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7 April 2009

The Secretary
Senate Select Committee on Climate Policy
PO Box 6100
Parliament House
CANBERRA ACT 2600
Email: climate.sen@aph.gov.au

Dear Committee Secretary,

Visy's recycling and remanufacturing activity and the CPRS

This attached submission has been prepared by Visy to inform the Committee's deliberations on the impacts of emissions trading scheme design on jobs, investment and environmental outcomes. It also deals with related renewable energy policy because this is an important complementary means of reducing greenhouse gases.

We would be happy to provide verbal evidence to the Committee, if so requested.

Yours sincerely,

Tony Gray
Director Sustainability

.../Submission

Submission to Senate Select Committee on Climate Policy

April 2009

Overview

Visy is the largest privately owned sustainable packaging and recycling company in the world.

We are an Australian family owned and operated company, employing more than 5,400 Australians across more than 110 sites Australia-wide.

Visy currently operates manufacturing investments worth over \$2.8 billion in Australia, and has over \$1.1 billion worth of new green investments under active consideration.

The Company is strongly supportive of effective action to avert damaging climate change, but concerned its Australian operations will be heavily impacted by the CPRS as it is currently designed.

Our three key comments on the CPRS and related policy developments are:

1. Visy's core business reduces greenhouse gases, but this is not recognised under the current CPRS design. Australian manufacturing jobs and investment must be encouraged by crediting the benefits of recycling under the CPRS.
2. Revenue streams from green investments made in good faith under existing greenhouse gas abatement schemes (such as GGAS) must be protected in the transition to CPRS to ensure these investments are not jeopardised, and
3. The Government should include cogenerated heat from renewable-fuelled electricity generation in industrial processes as a qualifying source for REC-creation under the Expanded Renewable Energy Scheme. This will assist new investments in renewable industrial energy, and serve as a complementary mechanism to the CPRS in reducing greenhouse gas emissions.

Detail

1. ***Visy's core business reduces greenhouse gases, but this is not recognised under the current CPRS design. Australian manufacturing jobs and investment must be encouraged by crediting the benefits of recycling under the CPRS.***

Visy's primary corporate aim is to invest and re-invest in Australian recycled products manufacturing business with environmentally-advanced facilities providing highly-skilled jobs.

Our recycled product manufacturing delivers genuine carbon abatement, and our recycled paper packaging is proven to be better than carbon-neutral.

However these benefits are not recognised and accounted for under the current CPRS design. Since the release of the *Green Paper* we have undertaken a detailed examination of the implications of the proposed CPRS design for our existing business.

We believe the scheme designers have not properly evaluated the vulnerability of the domestic recycled products manufacturing sector under the proposed CPRS regime.

While coverage of the *waste* sector may be valuable in winding back emissions from landfill, we believe that unless there is a more tangible and direct recognition of the significant greenhouse gas avoidance and abatement from our recycling/remanufacturing activity, Australia will see a hollowing out of its recycled products manufacturing base.

Attachment 1 and Attachment 2 to the *Green Paper* process highlight this dilemma and explain why carbon leakage and magnification, and domestic jobs & investment erosion will occur unless the greenhouse benefits our local remanufacturing can be recognised and monetised under the CPRS.

In these we have proposed to the Government that:

the CPRS arrangements should be modified to enable direct crediting of the authenticated carbon abatement benefits of recycling and remanufacturing activity, thereby reducing the net permit liability of such companies, and providing an incentive for domestic remanufacturing.

Because this recycling and remanufacturing activity provides Australia with a perpetual abatement benefit, such a credit arrangement should be built into the overall Scheme design rather than being simply a transitional measure as proposed with EITE assistance.

2. Revenue streams from green investments made in good faith under existing greenhouse gas abatement schemes (such as GGAS) must be protected in the transition to CPRS to ensure these investments are not jeopardised.

Visy has been a foundation and very active participant in greenhouse gas abatement schemes, particularly the NSW GGAS. We believe GGAS to be one of the best integrated and effective greenhouse gas abatement schemes in the world, particularly because of the encouragement it has given to industrial innovation and environmental investment.

We have predicated our investment in renewable energy installations upon a continuing, State-based greenhouse gas abatement regime. In particular, at our Tumut pulp and paper mill we have invested over \$170m in energy and co-generation equipment installations based upon GGAS registration and instrument revenues. This capital commitment to energy and co-generation was made based on the NSW Government's confirmation that the GGAS would be in place to provide credit to such projects and the project has been and continues to be reliant on NGAC revenue.

While we recognise and support the need to streamline and rationalise the various State-based greenhouse gas (and associated renewable energy) schemes, we cannot support a devaluation of the existing scheme revenues. For example, it has been suggested that, at best, GGAS benefits may transition on a \$-for-\$ basis of certificate value. As the CPRS implementation approaches, liquidity in GGAS certificates and values will collapse. Under such a scenario, although an approved GGAS project may have significant *actual* greenhouse gas abatement tonnage, this can only attract the prevailing GGAS certificate value, rather than receiving credit under CPRS for the greenhouse gas tonnes abated.

Visy submission on the transition from NSW GGAS to a national greenhouse gas abatement scheme is included at Attachment 3. Among other things, we have recommended:

There must be a 'tonne-for-tonne' currency exchange of greenhouse gas abatement certificates created under GGAS to permits created under the national scheme (CPRS)

3. *The Government should include cogenerated heat from renewable-fuelled electricity generation in industrial processes as a qualifying source for REC-creation under the Expanded Renewable Energy Scheme. This will assist new investments in renewable industrial energy, and serve as a complementary mechanism to the CPRS in reducing greenhouse gas emissions.*

Visy believes expanding the renewable energy target can have significant benefits for innovative energy investment in Australia, especially industrial energy use. However we are concerned that the currently proposed legislation is deficient because it doesn't include *heat energy* that is cogenerated as part of renewable electricity generation. Cogeneration – the simultaneous or serial production of electricity and heat – is demonstrably the most efficient way to convert renewable fuels to useful industrial energy.

Visy has invested heavily in renewable electricity generation to supply process power to our paper mills. At Tumut, for example, by the time we commission our expanded pulp and paper mill later this year, we will have invested over \$150m in the energy circuit for biomass-based electricity production. This effectively captures the heat from this circuit and uses it in place of fossil-fuel supplied process energy.

Under the current MRET arrangements, only the *electrical* output of our generator can attract RECs. This is a significant shortcoming, because it is the associated *heat* capture which creates the distinctive efficiencies of this type of investment.

In recommending inclusion of heat as qualifying output for REC creation, we acknowledge there needs to be a linkage with *electricity* generation. We have therefore suggested limiting the measure to *situations where that heat is captured as part of a renewable electricity generation circuit.*

Visy wants to expand its investment in biomass-fired renewable electricity generation with at least four new plants in Australia. However, unless the economics of such systems compare favourably with more conventional electricity generation, such investments will be difficult to sustain.

Implemented carefully, the Expanded Renewable Energy Scheme can serve to encourage more renewable electricity production in Australia's industrial/manufacturing sector.

As such it is a complementary mechanism to the CPRS in reducing greenhouse gas emissions and thus serving Australia's national climate change agenda.

Visy submission on the expanded Renewable Energy Scheme is included at Attachment 4. Included in our recommendation is that:

the Government should include cogenerated heat from renewable-fuelled electricity generation in industrial processes as a qualifying source for REC-creation, with a straightforward REC equivalence of $1 \text{ MWh}_{(\text{thermal})} = 1 \text{ MWh}_{(\text{electrical})} = 1 \text{ REC}$

Further information

Visy would be happy to provide verbal evidence to the Committee, if so requested.

For further information contact Tony Gray – 0418 530 378

Attachments

1. Visy submission on the *Green Paper* (10 September 2008)
2. Visy supplementary submission on the *Green Paper* - further details on carbon leakage and magnification (October 2008)
3. Visy submission on the transition from GGAS to an AETS (28 April 2008)
4. Visy submission on the expansion of the Expanded Renewable Energy Target (February 2009)

Visy's Response to the CPRS *Green Paper*

Summary

Visy has examined the Government Carbon Pollution Reduction Scheme (CPRS) *Green Paper*, and proposes the following design changes:

- Recognise the carbon abatement benefits of domestic recycling and remanufacturing, and net this off companies' emissions liability
- Freely allocate permits to all liable entities up to the cap
- Grant EITE compensation on the basis of the actual carbon cost impost
- Provide for full credit of existing GGAS abatement

Clearly, the quantum of the carbon cost at the start of the scheme, and into the future, will determine the severity of CPRS impact on Visy's business. However, the carbon price is not yet known, and Visy faces considerable uncertainty in assessing the impacts, and in budgeting for its immediate and longer-term operations.

Based on the preferred CPRS model in the *Green Paper*, at a carbon cost of \$20 per tonne Visy would be forced to immediately close two paper remanufacturing and recycling facilities in Australia, resulting in the loss of 160 direct jobs.

Further, at this carbon cost, the *Green Paper* proposals would damage Visy's corporate "engine", Visy Pulp & Paper, and therefore the rest of the group. Planned investment of at least \$1 billion would be jeopardised.

This submission makes the following observations and recommendations:

- Visy is Australia's largest recycling, paper and packaging company, directly employing 5 600 people throughout Australia, in manufacturing facilities valued at over \$3 billion. The Company is committed to continued investment but faces the difficulty of making investment decisions based on imperfect information.
- Visy has 60 years of corporate experience as a leader in environmentally-focused manufacturing in Australia. Its views on the significance of the CPRS for the Australian manufacturing industry, investment and jobs are based on that knowledge and track record.
- Visy sees considerable new business opportunities arising from Australia's orderly transition to a low-carbon economy. However, the Government must ensure these opportunities are not cut short by prescriptions which might inadvertently stall businesses' capacity for reinvestment.
- In the immediate term, the CPRS proposals pose a significant threat to only those parts of the Visy business which have high emissions intensity and which depend on international trade for their inputs and/or sales.
- Visy is not seeking special consideration for those parts of its business which are not EITE, but the higher cost of those products bearing a carbon price will need to be borne by Australian consumers.

Visy is preparing an additional confidential submission which provides data requested by the *Green Paper*, and an in-depth analysis of the EITE compensation arrangements, to be lodged before 30 September.

The following table summarises some key problems with the *Green Paper's* approach, and Visy's recommended changes to make the design and introduction of a more workable and effective CPRS.

CPRS <i>Green Paper</i> problem	Visy's proposed change
Visy's first-mover status in environmental performance puts it at a disadvantage compared with other Australian industries, including its competitors	⇒ Credit for early action should be provided through a combination of measures including permits, offsets and lower EITE compensation thresholds for such firms
The CPRS does not recognise the carbon benefits from recycling, leading to severe collateral impacts on Australia's domestic recycling/ remanufacturing industries	⇒ The scheme should recognise the genuine carbon abatement component of recycling/ domestic remanufacturing activity, and be netted off an enterprise's emissions liability
Full auctioning of permits will unnecessarily damage the economy and constrain businesses' capacity to invest in reducing emissions	⇒ Permits should be freely allocated for all liable emissions below the cap, and auctioned above it, with additional allocation to EITE industries from the auctioned portion
The proposed EITE compensation does not protect against carbon leakage, carbon magnification, and loss of jobs & investment	⇒ EITE compensation should be based on the actual cost impost of a carbon price on EITE activities only
Australia's existing greenhouse gas abatement schemes' benefits are placed in jeopardy	⇒ There should be a full transition of benefit flows from existing abatement schemes

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Visy's position on climate change reform

Visy welcomes the opportunity to comment on the Government's *Green Paper* on a proposed Carbon Pollution Reduction Scheme (CPRS). This response is intended to provide tangible, helpful and evidence-based comments on how to make the proposals more effective as part of Australia's policy response to addressing climate change.

These comments are also firmly grounded in Visy's corporate experience of sixty years of manufacturing investment and job-creation in Australia.

The Government's CPRS prescriptions must not thwart businesses' capacity to innovate

Visy's comments on the *Green Paper* should not be viewed as "ambit claims" and indeed, Visy sees considerable new business opportunities arising from Australia's transition to a low-carbon economy.

Visy's submission focuses on the specific concerns of those parts of our business which may suffer transitional margin-erosion and threat of disruption or closure.

Ultimately, Visy's corporate objective is to deliver value for its shareholders. If doing business in Australia becomes relatively less attractive than in other countries in the region, Visy will have to consider offshore investment on its merits.

Visy has examined the *Green Paper* and identified a number of threats posed to some of its core business units. It is important to stress that Visy does not consider all of its business units to be under threat. However, there are parts of the business which have high emissions intensity and which significantly depend on international trade for their inputs and/or sales will be rendered vulnerable by the CPRS proposals.

The following sections outline Visy's assessment of some key problems with the *Green Paper's* approach, and its recommended changes to make it more workable.

