

Submission to the Select Committee on Climate Policy

**Submission by Qenos Pty Ltd
17 April 2009**

Contents

1. Executive Summary	1
2. The importance of the continued domestic manufacture of polyethylene to the Australian economy	3
3. Indirect emissions from feedstock and gas should be included in the measure of emissions intensity	5
4. Compensation should cover close to 100% of the scheme costs	7
5. Comparing emissions intensity	9
6. Appropriate period for historical baseline calculation	11

1. Executive Summary

Qenos welcomes the opportunity to respond to the terms of reference established by the Senate Select Committee on Climate Policy. In this submission Qenos has limited its comments on the proposed Carbon Pollution Reduction Scheme ("Scheme") as set out in the White Paper and how the White Paper is being implemented. Qenos agrees that an emissions trading scheme, with appropriate assistance to affected businesses and individuals, is the most appropriate measure to reduce emissions.

The White Paper has sought to address the most material concern raised by Qenos during consultation in relation to the Green Paper. This concern was that the initial design of the Scheme did not recognise or provide assistance in relation to the increased costs of non-trade exposed inputs other than electricity. The White Paper has proposed that the emissions associated with the supply of ethane and methane feedstocks be included in determining the allocation of permits. This is an important amendment that was critical to the viability of Qenos's operations. There are further refinements in relation to non-trade exposed inputs that could be made that would make the Scheme even more equitable.

In addition to the above concern, Qenos may be materially affected if emissions associated with a material part of Qenos's operations are not included in the assessment of Qenos's emissions intensity.

A major economic reform

The Scheme is the most significant Australian economic reform for decades. While it is not the first Australian attempt to address a perceived market failure by a regulated market solution, its scope is unprecedented in both an Australian and international context.

Qenos commends the Government on producing a detailed and thorough White Paper and for its broad consultation.

Qenos supports a number of aspects of the proposed Scheme, including:

- the decision to pursue broad coverage, including the desire to include agriculture as soon as practicable;
- the need to provide transitional assistance to trade exposed businesses until the introduction of a global solution to reducing emissions;
- the ability for businesses such as Qenos to net out its supplier's permit liability associated with the embedded carbon in its feedstock (that is, in the absence of the netting out, the feedstock supply would be treated as an "eligible upstream fuel" and the supplier would be liable to surrender corresponding permits). Qenos will continue to work with the Department of Climate Change to ensure the proposed mechanism (Obligation Transfer Numbers) is appropriate.

In particular, Qenos supports the Government's decision to frame the Scheme as a major economic reform, which enabled both financial modelling and a debate that focuses on economic outcomes.

Focus of this submission

Recognising the breadth of submissions likely to be received by the Committee, this submission focuses on the issue that most directly affect Qenos, and on which Qenos is best qualified to contribute - transitional assistance for trade exposed industries.

Trade exposed industries should receive close to full compensation

Qenos is a trade exposed business that makes a significant direct and indirect contribution to the Australian economy.¹ Qenos welcomes the commitment by the Government to provide assistance to trade exposed industries.

Qenos considers that to prevent carbon leakage, transitional assistance should allocate permits to trade exposed industries to cover close to the full cost increases associated with the introduction of the Scheme.

¹ Further information on Qenos and its contribution to the economy are provided in section 2 below.

This will not negate emissions reducing activities. The opportunity cost of a rising permit price, together with the continuing necessity to retain a competitive advantage over import competition, will incentivise emissions saving activities. Qenos is very concerned to ensure that the Scheme is designed so that businesses that currently compete with international operations remain viable, and are not penalised by material compliance costs not currently experienced by import competition.

Amendments proposed by Qenos

The specific amendments proposed by Qenos in line with the above objective, together with a reference to the relevant section of this submission are outlined below.

