy.

Our By-laws also state that the only persons entitled to be present at a meeting of shareholders shall be those persons entitled to vote thereat, the directors and our auditors and others who, although not entitled to vote, are entitled or required under any provision of the Act or our Articles or By-Laws to be present at the

meeting. Any other person may be admitted only on the invitation of the Chairman of the meeting or with the consent of the meeting.

### ***Authorized and Issued Capital***

We are authorized to issue an unlimited number of Common Shares, first preferred shares and second preferred shares. Currently, only Common Shares are issued and outstanding.

### **Common Shares**

Each Common Share has one vote and our directors stand for election on an annual basis. The holders of the Common Shares are entitled to attend and vote at all meetings of shareholders except meetings of only the holders of another class or series of our shares. In addition, subject to the preferential rights attaching to any of our shares ranking in priority to the Common Shares, the holders of the Common Shares are entitled to receive any dividends that may be declared by the Board of Directors on the Common Shares. Subject to the rights of the holders of shares of the Corporation ranking in priority to the Common Shares, the holders of the Common Shares are entitled to participate rateably amongst themselves and rateably with the holders of any shares ranking on a parity with the Common Shares in any distribution of the remaining property of the Corporation in the event of the dissolution, liquidation or winding-up of NOVA Chemicals or any other distribution of its property amongst its shareholders for the purposes of winding-up its affairs.

### **First Preferred Shares**

Subject to the following and to applicable law, the first preferred shares as a class are not entitled to receive notice of, attend or vote at meetings of the shareholders of the Corporation. The first preferred shares may from time to time be issued in one or more series, and the Board of Directors may fix from time to time before such issue the number of first preferred shares that is to comprise each series and the designation, rights, privileges, restrictions and conditions attaching to each series of first preferred shares, including any voting rights, the rate or amount of dividends or the method of calculating dividends, the dates of payment thereof, the terms and conditions of redemption, purchase and conversion, if any, and any sinking fund or other provisions. If issued, the first preferred shares of each series will, with respect to the payment of dividends and the distribution of assets on return of capital in the event of liquidation, dissolution or winding-up of NOVA Chemicals, whether voluntary or involuntary, or any other return of capital or distribution of the assets of the Corporation amongst its shareholders for the purpose of winding-up its affairs, have preference over the Common Shares, the second preferred shares and over any other shares of the Corporation ranking by their terms junior to the first preferred shares of the series. The first preferred shares of any series may also be given such other preferences over the Common Shares, the second preferred shares and any other shares ranking junior to such first preferred shares as may be established by the Board of Directors.

### **Second Preferred Shares**

Subject to the following and to applicable law, the second preferred shares as a class are not entitled to receive notice of, attend or vote at meetings of the shareholders of the Corporation. The second preferred shares may from time to time be issued in one or more series, and the Board of Directors may fix from time to time before such issue the number of second preferred shares that is to comprise each series and the designation, rights, privileges, restrictions and conditions attaching to each series of second preferred shares, including any voting rights, the rate or amount of dividends or the method of calculating dividends, the dates of payment thereof, the terms and conditions of redemption, purchase and conversion, if any, and any sinking fund or other provisions. If issued, the second preferred shares of each series will, with respect to the payment of dividends and the distribution of assets on return of capital in the event of liquidation, dissolution or winding-up of NOVA Chemicals, whether voluntary or involuntary, or any other return of capital or distribution of the assets of the Corporation amongst its shareholders for the purpose of winding-up its affairs, have preference over the Common Shares and over any other shares of the Corporation ranking by their terms junior to the second preferred shares of the series. The second preferred shares of any series may also be given such other preferences over the Common Shares and any other shares ranking junior to such second preferred shares as may be established by the Board of Directors.

*Number of Directors; Filling Vacancies*

Our Articles provide that the number of directors comprising the entire Board is a minimum of one and a maximum of 15. We currently have a fixed number of six directors. All of our directors have been elected to serve until the next annual meeting or until his successor is elected or appointed.

Under the Act and provided that a quorum of directors remains in office, vacancies may be filled by the directors. If less than a quorum of directors remains in office, or if there has been a failure to elect the required fixed number of directors, any vacancy must be filled by the shareholders and the directors are required to call a special meeting of the shareholders to fill the vacancy. No person is required to hold any equity of the Corporation to qualify as a director.

**10.C. MATERIAL CONTRACTS**

On October 18, 2011, we executed a Second Amending Agreement to our \$425 million senior secured revolving credit facility to, among other things, extend the maturity date from November 17, 2013 to December 17, 2015, and increase the permitted maximum amount of outstanding letters of credit.

**10.D. EXCHANGE CONTROLS**

There are currently no limitations imposed by Canadian federal or provincial laws on the rights of non-resident or foreign owners of our securities to hold or vote the securities held. There are also no such limitations imposed by our Articles and By-Laws with respect to our Common Shares.

**10.E. TAXATION**

Not Applicable

**10.F. DIVIDENDS AND PAYING AGENTS**

Not Applicable

**10.G. STATEMENT BY EXPERTS**

Not Applicable

**10.H. DOCUMENTS ON DISPLAY**

We file periodic reports and other information with the SEC. These reports include certain financial and statistical information about us and may be accompanied by exhibits. You may read and copy this information at the SEC's Public Reference Room at 100 F Street, N.E., Room 1580, Washington, D.C. 20549, or obtain copies of this information by mail from the public reference room at the prescribed rates. You may call the SEC at 1-800-SEC-0330 for further information on the SEC's Public Reference Room. The SEC also maintains an Internet website that contains reports and other information about companies like us who file electronically with the SEC. The URL of that website is <http://www.sec.gov>.

**10.I. SUBSIDIARY INFORMATION**

Not Applicable

**Item 11. Quantitative and Qualitative Disclosures About Market Risk**

The Audit Committee of our Board regularly reviews foreign exchange, interest rate and commodity hedging activity and monitors compliance with the our hedging policy. Our policy prohibits the use of financial instruments for speculative purposes and limits hedging activity to the underlying net economic exposure. See "Item 5 Operating and Financial Review and Prospects" and Note 24 in our annual audited consolidated Financial Statements contained in this annual report on Form 20-F for quantitative and qualitative disclosure of market risk.



**Item 12. Description of Securities Other than Equity Securities**

**12.A. DEBT SECURITIES**

Not Applicable

**12.B. WARRANTS AND RIGHTS**

Not Applicable

**12.C. OTHER SECURITIES**

Not Applicable

**12.D. AMERICAN DEPOSITARY SHARES**

Not Applicable

**PART II**

**Item 13. Defaults, Dividend Arrearages and Delinquencies**

Not Applicable

**Item 14. Material Modifications to the Rights of Security Holders and Use of Proceeds**

Not Applicable

**Item 15. Controls and Procedures**

**(a) Disclosure Controls and Procedures**

Based on our management's evaluation (with the participation of our principal executive officer and principal financial officer), as of December 31, 2011, our principal executive officer and principal financial officer have concluded that our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended (the "Exchange Act")) are effective to ensure that information required to be disclosed by us in reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in Securities and Exchange Commission rules and forms and is accumulated and communicated to our management, including our principal executive officer and principal financial officer, or persons performing similar functions, as appropriate to allow timely decisions regarding required disclosure.

**(b) Management's Annual Report on Internal Control over Financial Reporting**

Our management is responsible for establishing and maintaining adequate internal control over financial reporting for NOVA Chemicals.

Management has used the Committee of Sponsoring Organizations of the Treadway Commission ("COSO") framework to evaluate the effectiveness of our internal control over financial reporting. Management believes that the COSO framework is a suitable framework for its evaluation of our internal control over financial reporting because it is free from bias, permits reasonably consistent qualitative and quantitative measurements of our internal controls, is sufficiently complete so that those relevant factors that would alter a conclusion about the effectiveness of our internal controls are not omitted and is relevant to an evaluation of internal control over financial reporting.

Management has assessed the effectiveness of our internal control over financial reporting, as at December 31, 2011, and has concluded that such internal control over financial reporting is effective. There are no material weaknesses in our internal control over financial reporting

that have been identified by management.

**(c) Attestation Report of the Registered Public Accounting Firm**

Not Applicable

**(d) Changes in Internal Control Over Financial Reporting**

During the period covered by this annual report, there have been no changes in our internal control over financial reporting that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting. However, with the transition to IFRS on January 1, 2011, additional internal controls over financial reporting were developed and implemented to ensure completeness over the identification of all IFRS differences.

**Item 16A. Audit Committee Financial Expert**

Our Board of Directors has determined that Stephen Soules is an "audit committee financial expert" (as defined in Item 16A of Form 20-F) serving on our Audit Committee. Stephen Soules is an "independent" director, as defined under New York Stock Exchange rules.

**Item 16B. Code of Ethics**

We have adopted a code of ethics that applies to our principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions. You can view our Code of Ethics for CEO and Senior Financial Officers on the Governance page on our website at <http://www.novachemicals.com/governance>.

**Item 16C. Principal Accountant Fees and Services**

The following fees were billed to us by Ernst & Young LLP and approved by our Audit Committee during the prior two years:

(U.S. dollars)	2011	2010
Audit Fees	\$ 2,376,713	\$ 2,443,201
Audit-Related Fees	285,605	90,409
Tax Fees	15,319	41,982
<b>Total Fees</b>	<b>\$ 2,677,637</b>	<b>\$ 2,575,592</b>

Audit fees include fees for the audit of our annual audited consolidated financial statements, statutory audits of subsidiaries, review of quarterly reports, provision of consent letters and comfort letters in connection with certain regulatory matters. Fee amounts for 2011 are based on invoices relating to the 2011 year-end audit that have been received and those expected to be billed.

Audit-related fees include fees for services that are related to the audit of our annual audited consolidated financial statements. These services include an audit and documentation of conclusions for the adoption of IFRS and an audit of the IFRS opening balance sheet, non-statutory audits of subsidiaries and affiliates, consultation on our disposal of a joint venture and consultation on other accounting and disclosure matters.

Tax fees include fees for advice on tax compliance and planning, customs filings for us and our subsidiaries, and advice on tax-related matters.

Our Audit Committee approves all fees paid to the external auditors. In addition, in accordance with applicable rules regarding audit committees, the Audit Committee reviews and approves (in advance) the scope and related fees for all non-audit services which are to be provided by the external auditors. In considering whether to approve non-audit services, the Audit Committee considers whether the provision of these non-audit services may impact the objectivity and independence of the external auditor and, in respect of non-audit services provided by Ernst & Young LLP in 2011, the Audit Committee has concluded that it does not.

**Item 16D. Exemptions from the Listing Standards for Audit Committees**

Not Applicable

**Item 16E. Purchases of Equity Securities by the Issuer and Affiliated Purchasers**

Not Applicable

**Item 16F. Change of Registrant's Certifying Accountant**

Not Applicable

**Item 16G. Corporate Governance**

Not Applicable

**PART III**

**Item 17. Financial Statements**

Our annual audited consolidated financial statements for the fiscal year ending December 31, 2011, including the notes thereto and together with auditor's report thereon, are included in this annual report beginning on page F-1.

**Item 18. Financial Statements**

Not Applicable



**Item 19. Exhibits**

<b>Exhibit No.</b>	<b>Description</b>
1.1	Certificate and Articles of Continuance of NOVA Chemicals Corporation dated July 6, 2009 <sup>(1)</sup>
1.2	General By-Law No. 3 of NOVA Chemicals Corporation dated July 6, 2009 <sup>(1)</sup>
2.1	Indenture, dated as of October 16, 2009, between NOVA Chemicals Corporation, as Issuer and U.S. Bank National Association, as Trustee in respect of the 8.375% Senior Notes due 2016 and 8.625% Senior Notes due 2019 <sup>(2)</sup>
2.2	Indenture, dated as of September 21, 1995, between NOVA Chemicals Corporation, as successor to NOVACOR Chemicals Ltd., and JP Morgan Trust Company, N.A., as successor trustee to The First National Bank of Chicago <sup>(3)</sup>
2.3	Indenture, dated as of October 31, 2005, between NOVA Chemicals Corporation, as Issuer and U.S. Bank National Association, as Trustee <sup>(4)</sup>
4.1	Restated Credit Agreement, dated as of November 17, 2009, among NOVA Chemicals Corporation, as Borrower, The Toronto-Dominion Bank, as Administrative Agent, and the lenders from time to time party thereto <sup>(5)</sup>
4.2	First Amending Agreement, dated as of October 28, 2010, to Restated Credit Agreement, dated as of November 17, 2009, among NOVA Chemicals Corporation, as Borrower, The Toronto-Dominion Bank, as Administrative Agent and the lenders from time to time party thereto <sup>(6)</sup>
4.3*	Second Amending Agreement, dated as of October 18, 2011, to Restated Credit Agreement, dated as of November 17, 2009, among NOVA Chemicals Corporation, as Borrower, The Toronto-Dominion Bank, as Administrative Agent and the lenders from time to time party thereto
4.4	Form of Indemnity Agreement by and among NOVA Chemicals Corporation and Directors <sup>(7)</sup>
7.1*	Computation of Ratio of Earnings to Fixed Charges
8.1*	List of Subsidiaries
12.1*	Certification of Randy Woelfel, Chief Executive Officer of NOVA Chemicals Corporation, pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
12.2*	Certification of Todd Karran, Senior Vice President and Chief Financial Officer of NOVA Chemicals Corporation, pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
13.1*	Certification of Randy Woelfel, Chief Executive Officer of NOVA Chemicals Corporation, pursuant to 18 U.S.C. Section 1350 as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
13.2*	Certification of Todd Karran, Senior Vice President and Chief Financial Officer of NOVA Chemicals Corporation, pursuant to 18 U.S.C. Section 1350 as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

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(1) Incorporated by reference from the Report on Form 6-K of NOVA Chemicals Corporation filed on August 6, 2009.

(2) Incorporated by reference from Exhibit 4.1 to the Registration Statement on Form F-4 of NOVA Chemicals Corporation, File No. 333-163915 filed on December 21, 2009.

(3) Incorporated by reference from Exhibit 7.1 to the Registration Statement on Form F-9 of NOVA Chemicals Corporation, File No. 333-6108.

(4) Incorporated by reference from the Report on Form 6-K of NOVA Chemicals Corporation filed on November 1, 2005.

(5) Incorporated by reference from Exhibit 10.1 to the Registration Statement on Form F-4 of NOVA Chemicals Corporation, File No. 333-163915 filed on December 21, 2009.

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(6) Incorporated by reference from Exhibit 4.2 to the Annual Report on Form 20-F of NOVA Chemicals Corporation filed on March 9, 2011.

(7) Incorporated by reference from Exhibit 10.4 to the Registration Statement on Form F-4 of NOVA Chemicals Corporation, File No. 333-163915 filed on December 21, 2009.

\*  
Filed herewith.

**SIGNATURES**

The registrant hereby certifies that it meets all of the requirements for filing on Form 20-F and that it has duly caused and authorized the undersigned to sign this annual report on its behalf.

NOVA CHEMICALS CORPORATION

By: /s/ TODD D. KARRAN

\_\_\_\_\_  
Name: Todd D. Karran

Title: Senior Vice President and Chief Financial Officer

Date: March 12, 2012

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**INDEPENDENT AUDITORS' REPORT OF REGISTERED PUBLIC ACCOUNTING FIRM**

**TO THE SHAREHOLDER OF NOVA CHEMICALS CORPORATION**

We have audited the accompanying consolidated financial statements of NOVA Chemicals Corporation, which comprise the consolidated statements of financial position as at December 31, 2011 and 2010 and January 1, 2010 and the consolidated statements of income, comprehensive income, cash flows and changes in equity for the years ended December 31, 2011 and December 31, 2010 and a summary of significant accounting policies and other explanatory information.

***Management's Responsibility for the Consolidated Financial Statements***

Management is responsible for the preparation and fair presentation of these consolidated financial statements in accordance with International Financial Reporting Standards as issued by the International Accounting Standards Board, and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

***Auditors' Responsibility***

Our responsibility is to express an opinion on these consolidated 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 comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free from material misstatement. We were not engaged to perform an audit of the Company's internal control over financial reporting. Our audits included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the consolidated financial statements, evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements.

We believe that the audit evidence we have obtained in our audits is sufficient and appropriate to provide a basis for our audit opinion.

***Opinion***

In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of NOVA Chemicals Corporation as at December 31, 2011 and 2010 and January 1, 2010, and its financial performance and its cash flows for the years ended December 31, 2011 and 2010 in accordance with International Financial Reporting Standards as issued by the International Accounting Standards Board.

**ERNST & YOUNG LLP**

Chartered Accountants

March 12, 2012

Calgary, Canada

**CONSOLIDATED INCOME STATEMENTS**


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Year ended December 31 (millions of U.S. dollars)	Notes	2011	2010
Revenue		\$ 5,241	\$ 4,576
Feedstock and operating costs		4,026	3,737
Research and development		41	37
Sales and marketing		29	27
General and administrative		138	178
		4,234	3,979
Operating profit from continuing operations		1,007	597
Finance costs, net	18	(166)	(186)
Other losses, net	19	(18)	(50)
		(184)	(236)
Profit before income taxes from continuing operations		823	361
Income tax expense	20	(215)	(124)
Profit from continuing operations		608	237
Profit from discontinued operations, net tax	5	7	26
Profit		\$ 615	\$ 263

*Refer to the accompanying Notes to the Consolidated Financial Statements*

**CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME**


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Year ended December 31 (millions of U.S. dollars)	Notes	2011	2010
Profit		\$ 615	\$ 263
Exchange differences on translation of foreign operations from continuing operations		2	(5)
Exchange differences on translation of foreign operations from discontinued operations		(2)	2
Recycled to income statement on disposal of foreign operations		(5)	
		(5)	(3)
Actuarial losses arising from employee benefit plan liabilities from continuing operations	21	(167)	(67)
Income tax effect		41	17
		(126)	(50)
Actuarial losses arising from employee benefit plan liabilities from discontinued operations			(9)
Income tax effect			
			(9)
		(126)	(59)

Other comprehensive loss		(131)		(62)
Comprehensive income		\$ 484	\$	201

*Refer to the accompanying Notes to the Consolidated Financial Statements*

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## CONSOLIDATED STATEMENTS OF FINANCIAL POSITION

(millions of U.S. dollars)	Notes	December 31 2011	December 31 2010	January 1 2010
<b>ASSETS</b>				
Current assets				
Cash and cash equivalents		\$ 960	\$ 306	\$ 238
Trade and other receivables	6	510	477	376
Inventories	7	575	450	495
Income taxes receivable		31	48	50
Restricted cash	8	85		
Other current assets	8	82	57	51
		<b>2,243</b>	1,338	1,210
Assets held for sale	5	22	81	
		<b>2,265</b>	1,419	1,210
Intangible assets	9	435	465	492
Restricted cash	10		85	
Other non-current assets	10	25	85	118
Investments in joint ventures	11			33
Deferred tax assets	20	37	65	61
Property, plant and equipment	12	3,446	3,456	3,560
		<b>\$ 6,208</b>	\$ 5,575	\$ 5,474
<b>LIABILITIES AND EQUITY</b>				
Current liabilities				
Trade and other payables	13	\$ 343	\$ 334	\$ 404
Other current liabilities	14	178	125	116
Income taxes payable		40	67	6
Provisions	16	109	5	18
Long-term debt due within one year	15	582	10	434
		<b>1,252</b>	541	978
Liabilities associated with assets held for sale	5	7	4	
		<b>1,259</b>	545	978
Long-term debt	15	1,159	1,685	1,512
Other non-current liabilities	17	48	43	36
Employee benefit plan liability	21	449	322	288
Provisions	16	105	193	88
Deferred tax liability	20	808	816	802
		<b>3,828</b>	3,604	3,704
<b>EQUITY</b>				
Issued capital		786	861	861
Foreign currency translation reserve		(3)	2	5
Retained earnings		1,597	1,108	904
		<b>2,380</b>	1,971	1,770
		<b>\$ 6,208</b>	\$ 5,575	\$ 5,474

On behalf of the Board of Directors:



/s/ Stephen Soules

/s/ Randy Woelfel

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**STEPHEN SOULES**  
Chairman of the Audit Committee

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**RANDY WOELFEL**  
Director

*Refer to the accompanying Notes to the Consolidated Financial Statements*

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**CONSOLIDATED STATEMENTS OF CASH FLOWS**

Year ended December 31 (millions of U.S. dollars)	Notes	2011	2010
<b>OPERATING ACTIVITIES</b>			
Profit before tax		\$ 830	\$ 387
Profit from discontinued operations, net of tax		(7)	(26)
Profit before tax from continuing operations		\$ 823	\$ 361
Non-cash adjustments to reconcile profit before tax to net cash flows:			
Depreciation and amortization		271	248
Unrealized (gain) loss on derivatives	24	(2)	15
Unrealized foreign exchange gain			(1)
Other losses, net		1	
Impairment charge	3, 12	6	20
Movements in provisions and pensions		(27)	65
Finance costs, net		161	182
		<b>1,233</b>	<b>890</b>
Working capital adjustments:			
Trade and other receivables		(38)	(95)
Inventories		(124)	50
Other current assets		(24)	(9)
Trade and other payables		18	(72)
Other current liabilities		(17)	(6)
		<b>(185)</b>	<b>(132)</b>
Changes in other non-current assets and liabilities		57	(77)
		<b>(128)</b>	<b>(209)</b>
Interest received		3	6
Income tax paid, net of refunds		(145)	(16)
Cash provided by operating activities from continuing operations		<b>963</b>	<b>671</b>
Cash used in operating activities from discontinued operations		<b>(13)</b>	<b>(16)</b>
<b>Cash provided by operating activities</b>		<b>950</b>	<b>655</b>
<b>INVESTING ACTIVITIES</b>			
Purchase of property, plant and equipment		(158)	(126)
Turnaround costs		(80)	(23)
Proceeds from sale of property, plant and equipment		1	1
Proceeds from sale of investment in joint ventures		55	
Purchase of intangible assets		(2)	(5)
Proceeds from dissolution of other investments		5	6
Dividends received			1
Cash used in investing activities from continuing operations		<b>(179)</b>	<b>(146)</b>
Cash used in investing activities from discontinued operations		<b>(1)</b>	
<b>Cash used in investing activities</b>		<b>(180)</b>	<b>(146)</b>
<b>FINANCING ACTIVITIES</b>			
Long-term debt repayments		(10)	(315)
Increase in accounts receivable securitization funding		28	32
Interest paid		(134)	(158)
<b>Cash used in financing activities</b>		<b>(116)</b>	<b>(441)</b>

<b>Increase in cash and cash equivalents</b>	<b>654</b>	68
<b>Cash and cash equivalents, beginning of year</b>	<b>306</b>	238
<b>Cash and cash equivalents, end of year</b>	<b>\$ 960</b>	<b>\$ 306</b>

*Refer to the accompanying Notes to the Consolidated Financial Statements*

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**CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY**


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(millions of U.S. dollars)	Notes	Issued capital <sup>(1)</sup>	Foreign currency translation reserve	Retained earnings	Total equity
<b>At January 1, 2010</b>		<b>\$ 861</b>	<b>\$ 5</b>	<b>\$ 904</b>	<b>\$ 1,770</b>
Profit for the year				263	263
Other comprehensive loss			(3)	(59)	(62)
Total comprehensive income (loss)			(3)	204	201
<b>At December 31, 2010</b>		<b>861</b>	<b>2</b>	<b>1,108</b>	<b>1,971</b>
Profit for the year				615	615
Other comprehensive loss			(5)	(126)	(131)
Total comprehensive income (loss)			(5)	489	484
Distribution	14, 25	(75)			(75)
<b>At December 31, 2011</b>		<b>\$ 786</b>	<b>\$ (3)</b>	<b>\$ 1,597</b>	<b>\$ 2,380</b>

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- (1) Unlimited number of authorized voting common shares without par value, non-voting first preferred shares and non-voting second preferred shares. At December 31, 2011 and 2010 and January 1, 2010 there were 141,494,222 common shares issued and outstanding.