The problems with the *Green Paper's* approach, and Visy' proposed changes

1. No recognition of Visy's first-mover status

Problem 1: Visy's first-mover status in environmental performance puts it at a disadvantage compared with other Australian industries, including its competitors

Visy has continually invested to directly reduce greenhouse emissions. This includes energy efficiency technology and systems, renewable energy generation, increased diversion of waste from landfill, increased use of recyclable materials in product manufacture and research and development

In its packaging paper production activities in particular, Visy has reduced carbon emissions per tonne of paper produced. Since 2000 Visy has reduced carbon emissions by around 22% per tonne of paper produced. From 2000 to 2007, the average carbon footprint per tonne of paper produced by Visy has reduced from 1.15 tonnes CO₂(e) per tonne produced to 0.90 tonnes CO₂(e) per tonne produced. On a related environmental benefit, since 2000 Visy has reduced water use by 26% per tonne of paper produced: the average amount used was reduced from 6.1 kilolitres per tonne produced to 4.5 kilolitres per tonne produced.

During the same period Visy Recycling has increased its collection and diversion of waste from landfill from 950 000 tonnes to more than 2.1 million tonnes. This has been achieved through general growth of the business but also through significant investment in new technology and systems to increase Australia's total recovery of recyclables, including Visy Recycling's ability to capture more materials and increase the total recycling yield. It includes increased recovery and recycling of paper and cardboard from 700 000 tonnes to 1.5 million tonnes, meaning an increase of avoided landfill emissions of 2 million tonnes CO₂(e).

This work has been underpinned by Visy tracking its greenhouse emissions since 2000, and having its data independently audited and verified annually by Ernst & Young. Visy has publicly released its greenhouse emissions profile and data since 2003.

In respect to corporate commitments and public policy, Visy has been a long-term and strong advocate for a national response to climate change. Since 1999 the company has called for Australia to ratify the Kyoto Protocol and implement a carbon emissions trading scheme as part of the nation's approach to reducing greenhouse emissions. The company has supported and participated in numerous Government, industry and NGO processes and forums to advance climate change policy.

Visy was a founding member of the Business Leaders' Roundtable on Climate Change. Visy, together with other leading companies including Origin Energy, BP, Westpac and IAG, commissioned research on the economic impact of climate change and the cost of Australia not taking early action. On the basis of that research, the group publicly called for early action. These public activities helped bring Australian business into the climate change debate.

Visy became involved because it felt it had an obligation to help lead the discussion on the role of business in addressing climate change. In so doing, Visy also saw a very big opportunity for business, believing it was ideally placed to address the impact of climate change by providing solutions to the problem through profitable investment opportunities.

In parallel with its public advocacy, Visy has continued to invest in new plant and equipment with advanced emissions controls and environmental performance. Since 2000, the Company has invested well over \$1bn in new manufacturing facilities within Australia. Some of these are shown in the following table.

Visy's key value-added manufacturing investments since 2000

Facility	Investment
Tumut pulp and paper mill (2 stages, second stage under construction)	\$920m
Wodonga packaging plant	\$100m
Smithfield materials recycling facility	\$20m
Yatala advanced corrugated box factory	\$60m
Brisbane desalination plant	\$5m
Sydney effluent treatment facility	\$12m
Melbourne gasifier (approved for construction)	\$37m

Because of Visy's abatement activities to date, Visy's overall emissions intensity is lower than that of its competitors, both here and overseas.

Specific areas of Visy's first-mover investment relevant to greenhouse gas abatement include:

- Systems for collection of household and commercial recyclables, avoiding landfills and capturing embodied energy

- Installation of demand-side carbon abatement devices, including cogeneration, in paper mills and other factories
- Utilisation of residual (post recycling) manufacturing residues for process energy
- Installation of biomass power generation capacity
- Investment in fibre-based, closed-loop non-bleached paper-making (Tumut), with a high level of energy self-sufficiency

The *Green Paper* proposes compensation to companies with high emissions intensity per unit of turnover. Ironically, this means companies that have invested in cleaner production are at a disadvantage and potentially penalised for being progressive corporations. Visy will thus be at a disadvantage to its domestic competitors because it has, in effect, voluntarily reduced its own carbon footprint well in advance of any Government-mandated reduction.

Companies that have invested in cleaner production are at a disadvantage and potentially penalised for being progressive corporations

The *Green Paper* recommends against recognition of “early action”. Rather, it asserts that “a key advantage of a cap and trade scheme is that it implicitly rewards early action by reducing the number of permits that a business will be required to surrender to government” (p. 429). However this “implicit reward” logic does not apply to EITE-compensated industries during the initial stages of the scheme, because the provision of compensation to high emitters, and the exclusion of others, unfairly skews the market.

Recommended change 1: Credit for early action should be provided through a combination of measures including permits, offsets and lower EITE compensation thresholds for such firms

Firms which have made voluntary investments to abate carbon in their manufacturing processes and supply chains should be recognised through a combination of measures. These could include:

- Allocation of permits to reflect the acknowledged investments in carbon abatement (direct and indirect) by companies. Evidence for such abatement may be adduced from State-based programs (such as GGAS), but also via a system of case-by-case assessment (as currently applies under *Greenhouse Friendly*),
- Lower EITE compensation thresholds, based on an adjustment determined by the type and level of abatement action taken, and/or
- A mechanism of special “emission liability offsets” which may be applied to the NGERs calculations, with the quantum determined by comparison to industry/sector benchmarks.

The Government may also consider applying part of the proposed *Climate Change Action Fund* to retrospectively reward such early-mover investments according to an agreed set of assessment criteria, with projects independently certified.

Visy believes these proposals are essential to prevent closures of environmentally-excellent manufacturing facilities.

2. Impact on Australian recycling/remanufacturing capacity

Problem 2: The CPRS does not recognise the carbon benefits from recycling, leading to severe collateral impacts on Australia's domestic recycling/ remanufacturing industries

Jobs and investment

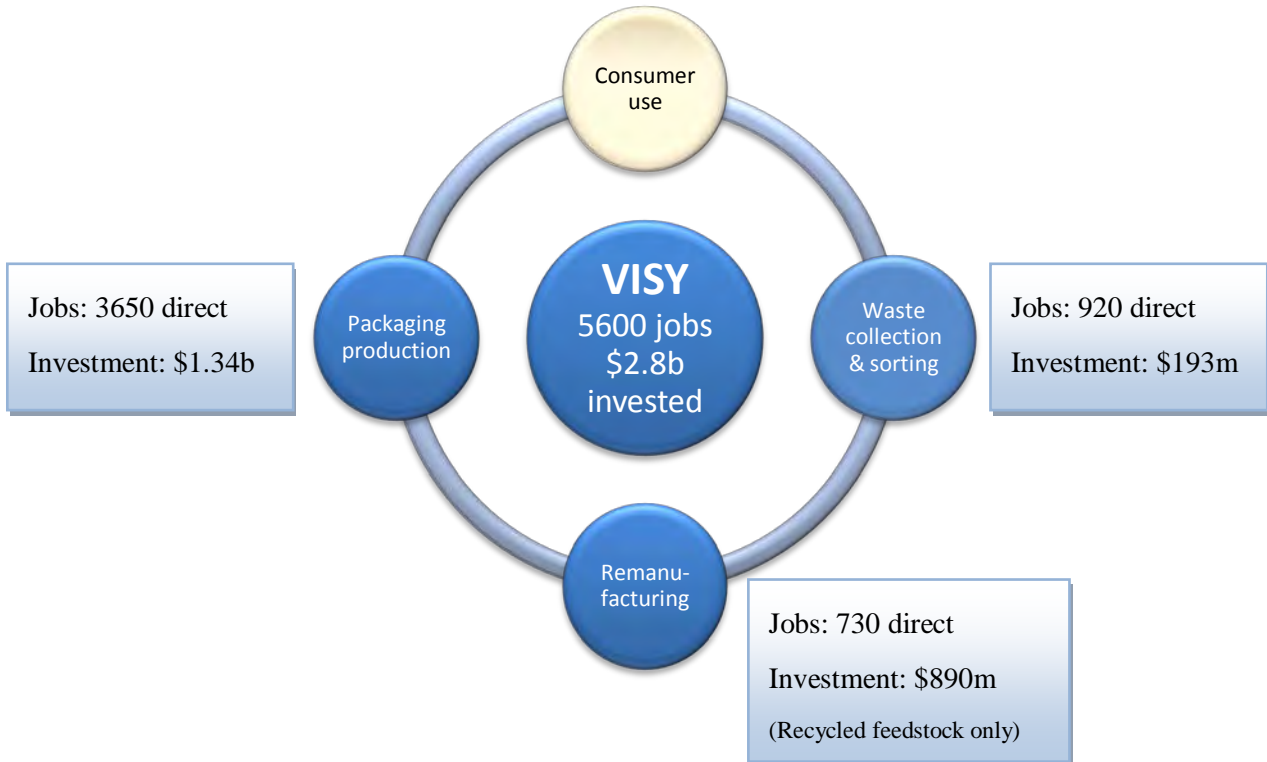
Remanufacturing (that is, production from recycled feedstock) is a crucial step in the recycling closed loop. In Visy's case, this step involves large amounts of domestic investment and highly skilled jobs.

Visy currently operates around 120 manufacturing facilities around Australia including eight major recycled paper mills in Australia. All of Visy's paper mills depend upon a continuous supply of recycled (waste) paper for their feedstock. Without this, they are redundant investments. Visy's Tumut mill, while based on plantation-sourced wood fibre, also uses approximately 20% waste paper as feedstock.

The pulp and paper division is central to the CPRS debate due to its high emissions intensity and trade exposure.

As the CPRS proposals currently stand, and assuming an entry carbon price of \$20 per tonne, two mills and their 160 jobs will be lost upon Scheme commencement. Further erosion of profitability and value-adding opportunities will occur unless the Government provides sufficient assistance in the transition.

Figure 1 - Visy's Australian jobs and investment in closed loop recycling (including remanufacturing)



The total current jobs and investment significance of Visy's recycled *paper manufacturing* business, excluding the \$920m Tumut pulp and paper mill, is

- Investment of \$890 million
- Direct jobs of 729
- Indirect jobs of 2 017

As well as paper, Visy also collects and processes recycled glass, plastics and metals for beneficial remanufacture.

Visy collects recycled waste from around 2.5 million families each week throughout Australia, and sorts it for reuse in dedicated materials recovery facilities (MRFs).

Life cycle analysis

All of Visy's materials recycling activity – including the domestic remanufacturing – makes a powerful greenhouse gas abatement contribution.

Visy's recycled paper packaging is better than "carbon neutral".

Independent greenhouse gas lifecycle analyses for its paper-making and PET plastic bottle-making operations¹, using Australian Greenhouse Office factors, demonstrate that:

- Visy's fibre packaging production processes ultimately reduce greenhouse emissions by 0.4 tonnes for every tonne of corrugated cardboard boxes produced, based on the whole lifecycle of production (including recycling, remanufacturing and landfill avoidance)
- Recycling PET plastic soft drink bottles saves one tonne of CO₂(e) for every tonne recycled compared to using virgin PET resin, so recycling of PET plastic bottles is at least carbon neutral

In addition to the carbon saved by Visy's manufacturing activities, further greenhouse benefits are generated through its sale of recycled materials, for example aluminium, which are then remanufactured by third parties.

These realities are not reflected in the *Green Paper's* proposals.

Broader environmental benefits

The *Green Paper's* proposals do not recognise the significant benefits genuine recycling/remanufacturing activity brings to Australia. These include²:

- Providing \$55 billion in economic value per year
- Saving 8.8 million tonnes of CO_{2e} per year
- Saving 91 million litres of water per year
- Saving nearly 9 million tonnes of raw materials, including oil, iron ore, and bauxite

The benefits of a closed-loop recycling/remanufacturing industry are shown below.

¹ Jean Wiegard of JTP Australia - an accredited greenhouse gas verifier with the Australian Government

² Australian Council of Recyclers, June 2008



Weakness of the Green Paper proposal

Regrettably, the current CPRS proposal does not recognise the greenhouse gas abatement benefits of recycling and domestic materials remanufacture.

In fact, Visy predicts that under the *Green Paper's* proposals there will actually be a *loss of recycled remanufacturing investment in Australia* in favour of export of waste offshore for manufacture in developing countries. This “hollowing out” of Australia’s recycled manufacturing base will occur because of the fundamental mismatch between (a) the proposed carbon-costing of the emissions-intensive remanufacturing industries here, and (b) the availability of our waste feedstock for unprocessed export to non carbon-costed destinations, principally in South Asia and South-East Asia.

The failure of the CPRS proposals to recognise and account for the greenhouse gas abatement benefits of recycling/remanufacture will result in:

- Carbon leakage and carbon magnification, as waste is exported, reprocessed offshore, and the remanufactured goods are re-imported to Australia in finished form,
- Loss of existing domestic Australian jobs and investment in this remanufacturing sector here, and
- An increase in our balance of trade deficit in packaging products.

The carbon footprint of manufacturing of recycled paper in Australia is 30-45% smaller than its current competitors

The carbon leakage/magnification significance for recycled paper is highlighted by the following emissions-intensity data for recycled paper production in Australia and a number of key Asian countries.