Amendment	Reference
For businesses such as Qenos, indirect carbon costs relating to the supply of non-trade exposed inputs, in addition to electricity, are material and should be included in calculating assistance to trade exposed industries. The White Paper has sought to include the indirect carbon costs comprised in the upstream processing and venting emissions associated with producing methane and ethane, but only when used as a feedstock. The Scheme does not propose to include other costs such as the supply of non-trade exposed fuels and other feedstocks.	Section 3
All trade exposed businesses should receive 90% of Scheme costs (and not, for example, be limited to zero or 60% of the carbon cost impact depending on an emission intensity ratio). This would avoid the need for an administratively intensive process of defining and identifying the most emissions intensive activities.	Section 4
If an emissions intensity threshold is adopted, then an earnings measure (EBITDA) should be used to determine emissions intensity. The proposed alternative to revenue, Value Added, discriminates against industry with high fixed costs (such as labour and capital costs), as well as industries with many less individually significant variable costs.	Section 5
For cyclical businesses, a longer period (at least seven years) should be used to determine the historical industry emissions intensity.	Section 6

More broadly, these amendments are appropriate because:

- failing to implement the amendments will significantly increase the risk of carbon leakage as a result of trade exposed industries (including Qenos) becoming unviable and closing their operations; and
- the amendments will not compromise the Government's policy objectives of accelerating a global solution on carbon and preparing Australia for a carbon constrained global economy.

2. The importance of the continued domestic manufacture of polyethylene to the Australian economy

Qenos is an important business in the Australian economy with significant operations in Victoria and New South Wales. The sole domestic producer of polyethylene (PE), Qenos manufactures approximately 400,000 tonnes of PE annually of which approximately 10% is exported. Qenos produces over 70 different grades of PE for the domestic market and presently supplies between 60 and 65% of the domestic PE demand.

Qenos employs 800 people nationally but its supply to the domestic market of PE indirectly contributes to thousands of jobs in downstream markets.

Qenos has limited abatement opportunities

For Qenos, barring a major technology breakthrough, the most significant potential for carbon reduction in relation to direct emissions is through general production efficiencies. Qenos already has financial incentives to achieve these.

Not surprisingly, significant efficiency improvements have already been captured. Qenos has reduced the gross direct emissions associated with its business by 40% since 1995 through the adoption of more efficient processes and feedstocks, including a \$100M project in 2004/5 that enabled Qenos's Altona operations to utilise more ethane, the most efficient polyethylene feedstock.

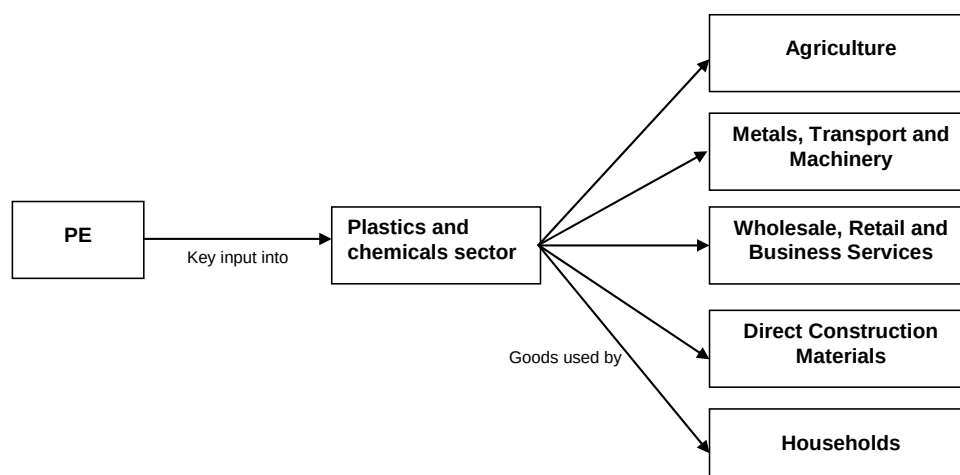
As a price taker, Qenos operates in highly competitive markets. This competition provides sufficient drivers for Qenos to make production efficiencies.

The other major opportunity to reduce emissions associated with Qenos's operations is to invest in cogeneration facilities at its operations. Such facilities could produce all of Qenos's steam requirements from the spent heat used to generate electricity from gas. Qenos would consume a large proportion of the electricity produced with the rest being contributed to the grid. This base load electricity is being supplied for minimal additional emissions than would have been required to meet Qenos's steam demand. Qenos has already completed an initial assessment of Cogen at one of its facilities and has commenced consideration of a second project. These are opportunities that will continue to be explored if Qenos's operations remain viable after the introduction of the Scheme.

