

SOUTH WEST GROUP

SUBMISSION TO THE SENATE SELECT COMMITTEE ON FUEL AND ENERGY

Introduction

The South West Corridor of Metropolitan Perth is a key stakeholder in any assessment of fuel and energy supplies. The region is strongly export focussed and access to secure, well priced energy is crucial to the success and growth of the region.

The South West Corridor contains the Kwinana BP Refinery, the largest oil refinery in Australia. The Kwinana BP Refinery has had ongoing investment to improve productivity and safety but is still vulnerable to changes in energy policy. The region also includes Verve Energy's Kwinana Power Station which has 900 MW generating capacity and can operate on gas, oil and coal. Kwinana is Verve Energy's largest power station. The region also includes alumina, steel, nickel and mineral sands processing facilities which are the major contributors to over \$17 billion in sales generated by the Kwinana Industrial Area and are significant energy users (See Appendix 1 for regional information).

South West Group

The South West Group, formed in November 1983, is a Voluntary Regional Organisation of Councils (VROC). It comprises the Cities of Cockburn, Fremantle, Melville, and Rockingham, and the Towns of East Fremantle and Kwinana. The South West Group is managed by a Board consisting of the Mayors and CEOs of its member local government authorities.

The South West Group seeks to work with these six local governments and through cooperation with industry, community and the other spheres of government to capture a wide range of opportunities to enhance economic growth as well as supporting a diversity of quality lifestyles whilst servicing and sustaining cohesive, productive communities in an enviable environmental setting.

Funding for the operation of the South West Group is sourced from its member councils. Project activity is partially funded by member councils and partially sourced from government funding programs.

Inquiry Terms of Reference

The impact of higher petroleum, diesel and gas prices on families, small business, rural and regional Australia, grocery prices, and key industries, including but not limited to tourism and transport;

The South West Corridor through businesses clustered in industrial areas such as the Australian Marine Complex, Kwinana, Bibra, O'Connor, Fremantle and Rockingham support development activity across Western Australia (see industrial areas marked in purple at Appendix 3).

Higher Australian energy prices will reduce the competitiveness of Australian companies in tendering for major resource sector projects and will tend to reduce the local content of these major projects.

The competition with Asia is already significant for construction projects in the Pilbara and Kimberley. Higher Australian energy prices may mean that projects such as the modular wharves constructed at the Australian Marine Complex for the Dampier Port expansion may no longer be able to competitively priced

The operation of the domestic petroleum, diesel and gas markets, including the fostering of maximum competition and provision of consumer information;
The BP Refinery at Kwinana is a significant employer and contributor to our regional economy. The Refinery is able to manufacture product to a wide range of specifications including Hydrogen. Changes in energy markets in the past have caused employment shocks at the Refinery and the South West Group was established as result of significant job losses from the Refinery in 1983. Any changes to Australian energy policy must make a careful assessment of the impacts on our manufacturing sector.

The impact of an emissions trading scheme on the fuel and energy industry, including but not limited to prices, employment in the fuel and energy industries, and any related adverse impacts on regional centres reliant on these industries, domestic energy supply, and future investment in fuel and energy infrastructure;

The introduction of the Australian Emissions Trading Scheme will have a significant impact on local government in the areas of community safety, waste disposal and community services. Local governments in the South West Corridor are already under financial pressure to maintain community assets, expand community services and to cope with population growth. Local governments are significant energy users through street lighting, maintenance of recreation areas, vehicles used for community services and within recreation and cultural facilities. Local governments across Australia only raise 3% of government taxes and rely on transfer payments and grants to survive. Local Governments will require funding support for the additional imposts on energy consumption and waste disposal as there is limited capacity to pass on additional costs to ratepayers. The South Metropolitan Regional Council (SMRC) operates one of the most advanced waste processing facilities in Australia. A copy of the SMRC submission on the Carbon Pollution Reduction Scheme Green Paper is attached.

The existing set of state government regulatory powers as they relate to petroleum, diesel and gas products;

The South West Group supports a wider community discussion about the benefits and costs of quarantining a proportion of Western Australian Gas for domestic consumption. The recent Varanus Island incident exposed how vulnerable the Western Australian economy was to limitations on gas supply.

Taxation arrangements on petroleum, diesel and gas products including: Commonwealth excise, the goods and services tax, and new state and federal taxes;

The South West Group is concerned about the changes to taxation imposed on Woodside for condensate recovery as it has the potential to drive Western Australian gas prices higher. The recovery of \$2.5 billion, over four years, in additional taxes from a single industry should have seen greater consultation and should not have occurred so that its impact was magnified by the introduction of an Australian Emissions Trading Scheme.

The role of alternative fuels to petroleum and diesel, including but not limited to: LPG, LNG, CNG, gas to liquids, coal to liquids, electricity and bio-fuels such as, but not limited to, ethanol;

The South West Group supports initiatives to promote the use of alternative fuels, particularly CNG and the investment in research for coal to liquids and development of a Hydrogen economy. The South West Corridor has been successful in construction of package bio-fuel processing facilities for Darwin and Asia.

The domestic oil/gas exploration and refinement industry, with particular reference to the impact of Commonwealth, state and local government regulations on this industry, increasing domestic oil/gas exploration and refinement activities, with a view to reducing Australia's reliance on imported oil, and other tax incentives; and

As previously mentioned the South West Group has concern about changes to energy policy impacting on the Kwinana BP Refinery. Local governments in this region are supportive of the oil/gas exploration and refinement industry.

The impact of higher petroleum, diesel and gas prices on public transport systems, including the adequacy of public transport infrastructure and record of public transport investment by state governments.

The public transport system is inadequate in Western Australia to be able to cope with the significant extra demand expected from rising energy costs. The new Southern Suburbs Rail line only has a rail station every seven kilometres (see stations and alignment in red on Appendix 2). Around \$750 million could be spent in the South West Corridor on two new rail stations (between Cockburn Central and Kwinana and between Warnbro and Mandurah), light rail connections between the region and Fremantle and improved intra regional bus services.