Comparative emissions intensities for recycling paper manufacture in Australia and Asia

Country	Emissions-intensity (kg CO ₂ /t paper)	Increase on Australian benchmark
Australia	992	-
China	1766	44%
Indonesia	1684	41%
Malaysia	1445	31%
Thailand	1475	33%

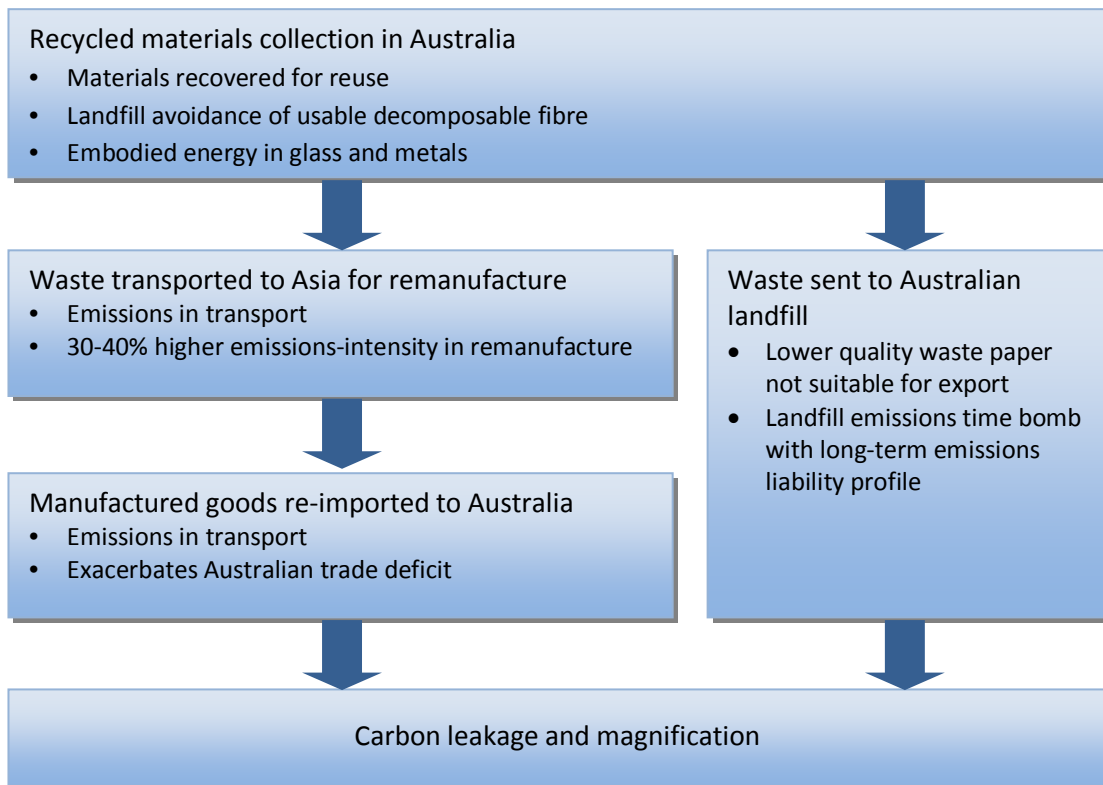
Source: Pöyry 2008

This shows that the carbon footprint of manufacturing of recycled paper in Australia is 30-45% smaller than its current competitors.

The same general arguments apply to non-paper recycled materials such as glass, steel and aluminium. However, in these cases the greenhouse gas abatement benefits accrue indirectly through the embodied energy of the recycled feedstock, rather than in landfill (methane) avoidance *per se*.

The implications of not recognising domestic remanufacturing are outlined in the following diagram.

Carbon, investment and jobs leakage through loss of local remanufacturing capacity



The recent Senate report into waste³ found that the CPRS “needs to send a direct and undiluted price signal to the market to recognise the greenhouse benefits of recycling”, and:

The committee recommends that the Commonwealth Government calculates options to send a direct and undiluted price signal to the market and publishes the greenhouse benefits of recycling or landfill gas reduction, capture and use as part of its deliberations on the Carbon Pollution Reduction Scheme.

This strongly supports Visy's position stated in this paper.

Recommended change 2: The scheme should recognise the genuine carbon abatement component of recycling/ domestic remanufacturing activity, and be netted off an enterprise's emissions liability

Visy proposes that the CPRS should incorporate a special measure to recognise the inherent benefits of recycling/remanufacturing, and to protect against further carbon leakage, and loss of jobs and investment, from this activity.

Visy's proposal is for the calculated greenhouse gas benefits of this recycling/remanufacturing activity to be netted-off against the NGERs-reported emissions for the recycling/remanufacturing enterprise, viz:

Net emissions liability

$$= [\text{NGERS emissions}] - [\text{LCA derived emissions saved by recycling}]$$

Visy believes there is ample information available to enable this calculation to be reliably made.

The proposal also aligns with existing Government policy with respect to life-cycle assessment (via, for example, the *Greenhouse Friendly* arrangements), and emissions reporting via the NGERs.

An assertion that the *coverage* of the waste sector under the CPRS should rule out any such netting off (or “offsetting”) is not justified. This is because, while coverage of the waste sector may go some way towards diverting decomposable organics from liable landfills, it does not deal with the loss of domestic remanufacturing and associated carbon leakage/magnification that the alternative non-carbon constrained remanufacturing incurs. In fact, simple coverage of the waste sector, without parallel recognition of the domestic remanufacture element, may actually exacerbate the loss of recyclable feedstock from Australia, and undermine the jobs and investment in this valuable industry sector. This is a perverse outcome that was clearly unintended by the Scheme designers and the Government.

Simple coverage of the waste sector, without parallel recognition of the domestic remanufacture element, may actually exacerbate the loss of recyclable feedstock from Australia

³ Senate Standing Committee on Environment, Communications and the Arts. 2008. *Management of Australia's Waste Streams (including consideration of the Drink Container Recycling Bill 2008)*. Report. September 2008. Canberra.

3. Economic impact of permits

Problem 3: Full auctioning of permits will unnecessarily damage the economy and constrain businesses' capacity to invest in reducing emissions

The Green Paper's proposal that 100% of permits for emissions are auctioned is not workable, and will place undue burdens on the Australian economy. The net drain on businesses, based on our assessment, is that the entities covered by the Scheme will be required to raise around \$12 billion⁴ of new equity, given a carbon price of \$30.

The economic realities are:

- Emissions generation is a necessary part of doing business
- Weak economies cannot afford environmental innovation
- Full auctioning of permits imposes unavoidable costs on all businesses, either directly or indirectly, some of which may prove catastrophic
- The costs are unreasonable because they should only relate to the portion of emissions which contribute to the agreed national abatement task – the only alternative is to reduce emissions to zero by closing and/or moving offshore

The Government needs to arrive at a realistic permitting mechanism which will not thwart the capacity of the economy to deliver sustainable abatement solutions. This stated policy objective, that is to avoid harm to the economy, will not be achieved by full auctioning.

Recommended change 3: Permits should be freely allocated for all liable emissions below the cap, and auctioned above it, with additional allocation to EITE industries from the auctioned portion

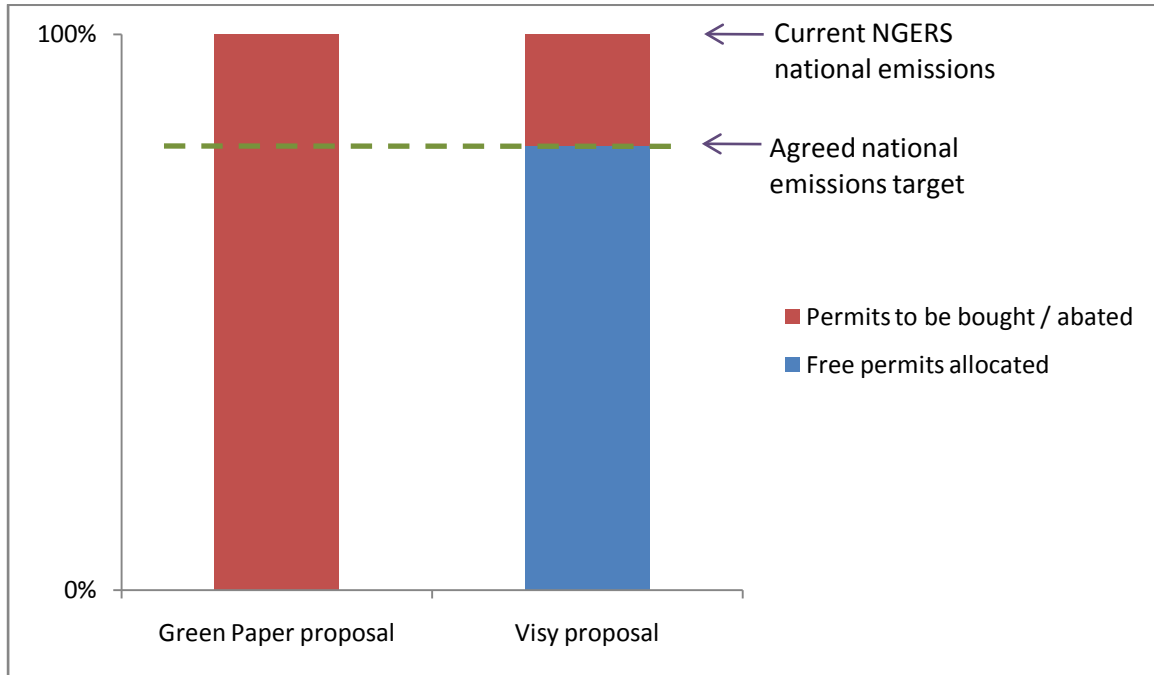
Visy proposes an alternative to the permitting arrangements which would effectively meet the Government's policy objectives for the CPRS. This involves the free allocation of permits for all liable emissions below the agreed cap. Any permits required for emissions above the cap should be auctioned. In this way, the price for carbon is applied to the desired abatement quantum.

For example, if in the first year the target is a 20% reduction in emissions for covered sectors, each liable entity would be granted free permits of 80% of their own emissions profile. In this way, liable entities are effectively incentivised through a cost signal to reduce permits to their own cap.

Investment in further abatement would be made possible through the selling of excess permits to cover their lowered emission level.

Visy's proposal for free permits up to the cap is demonstrated in the following chart.

⁴ Total Australian emissions (~570 million tonnes) * CPRS coverage (~70%) * \$30 per tonne



This approach would meet the following stated objectives:

- It will drive real abatement. Companies will be incentivised to reduce emissions down to the target
- It will minimise harm to the economy, as businesses will not be forced to pay for as many permits up front
- It will minimise costs of administration, and the quantum of money changing hands, which will in turn reduce churn
- It will ensure Australia is a first mover, while allowing our CPRS is more consistent with international emissions trading schemes, such as the EU ETS, which will not introduce full permit auctioning until 2020.

A key additional benefit to this approach is that it will minimise the amount of compensation the Government is required to provide, because the overall cost increases will be lower than under full auctioning.

Under this model, EITE compensation, in the form of freely allocated permits, would be granted for that proportion of emissions which is above the cap; that is, the emissions for which non-EITE entities would be required to purchase permits. EITE assessment is dealt with in the following section.

Criticism of the proportional free allocation model, which is applied under the EU ETS, arise principally because of uncertainty regarding the actual benchmark of emissions. In the EU, this problem led to an over-allocation of permits and consequent harsh market correction. This will not be the case in Australia because the Government has already established the NGERs, which provides an accurately and independently audited emissions benchmark for most liable industries.

4. Trade exposure risk not properly identified

Problem 4: The proposed EITE compensation does not protect against carbon leakage, carbon magnification, and loss of jobs & investment

Visy is concerned that the current CPRS design, as reflected in the *Green Paper*, fails to properly protect EITE firms from carbon leakage, carbon magnification and loss of jobs and investment.

The dilemma for Visy is that, although it leads its sector in low emissions efficiency, this will actually militate against Visy receiving EITE recognition under the *Green Paper's* EITE proposal.

The Green Paper states:

*it is not possible to provide a **practical, transparent and robust test** of the relative capacities of different industries to pass through cost increases (pp 310)*

and that:

emissions-intensive industries either engage in a significant amount of trade or produce goods that are highly traded globally; those industries are likely to be constrained from passing on significant cost increases (pp 310 – 311)

On the contrary, Visy believes there is indeed a “practical, transparent and robust test” which would fairly differentiate those industries unable to bear the carbon cost

Recommended change 4: EITE compensation should be based on the actual cost impost of a carbon price

The rationale for assistance to EITEs is articulated in the Garnaut Review's *Supplementary Draft Report* (5 September):

The reason for payments to trade-exposed, emissions-intensive industries is ... to avoid the economic and environmental costs of having firms in these industries contracting more than, and failing to expand as much as, they would in a world in which all countries were applying carbon constraints involving similar costs to our own. (pp 43)

Visy supports this logic.

Garnaut proposes a mechanism based on gross revenue, while the Business Council of Australia proposes a very similar mechanism based on gross value added.

The Garnaut mechanism proposes:

For every unit of production, eligible firms receive a credit against their permit obligations equivalent to the expected uplift in world product prices that would eventuate if our trading competitors had policies similar to our own.

This mechanism has the benefit that it would more easily differentiate activities which are genuinely trade exposed, because a world parity price for their products would be the basis of analysis and compensation.