PE and the plastics and chemicals sector

PE, a synthetic resin, is a significant part of the plastics and chemicals sector due to its upstream and downstream linkages. The plastics and chemicals sector consists of integrated industries making intermediate products which are sold as inputs into other manufactured products or as finished goods. It also includes a large number of SMEs that manufacture finished goods.

PE is key ingredient in manufacturing a range of products from milk bottles to water tanks.



The plastics and chemicals sector makes a significant contribution to the economy

Plastic and chemical products are essential inputs into goods produced in the Australian economy. The 2006 "Report on the Economic and Social Contribution of the Plastics and Chemicals Industries to Victoria and Australia" (**Brain Report**) demonstrated the importance of these products by looking at the scale of the use of plastics and chemicals in Victoria and concluded that the sector is one of the most important drivers of Victorian economic activity.² In so doing, the Brain Report stated that in 2004, it was estimated that:

- \$2.3 billion of the sector's products were used by the agricultural sector;
- \$3 billion of the sector's products were used as inputs into the metals, transport and machinery sector;
- \$4.8 billion of the sector's products were used by the wholesale, retail and business service sector;
- the construction sector spent \$1.3 billion on plastic and chemical products used for direct construction materials; and
- Australian households spent \$8.6 billion on the sector's products.³

The Brain Report found that:

- in 2004, the plastics and chemicals sector was directly or indirectly responsible for 7.3 per cent of total Victorian economic activity, as measured by gross State product, and directly or indirectly created 134,000 Victorian employment positions;⁴
- in 2004, the Victorian plastics and chemicals sector produced \$12 billion of output, representing nearly 40 per cent of production of the Australian plastics and chemicals sector and the highest contribution came from the synthetic resins industry, of which Qenos is an integral part;⁵ and
- the plastics and chemicals sector plays a significant role in being the first to produce new technologies to the Australian market that can be applied in non-chemical industries to improve productivity and growth opportunities.⁶

Qenos makes a significant contribution to the economy

Qenos's continued domestic production of PE is important given the direct and indirect contributions to Australia's economic and social fabric. The contributions include:

- direct contributions, through job creation, export revenues, fixed capital investment and investment in research and development; and
- indirect contributions, including securing supply to closely integrated Australian industries and encouraging direct foreign investment through cross-border ownership of productive resources.

In relation to Qenos, the Brain Report found that:

*"In short, the closure of Qenos would generate a significantly greater loss to the Victorian economy than what would be indicated by the already high economic significance estimates of Qenos to the Victorian economy. This is approximately one quarter to one third of the benefits of the synthetic resin industry."*⁷

² The Brain Report, page 1. The Brain Report was prepared for the Department of Innovation, Industry and Regional Development Plastics and Chemicals Industries Association and ACCORD Australasia. The Report was based on the findings of a study of the industry undertaken by the National Institute of Economic and Industry Research (NEIR).

³ The Brain Report, page 1.

⁴ The Brain Report, page 12 and 14.

⁵ The Brain Report, page 6 & 7.

⁶ The Brain Report, page 14.

⁷ The Brain Report, page 36

3. Indirect emissions from non-trade exposed suppliers should be included in the allocation of permits

Qenos agrees with the Government's design principal that it is essential that the Scheme applies equitably to businesses across the Australian economy.

Qenos and some other businesses will incur material carbon costs that will be passed through by feedstock and gas suppliers, as well as other non-trade exposed suppliers such as domestic coal and industrial gases. It is important that emissions from non-trade exposed suppliers are included in determining an appropriate level of transitional assistance and ensure such assistance reflects the increased carbon costs that Qenos and businesses with a similar cost exposure will bear.

The White Paper acknowledged that there are businesses that will incur additional costs from material indirect non-electricity emissions and the Government's policy, as set out in the White Paper, offers an allocation of permits in respect of methane and ethane when used as feedstocks. This is a particularly important amendment to the Scheme and demonstrates the Government has listened to and understood the issues raised by Qenos during the consultation process.

While this amendment addresses the most material aspects of the issues raised in Qenos's Green Paper submission, there are still two significant issues that may result in a material cost impact upon Qenos; the method of allocation of permits and the exclusion of all other non-trade exposed inputs from the calculation.