Appendix 1

SOUTH METROPOLITAN REGION

KEY INFORMATION

Area	619.4 square kilometres (approximately 50 km long by an average 12km width)
Location	South Western Quarter of Metropolitan Perth bounded by the Canning River, Swan River, Fremantle Harbour, Cockburn Sound, Warnbro Sound and generally 2 km east of the Kwinana Freeway alignment.
Economic Infrastructure	Fremantle Port, Australian Marine Complex, Kwinana Industrial Area, HMAS Stirling, Jandakot Airport
Current Population June 2007	331,301 (ABS 3218.0 2008)
Population Growth 2002 to 2007	2.1% (ABS 3218.0 2008)
Projected Population 2021	421,500 (WAPC 2005)
Working Age Population	220,600 (Aged 15-64 Workplace Portal June 2008)
Employment Rate	76.7% (Workplace Portal June 2008)
Labour Force	181,263 (Workplace Portal June 2008)
Unemployment Rate	4.0% (Workplace Portal June 2008)
Indigenous Population	1.4% (Census 2006)
Overseas Born Population	31.5% (Census 2006)
Mean Taxable Income	\$7,525.43 million (ATO 2005/6)
Building Approvals	\$1,148million (ABS 2005/06)



Appendix 2



Appendix 3

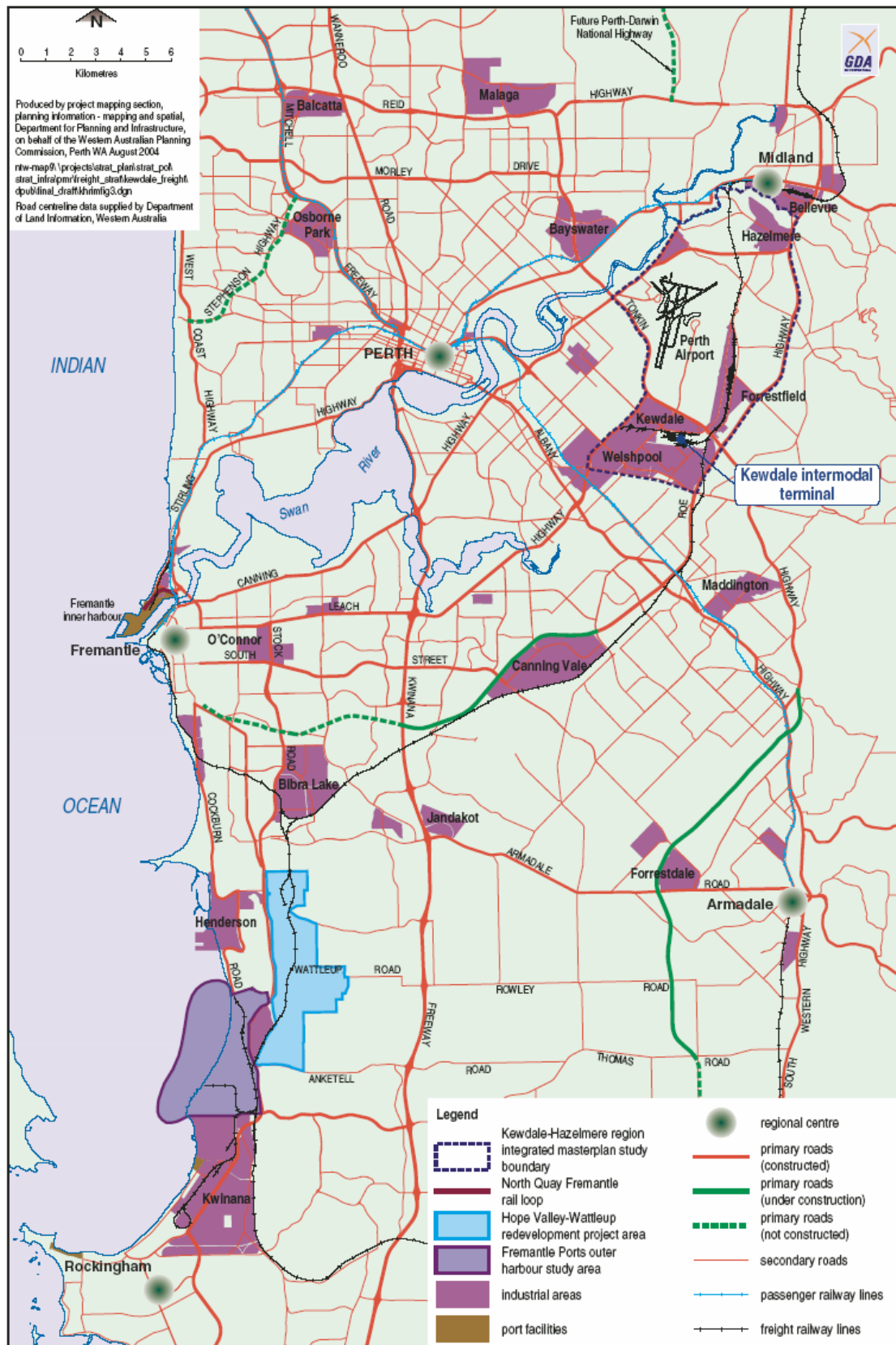


Figure 3 - Key elements of the metropolitan freight network system

SUBMISSION TO CARBON POLLUTION REDUCTION SCHEME - GREEN PAPER



Southern Metropolitan Regional Council:
(if applicable)

Tim Youé:
(complete this and note confidentiality statement below)

10 September 2008:
(date of your submission)

Confidentiality statement:

All submissions will be treated as public documents, unless the author of the submission clearly indicates the contrary by marking all or part of the submission as 'confidential'. Public submissions may be published in full on the website, including any personal information of authors and/or other third parties contained in the submission. If your submission contains the personal information of any third party individuals, please indicate on the cover of your submission if they have not consented to the publication of their information. A request made under the *Freedom of Information Act 1982* for access to a submission marked confidential will be determined in accordance with that Act.