If this mechanism was to be introduced, it is imperative to Visy that the threshold for free permit allocation is very low in order to reflect its true inability to pass cost

Low emissions efficiency will actually militate against Visy receiving EITE recognition

Only those products whose production activity is truly EITE would be eligible for free permits

through for these products. Importantly, the compensation would not apply to *all* revenue for the company, only those products whose production activity is truly EITE would be eligible for free permits.

This also provides for investments already committed, which undertake activities which are EITE, to be fairly covered by EITE assistance. For example, products from Visy's expanded pulp and paper facility at Tumut, currently under construction, will be fully EITE.

Not all activities within a company's business activities would be considered EITE. In Visy's case, its papermaking activity (from both 100% recycled feedstock and combined Kraft / recycled feedstock) is highly emissions intensive AND trade exposed, and these activities should meet the criteria for free permit allocation.

The following list summarises the status Visy group's key manufacturing activities in terms of their emission intensity and trade exposure.

Visy Business Unit	Number of Facilities	EITE Qualification
Paper (recycled and Kraft)	9	✓
Kraft pulp	1	✗
Beverage PET	8	?
Paper coating	1	?
Beverage Can (incl.LPB)	3	✗
Board (packaging)	19	✗
Food (containers)	5	✗
Recycling	27	✗
Specialties	12	✗
Automation & Technology	9	✗
Industrial Packaging	20	✗
Total	114	

In Visy's case, this would enable only the papermaking activities to be granted free permits, while allowing the other business units within the company to shoulder their carbon responsibilities by passing the high additional cost of the carbon component of products through to Australians.

It is imperative that free permit allocation should continue until competing goods are covered by a scheme which also values their cost of carbon. Given the rationale behind EITE measures, the Government will effectively delay, rather than prevent, the closure of these EITE businesses if free permit allocation is prematurely discontinued.

The need to compensate EITEs is well understood and acknowledged by the Government. Visy's recommendation for having free allocation for all below the cap, and only EITEs above the cap, will simplify the implementation of its proposed allocation, because fewer permits will need to be reserved for EITE compensation.

Visy supports a mechanism for EITE permit allocation which offers a fair recognition of the inability for EITEs to pass through costs, and to therefore help prevent carbon leakage and magnification, and loss of jobs and investment, which would otherwise occur from Australian EITE activities.

To ensure that free permits are not abused or “gamed”, their continued allocation should also be conditional on the progressive take up and implementation of best practice carbon abatement measures by those businesses in receipt of free permits.

Visy is preparing an additional confidential submission which provides data requested by the *Green Paper*, and an in-depth analysis of the EITE compensation arrangements, to be lodged before 30 September.

As explained in the next section, additional permits must be allocated to recognise existing abatement investments, currently recognised with the creation of GGACs.

5. Existing greenhouse gas abatement schemes not protected

Problem 5: Australia's existing greenhouse gas abatement schemes' benefits are placed in jeopardy

The *Green Paper* states:

The cessation of state-based schemes is a matter for the jurisdictions concerned.

Visy strongly believes the transition to the CPRS must preserve the value and ongoing abatement potential of investments justified by a stream of income from the NSW GGAS.

Direct assurances by the NSW Government that the GGAS would be extended to 2020 must be honoured because investment decisions were made, and developments are on foot, based on these assurances. In particular, Visy's decision-making on its Tumut pulp and paper mill – including a \$100m biomass energy generation facility - included the expectation of GGAS revenue. In aggregate, this amounts to the creation of at least 3.2 million NGACs between 2010 and 2020.

Recommended change 5: There should be a full transition of benefit flows from existing abatement schemes

Visy believes value of existing schemes that abate greenhouse gases – especially the NSW GGAS – must not be depreciated by the introduction of the CPRS because they remain effective tools against climate change. In particular the GGAS should remain in place until at least 2020, or an equivalent amount of compensation be provided on a tonne-for-tonne abatement basis

This would amount to the equivalent of 320,000 tonnes of abated carbon, in the form of CPRS permits, per year from the time of commencement of the CPRS until 2020.

Linked policies and opportunities

The revised Mandatory Renewable Energy Target scheme will play a key role in Australia future emissions abatement success

Visy has been a participant in Australia's Mandatory Renewable Energy (MRET) scheme since its inception, and has invested heavily in biomass energy developments as a result.

While strongly supporting the extension of the MRET, Visy is concerned about the impact of a revised MRET on electricity prices to it and other EITE companies, especially when such costs are applied on top of an increased electricity generation cost structure resulting from the CPRS.

However, Visy does not believe the answer is to truncate the expanded MRET, since this would militate against renewable energy uptake. Rather, we believe the Government should structure the revised MRET to:

- better promote lowest-cost renewable *electricity* technologies, such as biomass, rather than focusing on higher-cost solar and wind, but also
- recognise that renewable energy includes *heat* energy, which can also displace fossil-fuel based generation when captured through co-generation.

Visy therefore recommends that the Government gives greater policy support to incentivise co-generation, both within the MRET and in other energy efficiency schemes. There are additional benefits of co-generation that reach beyond emission abatement *per se*. Examples include:

- improved resource efficiency due to the lift in fuel efficiency from ~30% for a typical base-load coal-fired power station to up to 80% for co-generation,
- the deferral of asset investment in the electricity network that comes with embedded generation, and
- distributed heating (and cooling) systems which can greatly assist energy conservation and reduce demand from the electricity conventional networks.

With respect to the revised MRET, Visy recommends that co-generation from renewable fuel sources should attract “Heat RECs” or “Thermal RECs”, as is provided under the UK Renewable Obligation Scheme. This recognises that thermal energy is an additional, often overlooked, energy form to electrical energy, and as such its maximum renewable generation should be encouraged.

Scheme start date should be aligned with post-Kyoto milestones

Visy is concerned that the Government’s proposed CPRS start date is not aligned with relevant external milestones, especially those relating to the development of the “post-Kyoto” frameworks, and therefore recommends it is adjusted to 2012. This would allow for the international carbon market to be established and would minimise the scope for carbon leakage and other trade distortions inherent in unilateral action.

To avoid delayed greenhouse gas abatement actions, however, the Government should consider providing incentives for companies to abate carbon prior to the Scheme’s introduction.

Visy sees investment opportunities from climate change reform

There are genuine investment opportunities which could arise from Australia’s new carbon economy, should the CPRS and MRET be appropriately structured.

Visy is a first-mover in clean technology, and has already invested in technology and products that capitalise upon Australians’ emerging environmental consciousness. These include:

- Water-recycling, including the world most water-efficient pulp & paper mill
- Renewable energy systems for manufacturing process power
- Efficient transport solutions
- Advanced papermaking technology to maximise heat and electrical energy conservation, and renewables
- Materials conservation in product design and customer education
- Plantation timber utilisation and replanting
- Non-bleaching technology in kraft paper-making

- Advanced recycling/sorting systems

Additional opportunities are currently being explored with investment feasibility studies underway in many areas. These current projects comprise, in aggregate, over \$1.1bn of new capital investment, including:

- Biomass and other renewable energy plants
- Closed-loop materials use
- Energy recovery from residual processing wastes
- Cogeneration and energy efficiency in manufacturing systems

However, Visy's capacity to continue to invest in these advanced manufacturing technologies will depend on it maintaining profitability from its core business activities – some of which stand to be adversely affected by the proposals set out in the CPRS *Green Paper*.

Concluding comments

This submission highlights Visy's concerns with the shape and direction of the current CPRS process, as reflected in the *Green Paper*. We have demonstrated some of the perverse outcomes these proposals may bring, especially in the loss of Australia's recycling/remanufacturing industries, with the attendant carbon leakage/magnification, and loss of Australian jobs and stalled investment.

At the same time, however, Visy believes there are some genuine investment opportunities which could arise from Australia's new carbon economy. But these will only be possible if the CPRS and MRET are appropriately structured, and existing first-mover industries like Visy are given the scope to maintain their current development and investment trajectory here.

Visy requests the Government to seriously consider these, and Visy's recommended solutions, when it forms its decisions regarding the Scheme, and would welcome any opportunity to discuss its position in further detail.

Visy will continue to provide additional detailed commercial-in-confidence information to the Government in support of this submission.

Contact

Tony Gray

Director of Sustainability

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Visy's Supplementary Response to the CPRS *Green Paper* - abridged

Visy made a submission to the *Green Paper* on 10 September 2008. At that time, Visy committed to provide additional detailed commercial-in-confidence information to the Government in support of the submission.

This Supplementary submission contains information requested of companies in the *Green Paper*, as well as additional information regarding the CPRS.

In summary Visy's position with respect to permit allocation under the CPRS is as follows.

Recognition of recycling	The calculated greenhouse benefits of Visy's recycling/remanufacturing activity should be recognised, such that:
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$$\text{Recycling/remanufacturing free permits} = \text{NGA Factors Workbook-derived landfill emissions avoided by recycled paper remanufacture}$$

This should be provided in the form of free permits, offsets or equivalent credits, and be a permanent arrangement to reflect the enduring greenhouse benefits of recycling/remanufacturing.

This *must* be applied at the point of *remanufacture*.

EITE assistance	Visy also requires free permits under the EITE assistance provision to maintain its operations. This would cover only its papermaking activities, until competing jurisdictions have a commensurate carbon cost.
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1. Permit allocation mechanisms

Visy proposes two parallel mechanisms to ensure an effective CPRS:

- Recycling assistance
- EITE assistance

The recycling assistance belatedly reflects the fact that recycling/remanufacturing has a positive effect on GHG emissions, and ensures Australian remanufacturers retain this recognition as long as they contribute to reducing emissions.

The EITE assistance is to ensure Australian businesses retain their current competitiveness in the global market.

Both are essential to reflect the potential for emissions to actually increase under the CPRS.

a) Rationale: carbon leakage and magnification risk

Visy has always strongly supported the introduction of an appropriately designed emissions trading scheme. Visy is concerned that the CPRS as it is currently proposed will increase greenhouse gas emissions globally while reducing investment, employment and economic activity in Australia because it will drive the closure of Australian recycling / remanufacturing facilities, leading to:

1. increased emissions in Australia and
2. increased emissions globally.

Visy's initial submission stated it would be forced to close two recycled paper mills due to the cost imposed of even a modest carbon price of \$20 per tonne. The flow-on effects of this are summarised in the following table.

The table shows the difference between:

1. the current case, which is production of the marginal 200,000 tonnes (nominal) of recycled paper which would no longer be recycled by Visy in Australia, and
2. the alternative (in the absence of support), of both exporting the waste paper for remanufacture into recycled paper in China, and landfilling the remainder in Australia.

Visy's analysis shows that in the immediate term there is a small decrease in Australian emissions, and carbon magnification of 387,422 tonnes per year from displaced production.

Change to current practice	Emission source	Emissions increase Australia (tCO ₂ e)	Emissions increase overseas (tCO ₂ e)
Waste paper exported	Avoided production emissions	-221,120	
	Transport emissions (export)		5,544
Waste paper landfilled in Australia	Landfill emissions	186,278	
Recycled paper manufactured overseas	Production emissions (using Visy waste paper and others)		340,000
	Transport emissions (import)		8,400
Manufacturing waste landfilled in China	Landfill emissions		67,200
Net emissions change in Australia		-34,842	
Net emissions change in total		386,302	

Sources of data: Pöyry, Visy calculations, AGO landfill emissions factors

This model assumes that a proportion of the waste paper feedstock to the two closed mills would be exported (a nominal 60% is assumed), with the remaining waste paper feedstock made up from local (Chinese) sources, to enable production of recycled paper to replace Visy's lost market volume. It should be noted that potentially 100% of waste paper would be landfilled, due to increasing recycling capability in China, and this is discussed in the following section.

b) Recycling assistance

Landfill emissions or carbon magnification?

Visy's recycled papermaking assets worth \$890 million were originally established on the basis of using material which was landfilled, and additional investment in local remanufacture is likewise based on this premise. Recognising the greenhouse benefits of recycling/ remanufacturing is important for maintaining reinvestment in one of Australia's green industries.

Visy's recycled product manufacturing delivers genuine carbon abatement. Visy's recycled paper packaging is proven to be better than carbon-neutral. These benefits need to be properly accounted for in the CPRS arrangements.

Expert, verified studies, including three independent life cycle assessments (LCA), have been undertaken for Visy's own process to calculate the greenhouse impacts / benefits of paper recycling and PET plastic recycling^{1,2}.

In the case of recycled waste paper a significant greenhouse benefit accrues from paper remanufacture due to the diversion of the waste from landfill – since paper is essentially cellulose in composition, it degrades over time in landfills to methane which has a Global Warming Potential of 21.

¹ Wiegard, 2005. "Greenhouse Life Cycle Assessment of the Virgin Papermaking Process for Visy Paper", JTP Australia; Wiegard, 2006. "Visy Paper Recycling Process Greenhouse Life Cycle Assessment 2004-2005", JTP Australia; Wiegard, 2008. "Visy Polyethylene Terephthalate (PET) Greenhouse Gas Life Cycle Assessment 2006/2007", JTP Australia.

