



Opening speech on the occasion of the opening of the SEPC MEG plant

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Jurong Island, Singapore
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Ben van Beurden was appointed to the position of Executive Vice President Chemicals on 1 December 2006, based in London. Prior to this, from January 2005 he was Vice President Manufacturing Excellence based in Houston, responsible for standards in operational excellence and pacesetting initiatives in refining and chemicals manufacturing. From 2002 until 2004 Ben held the role of Private Assistant to the Chairman of Royal Dutch Shell.

In March 2009, Ben was appointed to the board of the International Council of Chemicals Associations (ICCA). The ICCA represents chemical manufacturers and producers all over the world.

Ben joined Shell in 1983 after graduating with a Masters degree in Chemical Engineering from Delft University in The Netherlands. From 1983 to 2002 Ben was employed by Royal Dutch/Shell Group of companies in a variety of technical and commercial roles both in the upstream and downstream businesses. He has lived and worked for Shell in The Netherlands, Sudan, Malaysia, The United Kingdom and The United States.

Good morning Minister Lim Hng Kiang, Minister for Trade and Industry, Your Excellencies, friends and colleagues, ladies and gentlemen.

I am incredibly proud to be here today to mark the commercialisation of our world-class and world-scale mono ethylene glycol (MEG) manufacturing facility.

It's a magnificent plant using exceptional process technology. And it's also a major milestone on the road to the completion early next year of our wholly-owned Shell Eastern Petrochemicals Complex (or SEPC) here in Singapore.

When fully operational, SEPC will be Shell's largest fully-integrated refinery and petrochemicals hub. It will also be Shell's second major petrochemical project to be successfully and safely delivered on time and to budget in the last five years, the first being the CNOOC and Shell petrochemicals joint venture in Guangdong, China.

Together, our investments here and in China reinforce Shell's strategy to selectively grow our Chemicals business to meet the needs of our Asia Pacific customers.

I'll talk more about SEPC in a moment. But for now, let's focus on this plant.

The MEG plant

For Shell, this is a special facility in a special place. And we are here to celebrate an impressive success for Shell Chemicals, for our contractors and partners, and for Singapore.

This MEG unit combines excellence in process technology and project implementation with outstanding manufacturing efficiency, product quality, safety and environmental performance. It also has the operating advantages of integration with other chemicals and refining units.

Together, we believe these are all attributes that make Shell a leading global producer in today's petrochemicals industry.

The scale of this plant deserves description: With annual MEG production capacity of 750,000 tonnes, this plant is the newest and among the largest in the world.

Over 21 kilometres of electric cable help power the plant. And during construction, installing the MEG reactor required one of the heaviest equipment lifts Shell has ever undertaken.

Annually, the plant will make sufficient MEG to produce over two million tonnes of polyester. As a number, that's pretty meaningless. But two million tonnes of polyester is enough to produce nearly 7 billion shirts. That's more shirts than the world has people.

While the project's scale is impressive, it's also an example of our outstanding safety performance here in Singapore.

In Shell, where everyone's safety is a primary focus, I am very proud to say that in the 13.5 million hours it took to build this plant, no one suffered any injury that would cause them to miss work. To give you some perspective, to achieve this, you as an individual would have to work 24/7 for more than 1,500 years without taking any time off because you injured yourself at work!

For their effort in the MEG construction and for the overall SEPC project, the project team was only days ago awarded the Shell Chief Executive's HSSE & SP Award for the category HSSE & Social Performance Leadership. 180 entries from Shell's operations worldwide were received and I want to thank everyone involved, both Shell employees and our project contractors, for making this a safety winner. Congratulations and well done!

Markets

For those who may not know, MEG is not just used in shirts. It's a key petrochemical intermediate used to produce a wide range of consumer and industrial products. These

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include polyester fibres for clothing and furnishings, safety equipment, PET bottles, film, anti-freeze, coolants and even natural gas processing agents. All these products enrich our daily lives.

We expect most of the MEG produced in Singapore to be consumed in Asia Pacific, which accounts for 70% of global consumption. With regional consumption growing at around 6% a year, the future looks bright.

OMEGA

I mentioned that process technology plays a key role in production plant success. This plant uses a process called OMEGA, developed by our technology arm, Shell Global Solutions. We believe OMEGA is unmatched in terms of MEG manufacturing efficiency and environmental footprint.

Like its two forerunners in South Korea and Saudi Arabia, this unit is manufacturing on schedule following exemplary project design, implementation and start up.

What makes OMEGA so special?

