



**EMERY OLEOCHEM
CEO SHIFTS TO
SPECIALTIES WITH
PROJECTS PLAN
FOCUS P10**

CHINA OUTLOOK
Country suffers growth
crisis ahead of leadership
change as global economy
remains in doldrums **28**

POLYSTYRENE
Global demand expected
to grow by 2.9%/year
through 2011-2016 but
US suffers volatility **34**

September 24-30, 2012

Periodicals Entry

ICIS Chemical Business

ANALYSIS OF CHEMICAL MARKETS

ICIS
TOP 100
CHEMICAL COMPANIES
2012

COMPANY
OF THE
year

Back from the brink of bankruptcy, Canada-based NOVA Chemicals takes top honours for its olefins and polymers success

NIGEL DAVIS LONDON

The ICIS Company of the Year for 2012 is Canada-based NOVA Chemicals, a firm that, rescued from near bankruptcy in 2009, has been restored as a growing and profitable olefins and polymers producer.

NOVA, owned by International Petroleum Investment Company (IPIC) – an investment arm of the Abu Dhabi government – scored the most points in the ICIS annual analysis of chemical company performance in 2011. The company scored highly in terms of the returns it generated in 2011 at the operating and net level. It also made impressive year-on-year gains in a wide number of ratios and metrics used to perform the analysis.

NOVA's sales in 2011 grew by 14.5%, but those gains were turned into operating profits growth of 69% and the company's net profit more than doubled. Profit margins to sales and assets improved markedly while debt was paid down. NOVA has been working hard to capitalise on the clear ethane feedstock advantage it has at its crackers in Canada. The company made in 2011, in the words of CEO Randy Woelfel, "a change in our financial integrity".

The transformation in 2011 was significant. The company signed important, largely shale gas related, ethane supply deals that will see it well positioned for growth in the future.

NOVA 2020

In June 2011, it revealed the 'NOVA 2020' strategic plan to take full advantage of emerging supplies of ethane for its crackers and plans to expand its ethylene and polyethylene (PE) production capabilities.

NOVA made some bold moves. It was the first polyolefins producer to secure ethane from associated gas in the North Dakota Williston Shale basin and the first to secure significant ethane from oil sands off-gases. The company's Sarnia location in eastern Canada will be the first chemical plant to consume ethane from the Marcellus shale deposit in the US northeast.

For the full year in 2011, NOVA generated a large amount of cash and a record net profit of \$615m (€467m). Net debt was reduced to the point where the year-end 2011 debt to equity ratio was approximately 25% – a level comparable with some of the strongest players in the industry, according to CFO Todd Karran. Capital

ICIS company of the year



spending is rising and will increase further as the NOVA 2020 projects come to fruition.

The newfound ethane-related competitiveness has buoyed the industry in North America and is already having a positive impact on downstream industrial development.

So while a particularly strong performer in 2011, NOVA was by no means alone. Other producers took advantage of low ethane and other natural gas related feedstock costs in North America, while many firms continued to capitalise on strong chemical demand growth in emerging markets in the first half.

The year was one of two halves, nevertheless, with a strong first quarter for the upstream petrochemical players giving way to a difficult second half as demand and prices dropped. The

fourth quarter was challenging to say the least across broad swaths of the industry.

STRONG YEAR FOR TOP 100

The average gain in operating profit or EBIT (earnings before interest and tax) across the ICIS Top 100 Chemical Companies of 8.4%, however, shows that 2011 was a strong year for the sector. The strongest performers in 2011 in the diverse group of companies that make up the Top 100 ICIS chemical players – the top 100 in the sector by annual sales – were those able to capitalise on low-priced gas feedstock, emerging market growth and in the case of the dominant fertilizer producers, strong agricultural demand.

The fertilizer producers, particularly, stand



Nova's Corunna, Canada plant

NOVA Chemicals

IN ASSOCIATION WITH



raunhoenaki.de



across the companies analysed. The devastating earthquake and tsunami in Japan had a significant negative impact on the fortunes of Japanese players and is reflected in the ICIS Company of the Year analysis and rankings. The data set used in the ICIS Company of the Year analysis is collected for the ICIS Top 100 Chemical Companies listing which was published in the 10 September issue of ICIS Chemical Business. It includes sales and profits information alongside other financial metrics such as employee numbers; capital spending; research and development spending; total assets; property, plant and equipment data; and selling, general and administrative (SG&A) expenses among others.

The data show that 2011 was a successful year for many players in chemicals.