² Warnken ISE, 2007. "The Potential Greenhouse Gas Liability from Landfill in Australia"; Warnken ISE, 2007. "Potential for Greenhouse Gas Abatement from Waste Management and Resource Recovery Activities in Australia"; Australian Council of Recyclers / Hyder Consulting, 2008. "Australian Recycling Values – a net benefits assessment"

The LCA was conducted according to DCC methodology, and the result shows a net emission *reduction* of 1.15 tonnes CO₂-e per tonne of waste paper remanufactured. That is, for each tonne of waste paper re-manufactured, almost 1 tCO₂e is emitted in the re-manufacture of the paper however 2.12 tCO₂-e are abated due to the paper not being disposed to landfill

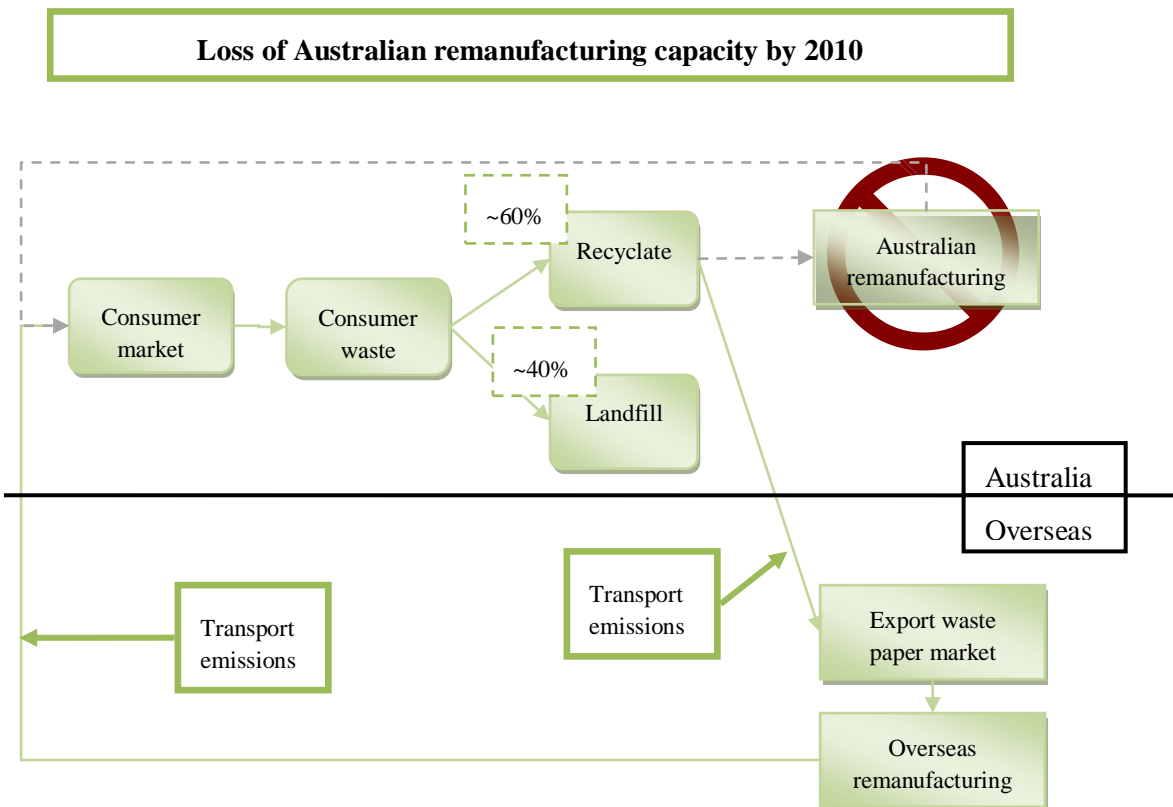
Visy activity	Emissions (tCO ₂ -e) per tonne of waste paper input
Recycling (collection and sorting)	0.004
Papermaking	0.957
Landfill avoided	2.12
Net emissions	-1.15

The life cycle analysis assumes that the waste paper used to produce the paper would all be sent to landfill were it not remanufactured. However, an export market has recently developed for certain standards of the waste paper, and if the mills were to close, a proportion of waste paper feedstock currently being remanufactured would be exported, with the remainder (principally “commons” grades) sent to landfill. Landfilling of this waste would occur despite a carbon price, unless the carbon price is very high. This is evidenced by the rate of increase of landfilling in Australian capital cities being relatively unaffected by rising landfill costs and the introduction of levies.

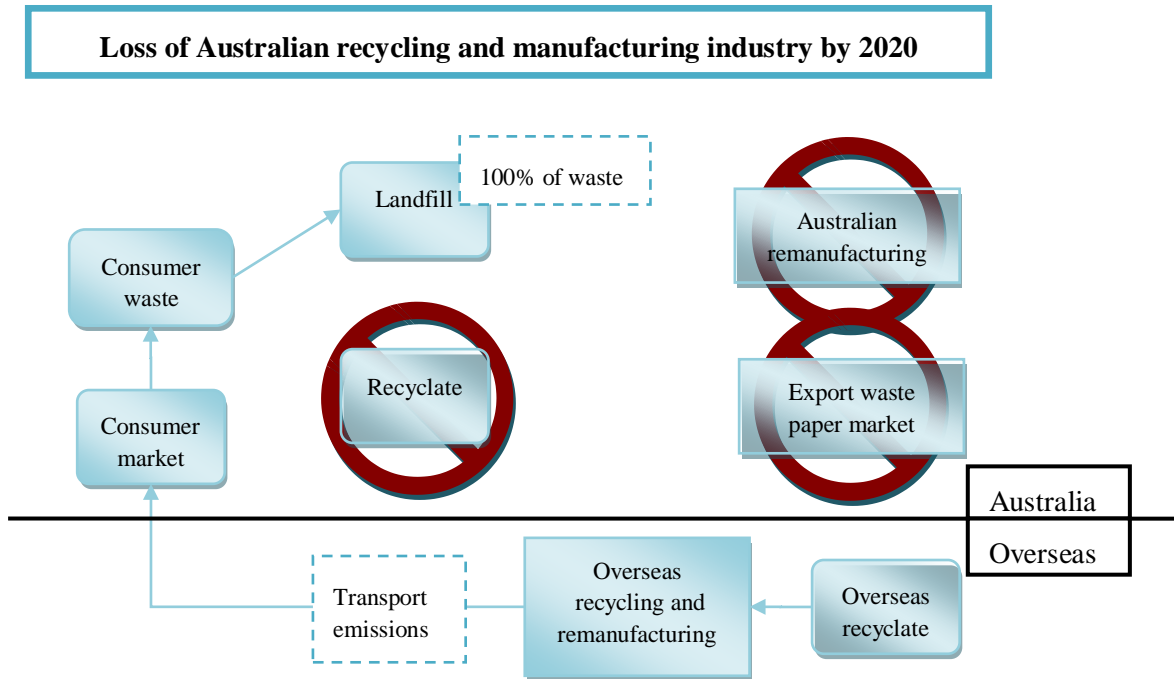
The double impact of Australia losing its recycled paper manufacturing capacity is therefore:

- increased emissions from landfill in Australia, and
- carbon magnification due to a higher emissions rate of remanufacturing in Asia

This is demonstrated in the diagrams below.



The market for export waste paper is very volatile, and at different times the international demand for waste fluctuates significantly. Indeed, cost pressures in China are leading to the development of a domestic recycling capability there which will dramatically reduce China's need to import waste paper. This will lead to all Australian waste paper which is not domestically remanufactured to be sent to landfill. This would further lead to the market for recycle to disappear, thus forcing the closure of material sorters. The perverse outcome is shown below.



According to the 2006 Hyder Consulting report for the Department of Environment and Heritage³, in 2003 there was 37.9 million tonnes of waste generated in Australia of which 16.4 million tonnes was recycled and 21.5 million tonnes sent to landfill. If domestic reprocessors cease operations and processing of these recyclables in Australia ceases, there is not a guaranteed and reliable export market that could maintain the diversion from landfill at current rates, let alone increasing the volumes. Conservative assessments by Visy identify that in excess of 1.3 million tonnes of waste paper would be landfilled each year if domestic recycling is not available, contributing to 2.7 million tonnes of greenhouse emissions from landfill. Assessments on the likely increased landfilling of glass, metals and plastics identify that in excess of 900,000 tonnes of these materials would be landfilled each year if domestic recycling is not available. While these materials are largely inert in landfill, their alternative use as recyclate would be lost, together with the emissions savings that would have accrued by exploiting their embodied energy (see section 0 below). This would represent in excess of 1.9 million tonnes of lost CO₂-e savings per year.

It should also be noted that the Australian Government and all State and Territory Governments have legislated to compel industry to reduce waste to landfill and recycle more. The proposed CPRS will therefore make compliance with those laws more difficult and may force Australian companies to be in breach of such laws. To reflect the likely scenarios presented above, Visy has calculated the lifecycle of its papermaking activities based on all material being landfilled as an alternative to remanufacture.

³ Hyder Consulting 2006. 'Waste and Recycling in Australia', Department of Environment and Heritage, accessed from <http://www.pc.gov.au/inquiry/waste/subs/sub103attachmenta.pdf>, February 2007.

Visy's request for assistance on this basis is to prevent the loss of Australia's recycling and remanufacturing industry.

Mechanism for recognising carbon benefit

Visy believes it is in the best interest of the recycling industry, the Australian economy and the global environment to allow a netting-off of a company's greenhouse emissions against the greenhouse benefits of recycling.

The easiest way for this to function under the proposed CPRS would be for either:

1. free allocation of permits to remanufacturers of fibrous products which degrade to methane in landfill,
2. reduction in liable emissions, or
3. provision of an offset or equivalent credit arrangement,

based on the greenhouse emissions saved / avoided.

Therefore, the calculated greenhouse benefits of Visy's recycling/remanufacturing activity should be netted-off against the NGER-reported emissions, such that:

$$\text{Recycling/remanufacturing free permits} = \text{NGA Factors Workbook-derived landfill emissions avoided by recycled paper remanufacture}$$

This should be provided in the form of free permits, offsets or equivalent credits, and be a permanent arrangement to reflect the enduring greenhouse benefits of recycling/remanufacturing.

This mechanism would need to exist in parallel with the EITE assistance. It would be necessary that as EITE assistance is phased out, the ongoing benefits of recycling continue in perpetuity.

Point of allocation of benefit

It is critical that the allocation of permits (or other appropriate mechanism) apply **at the point of remanufacture** and **not** simply **at the point of diversion from landfill** so as to avoid perverse strengthened incentives to either export the waste fibre or simply to burn it.

Other recycling benefits

Visy's other recycling activities have a major positive impact on greenhouse gas emissions, primarily through their intrinsic embodied energy and resource use efficiency compared with virgin products. This impact is currently being quantified and while detailed information will be provided to the Government as it comes to light, on current assessments using the Warnken ISE and Hyder Consulting analyses, Visy's contribution to greenhouse reduction through recovery and recycling amounts to 8.2 million tonnes CO₂-e each year.

The following table represents the total contribution of Visy's recovery activities.

Material	Tonnes collected/ sorted by Visy	Embodied energy (GJ / tonne)	Tonnes CO ₂ -e in embodied energy	Total embodied energy (GJ)	Total CO ₂ -e saved
Paper and cardboard	1,470,000	42.3	4.1	62,181,000	6,027,000
Glass	460,000	22.5	2.2	10,350,000	1,102,000
Aluminium	16,000	206	20.2	3,296,000	323,000
Steel	45,000	34.7	3.4	1,561,000	153,000
Plastics	79,000	78.2	7.7	6,177,800	608,300
Total					8,213,300

Source: 2006-2007 year, data audited and verified by Ernst & Young.

Visy does not claim that this 8.2 mt/yr of CO₂e benefit is entirely in its ownership or should necessarily be allocated to Visy. However the *landfill avoidance* component due to recycling of paper set out above is directly attributable to Visy's investment and should be credited.

The greenhouse benefits of the landfill avoidance and recycling accrue at the point of transformation, that is, where the used materials are physically reprocessed into a new product. As such, Visy's investments generate greenhouse benefits by diverting and processing more materials within its own closed-loop system and also by diverting and on-selling materials to other recyclers, both domestic and off-shore.

c) EITE assistance

The need for EITE assistance is well known and has been recognised by the Government.

It is proposed that the assistance be applied as a transitional measure to help EITE businesses adjust, capped at 20% of permit revenue (excluding agriculture). Visy maintains that it is imperative that assistance be applied until competing countries have a similar carbon cost, otherwise plant closures will simply be deferred until EITE assistance ceases.

It is also imperative to provide 100% assistance to eligible EITE activities. This is to reflect the inability to pass through cost increases. Any less assistance, for example only 60% free permit allocation, would not prevent carbon leakage.

Visy maintains that its papermaking activities are EITE and should receive 100% free permit allocation for emissions relating to that part of the business only.



28 April 2008

Submission to the NSW Government

Transition from the NSW Greenhouse Gas Abatement Scheme to a Australian Emissions Trading Scheme

Overview

Visy is a major investor in manufacturing in NSW, and has existing and planned developments in regional areas as well as the cities.