OMEGA delivers by far the lowest consumption of ethylene per tonne of MEG achieved so far in the industry.

How does it do this?

OMEGA is the first process to use catalytic conversion of ethylene oxide to produce MEG. Consequently, it uses about 20% less steam and produces 30% less wastewater than a traditional thermal conversion MEG plant with the same capacity. As a result, OMEGA also produces significantly less carbon dioxide per tonne of MEG.

With MEG selectivity of up to 99.3 - 99.5%, OMEGA produces virtually no heavy glycol by-products which would require additional handling or storage. That's why OMEGA stands for 'Only MEG Advantage.'

An OMEGA plant costs less to build and operate for the same MEG yield than a

traditional plant, so it stands out on economic grounds as well.

The Shell team responsible for OMEGA has already won an Institute of Chemical Engineers engineering excellence prize. OMEGA was also a finalist for "Commercial Technology of the Year" in the *Platts Global Energy Awards 2009*.

These accolades reflect both the strength of technology development within Shell and the importance we place on being a world leader in our fields of expertise.

Shell Eastern Petrochemicals Complex

Earlier, I said that this plant is a key element of our new Shell Eastern Petrochemicals Complex.

SEPC is a model example of Shell's strategy to integrate its refining and petrochemicals assets into supersites to maximise the economic and efficiency benefits in terms of feedstocks, operations and logistics.

The full scope of SEPC includes modifications and additions to the 100% Shell-owned Bukom refinery, a new 800,000 tonne/year world-scale ethylene cracker on Pulau Bukom, and a new 175,000 tonne/year butadiene unit, in addition to this MEG plant. The project leverages its integration with the Bukom refinery to deliver more value, cost efficiency and competitiveness.

Cost advantaged feedstock is a key competitive advantage available to Shell Chemicals as part of an integrated energy company. The integration with our refineries gives us the opportunity to direct hydrocarbons to the highest value application, irrespective of traditional refining-chemicals boundaries.

Building options for feedstock flexibility into our assets help us maximise returns as economics shift between hydrocarbon streams. This provides security of supply for our customers because we hope we will be robust throughout the troughs in the petrochemical and refining cycles.

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Shell in Singapore

On completion, SEPC will further strengthen Singapore's position as the Shell Group's largest oil and petrochemicals manufacturing centre in Asia-Pacific. It underlines our intent to remain a leading petrochemicals producer in this region.

Today, we are one of the largest foreign investors in Singapore, and Pulau Bukom is home to the largest Shell refinery in the world, with crude distillation capacity of 500,000 barrels-per-day. Our existing Shell sites and joint venture manufacturing plants here produce a wide range of key petrochemicals for the global market. And there are a number of other key reasons for the growth of Shell in Singapore.

Most importantly, the Singapore government understands what businesses need to succeed. Singapore has invested in education and nurtured a strong talent pool that Shell has leveraged over the years to grow its business in the Asia Pacific to a leading position.

Secondly, the country has optimised its location as the gateway between east and west by investing in its port and air facilities, which are among the best in the world.

Thirdly and specifically for our industry, their vision for Singapore as a leading petrochemicals hub has helped us maintain our competitive edge. Indeed, Jurong Island is truly world class with its excellent infrastructure and logistics in place. The island is a winning model of how co-location of related chemical industries and services in a single site can bring synergies for companies.

I'm sure that our partners and customers also understand the advantages of being here in Singapore and continue to expand or invest in

Singapore. Needless to say, the excellent port facilities that are critical to our industry, the ease with which we can travel to the rest of the world from Singapore, and the ease with which business can be conducted in this country all make for excellent reasons that Singapore will continue to attract investors.

Shell is also very pleased that the Singapore government continues to encourage the development of the Jurong chemicals hub. The strong commitment of the Singapore government and its agencies to work with us provided compelling reasons to proceed with SEPC.

While there are many agencies involved, I would like to especially thank the Economic Development Board, the JTC Corporation, the National Environment Agency and the Ministry of Manpower for helping us keep to our project delivery schedule.

Of course success is founded not only on great assets. Equally important are great partners and customers. At this juncture, I would like to take this opportunity to thank our partners and customers for their longstanding relationship and continued support.

In conclusion, I want to congratulate everyone who has helped bring this amazing plant to production. Only a few are here today to share in the celebrations. But be assured: every one of them has my sincere thanks and admiration.

And I am also very excited that next year, with the completion of the Shell Eastern Petrochemicals Complex, we will open yet another chapter in Shell's successful Singapore story.

Thank you.

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