*Refer to the accompanying Notes to the Consolidated Financial Statements*

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

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

**1. CORPORATE INFORMATION**

These consolidated financial statements of NOVA Chemicals Corporation for the years ended December 31, 2011 and 2010 were authorized for issue in accordance with a resolution adopted by our Board of Directors on March 12, 2012. NOVA Chemicals Corporation is a corporation continued under the laws of the *Business Corporations Act* (New Brunswick) with its principal place of business located at 1000 Seventh Avenue S.W., Calgary, Alberta, Canada T2P 5L5. Where used in these financial statements, "NOVA Chemicals" or "the Company" or "we" or "our" or "us" means NOVA Chemicals Corporation alone or together with its subsidiaries, depending on the context in which such terms are used.

Our principal activities are described in Note 23. Information on our ultimate parent is presented in Note 25.

**2. BASIS OF PREPARATION AND ACCOUNTING POLICIES**

**Basis of preparation**

These consolidated financial statements of NOVA Chemicals Corporation have been prepared in accordance with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board ("IASB").

For all periods up to and including the year ended December 31, 2010, we prepared our consolidated financial statements in accordance with Canadian generally accepted accounting principles ("Canadian GAAP"). These consolidated financial statements are the first annual consolidated financial statements we have prepared in accordance with IFRS. Refer to Note 26 for information on how we adopted IFRS.

These consolidated financial statements for the year ended December 31, 2011 have been prepared on a historical cost basis, except for derivative financial instruments and available-for-sale financial assets that have been measured at fair value. These consolidated financial statements are presented in U.S. dollars with all values rounded to the nearest million, except when otherwise indicated.

**Basis of consolidation**

These consolidated financial statements comprise the financial statements of NOVA Chemicals Corporation and our subsidiaries as at December 31, 2011.

Subsidiaries are fully consolidated from the date of acquisition, being the date on which we obtain control, and continue to be consolidated until the date when such control ceases. Control is achieved where we have, directly or indirectly through our subsidiaries, the power to govern the financial and operating policies of an entity so as to obtain benefits from its activities. The financial statements of our subsidiaries are prepared for the same period as the parent company, using consistent accounting policies. All intercompany balances and transactions are eliminated in full.

**Summary of significant accounting policies**

**Investments in joint ventures**

We have interests in jointly controlled assets and jointly controlled entities. Interests in jointly controlled assets involve a contractual arrangement between venturers that establish joint ownership of one or more assets contributed to, or acquired for the purpose of, the joint venture and dedicated to the purpose of the joint venture. The assets are used to obtain benefits for the venturers. In accounting for jointly controlled assets, our proportionate share of revenues, expenses, assets and liabilities are included in the consolidated financial statements on a line-by-line basis.

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

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

**2. BASIS OF PREPARATION AND ACCOUNTING POLICIES (Continued)**

Interests in jointly controlled entities involve a contractual arrangement that establishes joint control over the economic activities of the entity. The arrangements require unanimous agreement for significant financial and operating decisions among the venturers. We recognize our interests in jointly controlled entities using the equity method. Under the equity method, investment in jointly controlled entities are carried in the consolidated statement of financial position at cost plus post acquisition changes in our share of net assets of the jointly controlled entities. Our share of profit (loss) of jointly controlled entities is shown on a separate line in the consolidated income statement. Unrealized gains and losses resulting from transactions between us and our jointly controlled entities are eliminated to the extent of our ownership interest.

After application of the equity method, we determine whether it is necessary to recognize an impairment loss on our investments in jointly controlled entities. We determine at each reporting date whether there is any objective evidence that the joint venture investments are impaired. If this is the case, we calculate the amount of impairment as the differences between the recoverable amount of the joint venture and its carrying value and recognize the amount in share of equity earnings in joint ventures in the consolidated income statement.

**Foreign currency translation**

Our consolidated financial statements are presented in U.S. dollars, which is also the functional currency of our U.S. and Canadian operations.

Transactions in foreign currencies are initially recorded by our subsidiaries and joint ventures at their respective functional currency rates prevailing at the date of the transaction. Monetary assets and liabilities denominated in foreign currencies are translated to the functional currency at the exchange rate on the reporting date and the translation gains and losses are recognized in the income statement, except for employee benefit plan liabilities for which the resulting gains or losses are reported in other comprehensive income. Non-monetary items that are measured at historical cost in a foreign currency are translated using the exchange rates as at the dates of the initial transactions.

The assets and liabilities of foreign operations are translated into U.S. dollars at the exchange rate on the reporting date and their income statements are translated at the monthly average exchange rate for the month of the transaction. The exchange differences arising on the translation are recognized in other comprehensive income. On disposal of a foreign operation, the component of other comprehensive income relating to that particular foreign operation is recognized in the income statement.

**Revenue recognition**

Revenue is recognized to the extent that it is probable that the economic benefits will flow to us and the revenue can be reliably measured. Revenue is measured at the fair value of the consideration received or receivable, excluding discounts, sales rebates and taxes or duty. The following specific recognition criteria must also be met before revenue is recognized:

***Sale of goods***

We recognize revenue from the sale of goods when significant risks and rewards of ownership have been transferred to the buyer, and we neither retain continuing managerial involvement to the degree usually associated with ownership, nor effective control over the goods sold.

***Licensing***

Revenue from sale of technology licenses is recognized in accordance with completion of milestones in the relevant contracts.

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

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

**2. BASIS OF PREPARATION AND ACCOUNTING POLICIES (Continued)**

*Dividend income*

Dividend revenue from investments is recognized when our right to receive payment is established.

*Interest income*

For all financial instruments measured at amortized cost and interest bearing financial assets classified as available-for-sale, interest income or expense is recorded using the effective interest rate, which is the rate that exactly discounts the estimated future cash payments or receipts through the expected life of the financial instrument or a shorter period, where appropriate, to the net carrying amount of the financial asset or liability. Interest income is included in finance costs, net on the income statement.

**Taxes**

*Current income tax*

Current income tax assets and liabilities are measured at the amounts expected to be recovered from or paid to the taxation authorities. The tax rates and tax laws used to compute the amount are those that are enacted or substantively enacted at the reporting date in the countries where the taxable income is generated.

Current income tax relating to items recognized directly in equity is recognized in equity and not in the income statement. We periodically evaluate positions taken in the tax returns with respect to situations in which applicable tax regulations are subject to interpretation and establish provisions where appropriate. These provisions are included in deferred tax liabilities.

*Deferred tax*

Deferred tax is provided using the liability method on temporary differences at the reporting date between the tax bases of assets and liabilities and their carrying amounts for financial reporting purposes. Deferred tax liabilities are recognized for all taxable temporary differences. Deferred tax assets are recognized for all deductible temporary differences, carry forward of unused tax credits and unused tax losses, to the extent that it is probable that taxable profit will be available against which the deductible temporary differences, and the carry forward of unused tax credits and unused tax losses can be utilized.

The carrying amount of deferred tax assets is reviewed at each reporting date and reduced to the extent that it is no longer probable that sufficient taxable profit will be available to allow all or part of the deferred tax asset to be utilized. Unrecognized deferred income tax assets are reassessed at each reporting date and are recognized to the extent that it has become probable that future taxable income will be available to allow the deferred tax asset to be recovered.

Deferred tax assets and liabilities are measured at the tax rates that are expected to apply in the year when the asset is realized or the liability is settled, based on tax rates (and tax laws) that have been enacted or substantively enacted at the reporting date.

Deferred tax relating to items recognized outside of profit or loss is recognized outside profit or loss. Deferred tax items are recognized in correlation to the underlying transaction either in other comprehensive income or directly in equity.

Deferred tax assets and liabilities are offset if a legally enforceable right exists to set off current tax assets against current tax liabilities and the deferred taxes relate to the same taxable entity and the same taxation authority.

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

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

**2. BASIS OF PREPARATION AND ACCOUNTING POLICIES (Continued)**

*Sales tax*

Revenues, expenses and assets are recognized net of the amount of sales tax except:

Where the sales tax incurred on a purchase of assets or services is not recoverable from the taxation authority, in which case the sales tax is recognized as part of the cost of acquisition of the asset or as part of the expense item as applicable.

Receivables and payables that are stated with the amount of sales tax included.

The net amount of sales tax recoverable from, or payable to, the taxation authority is included as part of receivables or payables in the statement of financial position.

*Investment tax credits*

We account 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 profit (loss) for the period.

**Non-current assets held for sale and discontinued operations**

Non-current assets and disposal groups classified as held for sale are measured at the lower of their carrying value amount and fair value less costs to sell. Non-current assets and disposal groups are classified as held for sale if their carrying amounts will be recovered principally through a sale transaction rather than through continuing use. This condition is regarded as met only when the sale is highly probable and the asset or disposal group is available for immediate sale in its present condition. Management must be committed to the sale, which should be expected to qualify for recognition as a completed sale within one year from the date of classification.

In the consolidated income statement for the reporting period and the comparable periods of the previous year, income and expense from discontinued operations are reported separately from income and expense from continuing operations, down to the level of profit after taxes and the resulting profit or loss (after taxes) from discontinued operations is reported separately.

Property, plant and equipment and intangible assets once classified as held for sale are not depreciated or amortized.

**Property, plant and equipment ("PP&E")**

PP&E is stated at cost, net of accumulated depreciation and accumulated impairment losses, if any. The cost of an item of PP&E is the purchase cost and all costs incurred to bring the item to the condition where it is capable of operating in the manner intended by management. Borrowing costs incurred during major construction projects are capitalized as part of the cost of the asset until the asset is available for use. The present value of the expected cost for decommissioning the asset at the end of its useful life is included in the cost of the respective asset. See Notes 3 and 16 for further information about our decommissioning provisions. If the cost of replacing a part of an item of plant and equipment is capitalized, the carrying amount of the part that has been replaced is derecognized. Significant components of an item of PP&E which are expected to be replaced prior to the end of the useful life of the item are recognized as individual assets and depreciated separately. The cost of performing a major inspection ("turnaround") is recognized in the carrying value of PP&E as a replacement, if the recognition criteria are satisfied, and any remaining carrying amount of the cost of the previous inspection is derecognized. Turnaround costs are amortized over the period remaining until the



**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

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

**2. BASIS OF PREPARATION AND ACCOUNTING POLICIES (Continued)**

next scheduled turnaround. All other repair and maintenance costs are recognized in the income statement as incurred.

Depreciation on PP&E is calculated on a straight-line basis over the estimated useful lives of the assets as follows:

Buildings, structures and production plants	5 to 20 years
Office furniture and fixtures	5 to 13 years
Machinery and equipment	5 to 10 years
Vehicles	5 years
Information system hardware	3 years

Parts of an item of plant and equipment that are recognized as individual assets are depreciated based on the estimated useful life of the individual parts. The cost of an asset under construction is not depreciated until the asset is available for use. Any gain or loss arising on derecognition of the asset (calculated as the difference between the net disposal proceeds and the carrying amount of the asset) is included in the income statement when the asset is derecognized.

The assets' residual values, useful lives and methods of depreciation are reviewed at each financial year end, and adjusted prospectively as a change in accounting estimate, if appropriate.

**Leases**

The determination of whether an arrangement is, or contains, a lease is based on the substance of the arrangement at the inception date. An arrangement is considered to contain a lease if the fulfillment of the arrangement is dependent on the use of a specific asset or assets, and the arrangement conveys a right to use the asset, even if that right is not explicitly specified in an arrangement.

A lease is classified as a finance lease if it transfers substantially all the risks and benefits incidental to ownership of the leased item. Finance leases are recognized at the commencement of the lease as assets and liabilities measured at the fair value of the leased property or, if lower, at the present value of the minimum lease payments. Lease payments are apportioned between the finance charges and reduction of the lease liability so as to achieve a constant rate of interest on the remaining balance of the liability. Finance charges are recognized in finance costs, net in the income statement.

A leased asset is depreciated over the useful life of the asset or if there is no reasonable certainty that we will obtain ownership by the end of the lease term, the asset is depreciated over the shorter of the estimated useful life of the asset and the lease term.

Operating lease payments are recognized as an operating expense in the income statement on a straight-line basis over the term of the lease.

**Borrowing costs**

Borrowing costs directly attributable to the acquisition, construction or production of an asset that necessarily takes a substantial period of time to get ready for its intended use are capitalized as part of the cost of the respective assets. All other borrowing costs are expensed in the period they occur. Borrowing costs consist of interest and other costs that we incur in connection with the borrowing of funds.

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

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

**2. BASIS OF PREPARATION AND ACCOUNTING POLICIES (Continued)****Intangible assets**

Intangible assets acquired separately are measured on initial recognition at cost. Following initial recognition, intangible assets are carried at cost less any accumulated amortization and any accumulated impairment losses. Internally generated intangible assets, excluding capitalized development costs, are not capitalized and the expenditure is reflected in the income statement in the year in which the expenditure is incurred.

The useful lives of intangible assets are assessed as either finite or indefinite. Intangible assets with finite lives are amortized over their useful economic life on a straight-line basis as follows:

Licenses and technology	10 to 20 years
Contracts	6 to 20 years
Software	3 to 5 years

The amortization period and the amortization method for an intangible asset with a finite useful life are reviewed at least at each financial year end. Changes in the expected useful life are accounted for by changing the amortization period, as appropriate, and are treated as changes in accounting estimates. The amortization expense on intangible assets with finite lives is recognized in the income statement in the expense category consistent with the function of the intangible asset. We have no intangible assets with indefinite useful lives. Intangible assets with finite lives are assessed for impairment whenever there is an indication that the intangible asset may be impaired.

Gains or losses arising from derecognition of an intangible asset are measured as the difference between the net disposal proceeds and the carrying amount of the asset, and are recognized in the income statement when the asset is derecognized.

**Research and development costs**

Research costs are expensed as incurred. Development expenditures, on an individual project, are recognized as an asset when we can demonstrate:

the technical feasibility of completing the asset so that it will be available for use or sale;

our intention to complete and our ability to use or sell the asset;

how the asset will generate future economic benefits;

the availability of resources to complete the asset; and

the ability to measure reliably the expenditure during development.

Following the initial recognition of development expenditures as an asset, the asset is typically included within PP&E or intangible assets at cost less any accumulated depreciation or amortization and impairment losses. Depreciation or amortization of the asset begins when development is complete and the asset is available for use. During the period of development, the asset is tested for impairment annually.

**Financial instruments****Financial assets**

Financial assets within the scope of International Accounting Standard ("IAS") 39, *Financial Instruments: Recognition of Measurement*, are classified as financial assets at fair value through profit or loss, loans and receivables, held-to-maturity investments, available-for-sale

financial assets, or as derivatives designated as

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**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

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

**2. BASIS OF PREPARATION AND ACCOUNTING POLICIES (Continued)**

hedging instruments in an effective hedge, as appropriate. We determine the classification of our financial assets at initial recognition. All financial assets are recognized initially at fair value plus, in the case of assets not at fair value through profit or loss, directly attributable transaction costs.

Purchases or sales of financial assets that require delivery of assets within a time frame established by regulation or convention in the marketplace (regular way trades) are recognized on the trade date, i.e., the date that we commit to purchase or sell the asset.

Our financial assets include cash and cash equivalents, trade and other receivables, loans and other receivables included in other current assets and other non-current assets, quoted and unquoted financial instruments included in other non-current assets and derivative financial instruments.

The subsequent measurement of financial assets depends on their classification as follows:

***Financial assets at fair value through profit or loss***

Financial assets at fair value through profit or loss includes financial assets held-for-trading and financial assets designated upon initial recognition at fair value through profit or loss. Financial assets are classified as held-for-trading if they are acquired for the purpose of selling or repurchasing in the near term. This category includes derivative financial instruments we have entered into that are not designated as hedging instruments in hedge relationships as defined by IAS 39. Separated embedded derivatives are also classified as held-for-trading unless they are designated as effective hedging instruments. Financial assets at fair value through profit and loss are carried in the statement of financial position at fair value with changes in fair value recognized in feedstock and operating costs in the income statement.

We have not designated any financial assets upon initial recognition as at fair value through profit or loss.

Derivatives embedded in host contracts are accounted for as separate derivatives and recorded at fair value if their economic characteristics and risks are not closely related to those of the host contracts and the host contracts are not held-for-trading or designated at fair value through profit or loss. These embedded derivatives are measured at fair value with changes in fair value recognized in the income statement. Reassessment only occurs if there is a change in the terms of the contract that significantly modifies the cash flows that would otherwise be required.

***Loans and receivables***

Loans and receivables are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market. After initial measurement, such financial assets are subsequently measured at amortized cost using the effective interest rate method ("EIR"), less impairment. Amortized cost is calculated by taking into account any discount or premium on acquisition and fees or costs that are an integral part of the EIR. The EIR amortization is included in finance costs, net in the income statement. The losses arising from impairment are recognized in the income statement in general and administrative expense.

***Held-to-maturity investments***

Non-derivative financial assets with fixed or determinable payments and fixed maturities are classified as held-to-maturity when we have the positive intention and ability to hold the instrument to maturity. After initial measurement, held-to-maturity investments are measured at amortized cost using the EIR, less impairment. Amortized cost is calculated by taking into account any discount or premium on acquisition and fees or costs that are an integral part of the EIR. The EIR amortization is included in finance costs, net in the income statement. The losses arising from impairment are recognized in the income statement in finance costs, net. We did not have any held-to-maturity investments during the years ended December 31, 2011 and 2010.

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

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

**2. BASIS OF PREPARATION AND ACCOUNTING POLICIES (Continued)**

*Available-for-sale financial investments*

Available-for-sale financial investments include equity and debt securities. Equity investments classified as available-for-sale are those, which are neither classified as held-for-trading nor designated at fair value through profit or loss. Debt securities in this category are those which are intended to be held for an indefinite period of time and which may be sold in response to needs for liquidity or in response to changes in the market conditions.

After initial measurement, available-for-sale financial investments are subsequently measured at fair value with unrealized gains or losses recognized as other comprehensive income in the available-for-sale reserve until the investment is derecognized, at which time the cumulative gain or loss is recognized in finance costs, net, or determined to be impaired, at which time the cumulative loss is reclassified to the income statement in finance costs, net and removed from the available-for-sale reserve.

*Derecognition*

A financial asset (or, where applicable a part of a financial asset or part of a group of similar financial assets) is derecognized when:

The rights to receive cash flows from the asset have expired; or

We have transferred our rights to receive cash flows from the asset or have assumed an obligation to pay the received cash flows in full without material delay to a third-party under a 'pass-through' arrangement; and either (a) we have transferred substantially all the risks and rewards of the asset, or (b) we have neither transferred nor retained substantially all the risks and rewards of the asset, but have transferred control of the asset.

When we have transferred our rights to receive cash flows from an asset or have entered into a pass-through arrangement, and have neither transferred nor retained substantially all of the risks and rewards of the asset nor transferred control of the asset, the asset is recognized to the extent of our continuing involvement in the asset. In that case, we also recognize an associated liability. The transferred asset and the associated liability are measured on a basis that reflects the rights and obligations that we have retained.

Our accounts receivable securitization programs do not qualify under IFRS for derecognition and therefore the receivables sold into the programs remain in trade and other receivables and the funded amount of the programs is recognized as a liability and is included in long-term debt on the statement of financial position.

*Impairment of financial assets*

We assess at each reporting date whether there is any objective evidence that a financial asset or a group of financial assets is impaired. A financial asset or a group of financial assets is deemed to be impaired if, and only if, there is objective evidence of impairment as a result of one or more events that has occurred after the initial recognition of the asset (an incurred "loss event") and that loss event has an impact on the estimated future cash flows of the financial asset or the group of financial assets that can be reliably estimated. Evidence of impairment may include indications that the debtors or a group of debtors is experiencing significant financial difficulty, default or delinquency in interest or principal payments, the probability that they will enter bankruptcy or other financial reorganization and where observable data indicate that there is a measurable decrease in the estimated future cash flows, such as changes in arrears or economic conditions that correlate with defaults.

For an impairment of a financial asset carried at amortized cost, the carrying amount of the asset is reduced through the use of an allowance account and the amount of the loss is recognized in the income statement. Loans together with the associated allowance are written off when there is no realistic prospect of future recovery and all collateral has been realized or transferred to us.

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

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

**2. BASIS OF PREPARATION AND ACCOUNTING POLICIES (Continued)**

When there is evidence of impairment of an available-for-sale financial asset, the cumulative loss, measured as the difference between the acquisition cost and the current fair value, less any impairment loss on that investment previously recognized in the income statement, is removed from other comprehensive income and recognized in the income statement. Impairment losses on equity investments are not reversed through the income statement; increases in their fair value after impairments are recognized directly in other comprehensive income. In the case of debt instruments classified as available-for-sale, the amount recorded for impairment is the cumulative loss measured as the difference between the amortized cost and the current fair value less any impairment loss on that investment previously recognized in the income statements. If, in a subsequent year, the fair value of a debt instrument increases and the increase can be objectively related to an event occurring after the impairment loss was recognized in the income statement, the impairment loss is reversed through the income statement.

**Financial liabilities**

Financial liabilities within the scope of IAS 39 are classified as financial liabilities at fair value through profit or loss, loans and borrowings, or as derivatives designated as hedging instruments in an effective hedge, as appropriate. We determine the classification of our financial liabilities at initial recognition.