This submission by Visy is based on the discussion of transitional arrangements for the NSW GGAS in the Consultation Paper, and makes specific proposals on how the NSW Government should approach the transition to an Australian Emissions Trading Scheme ("AETS")¹

As at April 2008, Visy's installed assets, including the pulp and paper mill expansion at Tumut, exceeded \$1.4bn in capital value (see table below). These manufacturing assets support over 1,400 jobs directly, and many thousands of flow-on jobs.

Division	Visy's NSW Assets (\$m in 2008)	Direct Jobs (NSW operations)
Visy Paper	1,011	370
Visy Recycling	43	216
Visy Board	88	362
Visy Specialties	95	260
Visy Beverage	235	275
	1,473	1,483

Key parts of Visy's invested capital in NSW have been predicated upon a continuing, State-based greenhouse gas abatement regime. In particular, around \$100m of the existing capital devoted to biomass co-generation energy supply at the Tumut plant ("VPP9") is dependent on continuing revenue streams from the GGAS arrangements. This investment decision was premised on long term revenue not only from the Commonwealth MRET scheme but also, critically, from the NSW GGAS scheme.

At the time of investment, discussions with the NSW Government and Premier of the day indicated that the investment horizon relied on REC and NGAC revenue until 2020 to justify this capital-intensive form of power and steam generation.

Further major investments are planned by Visy for NSW. Therefore, the NSW Government must be careful, in the transition from GGAS to AETS, to protect the NSW manufacturing and jobs base from erosion of revenue stream, expectations or investment confidence.

¹ The nomenclature adopted in this submission for the forthcoming Australian scheme is "AETS", whereas, because of the previous multi-state process, the NSW Government adopts "NETS". They refer to the same proposed scheme.

Visy has already communicated its concerns regarding the transition from GGAS to AETS to the “DSA Review” (December 2007 – see Attachment 1) and to the Premier (January 2008 – see Attachment 2).

Summary of recommendations

- 1 In the transition from GGAS to the AETS, the NSW Government must ensure current NSW investments are protected, and that the investment confidence profile of the State is not jeopardised
- 2 The NSW Government’s prior commitments to maintain GGAS benefits to 2020 must be honoured because investments and business decisions have been made on this basis
- 3 The NSW Government should strongly press for the protection of its trade-exposed manufacturing industries against the financial impact of the AETS, and of the future mandatory renewable energy target imposts
- 4 The AETS must recognise “GGAS Category D generation” as an offset and/or via favourable permit allocation
- 5 There must be a ‘tonne-for-tonne’ currency exchange of greenhouse gas abatement certificates created under GGAS to permits under the AETS
- 6 Any benefits currently gained under the GGAS Generation Rule and/or the DSA Rule must be maintained under the new Commonwealth arrangements – either under AETS, via the revised MRET, or under a new national energy efficiency trading scheme
- 7 Proposals for accreditation of new developments under GGAS must be given a reasonable window of opportunity in the transition period between now and the commencement of AETS
- 8 NSW should seek provision of an AETS mechanism whereby large users can acquit their own liabilities rather than be exposed to the pass-through charges
- 9 The NSW Government should encourage the Commonwealth to recognise landfill avoidance and materials recycling benefits for credit under the AETS
- 10 Transitioning of the NGAC benefits from abatement, through generation from putrescible waste, should be in the form of Permit allocation, or of offsets
- 11 Any unused NSW greenhouse gas abatement certificates should be translated into AETS Permits – on a tonne-for-tonne basis
- 12 NSW should clearly distinguish co-generation from energy efficiency and secure recognition of co-generation benefits within the new Commonwealth AETS and MRET arrangements
- 13 The NSW Government should support and promote the introduction of a separate, national scheme, in parallel with the AETS and MRET, to recognise and incentivise investments in energy efficiency

Detailed comments and recommendations

- 1 In the transition from GGAS to the AETS, the NSW Government must ensure current NSW investments are protected, and that the investment confidence profile of the State is not jeopardised**
 - Visy strongly endorses the Consultation Paper's emphasises on:
 - the importance of protecting "... the legitimate business interests of those who have responded to the investment incentives created by GGAS as well as maintaining the environmental integrity of greenhouse policy" (p. 1), and
 - that fairness be a key aspect of transitioning and that this be provided for by: "...ensuring that investments made viable as a result of GGAS are not rendered uneconomic by the termination of GGAS and its replacement with a NETS" (p. 3).
 - This acknowledgement by the NSW Government recognises the clear need for it to protect investments which relied on the NSW GGAS, of which Visy's Tumut facility is one.

- 2 The NSW Government's prior commitments to maintain GGAS benefits to 2020 must be honoured because investments and business decisions have been made on this basis**
 - Direct assurances by the NSW Premier that the GGAS would be extended to 2020 must be honoured because investment decisions were made, and developments are on foot, based on these assurances.
 - Visy's decision-making on new investments included the expectation of MRET and GGAS revenue as critical revenue streams until 2020.
 - This included income expectations from acquittal of at least 3.2 million NGACs, in aggregate, between 2010 and 2020.
 - Visy believes:
 - it is appropriate that such GGAS projects are transitioned into the AETS with appropriate coverage until 2020 so as not to undermine those investments, and
 - Visy should receive the equivalent of 320,000 tonnes of abated carbon, in the form of AETS Permits, per year from the time of commencement of the AETS until 2020.

- 3 The NSW Government should strongly press for the protection of its trade-exposed manufacturing industries against the financial impact of the AETS and of the future mandatory renewable energy target imposts**
 - It is essential that the NSW Government makes strong representations to the Commonwealth for it to provide for the trade-exposed pulp and paper industry in the AETS design, in the same manner as our steel and aluminium industries.
 - Permits should be provided by free allocation to this efficient, energy intensive, industry to cover its indirect as well as its direct exposure to emissions liability.
 - In its development of the NSW REC scheme, the NSW Government provided for exemptions for its trade-exposed industries, recognising their sensitivity to, and

inability to compete with, the additional costs an increased renewable energy mandate would bring. Although the NSW REC scheme is not proceeding, the same principle should be observed in the development of the new MRET by the Commonwealth.

- Accordingly, in addition to free allocation of AETS Permits, Visy believes the NSW Government should strongly support the trade-exposure protection principle in its representations with the Commonwealth Government in the design and roll-out of the expanded MRET.

4 The AETS must recognise “GGAS Category D generation” as an offset and/or via favourable permit allocation, to recognise the fact that this generation is based on emerging, low-emissions intensity technology, and has been a significant investment focus in NSW since the commencement of GGAS

- Category D generation under the GGAS Scheme represents abatement derived from the (1) newest, (2) smallest, and (3) non-fossil fuelled (renewable) generators.
- Effectively, this is the category that largely represents new and emerging technology of very low (or neutral) greenhouse intensity. It is therefore critical that this category of generation be fully and appropriately transitioned into the AETS to ensure its continued viability. Further, the GGAS Generation Rule acknowledges the significant benefit derived from co-generation.
- Visy’s Tumut facility is a Category D renewable (biomass) co-generation facility and it is critical that appropriate transition occur to ensure the continued recognition of CO_{2e} abatement from this capital-intensive plant.
- The Tumut facility currently produces approximately 170,000 to 180,000 NGACs as a Category D Generator (apart from Putrescible Waste NGACs) annually and its income expectations between 2010 and 2020 are linked to approximately 1.7 million tonnes CO_{2e} of abatement.
- For these reasons the AETS must recognise “GGAS Category D generation” as an offset and/or via favourable permit allocation.
- Visy’s submission to the Garnaut Review (18 April 2008) emphasised the importance of the AETS recognising modern generation as an important part of the nation’s greenhouse gas abatement task (A copy of Visy’s most recent Garnaut submission is included as Attachment 1).

5 There must be a ‘tonne-for-tonne’ currency exchange of greenhouse gas abatement certificates created under GGAS to permits under the AETS

- The Consultation Paper states that, in terms of the relevant metric for abatement and emissions under both schemes, an NGAC represents abatement of one tonne of CO_{2e} and that a Permit under the NETS will be a permit to emit one tonne of CO_{2e}.
- The transition must therefore be on the basis of one NGAC being equivalent to one AETS Permit (or offset). This is proposed in preference to the two alternatives in the Consultation Paper. In particular, the alternative Net Present Value approach, could create a skewed transition from abator to abator, with the test being very unclear and subject to manipulation.

- A tonne-for-tonne form of transition is in line with the Consultation Paper's criterion of effectiveness including the need to:
 - maintain "maximum consistency with the objectives prior and key design features of both GGAS and the NETS., and
 - ensure simplicity - "...the advantage of this approach is that it is relatively simple. From the investors' perspective, it replaces a per-tonne stream of NGAC revenue with a per tonne stream of NETS offset revenue." (albeit that this was stated in the context of provision for Offsets).
- Visy is concerned that certificate transition in any other fashion will create a mismatch in accounting for abatement, and will skew the transition for some abatators over others.
- Further comments on certificate transition principles are made in relation to unused NGACs in section 11 below.

6 Any benefits currently gained under the GGAS Generation Rule and/or the DSA Rule must be maintained under the new Commonwealth arrangements – either under AETS, via the revised MRET, or under a new national energy efficiency trading scheme

- Visy strongly supports the Consultation Paper's stance (p. 12) that energy efficiency should be given the appropriate signal through a new national energy efficiency trading scheme or similar mechanism.
- While it is acknowledged that DSA projects derived from energy efficiency could be argued as giving rise to a 'double-counting' of benefit if transitioned to the AETS, it is important that energy efficiency be properly recognised and accorded credit, given the increasing national imperative for energy efficiency in the context of resource efficiency and sustainability.
- A second aspect of the DSA Rule is the ability to provide credit via on-site generation and co-generation. In essence this form of abatement is identical, from a physical and engineering perspective, to "off-site" generation. It is only the *location* of the abatement that differs between: (a) DSA Rule power generation & co-generation and (b) Generation Rule power generation.
- Visy submits it is critical that DSA Rule-derived co-generation & generation is treated equally with other like-generation and is *not* treated as an energy efficiency project, for the purposes of the transition.
- In summary,
 - Visy's existing investments in NSW provide continuing opportunities for direct and indirect greenhouse gas abatement. These opportunities must be acknowledged and promoted by the NSW Government as the AETS develops.
 - Accordingly, there must be neutrality in the transition from GGAS to AETS, with respect to current relevant GGAS instruments and the creation of AETS Permits and Offsets, new MRET Certificate creation and any related energy efficiency measures.

- 7 Proposals for accreditation of new developments under GGAS must be given a reasonable window of opportunity in the transition period between now and the commencement of AETS**
- Visy agrees with the proposed cut-off date for lodgement of applications for accreditations as 1st September 2008, such that provision for transition be made for project with respect to which applications have been lodged before this date but not after.
 - As proposed, applications should be allowed until the end of the Scheme.
- 8 NSW should seek provision of a mechanism, under AETS, for large users to acquit their own liabilities rather than be exposed to the pass-through charges, and thus deal with the indirect costs of AETS themselves**
- Visy is extremely concerned at the potential for liable generator entities to pass-through to electricity consumers their liability, in the form of higher costs that include a significant profit margin. This is currently occurring in the operation of EU-ETS. The prospect of simply paying the significant pass-through charges, is not an acceptable option for Visy.
 - The availability of large user status under GGAS has been extremely beneficial, and has facilitated Visy's own greenhouse gas abatement efforts. These benefits must not be lost in the transition to the AETS.
 - Visy therefore stresses the need to have a clear transition of liability, with no overlap, from GGAS to ETS, and in particular for large user liability to be clearly transitioned.
 - Specifically, Visy proposes that the GGAS provision, which allows large users to take direct liability and avoid retailer pass-through, should be taken as a model for the design of the AETS.
- 9 Because of the significance of limiting emissions from landfills for the national greenhouse gas abatement task, the NSW Government should encourage the Commonwealth to recognise landfill avoidance and materials recycling benefits for credit under the AETS**
- Investment projects (for both infrastructure and remanufacturing) that actively capture recyclables from the waste stream, and divert degradable organic material and other valuable feedstocks from landfill, should be eligible for offsets on the basis of avoided methane generation and embodied energy in manufacturing resources.
 - The NSW Government has custodianship over the nation's largest amount of generated waste, and should seek the Commonwealth's active participation in incentivising landfill avoidance and materials recycling as part of the new AETS arrangements.
 - This recommendation is in addition to our comments regarding generation from putrescible waste (see 10 below).