Background

Qenos's production process uses ethane, a co-product of natural gas, primarily as a feedstock, with off gases being used to supplement energy requirements. Qenos also uses LPG and Naphtha (a diesel blendstock) as incremental feedstocks (and supplemental energy). Qenos also uses natural gas and coal to produce steam, which is integral to the production of PE.

Feedstock and gas suppliers will be required to acquit permits for their direct emissions arising from:

- the extraction, compression and supply of feedstock and gas; and
- Venting of CO₂ prior to the delivery of feedstock and gas.

These suppliers have informed Qenos that they intend to pass through these costs to Qenos. Qenos's coal suppliers and industrial gas suppliers have also insisted upon the inclusion of carbon cost pass through clauses in their contracts. However, Qenos is not able to pass through any of these increased costs to its customers.

The costs passed through by suppliers will be material to Qenos. Without appropriate transitional assistance they would have comprised around a third of the cost impact of the Scheme on Qenos. Using publicly available data relating to the activities of Qenos's feedstock and gas suppliers and information made available by the Department of Climate Change on its website, Qenos was able to estimate of the level of emissions associated with the supply of feedstocks, gas and other non-trade exposed products.

Our assessment is that more than 500,000 tonnes of CO₂ emissions can be attributed to the emissions associated with the supply of gas, feedstocks and other non-trade exposed inputs. If the transitional assistance does not recognise any of these emissions then the additional cost to Qenos would start at \$12.5M in 2010 at \$25 per tonne. It is therefore vital that permits be allocated in relation to this liability. The White Paper offers an allocation of permits in relation to around 65% of these emissions. The gap arises from:

1. The proposal to use state average emissions factors for natural gas to assess the allocation of permits. The proposed policy may exclude over 100,000 tonnes of emissions from the calculation of transitional assistance to Qenos.
2. The exclusion of emissions from other non-trade exposed suppliers (eg. Natural gas and coal). This will exclude an additional 50,000 tonnes from the calculation.

Allocation Policy for Ethane

The Government is concerned to ensure that such “pass through” costs are as transparent as possible. Therefore the proposed method of calculation is with reference to the State based natural gas emissions factors. This might be suitable for methane (natural gas), which in most cases is supplied from a number of sources, and is moving towards a national market. The market will eventually determine the level of cost pass through.

However, this method of allocation may not represent the increased costs in respect of ethane. There are only 2 facilities in Australia that produce ethane, which is extracted from natural gas at Moomba in SA and Longford/LIP in Victoria. Qenos’s operations in NSW (connected to Moomba) and Victoria (connected to Longford/LIP) are connected by dedicated pipelines. The costs passed through to Qenos by its ethane suppliers will be based on the emissions and energy use at these facilities, not the State natural gas emissions factor. Qenos believes that the emissions per unit of production at the ethane producing facilities are a more relevant method of allocation.

These emissions factors should be relatively transparent due to the operators of these facilities having obligations under NGERs. In addition, Qenos will demand a level of transparency from its suppliers in order to assure itself that the costs that are passed-through are reasonable, attributable to the products supplied and not otherwise compensated. Furthermore, given the impact on Qenos of the increased costs associated with these indirect emissions, Qenos will need to accurately measure and monitor these costs as part of its business planning process. Qenos has initiated discussions with its feedstock and gas suppliers to discuss some of the above issues and is working to address any information asymmetry issues.

Non-Trade Exposed Inputs

The Government’s policy recognises the material impact that indirect emissions will have on Qenos, but only in relation to electricity and feedstocks.

The government’s policy has excluded other indirect costs on the grounds of materiality. The White Paper states that it *“has decided not to provide assistance in relation to these other indirect emission costs on the grounds that they are significantly less material relative to other emissions costs throughout the economy”*⁸. The material impact of an additional cost may be different for each company. The indirect emissions from natural gas may be material for one company when compared to the indirect emissions from electricity. For Qenos the indirect emissions from non-trade exposed inputs could equate to a third of the financial impact of the Scheme, after taking into account the proposed levels of transitional assistance.

Qenos believes that further consideration needs to be given as to what other non-trade exposed inputs should be included in the assessment of appropriate transitional assistance.