All financial liabilities are recognized initially at fair value and in the case of loans and borrowings, carried at amortized cost. This includes directly attributable transaction costs.

Our financial liabilities include trade and other payables, long-term debt, and derivative financial instruments.

The subsequent measurement of financial liabilities depends on their classification as follows:

***Financial liabilities at fair value through profit or loss***

Financial liabilities at fair value through profit or loss include financial liabilities held-for-trading and financial liabilities designated upon initial recognition as at fair value through profit or loss. Financial liabilities are classified as held-for-trading if they are acquired for the purpose of selling in the near term. This category includes derivative financial instruments entered into by us that are not designated as hedging instruments in hedge relationships as defined by IAS 39. Separated embedded derivatives are also classified as held-for-trading unless they are designated as effective hedging instruments. Gains or losses on liabilities held for trading are recognized in the income statement. We have not designated any financial liabilities upon initial recognition as at fair value through profit or loss.

***Loans and borrowings***

After initial recognition, interest bearing loans and borrowings are subsequently measured at amortized cost using the EIR. Gains and losses are recognized in the income statement when the liabilities are derecognized as well as through the EIR amortization process. Amortized cost is calculated by taking into account any discount or premium on acquisition and fees or costs that are an integral part of the EIR. The EIR amortization is included in finance costs, net in the income statement.

***Derecognition***

A financial liability is derecognized when the obligation under the liability is discharged or cancelled or expires. When an existing financial liability is replaced by another from the same lender on substantially different terms, or the terms of an existing liability are substantially modified, such an exchange or modification

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

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

**2. BASIS OF PREPARATION AND ACCOUNTING POLICIES (Continued)**

is treated as a derecognition of the original liability and the recognition of a new liability, and the difference in the respective carrying amounts is recognized in the income statement.

***Offsetting of financial instruments***

Financial assets and financial liabilities are offset and the net amount reported in the statement of financial position if, and only if, there is a currently enforceable legal right to offset the recognized amounts and there is an intention to settle on a net basis, or to realize the assets and settle the liabilities simultaneously.

**Fair value of financial instruments**

The fair value of financial instruments that are traded in active markets at each reporting date is determined by reference to quoted market prices. For financial instruments not traded in an active market, the fair value is determined using appropriate valuation techniques. Such techniques may include, using recent arm's length market transactions, reference to the current fair value of another instrument that is substantially the same, a discounted cash flow analysis or other valuation models.

An analysis of fair values of financial instruments and further details as to how they are measured is provided in Note 24.

**Derivative financial instruments and hedge accounting**

We use derivative financial instruments such as forward currency contracts, interest rate swaps and forward commodity contracts to hedge our foreign currency risks, interest rate risks and commodity price risks, respectively. Such derivative financial instruments are initially recognized at fair value on the date on which a derivative contract is entered into and are subsequently remeasured at fair value. Derivatives are carried as financial assets when the fair value is positive and as financial liabilities when the fair value is negative.

The fair value of commodity contracts that meet the definition of a derivative as defined by IAS 39 and are not entered into in accordance with our expected purchase requirements are recognized in the income statement in feedstock and operating costs.

Any gains or losses arising from changes in the fair value of derivatives are taken directly to the income statement, except for the effective portion of cash flow hedges, which is recognized in other comprehensive income.

For the purpose of hedge accounting, hedges are classified as:

Fair value hedges when hedging the exposure to changes in the fair value of a recognized asset or liability or an unrecognized firm commitment (except for foreign currency risk);

Cash flow hedges when hedging exposure to variability in cash flows that is either attributable to a particular risk associated with a recognized asset or liability or a highly probable forecast transaction or the foreign currency risk in an unrecognized firm commitment; or

Hedges of a net investment in a foreign operation.

At the inception of a hedge relationship, we formally designate and document the hedge relationship to which we wish to apply hedge accounting and the risk management objective and strategy for undertaking the hedge. The documentation includes identification of the hedging instrument, the hedged item or transaction, the nature of the risk being hedged and how we will assess the effectiveness of changes in the hedging instrument's fair value in offsetting the exposure to changes in the hedged item's fair value or cash flows attributable to the hedged risk. Such hedges are expected to be highly effective in achieving offsetting changes in fair value or cash





**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

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

**2. BASIS OF PREPARATION AND ACCOUNTING POLICIES (Continued)**

flows and are assessed on an ongoing basis to determine that they actually have been highly effective throughout the financial reporting periods for which they were designated.

As of December 31, 2011 and 2010 and during the years then ended, we have not designated as hedging instruments, any of our derivative financial instruments.

Derivative instruments that are not designated as effective hedging instruments are classified as current or non-current or separated into a current and non-current portion based on an assessment of the facts and circumstances (i.e., the underlying contracted cash flows).

Where we will hold a derivative as an economic hedge (and do not apply hedge accounting) for a period beyond 12 months after the reporting date, the derivative is classified as non-current (or separated into current and non-current portions) consistent with the classification of the underlying item.

Embedded derivatives that are not closely related to the host contract are classified consistent with the cash flows of the host contract.

Derivative instruments that are designated as, and are effective hedging instruments, are classified consistently with the classification of the underlying hedged item. The derivative instrument is separated into a current portion and a non-current portion only if a reliable allocation can be made.

**Cash and cash equivalents**

Short-term investments with an initial maturity of three months or less are considered to be cash equivalents and are recorded at cost, which approximates fair market value.

**Inventories**

Inventories are valued at the lower of cost or net realizable value. Net realizable value is the estimated selling price in the ordinary course of business, less the estimated costs of completion and estimated costs necessary to make the sale. Cost is determined on first-in first-out basis, except for spare parts and supplies which are determined based on weighted average cost. Cost includes purchase cost, freight, insurance and other related expenses incurred in bringing the inventories to their present condition and location. Cost also includes directly attributable production costs and a proportionate share of fixed production overheads, such as depreciation, and variable production overheads based on normal operating capacity that are incurred in converting the materials into finished goods. Financing costs are not included in production costs.

**Impairment of non-financial assets**

We assess at each reporting date whether there is an indication that an asset may be impaired. If any indication exists, or when annual impairment testing for an asset is required, we estimate the asset's recoverable amount. An asset's recoverable amount is the higher of an asset's or cash-generating unit's ("CGU") fair value less costs to sell and its value in use and is determined for an individual asset, unless the asset does not generate cash inflows that are largely independent of those from other assets or groups of assets. Where the carrying amount of an asset or CGU exceeds its recoverable amount, the asset is considered impaired and is written down to its recoverable amount. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. In determining fair value less costs to sell, recent market transactions are taken into account, if available. If no such transactions can be identified, an appropriate discounted cash flow model is used. These calculations are corroborated by valuation multiples, quoted share prices for publicly traded companies or other available fair value indicators.

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

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

**2. BASIS OF PREPARATION AND ACCOUNTING POLICIES (Continued)**

We base our impairment calculation on detailed budgets and forecast calculations which are prepared separately for each of our CGU's to which the individual assets are allocated. These budgets and forecast calculations generally cover a period of five years. For longer periods, a long term growth rate is calculated and applied to project future cash flows after the fifth year. Impairment losses of continuing operations are recognized in the income statement in those expense categories consistent with the function of the impaired asset.

For assets excluding goodwill, an assessment is made at each reporting date as to whether there is any indication that previously recognized impairment losses may no longer exist or may have decreased. If such indication exists, we estimate the asset's or CGU's recoverable amount. A previously recognized impairment loss is reversed only if there has been a change in the assumptions used to determine the asset's recoverable amount since the last impairment loss was recognized. The reversal is limited so that the carrying amount of the asset does not exceed its recoverable amount, nor exceed the carrying amount that would have been determined, net of depreciation, had no impairment loss been recognized for the asset in prior years. Such reversal is recognized in the income statement.

**Provisions**

Provisions are recognized when we have a present obligation (legal or constructive) as a result of a past event, it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation and a reliable estimate can be made of the amount of the obligation. Where we expect some or all of a provision to be reimbursed, for example under an insurance contract, the reimbursement is recognized as a separate asset but only when the reimbursement is virtually certain. The expense relating to any provision is presented in the income statement net of any reimbursement. If the effect of the time value of money is material, provisions are discounted using a current pre-tax rate that reflects, where appropriate, the risks specific to the liability. Where discounting is used, the increase in the provision due to the passage of time is recognized as a finance cost.

***Restructuring provisions***

Restructuring provisions are only recognized when general recognition criteria for provisions are fulfilled. We follow a detailed, formal plan about the business or part of the business concerned, the location and number of employees affected, a detailed estimate of the associated costs and appropriate time-line. Additionally, there must be a valid expectation for the people affected that the restructuring will be carried out or the implementation has been initiated already.

***Decommissioning liability***

Provisions for decommissioning costs are recognized at the time of acquisition or construction of manufacturing facilities. Decommissioning liabilities are provided at the present value of the expected costs to settle the obligation and are recognized as part of the cost of the particular asset. The expected costs are discounted at a current pre-tax rate that reflects the risks specific to the decommissioning liability (which we interpret to be a risk-free rate). The unwinding of the discount is recognized in the income statement in finance costs, net as it occurs. The estimated future costs of decommissioning are reviewed annually and adjusted as appropriate. Changes in the estimated future costs or in the discount rate applied are added to or deducted from the cost of the asset.

**Pensions and other post-employment benefits**

We sponsor both defined benefit and defined contribution plans covering substantially all employees.

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

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

**2. BASIS OF PREPARATION AND ACCOUNTING POLICIES (Continued)**

The cost of providing benefits under defined benefit plans is determined separately for each plan using the projected unit credit method and is expensed as employees provide services. Actuarial gains and losses for defined benefit plans are recognized in full in the period in which they occur in other comprehensive income. Such actuarial gains and losses are also immediately recognized in retained earnings and are not reclassified to profit and loss in subsequent periods. The past service costs are recognized as an expense on a straight-line basis over the average period until the benefits become vested. If the benefits have already vested, immediately following the introduction of, or changes to, a pension plan, past service costs are recognized immediately. The defined benefit asset or liability is the present value of the defined benefit obligation, using a discount rate based on high quality corporate bonds, in the respective country, with terms to maturity that approximate the duration or projected cash flows of our pension liabilities, less past service costs and less the fair value of plan assets out of which the obligations are to be settled. Fair value for plan assets is based on market price information. The value of any defined benefit asset recognized is restricted to the sum of any past service costs and the present value of any economic benefits available in the form of refunds from the plan or reductions in future contributions to the plan.

The cost of defined contribution benefits is expensed as earned by employees. In North America, we also provide medical care and life insurance benefits to eligible retirees and their dependents. These benefits are unfunded and are expensed as the employees provide service.

**Changes in accounting policies and disclosures**

*New and amended standards and interpretations*

Our accounting policies adopted are consistent with those of the prior period, except for the following amended International Financial Reporting Interpretations Committee ("IFRIC") interpretations effective as of January 1, 2011 and are described below:

IFRIC 14, *Prepayments of a Minimum Funding Requirement (Amendment)*, is effective for annual periods beginning on or after January 1, 2011, with retrospective application. This amendment permits entities to treat the benefit of prepayments of minimum funding requirements as an asset and provides guidance on assessing the recoverable amount of a net pension asset. This amendment was adopted as of January 1, 2011 and did not have an impact on our consolidated financial statements.

IFRIC 24, *Related Party Disclosures (Amendment)*, is effective for annual periods beginning on or after January 1, 2011, with retrospective application. Among other things, this amendment clarifies the definition of a related party to simplify the identification of such relationships and to eliminate inconsistencies in its application. This amendment was adopted as of January 1, 2011 and did not have an impact on our consolidated financial statements.

**3. SIGNIFICANT ACCOUNTING JUDGMENTS, ESTIMATES AND ASSUMPTIONS**

The preparation of our consolidated financial statements requires management to make judgments, estimates and assumptions that affect the reported amounts of revenues, expenses, assets and liabilities, and the disclosure of contingent liabilities at the end of the reporting period. Uncertainty about these assumptions and estimates could result in outcomes that require a material adjustment to the carrying amount of the asset or liability affected in future periods.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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

3. SIGNIFICANT ACCOUNTING JUDGMENTS, ESTIMATES AND ASSUMPTIONS (Continued)

**Judgments**

In the process of applying our accounting policies, management has made the following judgments, which currently have or in the future could have the most significant effects on the amount recognized in our consolidated financial statements:

*New feedstock, transportation and storage agreements*

The "NOVA 2020 Project" includes plans for growth of our proprietary polyethylene technology to serve North American markets. As a part of our strategy to capitalize on emerging feedstock opportunities and growing North American demand, we have begun feasibility and engineering work for the construction of two new polyethylene assets to be located at our sites in Alberta and Ontario. We will also complete studies for a further debottleneck of our low-density polyethylene ("LDPE") line located at our Mooretown, Ontario facility.

Throughout 2011, we entered into a number of key agreements, including agreements for additional sources of ethane supply and related pipeline transportation services for our Joffre complex which should provide sufficient ethane for us to move towards full utilization of our Joffre PE assets; and agreements to support the revamp of our Corunna cracker to utilize up to 100% natural gas liquids ("NGL") feedstock, including definitive agreements for long-term ethane supply from the Marcellus Shale Basin, a transportation service agreement for the transportation of ethane feedstock from the Marcellus Shale Basin into the Sarnia, Ontario region and related storage agreements.

These agreements have been evaluated in relation to various IFRS principles, the most significant of which was IFRIC 4, *Determining Whether an Arrangement Contains a Lease*. IFRIC 4 requires that determining whether an arrangement is, or contains, a lease shall be based on the substance of the arrangement and requires an assessment of whether:

- a) fulfillment of the arrangement is dependent on the use of a specified asset or assets; and
- b) the arrangement conveys a right to use the asset

Management has determined that based on evaluation of the terms and conditions of the arrangements that the feedstock and pipeline arrangements do not meet both criteria under IFRIC 4 and therefore do not contain leases, but that a material storage cavern arrangement contains a lease. Currently, there is only one material storage agreement that has been signed and management has determined this to be an operating lease.

*Discontinued operations*

The sale of our 50% interest in the INEOS NOVA joint venture closed on February 28, 2011. Associated results of operations and cash flows are separately reported as discontinued operations for all periods presented and the associated financial position is separately reported as assets and liabilities held for sale as of December 31, 2010.

During the second quarter of 2010, our Board of Directors approved the sale, subject to certain conditions, of our building and construction business, collectively known as SYNTHÉON. The SYNTHÉON portfolio of businesses, which was part of our Performance Styrenics segment, includes SYNTHÉON Inc.; Accelerated Building Technologies LLC; NCE Inc.; NOVA Chemicals Chile Limitada; our 50% interest in both Novidesa S.A. de C.V. and Reliance Innovative Building Solutions Pvt. Ltd (both joint ventures); and intellectual property relating to both the building and construction products and the Elemix® concrete additive. We initially anticipated that the sale would be completed in 2010; however, negotiations with the intended acquirer ended without a sale being completed. Management has since developed a formal plan for the sale of SYNTHÉON assets. Associated results of operations, financial position and cash flows are separately reported as discontinued

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

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

**3. SIGNIFICANT ACCOUNTING JUDGMENTS, ESTIMATES AND ASSUMPTIONS (Continued)**

operations and assets and liabilities held for sale as of and for the years ended December 31, 2011 and 2010. SYNTHEON assets are available for immediate sale and can be sold to a potential buyer(s) in their current condition. Management has initiated an active plan to locate a buyer(s) and expects any potential disposal to be completed within the next 12 months. Accordingly, management considers that SYNTHEON meets the criteria to be classified as held for sale as of December 31, 2011.

For more details on discontinued operations, refer to Note 5.

**Estimates and assumptions**

Actual results could differ materially as a result of our estimates of factors such as commodity prices, foreign exchange rates, interest rates, changes in economic conditions and regulatory changes. The key assumptions concerning the future and other key sources of estimation uncertainty at the reporting date that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year are described below. We base our assumptions and estimates on parameters available when the consolidated financial statements were prepared. Existing circumstances and assumptions about future developments may change due to market changes or circumstances arising beyond our control. Such changes are reflected in the assumptions when they occur.

***Impairment of non-financial assets***

Impairment exists when the carrying value of an asset or CGU exceeds its recoverable amount, which is the higher of its fair value less costs to sell and its value in use. The fair value less costs to sell calculation is based on available data from binding sales transactions in an arm's length transaction of similar assets or observable market prices less incremental costs for disposing of the asset. The value in use calculation is based on a discounted cash flow model. The cash flows are derived from the budget for the next five years and do not include restructuring activities that we have not yet committed to or significant future investments that will enhance the performance of the asset or CGU being tested. The recoverable amount is most sensitive to the discount rate used for the discounted cash flow model as well as the expected future cash-inflows and the growth rate used for extrapolation purposes. Other factors that management must estimate include: industry and market conditions, sales volumes and prices, costs to produce, inflation, etc. We use reasonable, supportable and where available third-party, industry expert assumptions when performing impairment reviews.

We assessed all of our non-financial assets for indicators of impairment and determined that certain impairment indicators exist in our Performance Styrenics segment during the fourth quarter of 2011. In accordance with IFRS 1, *First-time Adoption of International Financial Reporting Standards*, (see Note 26), we elected to use the fair values of assets and liabilities, as determined in connection with the International Petroleum Investment Company ("IPIC") acquisition of us on July 6, 2009, as "deemed cost" for the assets and liabilities that could be recognized under IFRS, which included PP&E of our Performance Styrenics segment. Since July 6, 2009, the market for certain products has not improved significantly, but we continue to spend a significant amount on capital expenditures for the business and other common facilities at our manufacturing sites, resulting in a carrying value of these assets at December 31, 2011, of \$10 million prior to any impairment charge. The carrying value of these assets at December 31, 2011, was written down to their estimated fair value of \$4 million, resulting in an impairment charge of \$6 million. The impairment charge is included in feedstock and operating costs in the consolidated income statement for the year ended December 31, 2011.

We also assessed impairment indicators at the end of 2010 and determined that although the Performance Styrenics segment continued to add new packaging applications for items such as televisions and computer equipment, demand had not materialized as expected due to poor economic conditions and competitive pressure, which resulted in lower sales volumes during 2010. Accordingly, during the fourth quarter of 2010,

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

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

**3. SIGNIFICANT ACCOUNTING JUDGMENTS, ESTIMATES AND ASSUMPTIONS (Continued)**

management determined that the carrying value of certain assets within the Performance Styrenics segment were greater than the estimated future cash flows. The carrying value of these assets at December 31, 2010 prior to write-down was \$26 million. The fair value was estimated to be \$6 million. Thus, the assets were written down to their estimated fair value, resulting in an impairment charge of \$20 million during 2010. The impairment charge is included in feedstock and operating costs in the consolidated income statement for the year ended December 31, 2010.

The write-downs will reduce future depreciation charges in the Performance Styrenics segment by approximately \$3 million per year from 2012 to approximately 2019.

*Intangible assets*

Judgmental aspects of accounting for intangibles involves selection of an appropriate method of amortization, estimates of the life of assets and determining whether an impairment of our assets exists and measuring such impairment. The amortization period and the amortization method for intangible assets with a finite useful life are reviewed each financial year end. We made no changes to the amortization periods or methods for intangible assets during 2011, and have no intangible assets with indefinite useful lives.

*PP&E*

Judgmental aspects of accounting for PP&E involves selection of an appropriate method of depreciation, estimates of the life of assets and determining whether an impairment of our assets exists and measuring such impairment. We are 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 consistent with the pattern of economic benefits that are expected from the use of our plants and equipment, requires less estimation and judgment, and is a systematic and rational basis for allocating the depreciable cost over the period in which the assets' benefit is realized. We review the estimated useful lives and the depreciation method of PP&E at each financial year end and make adjustment prospectively when appropriate. This review is completed by Company engineers familiar with the plant sites and requires management's assessment of economic utility. We made no changes to the estimated useful lives or depreciation methods for PP&E during 2011.

*Taxes*

Uncertainties exist with respect to the interpretation of complex tax regulations, changes in tax laws, and the amount and timing of future taxable income. Given the wide range of international business relationships and the long-term nature and complexity of existing contractual agreements, differences arising between the actual results and the assumptions made, or future changes to such assumptions, could necessitate future adjustments to tax income and expense already recorded. We establish provisions, based on reasonable estimates, for possible consequences of audits by the tax authorities of the respective countries in which we operate, if it is probable that an outflow of resources will be required to settle the obligation. The amount of such provisions is based on various factors, such as experience of previous tax audits and differing interpretations of tax regulations by the taxable entity and the responsible tax authority. Such differences of interpretation may arise on a wide variety of issues depending on the conditions prevailing in the respective company's domicile. We review the adequacy of these provisions at the end of each reporting period and include any required liability in deferred tax liabilities.

Deferred tax assets are recognized for all unused tax losses to the extent that it is probable that taxable profit will be available against which the losses can be utilized. Significant management judgment is required to

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

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

**3. SIGNIFICANT ACCOUNTING JUDGMENTS, ESTIMATES AND ASSUMPTIONS (Continued)**

determine the amount of deferred tax assets that can be recognized, based upon the likely timing and the level of future taxable profits together with future tax planning strategies.

We have tax loss carry forwards, in the United States, amounting to \$117 million at December 31, 2011 (December 31, 2010 \$131 million; January 1, 2010 \$141 million). In addition, at December 31, 2011, we have \$205 million of unrecognized losses in Switzerland (December 31, 2010 \$256 million; January 1, 2010 \$319 million). These relate to subsidiaries that have had a history of losses and expire in 2028.

If we were able to recognize all unrecognized deferred tax assets, profit would have increased by \$65 million for the year ended December 31, 2011.

***Pension benefits***

We sponsor both defined benefit and defined contribution pension arrangements covering substantially all of our employees. The cost and obligations for the defined benefit pension plans and other post-employment medical benefits and the present value of the pension obligation are determined using actuarial valuations. An actuarial valuation involves making various economic and demographic assumptions to estimate future liabilities, which are discounted back to today's value using interest rates as of the valuation date. Some of the assumptions used in the valuations include future salary increases, mortality rates, future pension increases, and termination and retirement rates. Given the long term nature of the obligations and the fact that assumed rates can vary from short term actual experience, the liabilities are subject to volatility and are particularly sensitive to changes in interest rates. In addition, as the assets are invested in equities and bonds, the market value of the plans' assets are sensitive to changes in capital markets. All significant assumptions and asset values are reviewed at each reporting date.