10 Transitioning of the NGAC benefits from abatement through generation from putrescible waste should be in the form of Permit allocation, or of offsets

- The Consultation Paper discusses transitioning of coal mine methane generation, landfill gas generation and generation from putrescible waste (Section 4.2.2).
- Apart from its extensive waste paper recycling activity (see item 9), Visy also avoids the production of greenhouse gas by consuming external and regional wood waste classified as Putrescible Waste which would otherwise have degraded to methane – a gas with a very high GWP.
- This provision of GGAS enables Visy's Tumut facility to produce approximately 80,000 NGACs under the Putrescible Waste provisions of the Generation Rule annually. The income expectations between 2010 and 2020 are linked to approximately 800,000 tonnes of CO_{2e} abatement.
- Visy is concerned that the Consultation Paper only discusses the transitioning of these forms of abatement in the context of whether the abatement would be in a *covered* or *non-covered* sector under the AETS.
- In Visy's case however, the Company is not the emitter with respect to the putrescible waste it converts to energy, because it purchases the putrescible waste from third parties who would themselves be the emitters were it not for Visy's investment and diversion activity. Therefore Visy would not be impacted beneficially or otherwise by the coverage of a sector including putrescible waste. That is, the impact specifically on Visy would be as if putrescible waste was not covered.
- The Consultation Paper also points out that while the AETS will have an impact on the price of high emissions-intensity generation, it "would not provide an extra reward for destroying methane. This would only occur if the project were eligible to create offset credits under the NETS" (p. 7).
- Visy therefore proposes that transition be in the form of an allocation of Permits or alternatively, offsets (as suggested by the Consultation Paper).

11 Any unused NSW greenhouse gas abatement certificates should be translated into AETS Permits – on a tonne-for-tonne basis

- The Consultation Paper canvasses the concept that "one transitional option is to swap unused NGACs into AETS permits on a tonne-for-tonne basis at the start of the NETS" (p. 12).
- Visy strongly supports a tonne-for-tonne conversion basis (see point 5 above).
- The Paper rightly points out that the transitional arrangements should "not create incentives to create more NGACs than would otherwise have been supplied up to the start of the NETS, in order to take advantage of transition options" (p. 12).
- Visy acknowledges this point and proposes that the Scheme Administrator scrutinises abatement creation in the lead-up to transition to discourage any of the exploitative behaviour suggested above.
- The Paper also suggests there may be incentives for banking and non-compliance (p. 13) and Visy accepts the suggestion that existing NGACs be treated as offset credits, but that these be stamped with a sunset date. A reasonable date could be the suggestion of 2012, *or later* if NETS commencement is later than 2012. The

suggestion that these credits be taken into account in setting annual caps also seems a sensible approach.

12 NSW should clearly distinguish co-generation from energy efficiency and secure recognition of co-generation benefits within the new Commonwealth AETS and MRET arrangements

- Appropriate recognition should be given to the clear benefits of co-generation beyond greenhouse. These benefits include (a) improved resource efficiency due to the lift in fuel efficiency from ~30% for a typical base-load coal-fired power station to up to 80% for co-generation, and (b) the deferral of asset investment in the electricity network that comes with embedded generation.
- Under the AETS, incentives should be afforded co-generation in the form of offsets, notwithstanding that co-generation sits within the liable “stationary energy” sector.
- In particular, co-generation from renewable fuel sources should attract so-called “Heat RECs” or “Thermal RECs”, as is provided under the UK Renewable Obligation Scheme, as a matter of urgency.

13 The NSW Government should support and promote the introduction of a separate, national scheme, in parallel with the AETS and MRET, to recognise and incentivise investments in energy efficiency

- While it is true that additional savings may be accrue for energy efficiency projects due to the inevitable increase in power prices the AETS will bring, such increase may be insufficient in some cases to drive energy efficiency investments.
- Therefore, as for co-generation, energy efficiency should be accorded high priority for incentivisation, given its clear benefits for resource efficiency and sustainability. Such incentives could be in the form of offsets under the AETS, or through a dedicated energy efficiency trading scheme, to operate in parallel with the AETS.

Further consultation and information

Visy is available and prepared to meet further with representatives of the NSW Government to expand upon the contents of this submission, in order to ensure there is a smooth and predictable transition from GGAS to the AETS, and to protect the valuable aspects of the GGAS in that transition.

Contacts

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Attachments

1. Copy of letter to NSW-DSA Working Group (14 December 2007)
2. Copy of letter to Premier lemma (17 January 2008)
3. Copy of Visy’s submission to the Garnaut Review (18 April 2008)



Submission on the Expanded Renewable Energy Target *Exposure legislation*

This submission adds to Visy's July 2008 submission (*Co-generation & Heat RECs*), and focuses on the draft legislation on the expanded RET. Visy will be providing separate comments on the COAG initiative for assisting RET-Affected, Trade-Exposed (RATE).

Introduction

Visy operates \$3bn of recycling and manufacturing assets in Australasia and employs 5,300 people in 110 sites. The Company has plans for \$1.1bn of further green investments in recycling, renewable biomass energy, water and environmental technology.

Visy has expressed its strong support for an expansion of the RET. However we have two significant concerns about the development of this legislation. They are:

1. The failure to include renewably-fuelled cogeneration in the expanded RET, and
2. The potential impact on the international competitiveness of our business of this major step-change in Australia's mandated renewables.

We therefore make the following comments on the exposure draft legislation.

Cogeneration from industrial renewable-fuelled sources should be included

Visy endorses the focus of the RET on the *electricity* sector because of the major impact stationary electrical energy has on aggregate national greenhouse gas emissions, and the relative simplicity of auditing outputs from qualifying generation.

In this context, we have invested heavily in renewable electricity generation and cogeneration to supply process power to our paper mills. At Tumut, for example, we have invested over \$150m in the energy circuit for biomass-based *electricity* production. An essential design feature of this facility is the capture of heat from this circuit and its use in place of fossil-fuel supplied process energy.

Cogeneration (def: *The simultaneous or serial production of electricity and heat*) involves the utilisation of the waste heat from primary electricity generation as an energy source of for industrial processes (which may include further electricity generation via combined cycle).

In our submission on the discussion paper we made the case for inclusion of this renewable cogeneration heat as a qualifying energy source. However the exposure draft legislation has not adopted this proposal, and has given no reason for its exclusion. Accordingly, as under the current MRET arrangements, the draft legislation proposes to only allow the *electrical output* of our generator to attract RECs. This is a significant shortcoming, because it is the associated heat capture which creates the distinctive efficiencies of this type of investment.

Visy strongly believes the Government should include heat energy as a qualifying output for REC creation, but only *where that heat is captured as part of a renewable electricity generation circuit*.

It is important to stress we are not suggesting all renewable heat sources should be included. Indeed our proviso ("*...where that heat is captured as part of a renewable electricity generation circuit ...*") is important to maintain the policy integrity of the RET (i.e. "... reduction in emissions of greenhouse gases in the electricity sector..."). This limitation will also serve to "ring-fence" the measure to situations where renewable electricity production is the principal objective (as distinct from heat alone as in, for example, wood-fuelled space heaters, etc.).

Recognising heat utilised through cogeneration from renewable fuel sources is entirely consistent with the Act and Government policy. This is because the capture and use of process heat can be viewed as:

- a substitute for grid-supplied *electricity* energy *per se*, displacing conventional MWh_e, and
- a substitute for conventional thermal energy as a direct consequence of, and in connection with, the substitute electricity generation. This forms an important contribution to the wider energy sector's renewable energy ambitions. For example, capture of heat from renewable-fuel direct-fired boilers can aid in greenhouse gas emissions reductions even though these may not be part of the *electricity* network.

Visy's original representations regarding renewable heat are included at Attachment 1, with an extract on energy efficiency reproduced below.

Type of Generation	Nominal fuel efficiency	Fossil-fuel offset potential (C-intensity)	Current relative unit cost of generation
Brown coal conventional	25% - 35%	Nil (1.3 t/MWh)	Low
Black coal conventional	30% - 40%	Nil (1.0 t/MWh)	Low
Gas-fired Open Cycle	30% - 40%	Nil (0.7 t/MWh)	High (peak power only)
Gas-fired Combined Cycle	45% - 55%	Low (0.5 t/MWh)	Medium
Cogeneration (Natural Gas)	70% - 85%	Med (0.3 t/MWh)	High
Cogeneration (Renewable)	70% - 85%	Max (0 t/MWh _e) (0 t/MWh _{th})	Very high

The significance of this Table for Government policy is the “Very high” current cost of installing renewable cogeneration technology relative to fossil fuel-based generation. Hence the rationale for stronger incentivisation of this renewable source via the RET. Even without this incentivisation imperative, the inclusion of renewable heat from electricity facilities that include cogeneration makes eminent policy sense, and that there is enormous potential for its further uptake, provided the appropriate incentives are in place. Without them, this form of power generation may not reach its full potential in the overall national renewables effort.

We strongly recommend the Government includes cogenerated heat from renewable-fuelled electricity generation in industrial processes as a qualifying source for REC-creation.

The required Scheme modification would be relatively straightforward. We believe RECs would be created on a straight MWh basis, viz: $1 \text{ MWh}_{\text{th}} = 1 \text{ MWh}_{\text{e}} = 1 \text{ REC}$.

We would propose that the following criteria be applied to determine the strict circumstances under which renewable cogeneration would qualify for REC-creation:

1. Heat (thermal energy) must be generated as direct result of, and be directly linked with, the generation of eligible renewable electricity.
2. The renewable heat, generated as a direct result of the electricity generated, must have resulted from the use of the same renewable fuel source as for the electricity.
3. The renewable heat must be employed for a useful purpose. This caveat is important because if the renewable heat was not generated for the designated use(s), an alternative energy source would have been needed to serve that purpose. A useful purpose would thus *not* include the transmission of this heat to the atmosphere or other part of the environment.

Existing categories of renewable fuel should be retained

We believe the coverage of allowable renewable fuels as set out in the current Act and Regulations should be retained.

RET trajectory and penalty rate

Visy agrees with the proposed linear trajectory of the RET. This will ensure there are sufficiently strong signals initially to drive investment while ensuring that the early target increase is not too steep. A steep increase could prevent the target from being met in those years whilst placing a large early cost shock for electricity consumers.

Visy does not currently have a firm view on the penalty rate imposed in the case of a renewable energy shortfall and its trajectory. We are, however, firmly of the view that the proposed rate and trajectory need to be published well in advance of scheme commencement – and as soon as possible – since these are critical aspects of the scheme which will have a major influence on scheme operation.

Pre-accreditation of qualifying projects

Visy strongly supports the retention of pre-accreditation for project proposals as a means of ensuring investment certainty.

Integrity of State-based renewables schemes

As a large market participant (energy buyer), Visy is concerned at the proliferation of mandatory schemes throughout the States, some of which involve high-cost renewables obligations. While we believe these schemes have played a role in encouraging renewables in various jurisdictions, the time has come for a rapid rationalisation and harmonisation towards the national scheme. However the transition should, wherever possible, protect investments made in good faith under existing schemes, without distorting the policy intent of the Commonwealth scheme.

Opt-in rights for large users

Typically, electricity retailers tend to price their MRET compliance with not only the actual cost of compliance, but also the cost of risk associated with varying cost of compliance. Other costs are added in as well. There are clear national advantages in maximising the economic efficiency of the scheme, and in motivating participants to keep costs as low as possible.

Visy has found the NSW GGAS provision for it to opt-in as a liable party has been very successful, and has introduced significant efficiencies and cost reductions.

On the basis of this five years' practical experience with the GGAS and MRET schemes, Visy believes there is a need for the expanded RET to provide for large users to opt-in as liable parties. This could operate in an analogous way to that operating under GGAS for Registered Large Users. The MRET structure simplifies the opt-in possibilities because the liability is on the retailer, so there is no inherent complexity in making such a provision, such as might be the case if electricity sources, intensities, etc. needed to be considered.

We believe the Obligation Transfer Number arrangement proposed under the CPRS (see *White Paper*) could be adopted for this purpose.

Attachment 2 includes a similar proposal provided by Visy to the Garnaut Climate Change Review in relation to pass-through costs under the CPRS.

Alternatively, a model similar to that adopted under the NSW GGAS could be applied. The GGAS approach is as follows:

1. Companies with load at individual sites totalling at least 100GWh, or with load at a single site of at least 50GWh, are eligible to directly assume GGAS liability as Large Users ("Class 4 Benchmark Participants" under the Scheme)
2. If there is an electricity retailer for these sites which would otherwise have had a GGAS liability for electricity consumed at these sites (as a "Class 1 Benchmark Participant),

that electricity retailer would have liability for electricity consumed at these sites shifted from it to the Large User.

3. The electricity retailer is notified by the GGAS Scheme Administrator that it is not liable for electricity consumed at the site
4. The Large User is obliged to submit an Annual Benchmark Statement for its electricity consumption (and the retailer does not include this load in its Annual Benchmark Statement) and is then liable to acquit the appropriate quantity of NGACs corresponding to its load.

Visy believes the GGAS mechanism is simple and effective, and does not give rise to a potential "overlap" or "underlap" in liability between liable entities.

Given that this mechanism is only open to Large Users, for whom NGACs represent a significant cost, any implied administrative complexity is minimised. This is evidenced by the fact that there are currently only 11 Large User ("Class 4") Benchmark Participants in the GGAS.

Visy believes that an approach similar to that adopted under GGAS could be adapted as an effective, administratively simple RET "opt-in" measure.

Banding

Visy believes that "banding" – like "differential feed-in tariffs" – is an unhelpful concept because it adds to the overall electricity cost through seeking to "pick winners", and tends to create higher cost renewables. Visy's view is that such technology investment schemes are better dealt with by subsidies. While banding *per se* is not mentioned in the draft RET legislation, the Bill does adopt a multiplier for "small generation units" (up to 1.5 kW), starting at 5x, and decreasing.