These firms represent a broad range activities. They include the major diversified chemical majors such as BASF and US-based Dow Chemical, the mainstream petrochemical players, including the chemical activities of the international and state-controlled oil companies, as well as many more specialised firms – some focused on relatively few product lines and customer industries.

CAPITAL SPENDING PICKS UP

Capital spending across this diversified group of companies was up an unweighted 28.6% and major gains were posted year-on-year by the largest players in the industry.

The gains illustrate the new mood of optimism in the industry and the fact that many companies in 2011 were generating significant amounts of cash and were keen to invest in upgrading plants, adding new production capabilities and acquiring more assets.

BASF lifted capital spending by 34% in 2011, with its property, plant and equipment spending up 4%. China-based Sinopec's capital spending on chemicals rose 16% while Dow Chemical lifted capital spending by 26% and Netherlands-based LyondellBasell by 52%.

While some of the more commodity-oriented and large chemical companies were putting cash into new assets in 2011, others were focusing more on research.

The research and development (R&D) to sales ratio for the ICIS Top 100 Chemical Companies in 2011 was 2.5% and up just 0.2% on 2010. But the average masks a wide range of individual company ratios. It does not show, for instance, that companies such as US-based Solutia, Switzerland-based Clariant, US-based Celanese and Belgium's Solvay pushed R&D spending higher relative to sales in 2011.

A further sign that the industry was in positive mode in 2011 was in the 4.2% rise in employee numbers. ■



For the latest news and views on NOVA and other chemical companies, including pricing reports, visit icis.com

> 80,000 Fine Chemicals and loving exotics...

- Organics & Inorganics
 - Metals & Rare Earth Compounds
 - Silanes & Silicones
 - Unique Fluorinated Compounds
 - Material Science
-
- From Gram to Bulk Scale
 - New Production Facility
 - Custom Manufacturing
 - International Sourcing

abcr ■

CPhI worldwide
where intelligence matters

Booth 8C52, Exhibition Hall 8
9-11 October 2012, Madrid

...sourcing your
most
special
compounds.

NOVA grasps feedstocks

Randy Woelfel, CEO of ICIS Company of the Year NOVA Chemicals, aims to build on a record performance with feedstock shifts and polyethylene expansions



NOVA CEO Randy Woelfel believes the company will only get stronger

NIGEL DAVIS LONDON

An aggressive feedstock policy and a laser-like focus on customers and markets helped Canada-based NOVA Chemicals achieve record financial performance in 2011, despite major operational challenges throughout the year, says CEO Randy Woelfel.

“It’s great to see the kind of performance we’ve been able to achieve at NOVA,” Woelfel said in an ICIS interview timed to coincide with the ICIS Company of the Year award.

This year’s winner gained record earnings in 2011 and strong cash generation helped it to pay down debt.

“This performance and commitment to financial integrity positions us well to move forward with our ambitious growth plans based on a solid balance sheet and strong liquidity,” the CEO told financial analysts in March.

Woelfel has led NOVA since November 2009, overseeing a transformation that involved realigning the company’s portfolio and grasping new opportunities in feedstock supply.

Under the NOVA 2020 strategy, launched last year, ethylene capacity will grow as new sources of primarily ethane feedstock become available to the NOVA crackers in Canada. Additional polyethylene (PE) capacity utilising NOVA’s propriety *Novopol* and *Sclairtech* technologies is planned.

IPIC INFLUENCE

NOVA has come a long way since 2009 when, facing almost certain bankruptcy, it was acquired by Abu Dhabi’s International Petroleum Investment Company (IPIC).

IPIC’s influence and its support – both financial and at an operational and planning level – since then has been considerable. The fund owns a majority stake in polyolefins producer Borealis and acquired 100% of Spanish energy and petrochemical group CEPSA in 2011.

“IPIC really saw in NOVA significant potential,” Woelfel said.

“They had a vision of the opportunity and also the courage, where others did not, to build value at the company. It’s by far the most holistic transformational process that I’ve had the privilege to be involved with.”

That transformational process has seen NOVA step away from styrenics – just this month PFB agreed to acquire its Performance Styrenics business, which makes expandable polystyrene (EPS) – to focus primarily on ethylene and PE. Employees and the company’s leadership have been given new confidence, Woelfel said.

New feedstock opportunities have been grasped and the NOVA 2020 strategic plan –

NOVA Chemicals

and the ideas Woelfel and his team have for NOVA 2030 – will lead to further step changes for the company.