In determining the appropriate discount rate, management considers the yields of high quality corporate bonds, in the respective country, with terms to maturity that approximate the duration or projected cash flows of our pension obligations. The mortality rate is based on publicly available mortality tables for each country. Future salary increases are based on our long term view of compensation trends. Pension indexation, which is only applicable to the Canadian defined benefit plans, is based on expected future inflation rates. Retirement and termination rates are based on actual experience or standardized tables which are reflective of our experience.

Given the decline in interest rates during 2011, management decreased the discount rates used in determining pension and post retirement obligations and applied actual asset values, which reflected weak investment returns, as of December 31, 2011 as compared to December 31, 2010. These changes increased our employee benefit plan liability and decreased other comprehensive income and retained earnings by approximately \$125 million at December 31, 2011.

***Fair value of financial instruments***

Where the fair value of financial assets and financial liabilities recorded in the statement of financial position cannot be derived from active markets, their fair value is determined using quoted prices in active markets adjusted for factors specific to the asset or liability, such as basis and location differentials. This includes over-the-counter derivatives with values based upon observable commodity futures curves and derivatives with input validated by broker quotes or other publicly available market data providers. This also includes fair values determined using valuation techniques, such as regression or extrapolation formulas, where the inputs are readily observable, including commodity prices for similar assets or liabilities in active markets. The key inputs to valuation models and regression or extrapolation formulas include interest rate yield curves, currency rates, credit spreads, implied volatilities, and commodity prices for similar assets or liabilities in active markets, as

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

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

**3. SIGNIFICANT ACCOUNTING JUDGMENTS, ESTIMATES AND ASSUMPTIONS (Continued)**

applicable. Changes in assumptions about these factors could affect the reported fair value of financial instruments.

***Provision for decommissioning***

We have recognized a provision for decommissioning obligations associated with our manufacturing facilities. In determining the amount of the provision, assumptions and estimates are made in relation to discount rates, the expected cost to dismantle and remove the plant, restore the site, and the expected timing of those obligations. The carrying amount of the provision as at December 31, 2011 was \$101 million (December 31, 2010 \$99 million; January 1, 2010 \$86 million).

***Legal claims***

When assessing the possible outcomes of legal claims that are filed against us, we rely on the opinions of our legal counsel. The opinions of our legal counsel are based on the best of their professional judgment, and take into consideration the current stage of the proceedings and the legal experience accumulated with respect to the various matters. As the results of the claims may ultimately be determined by the courts or otherwise settled, they may be different from such estimates.

**4. STANDARDS ISSUED BUT NOT YET EFFECTIVE**

Standards issued up to the date of issuance of our consolidated financial statements but not effective as of December 31, 2011 are listed below. We intend to adopt these standards when they become effective.

*Amendments to IAS 12: Deferred Tax Recovery of Underlying Assets*, amends IAS 12 *Income Taxes*, by creating an exception to the principle that the measurement of deferred tax liabilities and deferred tax assets should reflect the tax consequences that would follow from the manner in which the entity expects to recover or settle the carrying amount of its assets and liabilities. In specified circumstances, such as when the deferred tax liability or asset arises from investment property or property, plant and equipment or intangible assets, the measurement of deferred tax liabilities and assets should reflect a rebuttable presumption that the carrying amount of the underlying asset will be recovered entirely by sale. Standing Interpretations Committee ("SIC") 21, *Income Taxes Recovery of Revalued Non-Depreciable Assets*, is no longer applicable to investment properties carried at fair value. The remaining guidance from SIC 21 was added to IAS 12, which requires businesses to measure the deferred tax relating to an asset to be measured based upon the expectation that the carrying amount of the asset will be recovered by selling the asset or using it. The amendments are effective January 1, 2012. We do not expect the application of the revised standard to have an impact on our consolidated financial statements.

In January 2011, the IASB amended IFRS 7, *Financial Instruments: Disclosures*. The amendment is effective for annual periods beginning on or after July 1, 2011, with earlier adoption permitted. The amendment relates to required disclosures for transfers of financial assets to help users of the financial statements evaluate the risk exposures relating to such transfers and the effect of those risks on an entity's financial position. We are currently evaluating the impact of adopting this amended standard.

IFRS 9, *Financial Instruments: Classification and Measurement*, as issued, reflects the first phase of the IASB work on the replacement of IAS 39. In subsequent phases, the IASB will address hedge accounting and derecognition. IFRS 9 introduces new requirements for the classification and measurement of financial assets and is effective for annual periods beginning on or after January 1, 2015, with early adoption permitted. The adoption of this standard will have an effect on the classification and measurement of our financial assets and financial liabilities. We are currently evaluating the impact and will quantify the effect in conjunction with the other phases, when issued, to present a comprehensive picture.



**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

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

**4. STANDARDS ISSUED BUT NOT YET EFFECTIVE (Continued)**

In May 2011, the IASB issued several standards, all of which are effective for annual periods beginning on or after January 1, 2013 with earlier application permitted:

IFRS 10, *Consolidated Financial Statements*, establishes principles for the presentation and preparation of consolidated financial statements when an entity controls one or more other entities and replaces the consolidation requirements in SIC 12, *Consolidation - Special Purpose Entities* and IAS 27, *Consolidated and Separate Financial Statements*. IFRS 10 builds on existing principles by identifying the concept of control as the determining factor in whether an entity should be included within the consolidated financial statements of the parent company. This standard also provides additional guidance to assist in the determination of control where this is difficult to assess. We are currently evaluating the impact of adopting this standard.

IFRS 11, *Joint Arrangements*, provides for a more realistic reflection of joint arrangements by focusing on the rights and obligations of the arrangement, rather than its legal form (as is currently the case). IFRS 11 addresses inconsistencies in the reporting of joint arrangements by requiring a single method (the equity method) to account for interests in joint ventures. In conjunction with the issuance of IFRS 11, IAS 28, *Investments in Associates and Joint Ventures*, was amended. An entity should apply IFRS 11 to determine the type of joint arrangement in which it is involved. Once it has determined that it has an interest in a joint venture, the entity should recognize an investment and account for it using the equity method in accordance with IAS 28 (as amended in 2011), unless the entity is exempt from applying the equity method as specified in the standard. We are currently evaluating the impact of adopting this standard and amendment.

IFRS 12, *Disclosure of Interests in Other Entities*, is a new and comprehensive standard on disclosure requirements for all forms of interests in other entities, including subsidiaries, joint arrangements, associates and unconsolidated structured entities. IFRS 12 will require an entity to disclose information that enables users of financial statements to evaluate the nature of, and risks associated with, its interests in other entities, and the effects of those interests on its financial position, financial performance and cash flows. We are currently evaluating the impact of adopting this standard.

IFRS 13, *Fair Value Measurement*, provides new guidance on fair value measurement and disclosure requirements. IFRS 13 will improve consistency and reduce complexity by providing a precise definition of fair value and a single source of fair value measurement and disclosure requirements. We are currently evaluating the impact of adopting this standard.

In June 2011, the IASB issued the following amended standards:

IAS 19, *Employee Benefits*, provides the accounting and disclosure requirements by employers for employee benefits. The amendments to IAS 19 will provide investors and other users of financial statements with a better understanding of an entity's obligations resulting from the provision of defined benefit plans and how those obligations will affect its financial position, financial performance and cash flow. Among other things, the amendment eliminates the option to defer the recognition of gains and losses, known as the 'corridor method', and further aligns IFRS with Generally Accepted Accounting Principles in the United States ("US GAAP"). The amendments to IAS 19 are effective for annual periods beginning on or after January 1, 2013, with earlier application permitted. We are currently evaluating the impact of adopting this amended standard.

IAS 1, *Presentation of Financial Statements*, was amended to improve the quality of the presentation of other comprehensive income ("OCI") and align the presentation of OCI in financial statements prepared in accordance with IFRS with those prepared in accordance with US GAAP. The amendments require companies preparing financial statements in accordance with IFRS to group together items within OCI that may be reclassified to the profit or loss section of the income statement. The amendments also reaffirm existing requirements that items in OCI and profit or loss should be presented as either a single statement or two

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

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

**4. STANDARDS ISSUED BUT NOT YET EFFECTIVE (Continued)**

consecutive statements. The amendments to IAS 1 are effective for annual periods beginning on or after July 1, 2012. We are currently evaluating the impact of adopting this amended standard.

In December 2011, the IASB amended IAS 32, *Financial Instruments Presentation*, for disclosure requirements for the offsetting of assets and liabilities on the statement of financial position. The amended standard requires entities to disclose both gross information and net information about both instruments and transactions eligible for offset in the statement of financial position and instruments and transactions subject to an agreement similar to a master netting arrangement. The scope includes derivatives, sale and repurchase agreements and reverse sale and repurchase agreements and securities borrowing and securities lending agreements. The amendments to IAS 32 are effective for annual periods beginning on or after January 1, 2014 and require retrospective application. We are currently evaluating the impact of adopting this amended standard.

**5. DISCONTINUED OPERATIONS**

**INEOS NOVA Joint Venture**

On October 31, 2010, we entered into an agreement with an affiliate of INEOS Group Ltd. ("INEOS") providing for the sale of our 50% interest in the INEOS NOVA joint venture. The negotiated sale price was subject to several deductions. Some of these deductions were fixed as of October 31, 2010, such as our 50% share of the joint venture's net indebtedness and some were estimated on the closing date, such as indemnified and unindemnified pension liabilities. The anticipated windup of certain indemnified pension liabilities resulted in us increasing the estimated amount of our liabilities by \$11 million in December 2010.

The sale closed on February 28, 2011. At closing we received approximately \$65 million (€47 million). During 2011, we finalized estimates for all but one of the remaining pension liabilities and paid INEOS a net of \$10 million, resulting in net proceeds on the sale totaling \$55 million in 2011. This amount does not represent our final net proceeds from the sale, because one of the pension liabilities which was estimated as of closing has not been finalized. The final determination of this liability is not expected to be completed until necessary regulatory approval is received, at which time the proceeds will again be adjusted. We do not expect the adjustment to be material. We recognized a loss on the sale of \$1 million during 2011. Associated results of operations and cash flows are separately reported as discontinued operations for all periods presented and the associated financial position is separately reported as assets and liabilities held for sale as of December 31, 2010.

**SYNTHEON**

During the second quarter of 2010, our Board of Directors approved the sale, subject to certain conditions, of our building and construction businesses, collectively known as SYNTHEON. The SYNTHEON portfolio of businesses, which is part of our Performance Styrenics segment, includes SYNTHEON Inc.; Accelerated Building Technologies LLC; NCE Inc.; NOVA Chemicals Chile Limitada; our 50% interest in both Novidesa S.A. de C.V. and Reliance Innovative Building Solutions Pvt. Ltd (both joint ventures); and intellectual property relating to both the building and construction products and the Elemix concrete additive. We initially anticipated that the sale would be completed in 2010; however, negotiations with the intended acquirer ended without a sale being completed. Management has since developed a formal plan for the sale of SYNTHEON assets. Associated results of operations, financial position and cash flows are separately reported as discontinued operations and assets and liabilities held for sale as of and for the years ended December 31, 2011 and 2010.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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

## 5. DISCONTINUED OPERATIONS (Continued)

Summarized financial information for our 50% share of the INEOS NOVA joint venture ("INJV") and SYNTHEON are shown below:

Year ended December 31 (millions of U.S. dollars)	2011			2010		
	INJV	SYNTHEON	TOTAL	INJV	SYNTHEON	TOTAL
Total revenues	\$	\$ 20	\$ 20	\$	\$ 14	\$ 14
Profit (loss) from discontinued operations, before tax	\$ 22	\$ (13)	\$ 9	\$ 39	\$ (14)	\$ 25
Loss on disposal, before tax	(1)		(1)			
Income tax (expense) recovery	(4)	3	(1)		1	1
Profit (loss) from discontinued operations, net of tax	\$ 17	\$ (10)	\$ 7	\$ 39	\$ (13)	\$ 26

(millions of U.S. dollars)	December 31, 2011			December 31, 2010		
	INJV	SYNTHEON	TOTAL	INJV	SYNTHEON	TOTAL
<b>Current assets</b>						
Cash and cash equivalents	\$	\$ 2	\$ 2	\$	\$ 3	\$ 3
Trade and other receivables		5	5		2	2
Inventories		2	2		2	2
Income taxes receivable					1	1
Other current assets		2	2		2	2
		11	11		10	10
Investments in joint ventures		3	3	58	4	62
Property, plant and equipment		8	8		9	9
Assets held for sale	\$	\$ 22	\$ 22	\$ 58	\$ 23	\$ 81
<b>Current liabilities</b>						
Trade and other payables	\$	\$ 7	\$ 7	\$	\$ 4	\$ 4
Liabilities associated with assets held for sale	\$	\$ 7	\$ 7	\$	\$ 4	\$ 4

## 6. TRADE AND OTHER RECEIVABLES

(millions of U.S. dollars)	Notes	December 31 2011	December 31 2010	January 1 2010
Trade receivables		\$ 457	\$ 381	\$ 303
Trade receivables related parties	25		49	36
		457	430	339
Allowance for doubtful accounts		(4)	(5)	(5)
		453	425	334
Trade accruals		53	52	42
Other		4		

\$ 510 \$ 477 \$ 376

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## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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

## 6. TRADE AND OTHER RECEIVABLES (Continued)

Trade receivables are non-interest bearing and are generally on 30-90 day terms. See Note 24 for further discussion of credit risk.

## Accounts Receivable Securitization Programs

We sell interests in certain trade accounts receivable pursuant to revolving securitization transactions in which we retain servicing responsibilities. The receivables are sold at a discount approximating the purchaser's financing cost of issuing commercial paper backed by the accounts receivable. We pay a fee on this same basis, plus a margin. As the purchaser receives collections on the previously sold interests, new accounts receivable are sold by us to a maximum amount equal to the lesser of eligible receivables or the maximum amount of the programs which was \$200 million at December 31, 2011 and 2010 (January 1, 2010 - \$130 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).

In February 2010, we entered into two new accounts receivable securitization programs (one in the U.S. and one in Canada) to replace the prior programs which were to expire in February 2010. The new programs were scheduled to expire in February 2012 and each allow for a maximum funding of \$100 million. The programs in existence at December 31, 2011 and 2010 are governed by the same financial covenants as our senior secured revolving credit facility (see Note 15). The programs in existence at January 1, 2010 were governed by the same financial covenants as the total return swap (see Note 15).

In January 2012, the Canadian accounts receivable securitization program was amended to extend the expiration date from February 2012 to February 2015. In February 2012, the U.S. accounts receivable securitization program was amended to extend the expiration date from February 2012 to January 2014 and increase the maximum funding from \$100 million to \$125 million.

Information regarding our securitization programs is as follows:

(millions of U.S. dollars, unless otherwise noted)	December 31 2011	December 31 2010	January 1 2010
Amount sold at end of year <sup>(1)</sup>	\$ 182	\$ 154	\$ 122
Loss, dilution and other reserves (as a % of eligible accounts receivable)	27%	26%	35%
Finance costs, net of servicing fees	\$ 5	\$ 7	

(1) Do not meet the derecognition criteria under IAS 39, therefore are included in long-term debt, see Note 15.

One of our securitization programs involves the use of a special purpose entity ("SPE"). In that program, we sell certain trade accounts receivable to the SPE, which then sells interests in such receivables to a purchaser. The SPE is wholly owned by us and is consolidated in accordance with SIC 12. The assets of the SPE (including the receivables transferred to it) are not available to our creditors, and the transferred receivables are legally not our asset (see Note 2).

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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

## 7. INVENTORIES

(millions of U.S. dollars)	December 31 2011	December 31 2010	January 1 2010
Spare parts and supplies	\$ 32	\$ 29	\$ 28
Raw materials	239	159	274
Finished goods	304	262	193
	\$ 575	\$ 450	\$ 495

For the years ended December 31, 2011 and 2010, costs of inventories recognized as expense were \$3,749 million and \$3,461 million, respectively, and are included in feedstock and operating costs in our consolidated income statements.

## 8. OTHER CURRENT ASSETS

(millions of U.S. dollars)	Notes	December 31 2011	December 31 2010	January 1 2010
Commodity-based derivatives not designated as hedges		\$ 5	\$ 2	\$ 6
Note receivable		46		
Interest receivable related party	25			3
Recoverable taxes			12	10
Prepaid expenses		8	20	12
Other assets		23	23	20
		\$ 82	\$ 57	\$ 51
Restricted cash		\$ 85	\$	\$

**Note receivable**

At December 31, 2011, balance represents a Euro denominated unsecured note receivable, bearing interest at 4.5% per annum and due in November 2012. After the sale of our interest in the INEOS NOVA joint venture in February 2011 (see Note 5), the note was reclassified to third-party notes receivable (see Note 10).

**Restricted cash**

Restricted cash of \$85 million secures a bond related to patent litigation and in 2011 was reclassified from non-current assets to current assets (see Note 22).

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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

## 9. INTANGIBLE ASSETS

(millions of U.S. dollars)	Software	Licenses & technology	Contracts	Total
<b>Cost</b>				
At January 1, 2010	\$ 17	\$ 117	\$ 375	\$ 509
Additions	5			5
At December 31, 2010	22	117	375	514
Additions	2			2
At December 31, 2011	\$ 24	\$ 117	\$ 375	\$ 516
<b>Amortization and impairment</b>				
At January 1, 2010	\$ 3	\$ 3	\$ 11	\$ 17
Amortization	6	7	19	32
At December 31, 2010	9	10	30	49
Amortization	6	7	19	32
At December 31, 2011	\$ 15	\$ 17	\$ 49	\$ 81
<b>Net book value</b>				
At December 31, 2011	\$ 9	\$ 100	\$ 326	\$ 435
At December 31, 2010	\$ 13	\$ 107	\$ 345	\$ 465
At January 1, 2010	\$ 14	\$ 114	\$ 364	\$ 492

## 10. OTHER NON-CURRENT ASSETS

(millions of U.S. dollars)	Notes	December 31 2011	December 31 2010	January 1 2010
Available-for-sale investments unquoted equity shares		\$ 1	\$ 6	\$ 13
Available-for-sale investments quoted debt securities and equity shares		12	13	12
Note receivable			5	13
Note receivable related party	25		47	58
Other receivable related party	25		2	2
Commodity-based derivatives not designated as hedges			2	12
Other assets and deferred costs		12	10	8
		\$ 25	\$ 85	\$ 118
Restricted cash		\$	\$ 85	\$

## Available-for-sale investments unquoted equity shares

At December 31, 2010, includes a \$5 million (January 1, 2010 \$12 million) investment in sEnergy, an insurance pool for business interruption, classified as available-for-sale securities with no published market price and recorded at cost and \$1 million of other miscellaneous investments classified as available-for-sale securities with no published market price and recorded at cost. During 2010, we received \$7 million for a portion of our investment in sEnergy. In February 2011, sEnergy was dissolved and we received an additional \$5 million, which represented the remaining amount of our investment.





**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

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

**10. OTHER NON-CURRENT ASSETS (Continued)**

**Available-for-sale investments    quoted debt securities and equity shares**

We have investments in listed equity and debt securities. The fair value of the quoted debt securities and equity shares is determined by reference to published quotations in an active market.

**Note receivable**

At December 31, 2010, the note is net of an allowance of \$8 million for which the impairment charge is included in general and administrative expenses in the 2010 consolidated income statement. During 2011, the note receivable was restructured and settled for \$5 million in cash.

**Note receivable    related party**

At December 31, 2010 and January 1, 2010 includes a Euro denominated unsecured note receivable, bearing interest at 4.5% per annum and due in November 2012. After the sale of our interest in the INEOS NOVA joint venture in February 2011 (see Note 5), the note was reclassified to third-party notes receivable and as of December 31, 2011 is included in other current assets (see Note 8).

**Restricted cash**

Restricted cash of \$85 million secures a bond related to patent litigation and in 2011 was reclassified from non-current assets to current assets (see Note 22).

**11. INVESTMENTS IN JOINT VENTURES**

**INEOS NOVA Joint Venture**

We had a 50% interest in the INEOS NOVA joint venture, two jointly controlled entities, which produced styrene and styrenic polymers in Europe and North America. On October 31, 2010, we entered into an agreement with INEOS providing for the sale of our 50% interest in the INEOS NOVA joint venture. The negotiated sale price was subject to several deductions. Some of these deductions were fixed as of October 31, 2010, such as our 50% share of the joint venture's net indebtedness and some were estimated on the closing date, such as indemnified and unindemnified pension liabilities. The anticipated windup of certain indemnified pension liabilities resulted in us increasing the estimated amount of our liabilities by \$11 million in December 2010.

The sale closed on February 28, 2011. At closing we received approximately \$65 million (€47 million). During 2011, we finalized estimates for all but one of the remaining pension liabilities and paid INEOS a net of \$10 million, resulting in net proceeds on the sale totaling \$55 million in 2011. This amount does not represent our final net proceeds from the sale, because one of the pension liabilities which was estimated as of closing has not been finalized. The final determination of this liability is not expected to be completed until necessary regulatory approval is received, at which time the proceeds will again be adjusted. We do not expect the adjustment to be material. We recognized a loss on the sale of \$1 million during 2011. Associated results of operations and cash flows are separately reported as discontinued operations for all periods presented and the associated financial position is separately reported as assets and liabilities held for sale as of December 31, 2010 (see Note 5).

**Other jointly controlled entities**

On March 24, 2010, we entered into an agreement with Reliance Industrial Investments & Holdings Limited to form a 50:50 joint venture in India known as Reliance Innovative Building Solutions Private Limited. The joint venture focus is on the building and construction markets. The joint venture plans to leverage our

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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

## 11. INVESTMENTS IN JOINT VENTURES (Continued)

green building and construction technology to design, engineer and build a range of high-efficiency structures for the Indian sub-continent. This business is included in SYNTHEON and is currently classified as held for sale (see Note 5).

On October 1, 2005, the Corporation and Grupo IDESA commenced operations of a 50:50 joint venture in Mexico called NOVIDESA, S.A. de C.V. The joint venture develops, manufactures and markets products and systems such as insulating concrete forms, for the Mexican building and construction market. The joint venture previously marketed expandable polystyrene ("EPS") for construction and packaging applications in the growing Mexican market. The EPS was manufactured at a Grupo IDESA facility. In January 2011, the parties agreed that the joint venture would no longer market EPS and would focus on its products and systems for building and construction applications. This business is included in SYNTHEON and is currently classified as held for sale (see Note 5).

As of December 31, 2011 and 2010 and for the years then ended, all jointly controlled entities are included in discontinued operations (see Note 5). The following is a summarized statement of financial position for all jointly controlled entities as of January 1, 2010.