⁸ CPRS White Paper – Page 12-25

4. Compensation should cover 90% of the scheme costs

Qenos considers that transitional assistance must actually compensate for close to the full cost increases of all trade exposed businesses associated with the introduction of the Scheme so as to avoid carbon leakage. The assistance can be reviewed and adjusted during the Scheme with appropriate consultation and notice if there is empirical evidence that low carbon technology, which will not affect the international competitiveness of the business, becomes available for an industry or if broadly comparable carbon constraints are introduced in key competitor countries.

Qenos does not agree that the level of assistance needs to be reduced by 1.3% per annum in order to continue the Scheme's objectives for the reasons outlined earlier in this submission.

The Scheme will have a significant cost impact on Qenos

If introduced in the form outlined in the White Paper, the Scheme will materially impact upon the value of the Qenos business because:

- it will impose substantial and increasing additional costs on Qenos in the form of permit costs and increased input costs (both energy and feedstock costs) even after taking into account the proposed level of transitional assistance;
- Qenos, as a price taker, will not be able to pass through to its polyethylene customers any of the increased costs associated with the Scheme; and
- there is limited low carbon technology available to allow Qenos to reduce its direct carbon emissions materially. (See earlier comments regarding cogeneration.)

These issues are particularly acute for Qenos specifically, and some other parts of the plastics and chemicals sector, where, as a result of actual and threatened import competition, product is typically sold under contracts where:

- customers are not committed to minimum purchase requirements (that is, there is no take-or-pay); and
- contract prices are directly linked to international benchmark prices.

By definition, this precludes sellers from passing through domestic cost increases and results in an earnings reduction immediately the Scheme commences. This cost increase is compounded each year as the cost of carbon increases while the level of transitional assistance is reduced.

Qenos is not able to influence the countries of its competitors to impose a similar Scheme to provide a level playing field. Only Australia, as a nation, can do this.

The Scheme will lead to carbon leakage and reduce investment certainty

At some point, the only rational business decision for Qenos if it does not receive appropriate transitional assistance will be to cease operations. This has two important implications for Government policy.

- It will achieve a policy result of reduced greenhouse gas emissions in Australia, but with corresponding carbon leakage to competitor countries. For PE this means South East Asia and to a lesser extent the Middle East. This carbon leakage is likely to be compounded in the case of Qenos due to the impact of Qenos's closure on the viability of downstream trade exposed businesses (see the Brain Report). More importantly, it would result in the closure of an important business in the Australian economy for limited, if any, greenhouse benefit. Even if Qenos is not the most emission efficient PE operator globally, its closure will extend the life of a less efficient producer that is not exposed to a carbon cost.
- Investment certainty is critical for business. The introduction of the Scheme will cause a radical shift in Australia's manufacturing markets. As a trade exposed business, Qenos will bear a disproportionate share of the impact. The impact on Qenos (even with transitional assistance

proposed under the White Paper) is significant.

If the Scheme design is not modified, and the forecast impact becomes likely, then it is also likely that Qenos's Chinese shareholders will adjust its investment strategies in relation to Qenos, including investment required to sustain and grow Qenos's operations, including projects such as Cogeneration which could reduce Australia's emissions without impacting upon production.

Compensating EITE industries would not materially compromise carbon policy

Qenos appreciates that these policy implications need to be balanced against the Government's policy of pursuing reduced global carbon emissions. In this context, the Government has articulated two key benefits of the Scheme:

- by signalling a willingness to take concrete carbon limitation steps, introducing the Scheme will accelerate a global consensus on carbon reduction; and
- the Scheme will help Australia prepare itself for a low carbon future.

It is difficult to see how providing close to full compensation for trade exposed industries will materially prejudice either of these objectives. In particular, the steps to be taken in the non-trade exposed industries will:

- be significant and provide a credible signal as to Australia's commitment to a global solution; and
- enable Australia to develop the carbon trading expertise and major carbon abatement technologies (for example, carbon capture and storage) necessary for long-term mitigation.

At the same time, the Government cannot be certain about the likely near-term path of global carbon negotiations. It is by no means certain that an agreement on international action on Climate Change following the expiry of the Kyoto Protocol will be reached at or before the Conference of the Parties scheduled for Copenhagen in 2009. In this context, it makes little sense for Australia to risk the permanent departure of significant trade exposed industries before understanding the likely shape of the post-Kyoto framework.