Conclusion

Visy strongly supports the expansion of the RET, and believes there are major opportunities for further renewable electricity investments in Australia if the right incentives are in place. In particular, we believe the inclusion of heat energy captured as part of a renewable electricity generation circuit should qualify for REC creation.

Contacts

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Attachments

1. Visy's proposal on Heat RECs – July 2008
2. Visy's comments to Garnaut Climate Change Review on need for opt-in liability arrangements.

Appendix 1 – Visy's comments on Heat RECs – July 2008

Benefits of cogeneration

Cogeneration is under-recognised as one of the most fuel-efficient means of meeting stationary energy demand. This applies to cogeneration from both fossil and renewable fuel sources.

Table 1 below demonstrates cogeneration's high fuel utilisation efficiency (ie electrical output energy as portion of fuel energy input) relative to conventional power stations.

The reason for very high fuel efficiency is the capture and utilisation of the large amounts of waste heat – approximately two times the amount of useful electricity generated is inevitably wasted as heat lost to the atmosphere in conventional thermal power stations.

Type of Generation	Nominal fuel efficiency
Brown coal conventional	25% - 35%
Black coal conventional	30% - 35%
Black coal super-critical	40% - 45%
Gas-fired Open Cycle	30% - 40%
Gas-fired Combined Cycle	45% - 55%
Co-generation (Natural Gas)	70% - 85%
Co-generation (Renewable)	70% - 85%

Table 1: Comparative fuel efficiencies – thermal power generation

The key to successful cogeneration is in having a large industrial thermal energy demand (or district heating and/or cooling demand) which is proximate to the location of the power station and which can practically utilise the heat wasted in the electricity generation process.

Some of the benefits of cogeneration when compared with conventional base load power generation are as follows:

- Superior fuel-utilisation efficiency (as described above) in both the electricity AND heat stationary energy sectors.
- Deferred Transmission and Distribution Network augmentation investment due to embedded generation
- Reduced Transmission and Distribution Network "losses."
- Increased diversity of power generation resulting in increased competition

Figure 1 below is an example of the comparative positions of cogeneration and combined cycle gas-fired generation as far as fuel benefits are concerned. Note that the comparison is even more stark between cogeneration and conventional black coal-fired power stations.

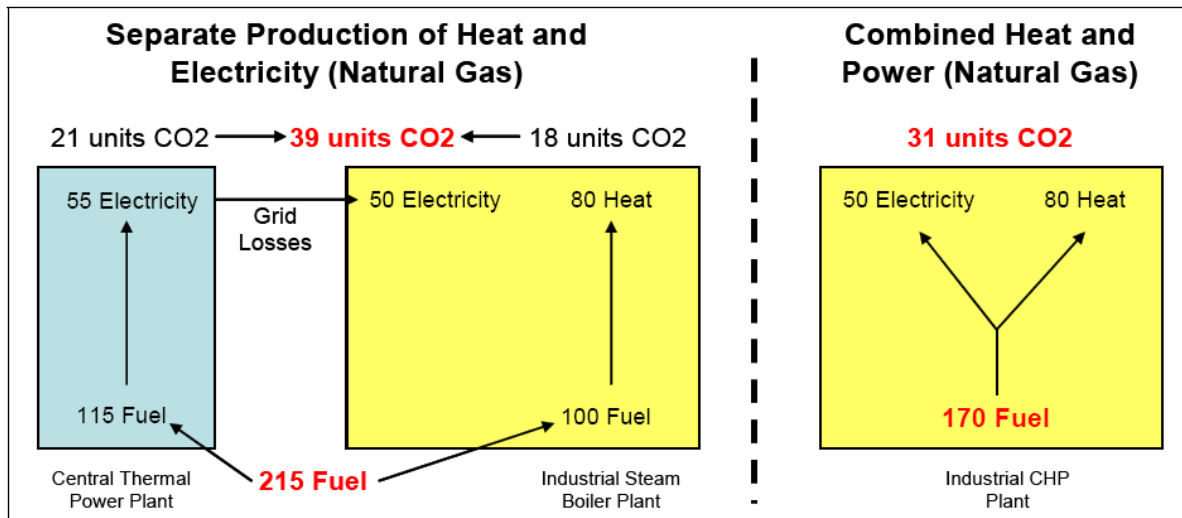


Figure 1: Comparison – Combined Cycle Gas-fired Generation vs Co-generation.
Source : Cogen Europe

Globally, cogeneration is recognised as a key component of an efficient power generation sector. As an example, the European Union has issued a Directive highlighting the crucial role of cogeneration in future European power generation.

Renewable Co-generation

The benefits of Renewable Co-generation extend further so that *renewable fuels are substituted for fossil fuel* not only in the generation of electricity but *also in the generation of thermal energy*.

Table 2 below presents comparative emissions intensities for different forms of power generation.

Potential for cogeneration from renewable energy is restricted to thermal sources of renewable energy including biomass, landfill gas and sewage gas.

Type of Generation	Nominal fuel efficiency	Fossil-fuel offset potential (C-intensity)	Current relative unit cost of generation
Brown coal conventional	25% - 35%	Nil (1.3 t/MWh)	Low
Black coal conventional	30% - 40%	Nil (1.0 t/MWh)	Low
Gas-fired Open Cycle	30% - 40%	Nil (0.7 t/MWh)	High (peak power only)
Gas-fired Combined Cycle	45% - 55%	Low (0.5 t/MWh)	Medium
Co-generation (Natural Gas)	70% - 85%	Med (0.3 t/MWh)	High
Co-generation (Renewable)	70% - 85%	Max (0 t/MWh_e) (0 t/MWh_{th})	Very high

Table 2 : Comparative Emissions Intensities and Cost of Generation

Challenges for Co-generation and Renewable Co-generation

Whilst generation efficiency is high (and greenhouse intensity low), the cost of cogeneration is also high. In the case of renewable cogeneration the problem of cost is acute. See Figure 3 above regarding relative costs of alternative forms of thermal power generation.

While some cogeneration exists in Australia, enormous potential exists for significant further uptake. However without the appropriate incentives, this form of power generation may continue to languish.

Co-generation "Heat RECs"

It is recognised that the UK's "ROC" (Renewable Obligation Certificate) Scheme was based upon the Australian MRET model.

However, the UK Renewable Obligation Certificate ("ROC") Scheme goes beyond the crediting of renewable electricity as under MRET by recognising renewable heat in the form of "Heat RECs." The scheme recognises in particular that Renewable Combined Heat and Power (CHP) and Co-generation applications need to be recognised for their important contribution to renewable energy and that incentives such as Heat RECs are needed to ensure the future uptake of this important field of generation.

In a small way, MRET effectively recognises renewable thermal energy by allowing for the accreditation of domestic and commercial Solar Water Heaters.

Visy believes that renewable heat, particularly in the case of cogeneration, ought to be recognised in a manner equal to renewable electricity. The current distinction made by MRET in crediting renewable electricity but not renewable heat (apart from Solar Water Heaters) is arbitrary from Visy's perspective.

The MRET must recognise that a renewable MWh is a renewable MWh whether it is electrical (ie a MWh_e) or thermal-cogenerated (ie a MWh_{th}). Both forms of renewable energy substitute the need for fossil fuel-derived energy.

Example of Heat REC credit

A hypothetical biomass cogeneration plant ("BioCoGen") of 2 MWe output serves as an example:

- The plant consumes 4.5 MW of renewable biomass fuel only,
- generates electricity of 2 MWe (net of auxiliaries), AND
- produces useful heat of 1.5 MWth (net of auxiliaries) for an industrial process thermal energy demand or district heating/cooling demand

BioCoGen's overall plant efficiency is approximately 75% since waste heat has been captured to create useful thermal energy.

Under current MRET, the plant would nominally be entitled to produce 2 RECs per hour of operation (i.e. it generates a net 2 MWh of renewable electricity each hour).

However, affording credit to the cogenerated heat would allow the plant to nominally produce an additional 1.5 RECs per hour of operation which would recognise BioCoGen's efficient recovery of renewable waste heat to substitute fossil fuel otherwise used to meet an existing thermal energy demand (ie the use of 1.5 MWh of renewable heat in addition to 2 MWh of electricity).

Limiting the scope of Heat REC credit

Limiting the extension of the MRET Scheme to *cogenerated* renewable heat, as distinct from *all forms* of renewable heat, prevents a REC creation "flood gate" scenario (e.g. wood-fired home heating).

The extension of credit to cogenerated heat will provide the appropriate investment signals to ensure the development and take-up of this important form of power generation but limitation to heat which is *cogenerated* will ensure that heat does not become the major form of accredited generation under MRET.

Contact

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Appendix 2 Visy's comments to Garnaut Climate Change Review on need for opt-in liability arrangements

Visy's reasoning for an opt-in provision under the emissions trading arrangements is based on our experience with the GGAS and the EU-ETS, and is as follows:

1. **Cost control** - One aspect of economic efficiency is that those best able to control a cost (and risk associated with it) should bear that cost/liability. Given the customer consumes the electricity, it should be best placed to manage that cost and risk.
2. **NSW GGAS experience.** - The NSW GGAS scheme is a good working example of the provision for an opt-in, under its Large User Benchmark, viz:
 - a. Participants (including Visy and approximately 10 other companies) take direct liability for emissions under this scheme and this liability is "carved out" of the retailers' liability.
 - b. The "Large User" threshold under GGAS is 100GWh for a group (or where a single site consumes more than 50GWh/yr).
 - c. The retailers tend to price their GGAS compliance with not only the actual cost of compliance, but also the cost of risk associated with varying cost of compliance. Other costs are added in as well.
 - d. By offering Large Users the ability to "opt-in" to the scheme, the risk is taken away from the retailer and the Large User (who is in control of its energy demand) takes this liability head-on. This avoids the unnecessary transfer of funds not associated with compliance or abatement under the scheme and shifts risk to the party best able to deal with it. Visy's experience has been that NSW retailers have been quite happy for Large Users to take GGAS liability and remove this from their books.
3. **Large Users incentivized to reduce emissions** - While it is true that large consumers should be in control of their energy consumption and emissions, an opt-in provision allows consumers to control carbon liability on a wider scale - not just via energy consumption but also via other abatement activities and portfolio management of their certificates/permits. This provides a much more comprehensive suite of solutions that consumers can then bring to the ETS. The result is more efficient abatement and market outcomes.
4. **Shortcomings of the EU-ETS** - The EU ETS is a good example of where, had "opting-in" been adopted as part of the design, it would have been beneficial to the Scheme and to many involved. However:
 - a. While generators under Phase I of the EU ETS were allocated allowances to the extent of 90% and 95% (which one may have assumed would result in generators passing through carbon cost associated with between 5 and 10% of their emissions), some market analysts believe that many generators passed through carbon cost as if it applied to 100% of their liability.
 - b. A reason was that generators were concerned about the volatility risk associated with carbon liability and price. They therefore heavily over-compensated in their pass-through. If large users had been able to opt-in, this would effectively take this uncertainty away from the generator, and would have allowed the large users to take control of this cost with potentially the same or better results for carbon abatement.

5. **The impact of providing a direct liability opt-in under the Australian ETS** - We believe there are far greater incentives for a large consumer to take control of, and to reduce its emissions if it is directly liable:
 - a. There will be a heightened corporate discipline of being required to manage an annual liability or financial penalty imposed by the government.
 - b. This will result in a large user watching emissions closely, actively trading in and managing its portfolio of permits, and keenly focusing its corporate mind on reducing consumption and/or emissions.
6. By contrast, simply buying electricity at a higher (carbon-inclusive) price may be the end to the large users attention to emissions associated with electricity consumption.
 - a. That is, a blunt pass-through of cost does not promote responsive behaviour.
 - b. By way of analogy: high electricity spot prices on an extremely hot summer day do not encourage the family home to switch off the air conditioner, because it pays a "postage stamp" electricity tariff and needs not, in fact cannot, respond to the spot price signal.
7. **Timing of liability** - By not allowing a carbon cost pass-through, retailers are likely to charge, and consumers will be forced to pay, for carbon on the normal billing cycle (eg monthly) rather than at the time of liability. Opting-in allows a consumer to discharge its liability at the time of liability rather than having to pay well in advance.
8. **Liquidity of Carbon Market** - Allowing Large Users to become part of the ETS permit market will add to the number of market participants. This will create greater market liquidity with clear carbon price signals for the market and for the country.
9. **A possible methodology** to allow for opt-in. .
 - a. A methodology would need to be different from NSW GGAS method, because GGAS apportions liability based on a single benchmark (TCO₂/MWh) for all liable entities whether retail or large user.
 - b. Since the ETS will seek to impose liability in the first instance on the physical emitter (ie specific generators), an opt-in provision would need to transfer that liability to the consumer.
 - c. One option would be to transfer liability based on an average emissions intensity (eg like the NSW Pool Coefficient under the GGAS) or alternatively the Large User would take on liability specific to the generation source against which it is contracted.