(millions of U.S. dollars)	January 1 2010
Current assets	\$ 241
Non-current assets	36
Current liabilities	(138)
Non-current liabilities	(106)
Equity	\$ 33

## Jointly controlled assets

We own a 50% interest in the Joffre E3 ethylene plant and a 20% interest in a cogeneration facility located at Joffre, Alberta. These are accounted for as jointly controlled assets and are proportionately consolidated in our consolidated financial statements.

The following is summarized financial information for our interests in jointly controlled assets.

Year ended December 31 (millions of U.S. dollars)	2011	2010
Revenue	\$ 438	\$ 364
Operating expenses, depreciation and income taxes	(294)	(284)
Profit	\$ 144	\$ 80

(millions of U.S. dollars)	December 31 2011	December 31 2010	January 1 2010
Current assets	\$ 94	\$ 69	\$ 41
Non-current assets	955	1,018	1,058
Current liabilities	(27)	(13)	(29)
Non-current liabilities	(31)	(33)	(27)
Equity	\$ 991	\$ 1,041	\$ 1,043

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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

## 11. INVESTMENTS IN JOINT VENTURES (Continued)

Year ended December 31 (millions of U.S. dollars)	2011	2010
Cash inflows (outflows) from:		
Operating activities	\$ 15	\$ 18
Investing activities	\$ (11)	\$ (19)
Financing activities	\$	\$

## 12. PROPERTY, PLANT AND EQUIPMENT

(millions of U.S. dollars)	Land	Buildings, structures & production plants	Machinery & equipment	Information system hardware	Vehicles	Office furniture & fixtures	Assets under construction	Total
<b>Cost</b>								
At January 1, 2010	\$ 46	\$ 3,498	\$ 6	\$ 5	\$ 7	\$ 9	\$ 98	\$ 3,669
Additions		95	2	3			49	149
Classified as held for sale	(2)	(6)					(2)	(10)
Disposals		(8)						(8)
Transfers		73		1			(74)	
<b>At December 31, 2010</b>	<b>44</b>	<b>3,652</b>	<b>8</b>	<b>9</b>	<b>7</b>	<b>9</b>	<b>71</b>	<b>3,800</b>
Additions		145	3	3	1		85	237
Disposals		(9)					(1)	(10)
Transfers		44	1	1			(46)	
<b>At December 31, 2011</b>	<b>\$ 44</b>	<b>\$ 3,832</b>	<b>\$ 12</b>	<b>\$ 13</b>	<b>\$ 8</b>	<b>\$ 9</b>	<b>\$ 109</b>	<b>\$ 4,027</b>
<b>Depreciation and impairment</b>								
At January 1, 2010	\$	\$ 107	\$ 1	\$ 1	\$	\$	\$	\$ 109
Depreciation		213	1	3		1		218
Classified as held for sale		(1)						(1)
Disposals		(2)						(2)
Impairment		20						20
<b>At December 31, 2010</b>		<b>337</b>	<b>2</b>	<b>4</b>		<b>1</b>		<b>344</b>
Depreciation		227	1	3	1	1		233
Disposals		(2)						(2)
Impairment		6						6
<b>At December 31, 2011</b>	<b>\$</b>	<b>\$ 568</b>	<b>\$ 3</b>	<b>\$ 7</b>	<b>\$ 1</b>	<b>\$ 2</b>		<b>\$ 581</b>
<b>Net book value</b>								
At December 31, 2011	\$ 44	\$ 3,264	\$ 9	\$ 6	\$ 7	\$ 7	\$ 109	\$ 3,446
At December 31, 2010	\$ 44	\$ 3,315	\$ 6	\$ 5	\$ 7	\$ 8	\$ 71	\$ 3,456
At January 1, 2010	\$ 46	\$ 3,391	\$ 5	\$ 4	\$ 7	\$ 9	\$ 98	\$ 3,560

We assessed all of our non-financial assets for indicators of impairment and determined that certain impairment indicators exist in our Performance Styrenics segment during the fourth quarter of 2011. In accordance with IFRS 1 (see Note 26), we elected to use the fair values of assets and liabilities, as determined in connection with the IPIC acquisition of us on July 6, 2009, as "deemed cost" for the assets and liabilities that could be recognized under IFRS, which included PP&E of our Performance Styrenics segment. Since July 6, 2009, the market for certain products has not improved significantly, but we continue to spend a significant amount on capital expenditures for the business and other common facilities at our manufacturing sites, resulting in a carrying value of these assets at December 31, 2011, of \$10 million prior to any

impairment charge. The carrying value of these assets at December 31, 2011, was written down to their estimated fair value of

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## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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

**12. PROPERTY, PLANT AND EQUIPMENT (Continued)**

\$4 million, resulting in an impairment charge of \$6 million. The impairment charge is included in feedstock and operating costs in the consolidated income statement for the year ended December 31, 2011.

Although the Performance Styrenics segment continued to add new packaging applications for items such as televisions and computer equipment, demand has not materialized as expected due to poor economic conditions and increasing pricing pressure on the packaged applications which resulted in lower sales volumes during 2010. Accordingly, during the fourth quarter of 2010, management determined that the carrying value of certain assets within our Performance Styrenics segment were greater than the estimated future cash flows. These assets' carrying value at December 31, 2010 prior to write-down was \$26 million. The fair value was estimated to be \$6 million. Thus, the assets were written down to their estimated fair value, resulting in an impairment charge of \$20 million during 2010. The impairment charge is included in feedstock and operating costs in the consolidated income statement for the year ended December 31, 2010.

The write-downs will reduce future depreciation charges in the Performance Styrenics segment by approximately \$3 million per year from 2012 to approximately 2019.

\$2.2 billion (December 31, 2010 \$2.3 billion; January 1, 2010 \$2.4 billion) in net book value of assets in Canada, including real estate, is pledged as collateral for our \$425 million senior secured revolving credit facility (December 31, 2010 \$425 million; January 1, 2010 \$350 million). The remaining credit facilities are unsecured (see Note 15).

**13. TRADE AND OTHER PAYABLES**

(millions of U.S. dollars)	Notes	December 31 2011	December 31 2010	January 1 2010
Trade payables		\$ 290	\$ 279	\$ 369
Trade payables related parties	25		2	
Other payables		53	53	35
		\$ 343	\$ 334	\$ 404

**14. OTHER CURRENT LIABILITIES**

(millions of U.S. dollars)	Notes	December 31 2011	December 31 2010	January 1 2010
Accrued interest		\$ 29	\$ 30	\$ 32
Accrued distribution related party	25	75		
Other current liabilities related party	25		22	
Commodity-based derivatives not designated as hedges		1	2	
Other liabilities		73	71	84
		\$ 178	\$ 125	\$ 116

**Other current liabilities related party**

Represent amounts due to the former INEOS NOVA joint venture for indemnified pension liabilities (see Note 5).

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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

## 14. OTHER CURRENT LIABILITIES (Continued)

## Accrued distribution related party

In the fourth quarter of 2011, our Board of Directors approved a \$75 million distribution for the 2011 financial year, payable to our shareholder at the end of March 2012. The distribution will occur by a reduction of our stated capital account maintained for our common shares.

## 15. LONG-TERM DEBT

(millions of U.S. dollars, unless otherwise noted)	Interest rate	Maturity	December 31 2011	December 31 2010	January 1 2010
Revolving credit facilities	Floating	2013-2015	\$	\$	\$
Accounts receivable securitization programs	Floating	2012 <sup>(1)</sup>	182	154	122
Unsecured debentures and notes	See below	2012-2025	1,529	1,501	1,709
Preferred shares	5.2%	2010			75
Share of a joint venture's loan <sup>(2)</sup>	8.6%	2020	20	20	17
Advanced Manufacturing Investment Strategy Loan ("AMIS loan")	4.9%	2019	10	10	10
Obligation under a finance lease	2.5%	2011		10	13
			1,741	1,695	1,946
Less amounts due within one year			(582)	(10)	(434)
			\$ 1,159	\$ 1,685	\$ 1,512

(1) Programs were extended in 2012; see *Accounts Receivable Securitization Programs* below.

(2) Non-recourse joint venture secured debt, whereby security is limited to our net investment in the Joffre co-generation joint venture.

## Unsecured Debentures and Notes

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

(millions of U.S. dollars, unless otherwise noted)	Face amount	Stated interest rate	December 31 2011	December 31 2010	January 1 2010
Maturity:					
2010 <sup>(1)</sup>	\$ 239	7.85%	\$	\$	\$ 234
2012 <sup>(2)</sup>	\$ 400	6.5%	400	389	378
2013 <sup>(3)</sup>	\$ 400	Floating <sup>(4)</sup>	369	355	342
2016 <sup>(3)</sup>	\$ 350	8.375%	342	341	340
2019 <sup>(3)</sup>	\$ 350	8.625%	341	340	339
2025 <sup>(3)</sup>	\$ 100	7.875%	77	76	76
			\$ 1,529	\$ 1,501	\$ 1,709

(1)

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We repaid the Cdn\$250 million 7.85% notes using cash-on-hand on August 30, 2010. Foreign currency swaps entered into in 2010 to lock in this payment at U.S.\$237 million also settled on August 30, 2010.

- (2) On January 17, 2012, we repaid the \$400 million 6.5% notes using cash-on-hand.
- (3) Callable at our option at any time.
- (4) LIBOR + 3.125%; 3.78% at December 31, 2011 (3.57% at December 31, 2010; 3.60% at January 1, 2010).

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**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

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

**15. LONG-TERM DEBT (Continued)**

**Accounts Receivable Securitization Programs**

We engage in accounts receivable securitization programs to obtain lower financing rates than those available from other sources. In February 2010, we entered into two new accounts receivable securitization programs (one in the U.S. and one in Canada) to replace our prior programs before they expired. In January 2012, we amended our Canadian accounts receivable securitization program to extend the term for three years to February 11, 2015. The Canadian program allows for maximum funding of \$100 million. In February 2012, we amended our U.S. accounts receivable securitization program to extend the term for two years to January 30, 2014 and to increase the maximum funding from \$100 million to \$125 million. As of December 31, 2011 and 2010, the maximum availability of the programs was \$200 million. As of January 1, 2010, the maximum availability of the programs was \$130 million. At December 31, 2011, \$182 million (December 31, 2010 \$154 million; January 1, 2010 \$122 million) was funded under the programs.

The programs in existence at December 31, 2011 and 2010 are governed by the same financial covenants as our senior secured revolving credit facility. The programs in existence at January 1, 2010 were governed by the same financial covenants as the total return swap (see *Covenants* below).

The receivables transferred to financial counterparties do not meet the IAS 39 derecognition criteria and accordingly, the funded amount of the programs are classified as long-term debt due within one year and long-term debt, respectively, based on the expiry date of the programs. See Note 6 for further details on our accounts receivable securitization programs.

**Series A Preferred Shares and Total Return Swap**

We had entered into a total return swap with respect to the Series A preferred shares of our subsidiary, NOVA Chemicals Inc. The equity notional amount of the total return swap was \$75 million as of January 1, 2010. We allowed the total return swap to terminate in accordance with its terms on March 31, 2010 and repaid the equity notional amount of \$75 million. The associated Series A preferred shares were returned to NOVA Chemicals Inc. and cancelled.

**AMIS Loan**

In June 2009, our subsidiary, NOVA Chemicals (Canada) Ltd., entered into a loan agreement for a loan in the principal amount of Cdn\$10 million made available under the Province of Ontario's Advanced Manufacturing Investment Strategy. We were permitted to use the loan proceeds only to finance certain eligible costs associated with the modernization and expansion of our LDPE capability at our Mooretown facility that was completed in 2010. We drew down the full Cdn\$10 million in the fourth quarter of 2009. The maturity date of the loan is December 1, 2019.

**Credit Facilities**

During 2011, we amended our senior secured revolving credit facility to extend the maturity date two years to December 17, 2015. In addition, on March 20, 2011, one of our \$100 million unsecured bilateral credit facilities expired undrawn and was not extended and on September 20, 2011, a \$30 million tranche of one of our unsecured bilateral credit facilities expired undrawn and was not extended. Accordingly, as of December 31, 2011, we had the following three revolving credit facilities totaling \$565 million (of which \$17 million was utilized):

\$425 million senior secured revolving credit facility provided by a syndicate of lenders, which matures on December 17, 2015;

\$40 million unsecured bilateral credit facility which expires on September 20, 2013; and



**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

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

**15. LONG-TERM DEBT (Continued)**

\$100 million unsecured bilateral credit facility, which expires on September 20, 2015.

During 2010, we amended our senior secured revolving credit facility to extend the maturity date one year to November 17, 2013 and increase the size from \$350 million to \$425 million. In addition, we entered into a new \$100 million unsecured bilateral credit facility, which expires on September 20, 2015 and on March 20, 2010, \$95 million of our undrawn unsecured bilateral credit facilities expired and were not extended. Accordingly, as of December 31, 2010, we had the following four revolving credit facilities totaling \$695 million (of which \$19 million was utilized):

\$425 million senior secured revolving credit facility provided by a syndicate of lenders, which was to mature on November 17, 2013;

\$100 million unsecured bilateral credit facility, which expired on March 20, 2011 and was not extended;

\$70 million unsecured bilateral credit facility (\$30 million which expired on September 20, 2011 and was not extended and \$40 million which expires on September 20, 2013); and

\$100 million unsecured bilateral credit facility, which expires on September 20, 2015.

As of January 1, 2010, we had four revolving credit facilities totaling \$615 million in borrowing capacity and had utilized \$51 million of the facilities. These facilities included:

\$350 million senior secured revolving credit facility provided by a syndicate of lenders, which was to mature on November 17, 2012;

\$65 million unsecured bilateral credit facility, which expired on March 20, 2010 and was not extended;

\$100 million unsecured bilateral credit facility, which expired on March 20, 2011 and was not extended; and

\$100 million unsecured bilateral credit facility (\$30 million of which expired on March 20, 2010 and was not extended, \$30 million which expired on September 20, 2011 and was not extended and \$40 million which expires on September 20, 2013).

The indentures governing our public debt allow for debt up to 10% (15% for the 2016 and 2019 notes) of consolidated net tangible assets to be secured without having to secure the public debt. If consolidated net tangible assets (defined in accordance with the indentures and calculated on a quarterly basis) fall below the applicable threshold, availability of the \$425 million senior secured revolving credit facility will be reduced proportionately. As of December 31, 2011, we had full availability of the \$425 million senior secured revolving credit facility (December 31, 2010 \$425 million; January 1, 2010 \$350 million).

**Covenants**

At December 31, 2011 and 2010, our senior secured revolving credit facility and our accounts receivable securitization programs were governed by the following financial covenants, which require quarterly compliance:

a maximum senior debt-to-cash flow ratio of 3:1, computed on a rolling twelve month basis; and

a debt-to-capitalization ratio not to exceed 60%.

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## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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

## 15. LONG-TERM DEBT (Continued)

The table below shows our actual financial covenant ratios as of the end of each quarter during 2011.

	March 31 2011	June 30 2011	September 30 2011	December 31 2011
Senior debt-to-cash flow ratio	0.19	0.17	0.16	0.16
Debt-to-capitalization ratio	39.0	34.5	26.8	25.2

At January 1, 2010, our \$350 million senior secured revolving credit facility, the total return swap and our accounts receivable securitization programs required a minimum consolidated cash flow (calculated quarterly) of not less than \$50 million.

#### Standby Letter of Credit Facility

On November 19, 2010, we entered into an uncommitted revolving standby letter of credit and/or guarantee facility with one of the banks in the syndicate of lenders for our senior secured revolving credit facility. During 2011, we increased the size from \$60 million to \$125 million. The facility is supported by an account performance security guarantee issued by Export Development Canada. The facility is only available for issuance of standby letters of credit (and/or guarantees) by the bank on our behalf. As of December 31, 2011, we utilized \$43 million (December 31, 2010 \$26 million) of this facility.

#### Repayment Requirements

Repayment requirements as of December 31, 2011 in respect of long-term debt are as follows:

(millions of U.S. dollars)	
2012 <sup>(1)</sup>	\$ 582
2013	402
2014	3
2015	2
2016	353
Thereafter	469
	\$ 1,811

(1)

Accounts receivable securitization programs included in the 2012 year were extended, see *Accounts Receivable Securitization Programs* above for further details, and in January 2012 we repaid our \$400 million 6.5% notes using cash-on-hand.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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

## 16. PROVISIONS

(millions of U.S. dollars)	Restructuring	Decommissioning	Environmental	Legal	Total
<b>At January 1, 2010</b>	\$ 17	\$ 86	\$ 3	\$	\$ 106
Additions		5		92	97
Interest expense		4			4
Utilized	(13)				(13)
Foreign exchange		4			4
<b>At December 31, 2010</b>	\$ 4	\$ 99	\$ 3	\$ 92	\$ 198
Additions				15	15
Transferred from a disposal group			2		2
Interest expense		4			4
Utilized	(2)				(2)
Reversed	(1)				(1)
Foreign exchange		(2)			(2)
<b>At December 31, 2011</b>	\$ 1	\$ 101	\$ 5	\$ 107	\$ 214

Our provisions are classified in our consolidated statements of financial position as follows:

(millions of U.S. dollars)	December 31 2011	December 31 2010	January 1 2010
Current	\$ 109	\$ 5	\$ 18
Non-current	105	193	88
	\$ 214	\$ 198	\$ 106

**Restructuring**

Our restructuring provisions consist of severance payments relating to specific restructuring programs. Outstanding restructuring programs relate primarily to union employees at our Corunna facility. All payments are expected to be made within the next year.

**Decommissioning**

Our decommissioning provisions are comprised of expected costs to be incurred upon termination of operations and the closure of active manufacturing plant facilities. The estimated cash flows are expected to be incurred on closure of active plants in 10 to 20 years. In arriving at the estimated decommissioning provision, a risk-free rate was used to discount the estimated future cash flows. The estimated decommissioning provision will increase, or accrete, each year over the lives of active plants.

**Environmental**

Our environmental provisions relate to environmental liabilities and restoration costs associated with inactive sites. Cash outflows relating to these liabilities are expected to occur within one to three years.

**Legal**

We have recorded a provision in connection with a patent infringement claim in the United States. See Note 22 for further details.



## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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

## 17. OTHER NON-CURRENT LIABILITIES

(millions of U.S. dollars)	Notes	December 31 2011	December 31 2010	January 1 2010
Other non-current liabilities related party	25	\$ 48	\$ 43	\$ 6
Other liabilities		48	43	30
		\$ 48	\$ 43	\$ 36

**Other non-current liabilities related party**

Represent amounts due to the former INEOS NOVA joint venture for indemnified pension liabilities (see Note 5).

## 18. FINANCE COSTS

Year ended December 31 (millions of U.S. dollars)	Notes	2011	2010
Interest on long-term debt		\$ 141	\$ 159
Interest on securitizations and other		24	29
Accretion of decommissioning provisions	16	4	4
		169	192
Interest income		(3)	(6)
		\$ 166	\$ 186

## 19. OTHER LOSSES, NET

Year ended December 31 (millions of U.S. dollars)	Notes	2011	2010
Patent litigation	22	\$ (20)	\$ (95)
Insurance claim			45
Other		2	
		\$ (18)	\$ (50)

**Patent litigation**

In 2011 and 2010, we recognized a loss of \$20 million and \$95 million, respectively, related to a jury verdict that we infringed The Dow Chemical Company's patents, resulting in awarded damages in the amount of \$61.8 million, plus interest of \$14.3 million in 2010, as well as amounts based on sales of alleged infringing grades of SURPASS® polyethylene film resins plus interest of \$15 during 2011 (2010 \$16 million) and other related costs of \$5 million during 2011 (2010 \$3 million) (see Note 22).

**Insurance claim**

In 2010, we recognized a \$45 million gain related to an arbitration award resulting from an insurance claim involving our Corunna facility that dated back to 2005.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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

## 20. INCOME TAXES

The major components of income tax expense included in the consolidated income statements are:

Year ended December 31 (millions of U.S. dollars)	2011	2010
<b>Current income tax:</b>		
Current income tax expense	\$ 183	\$ 83
Adjustments in respect of current income tax of previous year	(4)	10
Total current income tax expense	179	93
<b>Deferred tax:</b>		
Relating to the origination and reversal of temporary differences	36	31
Total deferred income tax expense	36	31
<b>Income tax expense</b>	<b>\$ 215</b>	<b>\$ 124</b>

The major components of income tax benefit included in the consolidated statements of other comprehensive income statement are:

Year ended December 31 (millions of U.S. dollars)	2011	2010
Deferred tax related to items charged or credited directly to equity:		
Deferred tax benefit on actuarial losses from employee benefit plan liabilities	\$ (41)	\$ (17)
<b>Income tax benefit recognized directly in the consolidated statements of other comprehensive income</b>	<b>\$ (41)</b>	<b>\$ (17)</b>

Income tax expense (benefit) by country is as follows:

Year ended December 31 (millions of U.S. dollars)	2011	2010
<b>Current income tax expense (benefit):</b>		
Canada	\$ 187	\$ 82
Foreign	(8)	11
Total current income tax expense	179	93
<b>Deferred tax expense (benefit):</b>		
Canada	20	36
Foreign	16	(5)
Total deferred income tax expense	36	31
<b>Income tax expense reported in the consolidated income statements</b>	<b>\$ 215</b>	<b>\$ 124</b>

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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

## 20. INCOME TAXES (Continued)

A reconciliation of income tax expense and amounts computed by applying the Canadian federal and provincial statutory income tax rates is as follows:

Year ended December 31 (millions of U.S. dollars, except as noted)	2011		2010	
Profit before income taxes from continuing operations	\$	823	\$	361
Statutory income tax rate		26.5%		28%
Computed income tax expense		218		101
Increase (decrease) in tax resulting from:				
Non-deductible expenses for tax purposes		1		
Non-taxable income				6
Foreign earnings		1		2
Utilization of previously unrecognized tax losses		(7)		6
Adjustments in respect to current year income tax on previous years		2		10
Other				(1)
<b>Income tax expense on continuing operations reported in the consolidated income statements</b>	<b>\$</b>	<b>215</b>	<b>\$</b>	<b>124</b>

## Deferred tax

Deferred tax relates to the following:

(millions of U.S. dollars)	Consolidated statement of financial position			Consolidated income statement		Other comprehensive income	
	December 31 2011	December 31 2010	January 1 2010	Year ended December 31		Year ended December 31	
				2011	2010	2011	2010
<b>Deferred tax asset:</b>							
Investment tax credits	\$ 37	\$ 63	\$ 61	\$	\$	\$	\$
Other temporary differences		2					
Total deferred tax assets	37	65	61				
<b>Deferred tax liability:</b>							
Intangible assets	(98)	(106)		(8)			
Accelerated depreciation on PP&E	(746)	(752)	(886)	(6)	(28)		
Employee benefit plan liabilities	41	47	50		(4)	(41)	(17)
Corporate minimum tax credits		1	22	1	22		
Losses		20	19	20	(1)		
Reduction to tax rates			22		22		
Temporary difference on accrued expenses	(5)	(26)	(29)	29	20		
Total deferred tax liability	(808)	(816)	(802)				
<b>Deferred tax expense (benefit)</b>				<b>\$ 36</b>	<b>\$ 31</b>	<b>\$ (41)</b>	<b>\$ (17)</b>



<b>Net deferred tax liability</b>	<b>\$</b>	<b>(771)</b>	<b>\$</b>	<b>(751)</b>	<b>\$</b>	<b>(741)</b>
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**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

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

**20. INCOME TAXES (Continued)**

We offset tax assets and liabilities only if we have a legally enforceable right to set off current tax assets and current tax liabilities and the deferred tax assets and deferred tax liabilities relate to income taxes levied by the same tax authority for the same legal entity.