To put the NOVA 2020 plans into perspective, in the middle of next year the first barrels of ethane will flow from the Marcellus shale in the northeast of the US into Canada's Sarnia valley and NOVA's revamped Corunna cracker. Also in 2013, ethane supplies to its plants in Joffre, Alberta, will be drawn from the gas associated with Bakken shale oil drilling in North Dakota.

Meanwhile, NOVA will begin to take supplies of a mixed ethane and ethylene feed from Canada's oil sands processing through an agreement with Williams Energy.

In a few short years, the world will have turned upside down for NOVA. Its feedstock flows all but reversed, the company is set on a growth track that will markedly raise ethylene and PE output.

The new supplies of ethane from shale oil, shale gas and Canadian oil sands plays will diversify the firm's feedstock mix and allow for significant capacity creep as well as expected new builds, Woelfel said.

PE capacity is likely to rise in Alberta and Ontario, home to the company's two main production sites. The earnings potential of the new NOVA will be significant.

NOVA's turnaround has been influenced

“This performance and commitment to financial integrity positions us well to move forward with our ambitious growth plans”

RANDY WOELFEL

CEO, NOVA Chemicals

greatly by the “dramatic evolution of North America natural gas and oil,” Woelfel said.

Yet he says it all starts with executional and health and safety excellence. “We've had a tremendous focus and commitment in this area,” Woelfel said, the aim being to plan and to execute against plan effectively.

In 2011, the company faced an unprecedented operational challenge, with every cracker and PE plant undergoing maintenance of some sort. But that work, some of which had been delayed through difficult times, will put the assets in good stead as feedstock flows from the new sources.

In 2009 and 2010, NOVA took steps to cut its reliance on crude oil from the Mediterranean for its Corunna refinery and moved to take West Texas Intermediate (WTI) price-based barrels.

The shift from Brent to WTI reference prices alone produced a \$100m EBITDA (earnings



NOVA's plant in Joffre, Alberta, will consume ethane from shale oil drilling in 2013

before interest, tax, depreciation and amortisation) gain relative to 2010, Woelfel said.

The declining supply of ethane in gas being produced from western Canada was constricting output from Joffre, which has a nameplate capacity of 2.8m tonnes/year of ethylene, including some allocated to a 50% joint venture with Dow Chemical.

But that decline has been reversed and the new supply agreements will mean that the Joffre ethylene output will be able to be ramped up.

NOVA's aggressive feedstock acquisition policy was a feature of 2011, Woelfel said.

Operating rates at Joffre were stepped up as ethane supplies rose by 6-7%.

Woelfel talked of some “very assertive sourcing management” and “some very creative, very breakthrough work on the feedstock front”.

CORUNNA EXPANSION OPTION

Work on the feedstock front continues and characterises the NOVA 2020 plans.

The Corunna cracker feedstock slate has been switched from predominantly heavy to light and by the end of next year the facility will be mainly natural gas liquids (NGLs) fed with some heavy flexibility.

Before the switch, the cracker had a nameplate ethylene capacity of 820,000 tonnes/year and a 2.1m tonne/year capacity for co-products. Woelfel said that Corunna could be expanded by 40-50% – although this is a stretch goal in engineering terms.

New ethylene supplies from Corunna in the east and Joffre in the west are likely to be utilised in two new PE plants. The proposed 450,000-475,000 tonne/year R3 plant at Joffre would

use *Novopol* technology and represent a 40% PE capacity increase at the site. An *Advanced Sclairtech* (AST) plant with capacity of approximately 475,000 tonnes/year planned for Ontario is in the early phase of project engineering.

Woelfel describes the shift from the old NOVA to the new as a very holistic change driven by a clear market approach.

LASER-LIKE FOCUS

NOVA's capacity expansions have to be aligned to a “laser-like focus on customers and markets,” he said.

“We are convinced that there is an appetite in North America for value-added product [such as AST PE],” he added. NOVA is, he said, consciously focused on North America.

And that focus extends to what the company might look like – not just in 2020, but also in 18 years' time.

Woelfel is conscious that NOVA has to take advantage now of what he calls “the opportunity of a lifetime”.

The company is working hard on the NOVA 2020 feedstock supply and production expansion projects.

Coupled with the work done to shift Corunna feed capability, the production expansions will cost in the region of \$1.75bn over the next seven years, according to estimates filed with the US Securities and Exchange Commission (SEC).

“We are trying to challenge ourselves on – what is NOVA able to become in 2030,” the CEO says. ■



To read more on NOVA and other companies' latest chemical projects, visit ICIS Plants & Projects database at icis.com/projects