I **do not** want this submission to be treated as **confidential** and/or **anonymous**
(delete or strike out that which is not applicable)

This submission contains personal information of a third party individuals. The third party individual **consents/does not consent** *(delete or strike out that which is not applicable)* to the publication of their information.

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1. **Executive summary**

The SMRC has been focussed on recovering domestic wastes and processing them as a resource in order to avoid landfill and the associated greenhouse gas and other environmental impacts since 1999.

We are particularly concerned with the potential cost impact of the CPRS on the SMRC's Greenhouse Friendly™ Waste Composting Facility and the subsequent cost flow through to the region's ratepayers.

In addition, the CPRS will narrow the sector's focus to mitigating landfill methane gas by incremental improvements in gas capture as described in Point 2 below. This will maintain the current cost disadvantage to alternative abatement options with the potential to perpetuate landfill as the mainstay waste treatment option in Australia for many years to come.

The key driver of greenhouse gas emissions from the Solid Waste sub-sector is the amount of waste deposited at landfills. Emissions from landfills are reduced by two types of measures:

- 1. The diversion of solid waste, which covers reduced waste generated through cleaner production, recycling, composting organic material and diverting waste for energy production; and*
- 2. The capture of methane released from landfill, which includes both flaring of emissions or generating electricity from landfill gas.*

(Australian Government, Department of Climate Change, Waste Sector Greenhouse Gas Emissions Projections 2007:11)

Implementing the diversionary measures described in Point 1 above, through alternative waste treatment techniques, comes at a greater cost than landfill with gas capture. However, a far greater reduction in emissions is achieved by recycling and composting organic material which in themselves avoid the generation of landfill methane in the first place.

The proposals in the Paper will, therefore, have the effect of; i) Perpetuating a barrier to organisations considering implementing beyond business as usual alternative waste treatment options to landfill and; ii) Place the burden of GHG reduction from the waste supply chain almost entirely on a singular approach of improving gas recovery rates from landfill.

The anticipated price of permits alone is unlikely to act as an effective behavioural or investment change mechanism in the near to mid term as the cost bridge between landfill and the alternatives is too great. Only a combination of income from offsets (or some variation thereof) accruing to AWT operators and a permit cost on landfill emissions would bridge this gap.

2. Introduction to Southern Metropolitan Regional Council

The Southern Metropolitan Regional Council (SMRC) is a statutory local government authority established by seven local Councils in the southern part of metropolitan Perth. The region consists of 386,000 people in 150,000 household which represents some 30% of the Perth metropolitan population.

It is responsible for developing environmentally sustainable waste management solutions and climate change abatement measures for the communities of Canning, Cockburn, East Fremantle, Fremantle, Kwinana, Melville and Rockingham.

Through the work of the Regional Resource Recovery Centre and Climate Wise, the Regional Community Greenhouse Gas Abatement Project, the SMRC has prevented over 225,000 tonnes of carbon dioxide equivalents (tCO₂-e) from entering the atmosphere since January 2006.

This has been achieved through the implementation of community and business initiatives to reduce energy consumption and importantly the operation of a significant Greenhouse Friendly™ Abatement Project approved by the Federal Government in December 2005. The SMRC have transacted over 100,000 tCo₂-e abatement into the voluntary market and the annual value to the SMRC now exceeds \$800,000 .

In September 2007, the SMRC won the 2007 Greenhouse Challenge Plus Award for outstanding achievement in greenhouse gas abatement by government and essential services. In addition to the 2007 Greenhouse Challenge Plus Award the SMRC has won many other state and nationwide awards:

- 2004 Department of Environment and Conservation Allen Strom Eureka Prize for Sustainability Education
- 2003 Banksia Environment Awards finalist environmental leadership in infrastructure and services
- 2002 WA Environment Awards resource management winner
- 2002 WA Environment Awards government leading by example finalist
- 2002 Premier's Award for Excellence in public sector management finalist
- 2002 Premier's Award for Excellence in sustainable environment high commendation



3. CPRS and the Waste Sector

The Objective of the Carbon Pollution Reduction Scheme is to meet Australia's emissions reduction targets in the most flexible and cost effective way; to support an effective global response to climate change; and to provide for transitional assistance for the most affected households and firms. (Green Paper :14)

The SMRC support the objective of the CPRS but take issue with the proposed scheme design as the most appropriate means by which to optimise abatement opportunities from the waste sector.

The Paper's preferred position on waste is that:

"Emissions from the waste sector would be covered from scheme commencement, with the precise scope of coverage, thresholds and other detailed design issues to be determined." (Green Paper:107)

The absence of detail on coverage, thresholds and detailed design are of concern to the SMRC and indicates that insufficient consultation with, and analysis of, the waste sector has been undertaken prior to the release of the Paper.

There are numerous and well documented difficulties associated with coverage, measurement, threshold and legacy issues associated with GHG emissions from landfill that underpin the fundamental reasons why waste is not a covered sector in any other emissions trading system. Furthermore, excluding the waste sector and allowing offsets is concurrent with the views expressed in the Garnaut Draft Report.

The SMRC produces marketable compost derived from the organic fraction of household waste using alternative waste treatment technologies. The compost is then used to improve the soil organic content (SOC) of West Australia's nutrient deficient soils. Residual inert and greenhouse benign waste generated by the process is then disposed to landfill.

Two member councils currently operate large metropolitan landfill facilities each with gas capture systems in place that will breach the proposed 25kt Co₂-e per annum threshold.

The region also includes a number of closed landfill sites that will breach a 25kt Co₂-e per annum threshold as well as numerous closed landfills that may breach a 10kt Co₂-e per annum threshold, many of which would not be viable to retrofit any useful gas capture systems to.

The SMRC believe that the greatest abatement benefits will flow from the waste sector, or parts thereof, either remaining uncovered and/or being able to create some form of permit instrument through undertaking beyond business as usual projects that fulfil internationally accepted criteria for additionality and permanence.