At December 31, 2011, we have U.S. federal tax loss carryforwards of \$117 million. These tax losses will expire in 2028. In addition at December 31, 2011, we have \$205 million of tax loss carryforwards in Switzerland (December 31, 2010 \$256 million; January 1, 2010 \$319 million), with expiration dates from 2012 to 2017. However, as these losses relate to subsidiaries that have a history of losses, deferred tax assets have not been recognized as these losses may not be used to offset taxable profits elsewhere within the consolidated group. If we were able to recognize all unrecognized deferred tax assets, profit would increase by \$65 million.

A tax reserve is used to provide for uncertain tax positions which consist of potential tax liabilities associated with possible disputes with tax authorities. At December 31, 2011 the tax reserve for uncertain tax positions is \$47 million (December 31, 2010 \$41 million; January 1, 2010 \$44 million) and is included in our deferred tax liability on the consolidated statement of financial position.

There are no income tax consequences as a result of the distribution accrued by us to our shareholder at December 31, 2011.

**21. EMPLOYEE BENEFITS****Employee Benefits Expense**

The components of employee benefits expense included in the consolidated income statement are as follows:

Year ended December 31 (millions of U.S. dollars)	2011	2010
Wages and salaries	\$ 261	\$ 246
Defined contribution plans	11	10
Defined benefit plans	23	23
Bonuses	53	51
Other	32	32
<b>Total employee benefits expense</b>	<b>\$ 380</b>	<b>\$ 362</b>

**Pension Plans**

We sponsor both defined benefit and defined contribution pension arrangements.

Defined benefit pensions at retirement are mainly related to credited years of service and remuneration either based on earnings during the last years of employment, or in the case of one of the U.S. plans, based on earnings over a participant's whole career. The Canadian defined benefit pension plans have a provision for partial indexation that is subject to a maximum annual percentage increase. 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 plans in the United States and in Canada was as of December 31, 2011.

Plan assets are measured at fair value while pension obligations are discounted using current yield rates of high quality corporate bonds, in the respective country, with terms to maturity that approximate the duration or projected cash flows of our pension liabilities. The plans' assets consist of publicly traded equity and fixed income securities or units of pooled funds or publicly traded mutual funds. We use a measurement date of December 31 for our pension and post-retirement plans.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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

## 21. EMPLOYEE BENEFITS (Continued)

On February 28, 2011, we sold our equity interest in the INEOS NOVA joint venture to INEOS (see Notes 3 and 5). In exchange for us deducting from the sale proceeds agreed upon amounts valued in accordance with the sale agreement, INEOS assumed certain pension liabilities from us. Certain employees of the INEOS NOVA joint venture continued to participate in our Retirement Plan for Eastern Canadian Salaried Employees until February 28, 2011. INEOS assumed financial responsibility for their obligations in respect of all plan service for its members. As part of the sale agreement, all benefits accrued up to February 28, 2011 will be transferred from the Plan once regulatory approval is received.

*Net benefit expense*

Net benefit expense for all significant defined benefit plans consisted of the following:

Year ended December 31 (millions of U.S. dollars)	Pension Plans		Post-Retirement Plans		Total	
	2011	2010	2011	2010	2011	2010
Current service cost	\$ 16	\$ 14	\$ 2	\$ 1	\$ 18	\$ 15
Interest cost	40	41	5	6	45	47
Expected return on plan assets	(40)	(39)			(40)	(39)
<b>Net benefit expense</b>	<b>\$ 16</b>	<b>\$ 16</b>	<b>\$ 7</b>	<b>\$ 7</b>	<b>\$ 23</b>	<b>\$ 23</b>
Actual return on plan assets	\$ 13	\$ 50	\$	\$	\$ 13	\$ 50

Net benefit expense is included in the consolidated income statements as follows:

Year ended December 31 (millions of U.S. dollars)	2011	2010
Feedstock and operating costs	\$ 14	\$ 14
Research and development	2	2
Sales and marketing	1	1
General and administrative	6	6
<b>Net benefit expense</b>	<b>\$ 23</b>	<b>\$ 23</b>

Actuarial gains and losses are recognized in full in the period in which they occur in other comprehensive income. Cumulative actuarial losses recorded in the statement of comprehensive income since January 1, 2010, our date of transition to IFRS, are \$240 million.

*Employee benefit plan liability*

The following tables summarize the amounts recognized in the consolidated statements of financial position:

(millions of U.S. dollars)	Pension Plans		Post-Retirement Plans		Total	
	December 31 2011	December 31 2010	December 31 2011	December 31 2010	December 31 2011	December 31 2010
Defined benefit obligation	\$ (908)	\$ (777)	\$ (118)	\$ (107)	\$ (1,026)	\$ (884)
Fair value of plan assets	577	562			577	562
<b>Employee benefit plan liability</b>	<b>\$ (331)</b>	<b>\$ (215)</b>	<b>\$ (118)</b>	<b>\$ (107)</b>	<b>\$ (449)</b>	<b>\$ (322)</b>



## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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

## 21. EMPLOYEE BENEFITS (Continued)

(millions of U.S. dollars)	Pension Plans January 1 2010	Post- Retirement Plans January 1 2010	Total January 1 2010
Defined benefit obligation	\$ (694)	\$ (100)	\$ (794)
Fair value of plan assets	506		506
<b>Employee benefit plan liability</b>	<b>\$ (188)</b>	<b>\$ (100)</b>	<b>\$ (288)</b>

*Defined benefit obligation*

Changes in the present value of the defined benefit obligation are as follows:

Year ended December 31 (millions of U.S. dollars)	Pension Plans		Post-Retirement Plans		Total	
	2011	2010	2011	2010	2011	2010
Benefit obligation at beginning of year	\$ 777	\$ 694	\$ 107	\$ 100	\$ 884	\$ 794
Current service cost	16	14	2	1	18	15
Interest cost	40	41	5	6	45	47
Actuarial loss	139	58	11	3	150	61
Settlement gain		(9)				(9)
Participant contributions	2	4	2	2	4	6
Benefits paid	(47)	(59)	(7)	(7)	(54)	(66)
Transfer of obligation	1				1	
Foreign exchange differences	(20)	34	(2)	2	(22)	36
<b>Benefit obligation at end of year</b>	<b>\$ 908</b>	<b>\$ 777</b>	<b>\$ 118</b>	<b>\$ 107</b>	<b>\$ 1,026</b>	<b>\$ 884</b>

The defined benefit obligation is analyzed as follows:

(millions of U.S. dollars)	December 31 2011	December 31 2010	January 1 2010
Unfunded	\$ 122	\$ 110	\$ 108
Partly funded	904	774	686
<b>Total benefit obligation</b>	<b>\$ 1,026</b>	<b>\$ 884</b>	<b>\$ 794</b>

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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

## 21. EMPLOYEE BENEFITS (Continued)

*Plan assets*

Changes in the fair value of the plan assets are as follows:

Year ended December 31 (millions of U.S. dollars)	Pension Plans		Post-Retirement Plans		Total	
	2011	2010	2011	2010	2011	2010
Fair value of plan assets at beginning of year	\$ 562	\$ 506	\$	\$	\$ 562	\$ 506
Expected return on plan assets	40	39			40	39
Actuarial (loss) gain	(27)	11			(27)	11
Employer contributions	60	44	5	5	65	49
Participant contributions	2	4	2	2	4	6
Settlement loss		(9)				(9)
Benefits paid	(47)	(59)	(7)	(7)	(54)	(66)
Foreign exchange differences	(13)	26			(13)	26
<b>Fair value of plan assets at end of year</b>	<b>\$ 577</b>	<b>\$ 562</b>	<b>\$</b>	<b>\$</b>	<b>\$ 577</b>	<b>\$ 562</b>

We expect to contribute approximately \$110 million to our defined benefit plans in 2012.

The major categories of plan assets as a percentage of the fair value of the total plan assets are as follows:

Asset Category	Percentage of Plan Assets		
	December 31 2011	December 31 2010	January 1 2010
Equities	59%	61%	59%
Fixed Income	41%	39%	41%
Total	100%	100%	100%

*Assumptions*

The principal assumptions used in determining pension and post-retirement benefit obligations for our plans are as follows:

Weighted-average assumptions used to determine end of year obligations	Pension Plans			Post-Retirement Plans		
	December 31 2011	December 31 2010	January 1 2010	December 31 2011	December 31 2010	January 1 2010
Discount rate	4.2%	5.0%	5.8%	4.4%	5.4%	6.1%
Expected rate of return on plan assets <sup>(1)</sup>	6.9%	7.4%	7.4%			
Rate of increase of future earnings	4.0%	3.9%	3.9%			
Long-term health care inflation <sup>(2)</sup>				5.0%	5.0%	5.0%
Initial health care trend rate				6.9%	7.2%	7.8%

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- (1) We established 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 2024 for the Canadian plan and 2017 for the U.S. plans.

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## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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

## 21. EMPLOYEE BENEFITS (Continued)

*Sensitivity analysis*

A 1% increase in the discount rate would have decreased the defined benefit pension obligation by \$94 million at December 31, 2011. A 1% decrease in the discount rate would have increased the defined benefit pension obligation by \$114 million.

A 1% increase in the health care inflation rate would have increased the post-retirement benefit obligation by \$17 million at December 31, 2011. A 1% decrease in the same health care inflation rate would have decreased the post-retirement benefit obligation by \$13 million.

A 1% increase or decrease in the health care inflation rate would have had an impact of \$1 million on the current service and interest cost components of the post-retirement benefit expense in 2011.

*Experience gains and losses*

Amounts for the current and previous period are as follows:

(millions of U.S. dollars)	Pension Plans		Post-Retirement Plans	
	December 31 2011	December 31 2010	December 31 2011	December 31 2010
Defined benefit obligation	\$ (908)	\$ (777)	\$ (118)	\$ (107)
Fair value of plan assets	577	562		
<b>Deficit</b>	<b>\$ (331)</b>	<b>\$ (215)</b>	<b>\$ (118)</b>	<b>\$ (107)</b>
Experience adjustments on plan liabilities	\$ (19)	\$ 9	\$ (1)	\$ 10
Experience adjustments on plan assets	\$ (27)	\$ 11	\$	\$

**Post-employment benefits**

Our consolidated statement of financial position includes a liability of \$4 million at December 31, 2011 (December 31, 2010 \$6 million; January 1, 2010 \$5 million) 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 at least every three years with the most current valuation having been performed as of December 31, 2009.

**Post-retirement benefits other than pensions**

We provide medical care and life insurance benefits to eligible retirees and their dependents in North America. We accrue the cost of providing post-retirement benefits as the employees provide services. Post-retirement costs are funded as they are incurred.

The Patient Protection and Affordable Care Act ("PPACA") was signed into law on March 23, 2010, and on March 30, 2010, the Health Care and Education Reconciliation Act of 2010 ("HCERA") was signed into law, which amends certain aspects of the PPACA. Among other things, the PPACA reduces the tax benefits available to an employer that receives the Medicare Part D subsidy. This change did not have a material impact for us. The PPACA and HCERA will have both immediate and long-term ramifications for many employers that provide retiree health benefits.



## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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

## 21. EMPLOYEE BENEFITS (Continued)

## Defined contribution arrangements

We have a number of defined contribution arrangements providing retirement benefits to certain groups of employees. The total expense for our contributions to these plans was \$11 million in 2011 (2010 \$10 million). In 2012, we expect to contribute approximately \$14 million to our defined contribution plans.

Expense related to our defined contribution plans is included in our consolidated income statements as follows:

Year ended December 31 (millions of U.S. dollars)	2011	2010
Feedstock and operating costs	\$ 7	\$ 6
Research and development	1	1
Sales and marketing	1	1
General and administrative	2	2
<b>Defined contribution expense</b>	<b>\$ 11</b>	<b>\$ 10</b>

## 22. CONTINGENCIES AND COMMITMENTS

## Legal claim contingencies

We are involved in litigation from time-to-time in the ordinary course of business. Among these items is a claim filed against us in the Court of Queen's Bench of Alberta by Dow Chemical Canada ULC and its European affiliate concerning our third ethylene plant at our Joffre site. The amount of the claim was initially \$120 million, but, on August 12, 2010, the court granted an application to amend the amended statement of claim to update the damage claims and add new claims. Accordingly, the amount of the claim is now approximately \$300 million. We initially counterclaimed in the same action for approximately \$300 million. We have filed an amended statement of defense and counterclaim. The amount of our counterclaim is now approximately \$700 million.

In 2005, The Dow Chemical Company ("Dow Chemical") filed a complaint against us for alleged patent infringement. The complaint, filed in the Federal District Court in Delaware, alleged that certain grades of our SURPASS® polyethylene film resins infringe two Dow Chemical patents. In June 2010, a jury trial took place resulting in a June 15, 2010, verdict against us which awarded damages in the amount of \$61.8 million based on sales of SURPASS resin in the United States through the end of 2009. On July 30, 2010, the court awarded Dow Chemical pre-judgment interest in the amount of \$14.3 million. In a subsequent bench trial, the judge ruled that Dow Chemical had standing to bring the suit, holding that Dow Chemical continuously owned the patents in suit.

Following the jury verdict, both parties filed certain motions with the District Court in Delaware, including a motion by Dow Chemical seeking a permanent injunction to require us to stop importing and selling certain sLLDPE grades of SURPASS resin in the United States. Given the substantial issues for appeal, including the question of Dow Chemical's standing in the case, the short unexpired term of the patents and the possibility that we would prevail on appeal, the court was not persuaded that entry of a permanent injunction would serve the parties or the public interest and the judge denied Dow Chemical's motion for a permanent injunction. Accordingly, the court's order allowed us to continue to sell the alleged infringing grades of the SURPASS resin to existing customers in the United States pending expiration of the patents in October 2011.

We appealed the verdict to the Court of Appeals for the Federal Circuit ("CAFC") on several grounds. To stay execution (i.e., collection) of the money judgment pending the outcome of the appeal, we posted a bond in the amount of the jury verdict plus pre-judgment interest as awarded by the court, post-judgment interest at a prescribed statutory rate and costs as determined by the court. The bond is secured with cash collateral in the

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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

## 22. CONTINGENCIES AND COMMITMENTS (Continued)

amount of \$85 million, which is reported as restricted cash on the consolidated statements of financial position. Oral arguments for the appeal were heard on October 4, 2011. In January 2012, a panel of three CAFC judges affirmed the District Court ruling in a 2-1 non-precedential disposition. In February 2012, we petitioned the CAFC for an *en banc* (all members of the CAFC) review of the panel decision and have not yet received a response.

The patents at issue in the U.S. patent litigation expired on October 15, 2011. No accruals have been made beyond that date on the sales of the alleged infringing grades of SURPASS resin in the United States. As of December 31, 2011, \$107 million (December 31, 2010 \$92 million; January 1, 2010 \$0 million) has been accrued with respect to this claim, which represents the \$76 million award plus \$31 million based on sales and interest through December 31, 2011 (December 31, 2010 \$16 million; January 1, 2010 \$0 million) (see Notes 16 and 19). As of December 31, 2011 and 2010, both the provision and restricted cash are reported as current and non-current, respectively, on the consolidated statements of financial position.

In December 2010, Dow Chemical filed a Statement of Claim against us in Federal Court in Canada alleging that certain grades of our SURPASS polyethylene film resins infringe a Dow Chemical Canadian patent that is related to the U.S. patents subject to the suit in the United States. We filed our statement of defense and counterclaim in March 2011. In April 2011, the Court ordered the trial to commence in January 2013. As this litigation is still in its early stages, and we believe it is not probable that Dow Chemical's action will succeed, no amount has been accrued as of December 31, 2011 with respect to this claim.

**Mooretown LD production outage**

In late 2011, our Mooretown LDPE facility suffered an unplanned shutdown. We will need to perform extensive repairs to return the facility to full operations, which we expect will be completed in the second quarter of 2013. In the interim, we have modified the facility and are in the process of recommissioning to test the capability of the modified facility. It is our intent to operate the modified facility with lower production rates and a reduced product slate until the final repairs are completed.

Through December 31, 2011, the net book value of PP&E that was damaged and disposed of and repairs and maintenance costs were insignificant. We don't expect the cost of further repairs and replacement parts to be material to our consolidated financial statements.

**Capital commitments**

On November 14, 2011, our Board of Directors approved approximately \$250 million to move the Corunna Revamp project into the implementation stage. Completing the revamp of Corunna by early 2014 will allow us to utilize up to 100% NGL feedstock.

At December 31, 2011, we had capital commitments of \$55 million, of which \$15 million relates to the Corunna Revamp project and \$40 million relates primarily to various sustaining capital projects.

**Guarantees**

Our guarantees consist of letters of credit and other guarantees entered into in the ordinary course of business. In addition, we previously had guarantees related to our interest in the INEOS NOVA joint venture which were terminated when we sold our interest in that joint venture on February 28, 2011.

(millions of U.S. dollars)	December 31 2011	December 31 2010	January 1 2010
Letters of credit	\$ 60	\$ 45	\$ 51
Joint venture guarantees		25	44
Other guarantees	12	17	5
	\$ 72	\$ 87	\$ 100



## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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

## 22. CONTINGENCIES AND COMMITMENTS (Continued)

## Operating lease commitments

We lease office space and transportation equipment under various operating leases. These leases have a life of between 1 and 15 years. Certain railcar lease agreements contain financial covenants for our subsidiary, NOVA Chemicals Inc.

Future minimum rentals payable under non-cancellable operating leases are as follows:

(millions of U.S. dollars)	December 31 2011	December 31 2010	January 1 2010
Within one year	\$ 45	\$ 43	\$ 43
After one year but not more than five years	147	143	138
More than five years	142	164	200
	\$ 334	\$ 350	\$ 381

Rental expense under operating leases was \$51 million for the year ended December 31, 2011 (2010 \$50 million) and is included in our consolidated income statements as follows:

Year ended December 31 (millions of U.S. dollars)	2011	2010
Feedstock and operating costs	\$ 40	\$ 38
Research and development	2	2
Sales and marketing	1	1
General and administrative	8	9
<b>Rental expense</b>	<b>\$ 51</b>	<b>\$ 50</b>

## Other commitments

We have entered into other arrangements for the purchase of minimum amounts of feedstock and other raw materials for short- and long-term supply and related transportation and storage agreements. The resulting commitments are as follows:

(millions of U.S. dollars)	December 31 2011	December 31 2010	January 1 2010
Within one year	\$ 1,406	\$ 1,294	\$ 1,262
After one year but not more than five years	3,693	2,290	2,314
More than five years	6,571	1,620	1,730
	\$ 11,670	\$ 5,204	\$ 5,306

## 23. SEGMENTED INFORMATION

We consider both qualitative and quantitative factors in determining reportable segments. Before applying quantitative analyses, we aggregate the business units with similar economic characteristics and business units with similarities in each of the following areas: nature of the product and service, nature of the production process, type or class of customer, methods used to distribute the products or provide the services and, if applicable, the nature of the regulatory environment. Based on the aggregation of the operating segments, we

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

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

**23. SEGMENTED INFORMATION (Continued)**

perform quantitative tests based on revenue, profit and loss and assets and have determined that we have the following four reporting segments.

**Joffre Olefins**

**Products:** Ethylene and co-products, including propylene, crude C4 and crude C5 hydrocarbons and hydrogen.

**Applications:** Ethylene is used internally by us to produce polyethylene or sold to third-parties who use ethylene to produce polyethylene and other products.

**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 us to produce polyethylene 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.

**Polyethylene**

**Products:** LLDPE, LDPE, HDPE and PE manufactured using Advanced SCLAIRTECH technology.

**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.

**Performance Styrenics**

**Products:** EPS and ARCEL® resins, as well as downstream business ventures including SYNTHEON which is classified as held for sale (see Note 5).

**Applications:** Performance Styrenics polymers are 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.

Management monitors the operating results of the business units separately for the purpose of making decisions about resource allocation and performance assessment. Segment performance is evaluated based on operating profit or loss and is measured consistently with operating profit or loss in the consolidated financial statements. However, financing costs and finance income, income taxes and other income and loss items as well as other corporate items described below are not allocated to operating segments.

**Corporate**

Corporate includes all long-term incentive compensation and profit sharing costs, all unrealized gains and losses on mark-to-market feedstock derivatives, impairment charges, restructuring and corporate operating costs.

We account for intersegment sales and transfers as if the sales or transfers were to third-parties, that is, at current market price.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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

## 23. SEGMENTED INFORMATION (Continued)

The following tables provide information for each segment:

Revenue From Continuing Operations From External Customers<sup>(1)</sup>

Year ended December 31 (millions of U.S. dollars)	2011	2010
Joffre Olefins	\$ 914	\$ 819
Corunna Olefins	1,776	1,257
Polyethylene	2,175	1,940
Performance Styrenics	310	217
Eliminations		(13)
Total revenue from continuing operations from external customers	\$ 5,175	\$ 4,220

(1) Third-party.