Activity Definition

In the implementation of the Government's policy, the proposed method for allocating permits to trade exposed businesses has been to allocate permits only to "activities" that are deemed to be the most emissions intensive. This will result in transitional assistance for only part of the impact of the Scheme for most companies. For Qenos, it has resulted in a draft definition that excludes part of its operations that generates around 15% of emissions.

In order to produce PE, Qenos takes ethane and other feedstocks and, through a steam cracking process, produces ethylene. The ethylene is then polymerised via the introduction of catalysts and additives. Neither process is viable in Australia without the other, i.e. due to the distance to other markets and the logistical difficulties in transporting ethylene (a volatile product), it is not viable to operate an ethylene cracker for export. Similarly, it would not be viable option to operate a PE business on imported ethylene. Despite the economic reality of this situation Qenos is being required to demonstrate that integrated operations are the norm internationally and that it is not unfair to other industries to treat the ethylene activity as part of the polyethylene operation.

If the polymer operations were excluded for the purposes of assessing the allocation of permits then the effective rate of allocation to Qenos would be around 80%. If the transitional assistance was based on the emissions associated with the production of PE in Australia Qenos's operations would qualify for a 90% allocation of permits.

If all trade exposed businesses received an allocation of permits rather than only those deemed to be the most emissions intensive, then the current process of defining activities could be avoided.

5. Comparing emissions intensity

Background

The Government's preferred approach for determining assistance to trade exposed industries involves conducting an emission intensity test to identify those entities or industries which face a 'material' impact based on emissions intensity per \$ million of revenue. The proposal to measure emissions intensity using a revenue based denominator has strengths and weaknesses. Its main strength is simplicity. However, such a measure can result in poor targeting of assistance and requires assumptions concerning the relationship between activities in an integrated supply chain.

In responding to these concerns the Government has proposed a value added measure. This essentially provides assistance to companies whose revenue reflects, to a significant degree, high input costs, eg. refining. However, the Government's proposed calculation of value added only assists companies with 2 or 3 individually significant input costs. It does not necessarily assist entities with many individually less significant input costs or companies with high labour and/or capital costs. As such, using a revenue measure, or even the proposed value added measure, understates the materiality of the impact of a carbon price on the viability of polyethylene production in Australia.

Shortcomings in proposed threshold approach

The Government's threshold approach has two particular shortcomings.

First, it creates arbitrary (and artificial) cut-off points. By way of general illustration, the Government's preferred position is that entities be provided with 60 per cent of their emission permit needs if their emissions intensity is at least 1,000 tonnes per \$1 million in revenue. At a carbon price of \$25, this would mean an entity with emissions intensity of 1,000 tonnes would be provided with support equal to 1.5 per cent of revenue. The entity in question would face net carbon costs equal to 1.5 per cent of revenue at all levels of output.

As a result, the carbon costs (relative to revenue) faced by a firm with emission intensity of 1,000 tonnes per \$m revenue are the same as those faced by a firm with emission intensity of 400 tonnes per \$m revenue. Entities with emission intensity between 400 and 1,000 tonnes per \$m revenue will face higher carbon costs per unit of revenue. The same analysis could also be conducted in relation to the cut off between 90% allocation and 60% allocation.

Carbon costs @ \$25/tonne under existing assistance arrangements

Emissions intensity (t/\$m rev)	400.0	800.0	1,000.0
Carbon costs before assistance @ \$25 (% of rev)	1.0%	2.0%	2.5%
Compensation	0%	0%	60%
EITE assistance (% of rev)	0.0%	0.0%	1.5%
Carbon costs after assistance (% of rev)	1.0%	2.0%	1.0%

Second, and more importantly, a given carbon impost as a percentage of revenue or value added could have dramatically different implications depending on the extent to which it reduces profitability.

For example, at a \$25 carbon price, a trade exposed entity with emissions intensity of 800 t/\$m and a 10 per cent EBITDA margin would see EBITDA fall by around 20 per cent. By contrast, a trade exposed entity with emissions intensity of 1,000 t/\$m and a 20 per cent EBITDA margin would see EBITDA fall by around 5 per cent under the Government's approach despite being a larger emitter.