4. Coverage

Coverage of the waste sector is contrary to the views expressed in the Garnaut Climate Change Review Draft Report: *"The inclusion of waste raises issues requiring careful assessment. Ahead of being covered in the scheme other policies to encourage mitigation in the waste sector should be pursued."* Garnaut Draft Report :16

Whilst the Paper states that the Waste sector is to be included in the scheme, commencing July 2010, it does not elaborate on to what "precise scope of coverage to be determined" actually means. It could mean that some parts of the waste sector would remain uncovered or that some gases will be omitted from coverage or that a hybrid of thresholds could be put in a place.

It is, however, clearly the intent of the Paper to include methane emissions from landfills, being the greatest source of GHG from the sector, but is lacking in any commentary on how maximum abatement at least cost from the whole waste supply chain will be achieved under the system's design.

The paper also fails to acknowledge the role of a variety of beyond business as usual Alternative Waste Treatment (AWT) technologies that divert organic waste from landfill and therefore avoid the creation of methane in the first place i.e. at an earlier point in the waste supply chain. This significant abatement potential, albeit at higher capital cost compared to landfill, is not discussed and the Paper instead focuses exclusively on methane generation from landfill and the potential to improve gas capture rates i.e. at the end of the waste supply chain.

It should be noted here that most metropolitan landfill sites that will incur a permit liability under the scheme at a 25ktCo₂-e threshold already have some form of gas recovery and improvements may only yield incremental abatement. Furthermore, the proposed system design will result in a focus on an "end of pipe" solution to the detriment of more effective abatement strategies higher up the supply chain.

4.1 Alternative Waste Treatment (AWT) should remain an uncovered sector and offset instruments allowed in order to maximise waste sector abatement

"As a non covered sector in the initial years of the scheme, waste should be considered for offset creation." Garnaut

Maximising the diversion of organic material from landfill over time will yield the best abatement outcome from the waste sector as a whole. This is because once organic waste is deposited in landfill the only abatement opportunity is to recover as much gas as possible which will always be significantly less than 100% of all methane produced, whereas, AWT can potentially yield 100% abatement by diverting the entire organic waste stream.

Additional and significant abatement benefits accrue from the sequestration effect of applying recycled organics to land which improves soil organic content and also reduces reliance on high GHG emitting chemical fertilisers.

Allowing the creation of and trade in offset instruments will encourage investment to flow into AWT as opposed to the development of new landfill capacity. This will result in multiple environmental benefits as well as significantly lowering the forward abatement trajectory from the waste sector. At a landfill permit price of say \$20 and an AWT income of \$20 per offset unit AWT projects will start to become economic.

It is widely recognised that AWT can provide significant abatement as evidenced by the achievements of the SMRC under the Greenhouse Friendly™ programme. However, the key barrier preventing the wide uptake of AWT is that the infrastructure comes at a premium to landfill of between \$40-130 per tonne of domestic waste. This economic gap will not be bridged by the anticipated permit price imposed on landfill which will therefore further dissuade or delay investment in the greater abatement potential from AWT.

It is unlikely that a landfill operator would decide to close a landfill and chose to invest in an AWT option as the permit liability on the landfill would still apply post closure. Therefore, the operator would have to chose to accept the higher capital cost of AWT, the pass through cost of energy and fuel to operate it plus incur the permit liabilities and other post closure costs of its, now non-income generating, landfill.

Under this scenario the cost gap between AWT and landfill is expanded not contracted by the price of carbon and has the perverse effect of acting as a disincentive to investment in low emissions technology.

The more likely economically rationale approach is that the landfill would remain open with permit costs passed to customers and incremental improvements in gas capture sought. Landfill will therefore continue to be the preferred lowest cost, least abatement waste disposal strategy. Consigning waste to landfill for even the next 5-10 years will leave an unnecessary and large emissions legacy long into the future. This legacy will only be able to be dealt with by gas capture technologies as opposed to diversionary mechanisms.

Amending the scheme to best support growth in AWT by either allowing offset instruments or other complimentary measures would concur with the intention of the CPRS in *“providing businesses and consumers with incentives to adjust their behaviour, invest in low-emissions technologies and help Australia reduce emissions.”* (Green Paper:13)

4.2 Covered sectors redefined under ANZSIC

Following from the National Greenhouse & Energy Reporting Scheme (NGERS) guidelines the ANZSIC structure is used to classify industry sectors. The SMRC are unable to fit its operation neatly into any current classification as “compost manufacturer” and instead have to reside under Division D, Subdivision 29, Group 292;

292 Waste Treatment, Disposal and Remediation Services

2921 Waste Treatment and Disposal Services

2922 Waste Remediation and Materials Recovery Services

While AWT, in its many forms, is classified by the ANZSIC structure as either 2921 with a primary activity of “*Operating other waste treatment facilities*” or 2922 with a primary activity of “*Materials separating and sorting operation*” it is debateable if either is an appropriate classification in the light of contemporary approaches to resource recovery which instead manage waste as a materials handling, processing and manufacturing business.

This approach is supported by a recent South Australian judgement in *Resourceco Pty Ltd vs EPA* wherein the judge determined that:

a material becomes waste at the point of discard/abandonment, or the point at which a decision is made that the material is unwanted or surplus. It ceases to be waste when its character changes, either through being sold or by being recycled to become useful. (WME Magazine, May 2008:78)

Therefore, re-classifying or extending the classification of resource recovery and AWT units to enable the separation from traditional waste management classifications would allow the separate treatment of this sub sector under the CPRS and we feel consideration be given to this or some other technical approach.

5. Offsets

The Paper's treatment of offsets is confusing, on the one hand signalling acceptance of international instruments generated from Kyoto flexible mechanisms whilst effectively dismissing the role of domestic offsets within the scheme.

The rationale offered is that given the proposed broad coverage that there is little opportunity to create offsets in the first place and it is administratively burdensome. However, this approach does not necessarily deliver the best abatement outcomes at least cost to the economy. Adherence to a particular "design ideology" should not be an end in itself.

Allowing domestic offsets to be counted toward the net-national emissions target in a similar manner proposed for international units would deliver the abatement required within the Australian economy. Allowing the importation of international units may mean that Australia's abatement is conducted externally with little impact on the behavioural and structural changes required within the domestic economy to meet future international emission reduction obligations.