## Intercompany and Related Party Revenue from Continuing Operations

Year ended December 31 (millions of U.S. dollars)	2011	2010
Joffre Olefins	\$ 1,088	\$ 701
Corunna Olefins	533	748
Polyethylene	7	7
Performance Styrenics	17	87
Eliminations	(1,579)	(1,187)
Total intercompany and related party revenue from continuing operations	\$ 66	\$ 356

Total Revenue from Continuing Operations<sup>(1)</sup>

Year ended December 31 (millions of U.S. dollars)	2011	2010
Joffre Olefins	\$ 2,002	\$ 1,520
Corunna Olefins	2,309	2,005
Polyethylene	2,182	1,947
Performance Styrenics	327	304
Eliminations	(1,579)	(1,200)
Total revenue from continuing operations	\$ 5,241	\$ 4,576

(1) Before intersegment eliminations.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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

## 23. SEGMENTED INFORMATION (Continued)

## Operating Profit (Loss) From Continuing Operations

Year ended December 31 (millions of U.S. dollars)	2011	2010
Joffre Olefins	\$ 902	\$ 383
Corunna Olefins	227	137
Polyethylene	33	298
Performance Styrenics	7	3
Corporate	(125)	(192)
Eliminations	(37)	(32)
Total operating profit from continuing operations	\$ 1,007	\$ 597
Finance costs, net	(166)	(186)
Other losses, net	(18)	(50)
Income tax expense	(215)	(124)
Profit from continuing operations	\$ 608	\$ 237

## Depreciation and Amortization from Continuing Operations

Year ended December 31 (millions of U.S. dollars)	2011	2010
Joffre Olefins	\$ 145	\$ 145
Corunna Olefins	24	20
Polyethylene	90	70
Performance Styrenics	3	4
Corporate	9	9
Total depreciation and amortization from continuing operations	\$ 271	\$ 248

Depreciation and amortization is included in feedstock and operating costs in our consolidated income statements, except for \$9 million for each of the years ended December 31, 2011 and 2010 which is included in general and administrative.

## Capital Expenditures for Continuing Operations

Year ended December 31 (millions of U.S. dollars)	2011	2010
Joffre Olefins	\$ 35	\$ 20
Corunna Olefins	57	28
Polyethylene	61	75
Performance Styrenics	5	3
Total capital expenditures for continuing operations	\$ 158	\$ 126

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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

## 23. SEGMENTED INFORMATION (Continued)

## Assets

(millions of U.S. dollars)	December 31 2011	December 31 2010 <sup>(1)</sup>	January 1 2010
Joffre Olefins	\$ 2,396	\$ 2,518	\$ 2,592
Corunna Olefins	742	530	570
Polyethylene	1,745	1,713	1,619
Performance Styrenics	118	117	144
Corporate	1,237	722	552
Eliminations	(30)	(25)	(3)
<b>Total assets</b>	<b>\$ 6,208</b>	<b>\$ 5,575</b>	<b>\$ 5,474</b>

(1) Restated from amounts previously reported in our unaudited interim condensed consolidated financial statements in 2011 for reclassification between segments.

*Geographic Information*Revenue From Continuing Operations From External Customers<sup>(1)</sup>

Year ended December 31 (millions of U.S. dollars)	2011	2010
Canada	\$ 2,398	\$ 1,814
United States	2,529	2,182
Europe and Other	248	224
	<b>\$ 5,175</b>	<b>\$ 4,220</b>

(1) Based on location of customer.

## Non-Current Assets

(millions of U.S. dollars)	December 31 2011	December 31 2010	January 1 2010
Canada	\$ 3,815	\$ 3,848	\$ 3,949
United States	37	41	64
Europe and Other	29	32	39
	<b>\$ 3,881</b>	<b>\$ 3,921</b>	<b>\$ 4,052</b>

Non-current assets for this purpose consists of property, plant and equipment and intangible assets.



## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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

## 24. FINANCIAL INSTRUMENTS

The table below is a comparison by class of the carrying value and fair values of our financial instruments that are carried in the consolidated financial statements.

(millions of U.S. dollars)	Note	Carrying amount			Fair value		
		December 31 2011	December 31 2010	January 1 2010	December 31 2011	December 31 2010	January 1 2010
<b>Financial assets</b>							
Trade and other receivables	6	\$ 510	\$ 477	\$ 376	\$ 510	\$ 477	\$ 376
Other financial assets:							
Loans and receivables	8, 10	46	54	73	46	54	73
Available-for-sale investments unquoted equity shares	10	1	6	13	1	6	13
Available-for-sale investments quoted debt securities and equity shares	10	12	13	12	12	13	12
Commodity-based derivatives not designated as hedges	8, 10	5	4	18	5	4	18
Cash and cash equivalents		960	306	238	960	306	238
<b>Total</b>		<b>\$ 1,534</b>	<b>\$ 860</b>	<b>\$ 730</b>	<b>\$ 1,534</b>	<b>\$ 860</b>	<b>\$ 730</b>

(millions of U.S. dollars)	Note	Carrying amount			Fair value		
		December 31 2011	December 31 2010	January 1 2010	December 31 2011	December 31 2010	January 1 2010
<b>Financial liabilities</b>							
Long-term debt	15	\$ 1,741	\$ 1,695	\$ 1,946	\$ 1,873	\$ 1,853	\$ 2,047
Trade and other payables	13	343	334	404	343	334	404
Commodity-based derivatives not designated as hedges	14	1	2		1	2	
<b>Total</b>		<b>\$ 2,085</b>	<b>\$ 2,031</b>	<b>\$ 2,350</b>	<b>\$ 2,217</b>	<b>\$ 2,189</b>	<b>\$ 2,451</b>

The fair values of financial assets and liabilities are included at the amount at which the instrument could be exchanged in a current transaction between willing parties, other than in a forced or liquidation sale. We have no plans to unwind these positions prior to maturity and have no significant exposure to any individual customer or counterparty. The following methods and assumptions were used to estimate the fair values:

Cash and cash equivalents, trade and other receivables, loans and receivables and trade and other payables approximate their carrying amounts largely due to the short-term maturities of these instruments.

Long-term debt is based on quoted market prices, where available, and for all other long-term debt fair value reasonably approximates the carrying value due to the short-term maturities of these instruments.

Fair value of available-for-sale investments quoted debt securities and equity shares is derived from quoted market prices in active markets, if available.

Fair value of available-for-sale investments unquoted equity shares reasonably approximates their carrying value.



## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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

## 24. FINANCIAL INSTRUMENTS (Continued)

We enter into derivative financial instruments with various counterparties, principally financial institutions with investment grade credit ratings. Derivatives valued using valuation techniques with market observable inputs are mainly foreign exchange forward contracts and commodity forward contracts. The models incorporate various inputs including the credit quality of counterparties, foreign exchange spot and forward rates and forward rate curves of the underlying commodity.

## Fair value hierarchy

Assets carried at fair value on the consolidated statements of financial positions at December 31, 2011, December 31, 2010 and January 1, 2010 are included in the following fair value hierarchy categories:

(millions of U.S. dollars)	December 31, 2011				December 31, 2010			
	Total	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3
<b>Assets measured at fair value</b>								
Held-for-trading financial assets:								
Commodity-based derivatives not designated as hedges	\$ 5	\$	\$ 5	\$	\$ 4	\$	\$ 4	\$
Available-for-sale investments quoted debt securities and equity shares	12	12			13	13		
<b>Liabilities measured at fair value</b>								
Held-for-trading financial liabilities:								
Commodity-based derivatives not designated as hedges	1		1		2		2	

During the periods ending December 31, 2011 and 2010 there were no transfers between Level 1 and Level 2 fair value measurements.

(millions of U.S. dollars)	January 1, 2010			
	Total	Level 1	Level 2	Level 3
<b>Assets measured at fair value</b>				
Held-for-trading financial assets:				
Commodity-based derivatives not designated as hedges	\$ 18	\$	\$ 18	\$
Available-for-sale investments quoted debt securities and equity shares	12	12		
<b>Liabilities measured at fair value</b>				
Held-for-trading financial liabilities:				
Commodity-based derivatives not designated as hedges				

The Level I, II and III classifications in the fair value hierarchy utilized by us are defined as follows:

*Level I.* Fair values are determined using inputs that are quoted prices (unadjusted) in active markets for identical assets or liabilities that we have the ability to access. In determining Level I commodity derivatives trading fair values, we use quoted prices for identically traded commodities obtained from active exchanges such as the New York Mercantile Exchange and the Intercontinental Exchange.

*Level II.* Fair values are determined using inputs other than unadjusted quoted prices that are observable for the asset or liability, either directly or indirectly.

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

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

**24. FINANCIAL INSTRUMENTS (Continued)**

Commodity derivatives fair values falling within the Level II category are determined through the use of quoted prices in active markets adjusted for factors specific to the asset or liability, such as basis and location differentials. We include over-the-counter derivatives with values based upon observable commodity futures curves and derivatives with input validated by broker quotes or other publicly available market data providers in Level II. Level II fair values also include fair values determined using valuation techniques, such as regression or extrapolation formulas, where the inputs are readily observable, including commodity prices for similar assets or liabilities in active markets. The key inputs to valuation models and regression or extrapolation formulas include interest rate yield curves, currency rates, credit spreads, implied volatilities, and commodity prices for similar assets or liabilities in active markets, as applicable.

*Level III.* Fair values are determined using inputs for the asset or liability that are not readily observable. We have not determined any fair values using Level III.

We are exposed to foreign currency risk, commodity price risk, interest rate risk, liquidity risk and credit risk. Our senior management oversees the management of these risks and is supported by certain committees and individuals that advise on financial risks and the appropriate financial risk governance framework for us. These committees and individuals provide assurance to our senior management that our financial risk-taking activities are governed by the appropriate policies and procedures. It is our policy that no trading in derivatives for speculative purposes shall be undertaken.

**Foreign Currency Risk Management**

Foreign currency risk is the risk that the fair value of future cash flow of a financial instrument will fluctuate because of changes in foreign exchange rates. Our exposure to the risk of changes in foreign exchange rates relates primarily to our operating activities (when revenue or expenses are denominated in a different currency from our functional currency). We have established a policy that provides a framework for foreign currency management, hedging strategies and approved hedging instruments. Hedging instruments may be used to minimize the gains and losses due to short-term foreign currency exchange rate fluctuations. The exposure that may be hedged in accordance with our foreign exchange policy is limited to operational transaction exposure and is generally used only to balance out our cash positions. Foreign currency risks resulting from the translation of assets and liabilities of foreign operations into our functional currency are generally not hedged; however, we may hedge this risk under certain circumstances.

To address the risks associated with having the U.S. dollar as our functional currency we entered into a series of foreign currency forwards in January 2010, to effectively hedge the foreign currency exposure on the Cdn\$250 million 7.85% notes that were due and settled in August 2010. The foreign currency forwards locked in repayment of the Cdn\$250 million 7.85% notes at U.S.\$237 million.

Translation currency effects occur when we or one of our subsidiaries incurs monetary assets or liabilities in a currency different from its functional currency. These translation gains and losses are recorded in feedstock and operating costs on the consolidated income statement, except for employee benefit plan liabilities for which the resulting gains or losses are reported in other comprehensive income.

Foreign currency risks may also result from certain investing activities such as the acquisition and disposal of investments in foreign companies, and may be caused by financial liabilities in foreign currencies and loans in foreign currencies that are extended to affiliated entities for financing purposes. In recent years, these risks generally have not been hedged.

Our subsidiaries and affiliated entities generally execute their operating activities in their respective local currencies. We historically have not used currency derivatives to hedge such payments.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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

## 24. FINANCIAL INSTRUMENTS (Continued)

*Foreign currency sensitivity*

Our investing, financing and operating activities are exposed to currency risks. The following table demonstrates the sensitivity to a 10% strengthening of the Canadian dollar against the U.S. dollar, with all other variables held constant, of our after-tax profit and other comprehensive income. The impact of translating the net assets of foreign operations into our reporting currency is excluded from the sensitivity analysis. Any change in the Euro would not be material.

(millions of U.S. dollars, except as noted)	Change <sup>(1)</sup>	Decrease in after-tax profit	Decrease in other comprehensive income
2011	+10%	\$ 64	\$ 28
2010	+10%	\$ 62	\$ 19

(1)

A 10% weakening of the Canadian dollar against the U.S. dollar would have the opposite effect.

**Commodity Price Risk Management**

We use commodity-based derivatives to manage our 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. The extent to which commodity-based derivatives are used depends on market conditions and requires adherence to our hedging policy. We limit our positions in futures markets to proprietary feedstock requirements and do not use derivative instruments for speculative purposes.

Commodity swaps are sometimes used and designated as fair value hedges intended to hedge the fair value of our feedstock inventory against changes in the market price. At inception of a hedging relationship, we document the relationship between the hedging instrument and the hedged item, our risk management objective and our strategy for undertaking the hedge. We also require a documented assessment, both at hedge inception and on an ongoing basis, of whether or not the derivatives that are used in hedging transactions are highly effective in offsetting the changes in the fair value of the hedged items. Unrealized gains and losses on derivative instruments designated and qualifying as fair value hedging instruments, as well as the offsetting unrealized gains and losses on the hedged items, are included in income in the same accounting period within feedstock and operating costs in the consolidated income statement. As of December 31, 2011 and 2010 and as of January 1, 2010, we had no outstanding commodity-based derivatives designated as fair value hedges.

In addition we utilize options, swaps and futures instruments as economic hedges of commodity price exposures, but they either do not meet the hedge accounting criteria of IAS 39 or are not designated as qualifying hedges. Gains and losses on commodity-based derivatives are included in feedstock and operating costs in the consolidated income statement.

The notional volume and fair value of outstanding derivative contracts for crude oil and refined products that are not designated or do not qualify for hedge accounting are as follows:

(millions of U.S. dollars, except as noted)	December 31, 2011			December 31, 2010			January 1, 2010		
	Crude oil	Propane	Butane	Crude oil	Propane	Butane	Crude oil	Propane	Butane
Notional volume mm bbls	0.4	0.1	0.3	1.5	0.9	0.9	2.9	2.7	1.9
Weighted-average price per bbl	\$ 107.84	\$ 55.45	\$ 68.02	\$ 94.75	\$ 48.46	\$ 72.67	\$ 88.61	\$ 45.75	\$ 72.25
Fair value	\$ 3	\$	\$ 2	\$ 2	\$ 4	\$ (4)	\$ 16	\$ 17	\$ (15)
Term to maturity months	1-12	10-12	10-12	1-24	1-24	1-24	1-36	1-36	4-36

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## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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

## 24. FINANCIAL INSTRUMENTS (Continued)

The notional volume and fair value of outstanding derivative contracts for natural gas that are not designated or do not qualify for hedge accounting are as follows:

(millions of U.S. dollars, except as noted)	December 31, 2011	December 31, 2010	January 1, 2010
Notional volume mm gjs	1.2	1.8	
Weighted-average price per gj	\$ 3.43	\$ 3.75	\$
Fair value	\$ (1)	\$	\$
Term to maturity months	1-2	1-3	

Year ended December 31 (millions of U.S. dollars)	2011	2010
Unrealized gain (loss)	\$ 2	\$ (15)
Realized gain	\$ 8	\$ 3

We lock in a portion of our propane and butane feedstock requirements as a percentage of crude oil using forward contracts that extend to 2012. In 2011 and 2010, our portfolio also included trades to re-price excess feedstock inventory, and a small volume of our winter natural gas requirements was locked in at a fixed price. Changes in forward propane and butane prices as a percentage of forward crude oil prices and a decrease in the notional volumes drove the mark-to-market change in 2011 as compared to 2010. At December 31, 2011, each 10% change in the price of crude oil, propane and butane would have impacted the value of our derivative contracts and changed our after-tax profit by approximately \$1 million, \$2 million and \$3 million, respectively. At December 31, 2010, each 10% change in the price of crude oil, propane and butane would have impacted the value of our derivative contracts and changed our after-tax profit by approximately \$11 million, \$4 million and \$4 million, after tax, respectively. At December 31, 2011 and 2010, each 10% change in the natural gas price would not have materially impacted the value of our derivative contracts. The sensitivity analysis of our commodity derivative contracts does not consider any adjustments for credit risk. See below for further sensitivity analysis of our primary feedstocks, which does not include the above commodity derivatives. There are no other items except as noted, that are excluded or partially excluded from this analysis. At December 31, 2011, we remain exposed to price risk on open commodity derivatives until their maturity. There have been no other changes in our market risk exposure or how this risk is managed.

The following table illustrates how changes in various feedstock costs could affect our after-tax profit and equity assuming all other factors are held constant. The sensitivity is based on 2011 actual consumption volumes (excluding hedged items and respective hedging instruments, if any) and the periodic effects are determined by relating a reasonably possible change in the risk variables.

(millions of U.S. dollars, except as noted)	Change <sup>(1)</sup>	Decrease in After-Tax profit	Decrease in Equity
Crude oil	+10%	\$ 77	\$ 77
Natural gas	+10%	\$ 15	\$ 15
Propane	+10%	\$ 20	\$ 20
Butane	+10%	\$ 40	\$ 40

(1) A 10% decrease in feedstock costs would have the opposite effect.

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

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

**24. FINANCIAL INSTRUMENTS (Continued)**

**Interest Rate Risk Management**

Interest rate risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market interest rates. Changes in the market interest rates of long-term debt with fixed interest rates only affects our profit if such debt is measured at fair value. All of our fixed-rate long-term debt is carried at amortized cost and therefore is not subject to interest rate risk. Our exposure to the risk of changes in market interest rates relates primarily to our long-term debt obligations with floating interest rates.

We manage our interest rate risk by balancing our exposure to fixed and variable rates while attempting to minimize our interest costs. When deemed appropriate, we enter into interest rate swap agreements to manage our 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 2011 and 2010, we had no floating-for-fixed interest rate swaps outstanding.

For the disclosure of market risks, management has prepared a sensitivity analysis that shows the effects of reasonably possible changes in relevant risk variables on after-tax income and equity. The periodic effects are determined by relating the reasonably possible changes in the risk variables to the balance of financial instruments at the reporting date. For purposes of this analysis, long-term debt balances as of December 31, 2011 and 2010, were used.

Changes in market interest rates would affect interest expense on our variable rate, long-term debt which is included in the sensitivity analysis calculation.

At December 31, 2011 and 2010 if interest rates at that date had been 0.5% higher, with all other variables held constant, after-tax profit and equity for each year would have been \$2 million lower, arising mainly as a result of higher interest expense on variable rate borrowings.

**Liquidity Risk Management**

Liquidity risk is the risk that we will not have sufficient funds available to meet our liabilities. We seek to maintain liquidity within a targeted range in the form of cash and cash equivalents and undrawn revolving credit facilities to position us to make scheduled cash payments, pay down debt, ensure ready access to capital, and assist in the solvency and financial flexibility of our operations. Adjustments to the liquidity reserve are made upon changes to economic conditions, anticipated future debt maturities and funding of our defined benefit pension obligations, underlying risks inherent in our operations and capital requirements to maintain and grow operations. Liquidity totaled \$1,508 million at December 31, 2011, \$982 million at December 31, 2010 and \$802 million at January 1, 2010. Our primary objective has always been to focus on and monitor liquidity and cash flow.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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

## 24. FINANCIAL INSTRUMENTS (Continued)

The table below summarizes the maturity profile of our liabilities based on contractual undiscounted payments:

(millions of U.S. dollars)	December 31, 2011								
	On demand	Less than 3 months	3 to 12 months	2 years	3 years	4 years	5 years	> 5 years	Total
Trade and other payables	\$ 179	\$ 164	\$	\$	\$	\$	\$	\$	\$ 343
Long-term debt		582		403	3	2	352	469	1,811
Income taxes payable			40						40
Other liabilities		154	26	12	3			19	214
Liabilities held for sale	5	2							7
	\$ 184	\$ 902	\$ 66	\$ 415	\$ 6	\$ 2	\$ 352	\$ 488	\$ 2,415

(millions of U.S. dollars)	December 31, 2010								
	On demand	Less than 3 months	3 to 12 months	2 years	3 years	4 years	5 years	> 5 years	Total
Trade and other payables	\$ 190	\$ 141	\$ 3	\$	\$	\$	\$	\$	\$ 334
Long-term debt		1	9	555	403	3	2	821	1,794
Income taxes payable			67						67
Other liabilities		111	13	7	7			24	162
Liabilities held for sale	3	1							4
	\$ 193	\$ 254	\$ 92	\$ 562	\$ 410	\$ 3	\$ 2	\$ 845	\$ 2,361

(millions of U.S. dollars)	January 1, 2010								
	On demand	Less than 3 months	3 to 12 months	2 years	3 years	4 years	5 years	> 5 years	Total
Trade and other payables	\$ 315	\$ 85	\$ 4	\$	\$	\$	\$	\$	\$ 404
Long-term debt		198	236	10	401	402	2	822	2,071
Income taxes payable			6						6
Other liabilities		101	14					31	146
	\$ 315	\$ 384	\$ 260	\$ 10	\$ 401	\$ 402	\$ 2	\$ 853	\$ 2,627

Repayment of amounts due within one year may be funded by cash flows from operations, cash-on-hand, accounts receivable securitization programs, and undrawn revolving credit facilities. Capital market transactions may also be used in managing the balance between maturing obligations and available liquidity. Our future liquidity is dependent on factors such as cash generated from ongoing operations and other potential sources of financing. For further discussion about our liquidity, see *Credit Facilities* and *Covenants* in Note 15.



**Credit Risk Management**

Counterparty credit risk on financial instruments arises from the possibility that a counterparty to an instrument in which we are entitled to receive payment fails to perform on its obligations under the contract. This includes any cash amounts owed to us by those counterparties, less any amounts owed to the counterparty by us where a legal right of offset exists and also includes the fair value of contracts with individual counterparties which are recorded in the consolidated financial statements.

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**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

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

**24. FINANCIAL INSTRUMENTS (Continued)**

For derivative financial instruments, we have 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. We do not anticipate that any counterparties we currently transact with will fail to meet their obligations. At December 31, 2011 and 2010 and at January 1, 2010, we had no credit exposure for foreign currency or interest rate instruments. At December 31, 2011, we had \$5 million credit exposure for commodity-based instruments (December 31, 2010 \$7 million; January 1, 2010 \$17 million).

In order to manage credit and liquidity risk we invest only in highly rated instruments that have maturities of nine months or less. Limits on the term of an investment, the type of investment and concentration limits per institution are established. Typically we invest only in overnight bank term deposits.