Impact of carbon on EBITDA

Revenue (\$)	100,000,000	100,000,000
EBITDA Margin	10.0%	20.0%
EBITDA	10,000,000	20,000,000
Emissions (tCO ₂ e)	80,000	100,000
Emission intensity (tCO ₂ e/\$m revenue)	800	1,000
Carbon price (\$/tCO ₂ e)	25.0	25.0
Free allocation	0.0%	60.0%
Carbon cost	2,000,000	1,000,000
EBITDA post ETS	8,000,000	19,000,000
EBITDA reduction (%)	-20.0%	-5.0%

Alternative approach - replacing revenue with an earnings measure

Qenos considers that the most appropriate denominator to use for calculating the compensation threshold is a measure of earnings – eg. EBITDA.

A direct earnings measure has two particular advantages.

- Targeting carbon leakage risk - The nature of trade exposed industries is that they face a horizontal demand curve with respect to the firm's own output (i.e. they have no capacity to charge a price which differs from import or export parity) but nonetheless face distinct price cycles associated with global conditions. A measure which takes account of a company's earnings is better able to target assistance at those activities where the risk of carbon leakage is greatest. In addition, EBITDA is also a well recognized and widely understood accounting measure.
- Proxy for inability to pass through costs – while the White Paper has sought to introduce a test for trade exposure the test treats all trade exposed industries as having the same ability to pass through costs. Qenos is able to demonstrate that it has no ability to reflect the cost of carbon in its PE products until there is a global agreement on the treatment of emissions. Qenos acknowledges that it is difficult to determine a simple and tractable test for trade exposure that would not require a detailed review of the pricing in all trade exposed sectors. If this is the case, then it is essential that the assistance is targeted at those businesses least able to absorb the additional cost.

One of the criticisms of an earnings based measure is that it potentially rewards poor performing businesses. While this may be the case if measuring emissions intensity across all sectors of the economy it is unlikely to be the case in relation to the trade exposed sector. In order to remain competitively viable such industries cannot afford poor performance. This is particularly the case for import competing trade exposed industries which are not necessarily world scale, such as Qenos. These industries have had to optimise their operations to make up for the lack of scale. For Qenos this has resulted in major conversion projects in 1995 and 2005 to enable the cracking of more efficient feedstocks, principally ethane.

The approach suggested by the BCA and outlined in the report prepared by Port Jackson Partners Limited (PJPL)⁹, is attractive in that it eliminates the need for an emissions intensity test yet targets assistance of those industries that can least afford the impact of a carbon cost, that it is the reduction in EBITDA, rather than carbon costs per se, which is most likely to drive investment or relocation decisions.

As modelled by PJPL, the BCA proposal reflects the differences in businesses profit margins thereby resulting in relatively equal profit impacts across businesses and avoids unfairly penalizing high revenue but low margin industries such as Qenos.

In addition, the mechanism proposed by the BCA is a measure that can be calculated using company data and can effectively compensate trade exposed industries across all carbon prices. Using a threshold of between 3% and 5% recommended by the BCA would create an appropriate abatement incentive whilst limiting earnings impact and, importantly, reduce the financial uncertainty associated with the introduction of the Scheme.

⁹ Port Jackson Partners Limited, "Bringing specific company economic perspectives to bear on the ETS design" Report prepared for the Business Council of Australia, 2008

6. Appropriate period for historical baseline calculation

Single entity industries

The Green Paper stated that while it would be preferable for the baseline to be calculated using data from a past period, the use of a shorter time period (namely, 2006-07 to 2007-08) may be more acceptable given that data is to be averaged across entities. The White Paper acknowledged the potential shortcomings of such an approach and therefore suggested using 4 of the last 5 years. While this is a more reasonable outcome it still fails to recognise the full cycle.

Cyclical market

The use of data over a period of years is particularly vital when the entity operates in a cyclical market, because a longer period is required to provide a representative historical baseline, particularly where there is forecast to be a reduction of prices or margins in that market. Of particular concern in the PE industry is that the years from 2004-05 to 2008 represent the best 4 years of the current cycle.