5.1 Greenhouse Friendly™ offsets should be allowed as a compliance instrument within the CPRS and have the same status as international offsets.

The SMRC have been a member of the Greenhouse Friendly™ (GF) Programme since 2005 and have transacted over 100,000 units of GF abatement into the voluntary market.

GF abatement exhibits the same features as Kyoto compliant instruments in particular because "*Greenhouse Friendly tests additionality on a project-by-project basis drawing extensively on the Kyoto Protocol's Clean Development Mechanism (CDM) additionality requirements.*" (*Greenhouse Friendly™ Additionality Factsheet*)

It is therefore unclear why the Paper gives consideration to allowing the import of ERU's, CER's and RMU's into the Australian compliance system whilst effectively disallowing any form of domestic offset until at least 2013 if at all.

The logic of this position is not supported within the Paper which indeed poses contradictory positions in favour of one and rejection of the other. The Paper states "*Offsets also do not increase national abatement as the provision of credits into an emissions trading system allows additional emissions in the covered sector.*" (*Green Paper:19*) yet draws on a position that "*if abatement costs are lower overseas, it would be more cost effective to purchase the abatement abroad rather than reduce emissions at home.* This latter statement fails to acknowledge that purchasing abatement from abroad also allows additional emissions in the covered sector unless provision is made accommodate them under Australia's net emissions inventory.

The Paper further states that a Voluntary Offset Standard will be issued. It is altogether uncertain how an effective voluntary market will coexist alongside the compliance market given the proposed broad coverage. Significant voluntary markets coexist with the EU ETS, however, coverage in this market is currently limited to the stationary energy sector.

If the waste sector, in its entirety, is covered the SMRC and others will lose the ability to create offsets of any form, either compliant or voluntary. If AWT is classified as an uncovered sub sector with offsets that are only voluntary in nature then their value will undoubtedly be less than a compliance instrument. Given the approvals regime applied to Greenhouse Friendly™ is closely aligned with international accounting standards for Kyoto compliant instruments it would appear disingenuous to allow one but not the other.

5.2 Loss of income from the sale of offsets disadvantages early movers and presents a barrier to investment in low emissions technology

To evaluate the possible financial impact of the CPRS on the RRRC, the SMRC has considered three options under the CPRS. Each option uses the actual data from the RRRC operational costs for the 2007/2008 financial year, and assumes that the following parameters apply:

Electricity and process waste disposal costs will be passed on by the obligated parties in the form of a charge directly related to the quantity of GHG's that are produced from each activity, eg:

$$\begin{aligned} & \text{quantity of electricity consumed} \times \text{emission factor} \times \text{permit price} \\ & \text{and} \\ & \text{quantity of waste to landfill} \times \text{emission factor} \times \text{permit price} \end{aligned}$$

These assumptions have been calculated for a range of possible permit values.

Option 1 – considers the financial impact on the RRRC operations on the basis that current Greenhouse Friendly™ Abatement (GFA) produced by the WCF can be sold into the voluntary market with the introduction of the CPRS.

Chart 1

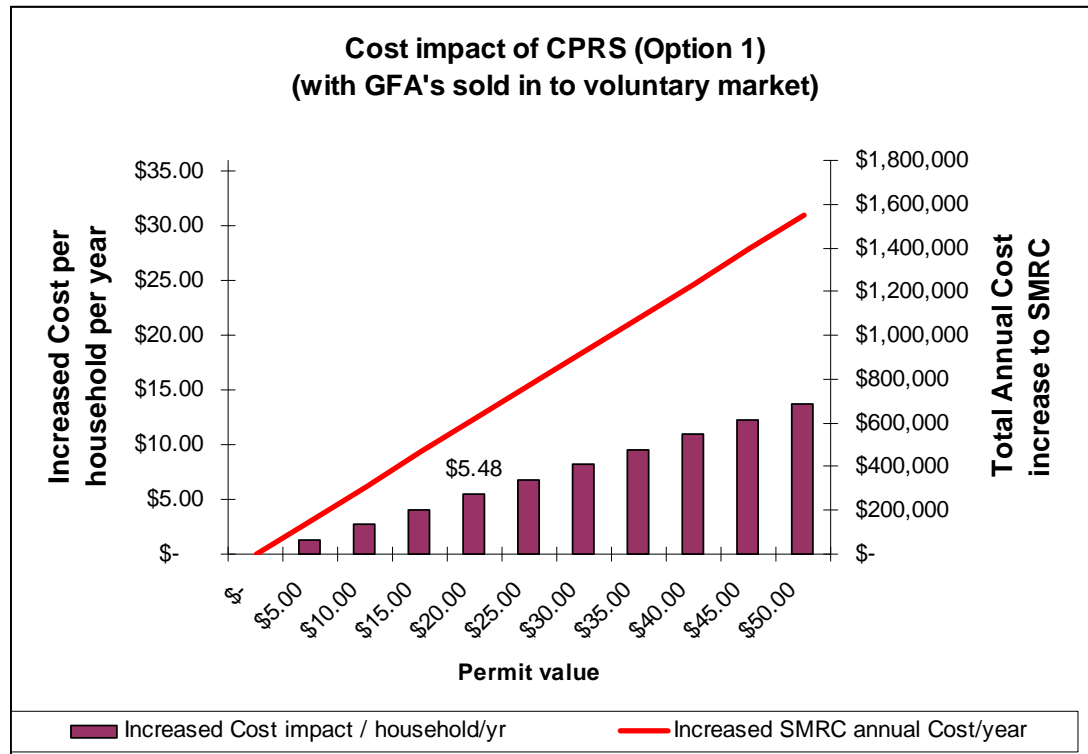


Chart 1 reflects business as usual for the SMRC but incorporates additional costs to power and residual waste disposal under a CPRS. Assuming a permit cost of \$20 the impact on the SMRC will be an increase of \$620,000 per year that will need to be reflected in a cost pass through to ratepayers of \$5.48 per household/per year.