Trade credit risk includes an unexpected loss in cash and earnings if a customer is unable to pay its obligations or the value of security provided declines. Concentration of credit risk relates primarily to our receivables, as certain customer groups are located in the same geographic area and operate in the same industry. We monitor receivables based on two such concentrations: North America and Europe. At December 31, 2011, approximately 91% of our receivables were from North American customers and 9% were from customers in Europe. Trade receivables over 30 days were approximately 1% of total trade receivables at December 31, 2011 and 2010. We do not consider our trade receivables to be impaired. There is no current indication as of December 31, 2011, that the debtors will not meet their obligations. We continue to monitor all trade receivables. Bad debt write-offs during 2011 were also immaterial as a percentage of total revenue and in line with prior years' experience. We manage our credit risk relating to trade receivables through credit approval and monitoring procedures. We establish and review limits for all active customers. Such limits are based on trade information, payment history, credit score, credit rating and financial analysis, where possible. All credit limits are subject to evaluation and revision at any time based on changes in levels of credit worthiness; sales orders cannot be processed unless a credit limit has been properly approved. Customer credit risk ratings range from low (companies with investment grade bond ratings and very strong financial conditions) to high business risk (companies with an unstable financial condition, a strong possibility of failure and slow payment). Accounts rated low risk are reviewed and approved every eighteen months (although a review may be accelerated if payment deterioration is noted) and accounts rated medium risk are reviewed and approved every twelve months. Upper level management approval is needed for customers with existing credit limits above \$5 million. Accounts rated high risk are reviewed every six months. It is sometimes necessary to increase existing credit limits to accommodate rapid price increases. In those cases, we may grant temporary credit limit increases of up to 25%, subject to meeting certain conditions. High risk and high business risk accounts are not eligible for temporary credit limit increases. Customer accounts may be placed on "credit watch" when a slow payment trend is noticed and the account balance consistently goes beyond the approved payment terms or when credit limit review reveals the customer's financial condition is weakening. If necessary, we can utilize credit insurance programs to ensure payment. We may also request collateral when a customer does not meet the financial qualifications for the size credit limit requested or there is a political or economic risk of selling in a certain country. The most prominent forms of security used by us are letters of credit and personal or corporate guarantees. Letters of credit must be issued through acceptable banks with international standing. At December 31, 2011, we held collateral of approximately \$6 million in a combination of letters of credit and personal and corporate guarantees from various customers.

The maximum exposure to credit risk is represented by the carrying amounts of each class of financial assets disclosed in Note 24.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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

**25. RELATED PARTIES**

NOVA Chemicals Corporation and its wholly owned subsidiaries, in the ordinary course of business, enter into various purchase and sale transactions with joint ventures and other related parties. The effect of these transactions is included in our consolidated financial statements. Sales to and purchases from related parties are made at terms equivalent to those that prevail in arm's length transactions.

Our ultimate parent company is International Petroleum Investment Company, which is an investment company established by the government of the Emirate of Abu Dhabi. There were no transactions with IPIC in 2011 or 2010 other than a distribution of \$75 million accrued at December 31, 2011 which is scheduled to be paid to NOVA Chemicals Holding GmbH (a 100% indirectly owned subsidiary of IPIC) at the end of March 2012 (see Note 14). There are no other entities with significant influence over us.

The following list includes all significant subsidiaries of NOVA Chemicals. All of the voting securities of each significant subsidiary are held directly or indirectly by us.

**Name**  
NOVA Chemicals (Canada) Ltd./NOVA Chimie (Canada) Ltée.  
NOVA Chemicals Inc.  
NOVA Petrochemicals Ltd.  
NC Holdings USA Inc.

Disclosure of joint ventures is provided in Note 11.

The following tables provide the total amount of transactions that have been entered into with related parties:

(millions of U.S. dollars)	Sales to related parties	Purchases from related parties	Receivables from related parties <sup>(1)</sup>	Payables to related parties <sup>(1)</sup>	Notes receivable from related parties <sup>(1)</sup>	Other liabilities related parties <sup>(1)</sup>	Interest received from related parties
Joint ventures:							
INEOS NOVA	2011 \$ 66	\$ 28	\$	\$	\$	\$	\$
	2010 \$ 356	\$ 140	\$ 51	\$ 2	\$ 47	\$ 22	\$ 3
As at January 1, 2010			\$ 41	\$	\$ 58	\$ 6	
Other:							
Borealis AG	2011 \$ 19	\$	\$ 1	\$	\$	\$	\$
	2010 \$ 5	\$	\$ 4	\$	\$	\$	\$
As at January 1, 2010			\$	\$	\$	\$	

(1) These amounts are classified as trade receivables, trade payables, notes receivable, interest receivable, and other liabilities from related parties respectively. No impairment of amounts receivable is required.

**Remuneration and other payments received by key management personnel**

Year ended December 31 (millions of U.S. dollars)	2011	2010
Short-term employee benefits	\$ 4	\$ 4
Post-employment benefits <sup>(1)</sup>		
Other long-term benefits	6	2
Termination benefits		3
	\$ 10	\$ 9

- (1) Includes expenses related to defined benefit and defined contribution plans.

The amounts disclosed in the table above are the amounts recognized as an expense during the respective periods.

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**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

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

**26. CHANGES IN ACCOUNTING PRINCIPLES TRANSITION TO IFRS**

These consolidated financial statements, for the year ended December 31, 2011, are the first we have prepared in accordance with IFRS. For the periods up to and including the year ended December 31, 2010, we prepared our consolidated financial statements in accordance with Canadian GAAP.

Accordingly, we have prepared consolidated financial statements which comply with IFRS applicable for periods ending December 31 2011, together with the comparative period data as at and for the year ended December 31, 2010, as described in our accounting policies in Note 2. In preparing these consolidated financial statements, our opening statement of financial position was prepared at January 1, 2010, our date of transition to IFRS. This note explains the principal adjustments we made in restating our Canadian GAAP consolidated statement of financial position as at January 1, 2010 and our previously published Canadian GAAP consolidated statements of financial position, income and comprehensive income as at and for the year ended December 31, 2010. The significant difference in our consolidated statement of cash flows under IFRS is classifying interest paid in financing activities and income taxes paid, net of refunds in operating activities. Under Canadian GAAP, these items were included as supplemental disclosures.

**Exemptions applied**

IFRS 1 allows first-time adopters certain exemptions from the retrospective application of certain standards. We have elected to apply the following IFRS 1 exemptions:

IFRS 3, *Business Combinations*, has not been applied to acquisitions of subsidiaries or of interests in associates and joint ventures that occurred before January 1, 2010. Use of this exemption means that the Canadian GAAP carrying amounts of assets and liabilities, which are required to be recognized under IFRS, is their deemed cost at the date of the acquisition. After the date of the acquisition, measurement is in accordance with IFRS. Assets and liabilities that do not qualify for recognition under IFRS are excluded from the opening IFRS statement of financial position. We did not recognize or exclude any previously recognized amounts as a result of IFRS recognition requirements.

The election to use fair value as deemed cost, as at the date of International Petroleum Investment Company's acquisition of us (July 6, 2009), for all of our assets and liabilities that can be recognized under IFRS.

Cumulative currency translation differences for all foreign operations were not reset to zero on January 1, 2010.

The transitional provisions in IFRIC 4, *Determining Whether an Arrangement Contains a Lease*, and we have assessed all arrangements based upon the conditions in place as at the date of transition.

**Estimates**

The estimates at January 1, 2010 and at December 31, 2010 are consistent with those made for the same dates in accordance with Canadian GAAP (after adjustments to reflect any differences in accounting policies).

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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

## 26. CHANGES IN ACCOUNTING PRINCIPLES TRANSITION TO IFRS

## Reconciliation of equity as at January 1, 2010 (date of transition to IFRS)

(millions of U.S. dollars)	Canadian GAAP	Notes	Presentation Reclassifications			Re-measurement Adjustments				IFRS	
			Equity method	Assets held for sale	Other (see notes)	ARO	SPE	Employee benefit	Push-down recognition acctg		Other
<b>ASSETS</b>											
<b>Current Assets</b>											
Cash and cash equivalents	\$ 232		\$	\$ 2	\$	\$	\$ 4	\$	\$	\$	\$ 238
Trade and other receivables	305	A,B	(4)	9	(68)		12		122		376
Inventories	494		(2)	3							495
Income taxes receivable		A			50						50
Other current assets	44	B,C,D		1	7		(1)				51
Deferred tax asset	3	E			(3)						
	1,078		(6)	15	(14)		15		122		1,210
Assets held for sale	251		(236)	(15)							
	1,329		(242)		(14)		15		122		1,210
Intangible assets	492		(1)	1							492
Other non-current assets	121	C			12		(15)				118
Investments in joint ventures		D	34		(1)						33
Deferred tax asset	58	E			3						61
Property, plant and equipment	3,553			7							3,560
Assets held for sale	43		(35)	(8)							
	\$ 5,596		\$ (244)	\$	\$	\$	\$	\$	122	\$	\$ 5,474
<b>LIABILITIES &amp; EQUITY</b>											
<b>Current Liabilities</b>											
Bank loans	\$	F	\$	\$ 1	(1)	\$	\$	\$	\$	\$	\$
Trade and other payables	555	A,F,G,H,I	(3)	6	(154)						404
Other current liabilities		G			115						116
Deferred tax liability	6	E			(6)						
Income taxes payable		A			6						6
Provisions		H			18						18
Long-term debt due within one year	312								122		434
	873		(3)	7	(22)				122		978
Liabilities associated with assets held for sale	142		(135)	(7)							
	1,015		(138)		(22)				122		978
Long-term debt	1,512										1,512
Other non-current liabilities	366	H,I			(326)			(6)		2	36
Employee benefit plan liability		I			302			(14)			288
Provisions		H			40	48					88
Deferred tax liability	804	E			6	(13)		6		(1)	802
Liabilities associated with assets held for sale	106		(106)								
	3,803		(244)			35		(14)	122		3,704
<b>EQUITY</b>											
Issued capital	849									12	861
Contributed surplus	941									(941)	

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Foreign currency translation reserve	5									5
Retained earnings (deficit)	(2)		(35)	14	929	(2)				904
	<b>1,793</b>		<b>(35)</b>	<b>14</b>		<b>(2)</b>				<b>1,770</b>
	\$ 5,596	\$ (244)	\$	\$	\$	\$	\$	122	\$	\$ 5,474

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## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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

## 26. CHANGES IN ACCOUNTING PRINCIPLES TRANSITION TO IFRS

## Reconciliation of equity as at December 31, 2010

(millions of U.S. dollars)	Canadian GAAP	Notes	Presentation Reclassifications			Re-measurement Adjustments					IFRS	
			Equity method	Assets held for sale	Other (see notes)	ARO	SPE	Employee benefit	Push-down recognition acctg	Other		
<b>ASSETS</b>												
<b>Current Assets</b>												
Cash and cash equivalents	\$ 300		\$	\$	\$	\$	\$ 6	\$	\$	\$	\$	\$ 306
Trade and other receivables	374	A,B			(61)		10		154			477
Inventories	450											450
Income taxes receivable		A			48							48
Other current assets	57	B,C			1		(1)					57
Deferred tax asset	2	E			(2)							
	<b>1,183</b>				(14)		15		154			<b>1,338</b>
Assets held for sale	321		(240)	9				(9)				81
	<b>1,504</b>		(240)	9	(14)		15	(9)	154			<b>1,419</b>
Intangible assets	465											465
Restricted cash	85											85
Other non-current assets	87	C			13		(15)					85
Deferred tax asset	63	E			2							65
Property, plant and equipment	3,456											3,456
Assets held for sale	10		(1)	(9)								
	<b>\$ 5,670</b>		\$ (241)	\$	\$ 1	\$	\$	\$ (9)	\$ 154	\$	\$	<b>\$ 5,575</b>
<b>LIABILITIES &amp; EQUITY</b>												
<b>Current Liabilities</b>												
Trade and other payables	\$ 579	A,G,H,I	\$	\$	(245)	\$	\$	\$	\$	\$	\$	\$ 334
Other current liabilities		G			125							125
Deferred tax liability	2	E			(2)							
Income taxes payable		A			67							67
Provisions		H			5							5
Long-term debt due within one year	10											10
	<b>591</b>				(50)							<b>541</b>
Liabilities associated with assets held for sale	245		(241)									4
	<b>836</b>		(241)		(50)							<b>545</b>
Long-term debt	1,531								154			1,685
Other non-current liabilities	419	H,I			(378)						2	43
Employee benefit plan liability		I			285			37				322
Provisions		H			142	51						193
Deferred tax liability	835	E			2	(11)		(10)				816
	<b>3,621</b>		(241)		1	40		27	154		2	<b>3,604</b>
<b>EQUITY</b>												
Issued capital	849										12	861
Contributed surplus	941										(941)	
Foreign currency translation reserve	2											2
Retained earnings	257					(40)		(36)	929	(2)		1,108



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<b>2,049</b>		<b>(40)</b>		<b>(36)</b>		<b>(2)</b>		<b>1,971</b>			
\$	5,670	\$	(241)	\$	1	\$	(9)	\$	154	\$	5,575

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**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

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

**26. CHANGES IN ACCOUNTING PRINCIPLES    TRANSITION TO IFRS**

**Notes to reconciliation of equity as at January 1, 2010 and December 31, 2010**

**Presentation reclassifications**

**Equity method**

IAS 31, *Interests in Joint Ventures*, provides that jointly controlled entities may be accounted for either by proportionate consolidation or by using the equity method. Under Canadian GAAP, jointly controlled entities were consolidated by proportionate consolidation. We have adopted the equity method of accounting for jointly controlled entities under IFRS. The adjustments required as at January 1, 2010 and December 31, 2010 had no impact on equity.

**Assets held for sale**

In our consolidated statement of financial position as at January 1, 2010, assets and liabilities previously reported as held for sale under Canadian GAAP can no longer be reported as such under IFRS. This is because IFRS does not allow the restatement of prior periods for comparative purposes with respect to the statement of financial position presentation of asset and liabilities held for sale. In our consolidated statement of financial position as at December 31, 2010, assets and liabilities reported as held for sale were reclassified to current to conform with proper IFRS presentation.

**Other**

Other reclassifications were made in our consolidated statement of financial position as at January 1, 2010 and December 31, 2010, to conform to IFRS presentation and include:

- A** Income taxes receivable and payable have been reclassified to a separate line on the consolidated statement of financial position.
- B** The current portion of commodity-based derivatives, other recoverable taxes and related party interest receivable have been reclassified from trade and other receivables to other current assets.
- C** Available-for-sale financial assets have been reclassified from other current assets to other non-current assets.
- D** Reclassification of other amounts included as assets held for sale under Canadian GAAP.
- E** All deferred taxes have been presented as non-current assets and liabilities.
- F** Bank loans have been reclassified to trade and other payables.
- G** Related party liabilities, accrued interest and other accrued liabilities have been reclassified from trade and other payables to other current liabilities.
- H** Provisions have been reclassified to a separate line on the consolidated statement of financial position.
- I** The current and non-current portions of employee benefit plan liabilities have been reclassified from trade and other payables and from other non-current liabilities to a separate line on the consolidated statement of financial position.

**Re-measurement adjustments**

**ARO (Decommissioning liabilities)**

Under Canadian GAAP, the discount rate used to determine the present value of our decommissioning liabilities was based on our credit adjusted risk-free rate. IFRS requires us to use pre-tax discount rate that

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**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

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

**26. CHANGES IN ACCOUNTING PRINCIPLES TRANSITION TO IFRS (Continued)**

reflects the current market assessments of the time value of money and risks specific to the liability (which we interpret to be a risk-free rate). Measuring our decommissioning liabilities with a risk-free rate of 4.33% results in an increase in the present value of our decommissioning liabilities at the date of transition to IFRS (January 1, 2010) and December 31, 2010.

**Special purpose entity ("SPE")**

Under Canadian GAAP, we were not required to consolidate NOVA Chemicals Receivable Corporation ("NCRC"), a wholly owned SPE utilized in connection with our U.S. accounts receivable securitization program. SIC 12 requires all subsidiaries to be consolidated if they are determined to be controlled. Because all benefits of the securitization program flow-back to us, NCRC is considered to be a controlled subsidiary and therefore it must be consolidated under IFRS. Intercompany balances have been eliminated.

**Employee benefits**

Under Canadian GAAP, we recognized adjustments arising from changes in assumptions and experience gains and losses in defined benefit plans based on the "corridor method". Under this method, if the cumulative unrecognized actuarial gains and loss exceeded 10% of the greater of the accrued obligations or plan assets at the beginning of the year, the excess was recognized as a component of pension expense on a straight line basis over the estimated average remaining service lifetime of the participating employees. Recognition of actuarial gains and losses within the 10% corridor was deferred. Under IFRS, we elected to recognize cumulative actuarial gains and losses (retrospectively back to July 6, 2009, the date on which we revalued all of our assets and liabilities to fair value) as an asset or liability with the offset to other comprehensive income, and recognized directly in retained earnings. Under IFRS, actuarial gains and losses also includes foreign exchange gains and losses on translation of the respective pension liabilities. Under Canadian GAAP, these were recognized in the consolidated income statement.

**Derecognition**

Although the transfer of accounts receivable under our Canadian and U.S. securitization programs comply with the standards for derecognition under Canadian GAAP, under IAS 39, the receivables transferred to financial counterparties do not meet the derecognition criteria. Accordingly, the funded amount of the programs at the IFRS transition date (January 1, 2010) and December 31, 2010 have been reclassified to long-term debt due within one year and long-term debt, respectively, based on the expiry date of the programs.

**Push-down accounting**

We elected to use push-down accounting under Canadian GAAP (CICA 1625, *Comprehensive Revaluation of Assets and Liabilities*) to account for the IPIC acquisition of us on July 6, 2009. This resulted in our assets and liabilities being comprehensively revalued to be consistent with the values recorded by IPIC in accordance with CICA 1582, *Business Combinations*. IFRS has no equivalent push-down accounting standard, however IFRS 1 does allow us to use the fair values of assets and liabilities, as determined in connection with the IPIC acquisition of us, as "deemed cost", for the assets and liabilities that can be recognized under IFRS. The excess of the acquisition date fair values of our identifiable asset and liabilities over the total purchase consideration ("bargain purchase") was reclassified from contributed surplus under Canadian GAAP to retained earnings under IFRS.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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

## 26. CHANGES IN ACCOUNTING PRINCIPLES TRANSITION TO IFRS (Continued)

## Other

We have a 20% interest in the Joffre Cogeneration Facility which is accounted for as a jointly controlled asset and proportionately consolidated under both Canadian GAAP and IFRS. Under IFRS a portion of our share of the revenues, under a cost pass-through formula that was recognized in prior periods under Canadian GAAP, must be deferred. The deferred revenue will be recognized in income over the period in which the corresponding assets will be depreciated. Also, at the date of transition to IFRS (January 1, 2010) other current liabilities has been adjusted to recognize a liability for future payments under a contract for maintenance service of the Joffre Cogeneration Facility's electrical generation equipment.

## Reconciliation of profit for the year ended December 31, 2010

(millions of U.S. dollars)	Notes	Canadian GAAP	Presentation reclassifications	Re-measurements	IFRS
Revenue		\$ 4,576	\$	\$	\$ 4,576
Feedstock and operating costs	A	3,466	278	(7)	3,737
Research and development		35	2		37
Sales and marketing	A		27		27
General and administrative	A,B	209	(31)		178
Foreign exchange loss	A	13	(13)		
Restructuring	A	20	(20)		
Depreciation and amortization	A,B	243	(243)		
		3,986		(7)	3,979
Operating profit from continuing operations		590		7	597
Finance costs, net	A	(183)	(4)	1	(186)
Other losses, net	A	(54)	4		(50)
		(237)		1	(236)
Profit before income taxes from continuing operations		353		8	361
Income tax expense		120		4	124
Profit from continuing operations		233		4	237
Discontinued operations, net of tax		26			26
Profit		\$ 259	\$	\$ 4	\$ 263

## Reconciliation of comprehensive income for the year ended December 31, 2010

(millions of U.S. dollars)	Notes	Year ended Dec. 31 2010
Comprehensive income as reported under Canadian GAAP		\$ 256
Differences in profit		4
Actuarial losses arising from employee benefit plan liabilities, net of tax	C	(59)
Comprehensive income reported under IFRS		\$ 201



**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

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

**26. CHANGES IN ACCOUNTING PRINCIPLES TRANSITION TO IFRS (Continued)**

**Year ended December 31, 2010 Presentation reclassifications and re-measurement adjustments**

**A** Other reclassification adjustments include moving accretion expense on decommissioning liabilities of \$4 million from feedstock and operating costs to finance costs, net, removing sales and marketing expense of \$25 million from general and administrative expense; reclassifying certain compensation related costs totaling \$15 million from general and administrative expense to feedstock and operating costs (\$11 million), sales and marketing expense (\$2 million) and research development expense (\$2 million); reclassifying losses on the derecognition of property, plant and equipment of \$4 million from other losses, net to feedstock and operating costs; and moving foreign exchange losses of \$ 13 million, restructuring expense of \$20 million and depreciation expense of \$234 million from a separate line on the consolidated income statement to feedstock and operating costs. Re-measurement adjustments include a \$2 million increase in foreign currency expense on translation of decommissioning liabilities, a \$1 million decrease in finance costs, net for a decrease in accretion expense on decommissioning liabilities and a \$10 million decrease in pension foreign currency expense on reclassification of translation of employee benefit liabilities from the consolidated income statement to other comprehensive income, and then directly to retained earnings.

**B** Other reclassification adjustment includes moving depreciation expense of \$9 million from a separate line on the income statement to general and administrative.

**Reconciliation of comprehensive income as reported under Canadian GAAP to IFRS**

**C** Under Canadian GAAP, we recognized adjustments arising from changes in assumptions and experience gains and losses in defined benefit plans based on the "corridor method". Under this method, if the cumulative unrecognized actuarial gains and loss exceeded 10% of the greater of the accrued obligations or plan assets at the beginning of the year, the excess was recognized as a component of pension expense on a straight line basis over the estimated average remaining service lifetime of the participating employees. Recognition of actuarial gains and losses within the 10% corridor was deferred. Under IFRS, we elected to recognize cumulative actuarial gains and losses as an asset or liability with the offset to other comprehensive income, and recognized directly in retained earnings. Under IFRS, actuarial gains and losses also includes foreign exchange gains and losses on translation of the respective pension liabilities. Under Canadian GAAP, these were recognized in the consolidated income statement.

**27. SUBSEQUENT EVENTS**

**\$400 million 6.5% notes**

On January 17, 2012, we repaid our \$400 million 6.5% notes using cash-on-hand.

**Accounts receivable securitization programs**

In January 2012, we amended our Canadian accounts receivable securitization program to extend the expiration date from February 2012 to February 2015. In February 2012, we amended our U.S. accounts receivable securitization program to extend the expiration date from February 2012 to January 2014 and increase the maximum funding from \$100 million to \$125 million.

**U.S. patent litigation**

In 2005, Dow Chemical filed a complaint against us for alleged patent infringement in the U.S. (see Note 22). In January 2012, a panel of three CAFC judges affirmed the District Court ruling in a 2-1 non-precedential disposition in favor of Dow Chemical. In February 2012, we petitioned the CAFC for an *en banc* (all members of the CAFC) review of the panel decision and have not yet received a response.

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