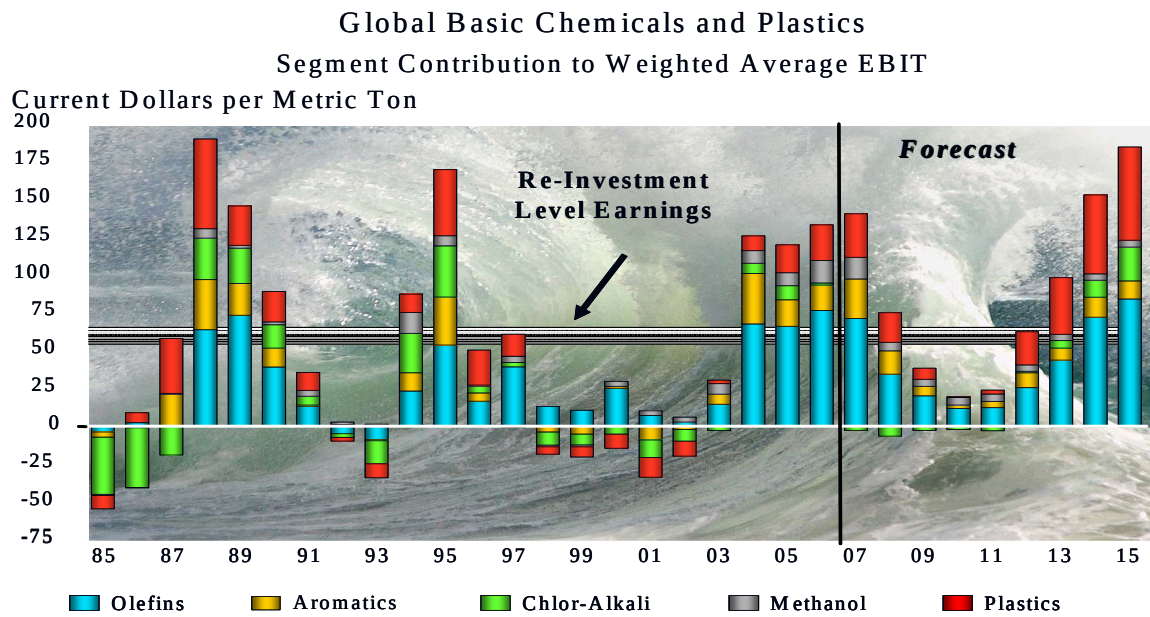
The PE market is cyclical in nature, with demand driven by the economic activity of the major economies. The PE market, as part of the petrochemicals market, has only recently retreated from historically record prices. The Global Financial Crisis only started affecting domestic PE prices in November 2008. However, growing demand for petrochemicals has encouraged major investment in new PE manufacturing facilities, which will compound the current demand driven the downturn in the cycle with a supply driven downturn over the next 2 or 3 years.

A significant factor in relation to the petrochemicals cycle is that margin is not driven entirely by the price of the finished product. The cycle is reflective of the differential between the finished product and the principal oil and gas based raw materials, i.e. record high prices are not necessarily reflective of being at the peak of the cycle.

The principal raw material in the manufacture of PE, ethylene, is manufactured using either oil or gas products. In Qenos's case, ethylene feedstocks (ethane, Naphtha and LPG) are directly linked to the price of oil. The pricing of PE in South East Asian markets for most of 2008 reflected the increased price of oil. Qenos's 2008 EBITDA was around 40% lower than its 2007 EBITDA, due to the reduction in difference between the feedstock price and PE price, despite Qenos's revenues being relatively similar.

The Chemical Market Associates, Inc (**CMAI**) in a recent market update prepared for Qenos's financiers in 2007 stated that the petrochemical industry is cyclical in nature and that the current business cycle is now at its peak. It notes that the trough of the cycle is expected to be around 2010 to 2011 and thereafter margins are expected to recover from 2012 to 2015. These forecasts have been impacted by the reduction of demand, which is likely to result in a larger trough in the cycle. The Chart below was part of CMAI's report and the following commentary was provided:

- the white band represents the weighted average earnings before interest and tax that the global petrochemical industry needs to earn, in order to be able to re-invest in new capacity;
- the chart shows the cyclicity of the industry, with the high margin periods causing too much capacity to be built and result in a cyclical trough; and
- the introduction of new capacity is reduced in the trough, thereby allowing demand to catch-up to the excess capacity. Supply tightens, demand balances, margins improve giving rise to the next cyclical peak.



The chart shows the olefin cycle period is 7-10 years.

Appropriate period over which to establish baseline

As an activity conducted by a single entity and in an industry that is cyclical in nature, the PE baseline should be established using data over a 7-10 year period.