This option assumes that the voluntary Carbon market will be as buoyant after the introduction of the CPRS as before. However, this is unlikely as current market participants will instead have a compliance permit liability and as such voluntary demand may disappear.

Option 2 – considers the financial impact on the RRRC operations on the basis that current Greenhouse Friendly™ abatement (GFA) produced by the WCF can not be sold into the voluntary market with the introduction of the CPRS.

Chart 2

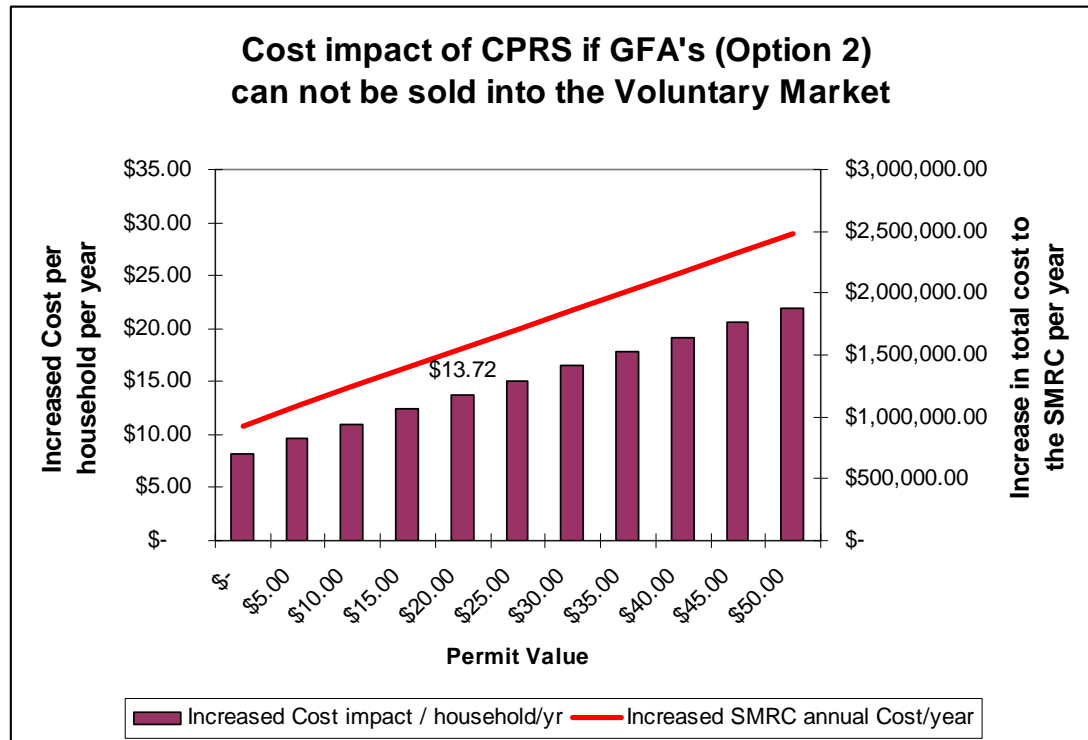


Chart 2 assumes a permit cost of \$20 and incorporates additional costs to power and residual waste disposal under a CPRS.

The impact on the SMRC will be an increase of \$1.55 million per year that will need to be reflected in a cost pass through to ratepayers of \$13.72 per household/per year.

Option 3 - considers the financial impact on the RRRC operations on the basis that current Greenhouse Friendly™ abatement (GFA) produced by the WCF is fully fungible with CPRS Permits on a one for one basis.

Chart 3

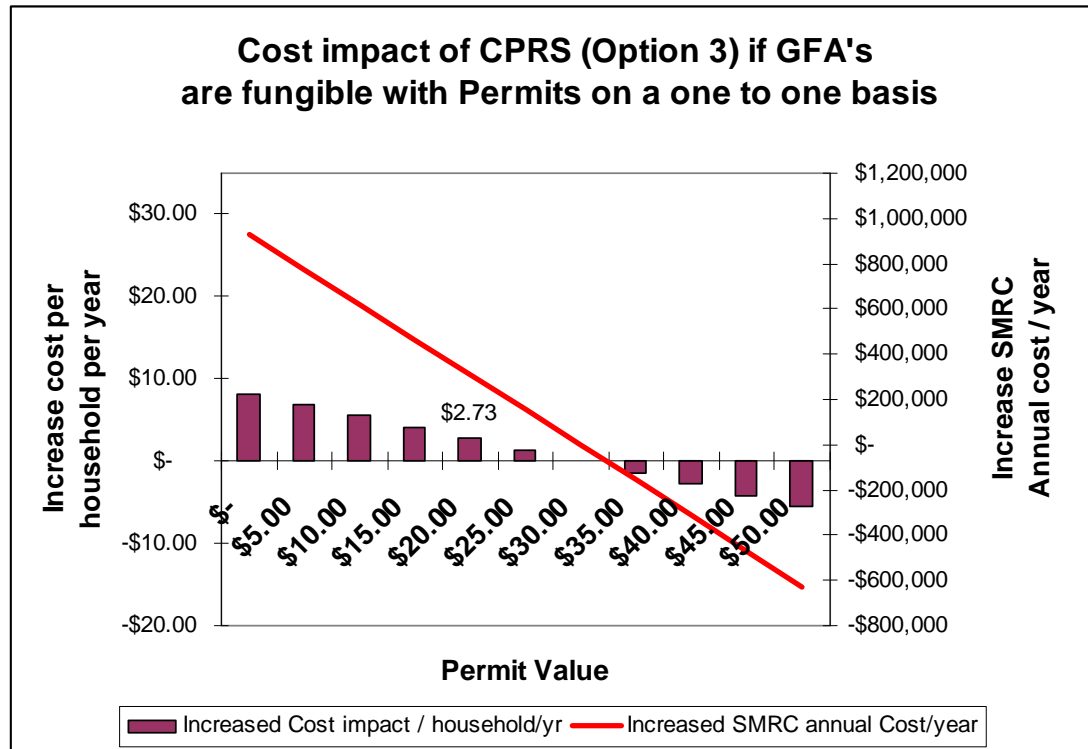


Chart 3 assumes a permit value of \$20 and incorporates additional costs to power and residual waste disposal under a CPRS.

The annual cost increase to the SMRC will be \$0.308 million that will need to be reflected in a cost pass through to ratepayers of \$2.73 per household/per year.

This option has the least impact and it is believed to be inline with the Federal Government objective on introducing CPRS in a manner that is effective and has the least impact on the community.

Financial Impact of CPRS on future AWTs

Alternative Waste Technology (AWT) is waste processing technology that is used to process waste to minimise the amount of waste that is sent to landfill and is not considered business as usual. In doing so some AWT systems can substantially reduce the amount of anthropogenic CO₂-e from entering the atmosphere when compared to conventional landfill.

The SMRC's Waste Composting Facility is verified under the Greenhouse Friendly™ program and reduces the amount of CO₂-e emissions generated by municipal solid waste normally sent to landfill by up to 80% and for this reason the SMRC believes that the CPRS should be used to stimulate the development and adoption of AWT's as a means of processing municipal solid waste

The adoption of AWT in the waste sector is currently thwarted by the significant cost differential between AWT and landfill. Currently in Western Australia that cost differential is in the order of \$60 per tonne.

To illustrate the impact the CPRS could have on the AWT industry, the following analysis compares four options under the CPRS by comparing the cost of AWT processing versus landfill of Municipal Solid Waste (MSW). These cost are then transposed into a cost per household/ per year.

The analysis is based on the current costs (2007/2008) of the SMRC's Waste Composting Facility (WCF) and the following assumptions have been used with respect to CPRS:

Electricity and process waste disposal costs will be passed on by the obligated parties in the form of a charge directly related to the quantity of GHG's that are produced from each activity, eg:

quantity of electricity consumed x emission factor x permit price

and

quantity of waste to landfill x emission factor x permit price

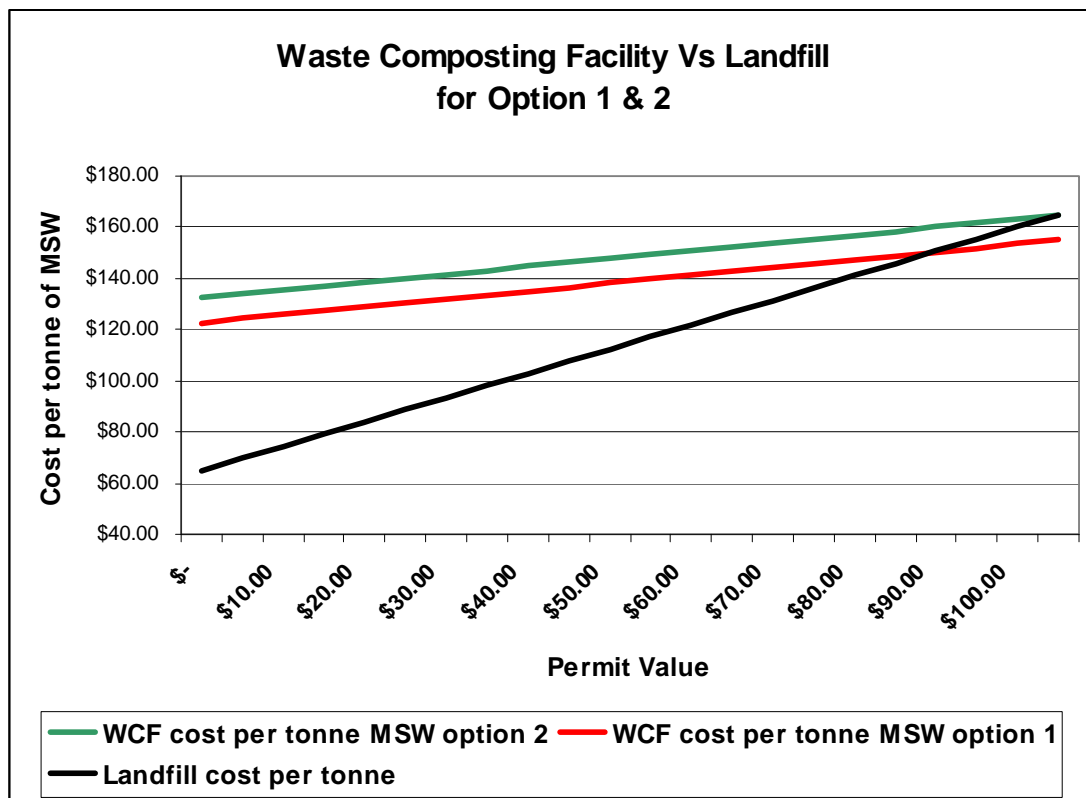
The current cost for the SMRC to process MSW at the Waste Composting Facility net of income from the sale of Greenhouse Friendly™ abatement achieved in the 2007/2008 financial year was \$122.70 per tonne of MSW versus the current waste disposal rate for landfilling of \$65 per tonne MSW, a \$57.70 differential cost per tonne.

Option 1 assumes that Greenhouse Friendly™ abatement generated from the WCF will be sold into a voluntary carbon abatement trading market at a rate of \$15 per unit and;

Option 2 assumes that Greenhouse Friendly™ abatement will have no market value under the proposed CPRS.

Chart 4 shows the total cost of processing MSW per tonne at the Waste Composting Facility, under the two options above, versus landfill rates under various Permit values.

Chart 4



For Landfill to equal the cost of Waste Composting;

Option 1 shows that the Permit value needs to be as high as \$90

Option 2 shows that the Permit value has to reach \$105

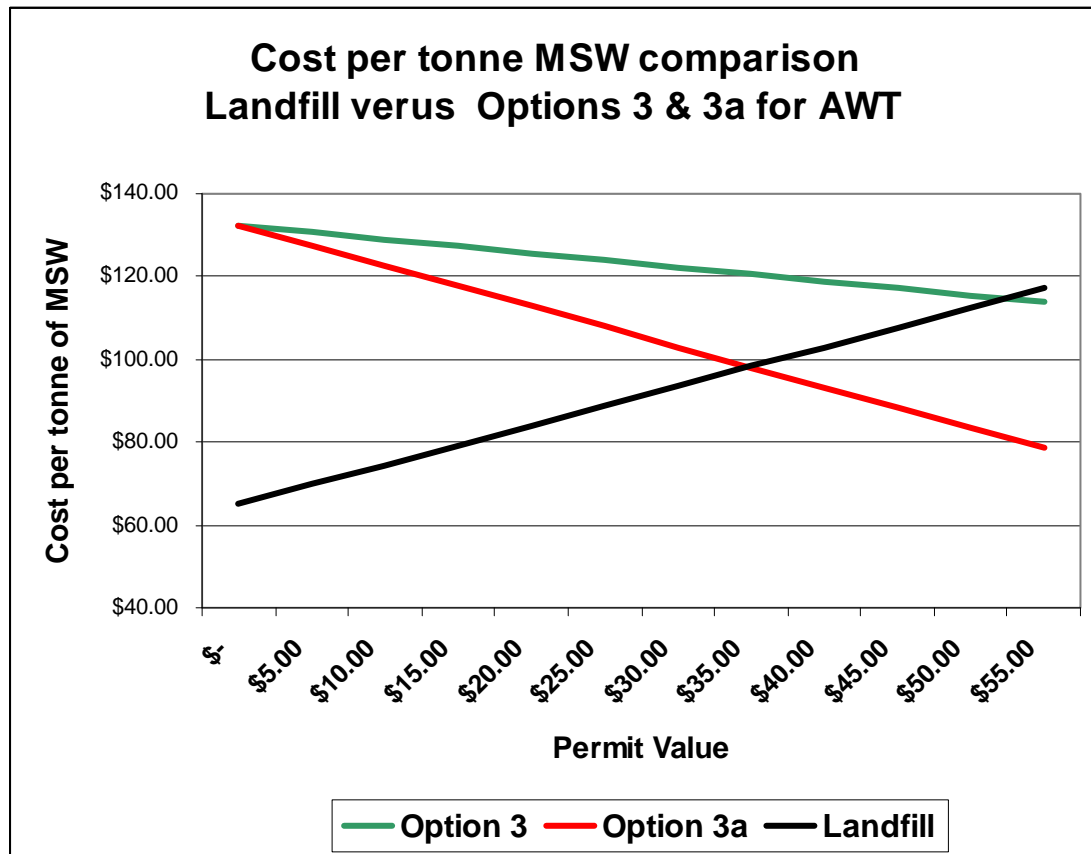
For AWT to be adopted even under a high carbon price would place a cost burden on ratepayers of between \$23.68 and \$35.87 per household/per year.

Option 3 assumes Greenhouse Friendly™ abatement is fully fungible with CPRS Permits on a one for one basis and;

Options 3a assumes Greenhouse Friendly™ abatement is fully fungible with CPRS Permits on basis that one Greenhouse Friendly™ abatement unit has the value of two Permits.

Chart 5 shows the Impact of Options 3 and 3a.

Chart 5



For Landfill to equal the cost of Waste Composting;

Option 3 shows that the Permit value needs to be \$53

Option 3a shows that the Permit value needs to be \$35

To adopt AWT under this scenario the impact of Options 3 and 3a would be at a comparable cost to landfill and deliver a significantly greater abatement outcome.



Discussion

Clearly from the above analysis Option 3a presents the best outcome for the residents of the SMRC, but more importantly it also presents the best option to create incentive to drive the Alternative Waste Treatment industry across Australia,

As demonstrated the SMRC's AWT reduces CO₂-e emissions by up to 80%. By allowing the SMRC's Greenhouse Friendly™ abatement to be fully fungible with the CPRS permits at a rate of one unit equal to two CPRS Permits it ensures;

- AWT's will be cost competitive with landfill
- It will stimulate substantial growth and development of AWT's across Australia
- a significant contribution to carbon pollution reduction from domestic waste generated across Australia.

The advantage of using the CPRS Permits to drive carbon pollution reduction through AWT's is that it is performance based. In order for AWTs to remain competitive with landfill they will be required to achieve significant abatement. Unlike State Government Landfill Levies which are used as a tax rather than a behavioural driver through performance outcomes.

The mechanism for the measurement and accounting of Greenhouse Friendly™ abatement created by AWTs has been comprehensively developed and is well managed by the Greenhouse Friendly program through its verification requirements. This would enable the Federal Government to report accurately carbon pollution abatement against business as usual activities.

RECOMMENDATION

Greenhouse Friendly™ abatement created by Alternative Waste Treatment Facilities be fungible within the proposed Carbon Pollution Reduction Scheme at a ratio of one Greenhouse Friendly™ Abatement Unit equal to the value of two CPRS Permits.

6. Transition assistance

The SMRC and its stakeholders, being its member councils and ratepayers, have been active early movers on GHG abatement. They have invested in early action, beyond business as usual activity to prevent the release of GHG emissions to atmosphere. This has come at a cost premium to the business as usual activity of landfill. Loss of income from the sale of offsets should be either avoided by the aforementioned improved scheme design or compensated.

6.1 Climate Change Action Fund or similar should be accessible by disadvantaged early adopters

The stakeholders, who are already committed to bearing the cost of this beyond BAU abatement project for the next fifteen years are now facing an additional project cost impost without any additional abatement benefits accruing.

This impost is due to the impending removal of the income stream from the sale of Greenhouse Friendly™ offsets that will be brought about by the proposed scheme design and a further cost from an increase in landfill fees and electricity brought about by the introduction of the CPRS that will compound this inequitable situation.

The SMRC feel that using any test of fairness we have a strong claim for compensation or assistance either through the Climate Change Action Fund or similar for any losses that will be incurred particularly given the SMRC has been and will continue to be at the forefront of GHG abatement in the Australian waste sector.