



Brotherhood  
of St Laurence

Working for an Australia free of poverty

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18 May 2007

Victorian Energy Efficiency Target Scheme  
c/o Department of Primary Industries  
Level 23, 80 Collins Street  
Melbourne Vic 3000

Via email: [veet.submissions@dpi.vic.gov.au](mailto:veet.submissions@dpi.vic.gov.au)

Dear Sir/Madam

***Re: Submission in response to the Victorian Energy Efficiency Target Scheme Issues Paper***

I forward the attached submission from the Brotherhood of St Laurence for consideration by your Department.

As the public debate about climate change has evolved, my organisation has become increasingly concerned about the equity issues that it raises. We have also recognised the need to improve our knowledge of the complex issues involved.

To this end in late March we conducted an "Equity in Response to Climate Change Roundtable" that commissioned national and international scoping papers covering the impact of climate change on disadvantaged households and communities and their exposure to the impact of remedial measures.

We believe we are now well positioned to make a significant contribution to the public debate, and to your deliberations regarding the proposed Victorian Energy Efficiency Target Scheme.

We would welcome the opportunity to further discuss the issues raised in our submission.

Yours faithfully,

Tony Nicholson  
Executive Director



*Response to the  
Victorian Energy  
Efficiency Target  
Scheme Issues Paper*

Brotherhood of St Laurence  
May 2007

## Overview of this submission

The Brotherhood of St Laurence welcomes the proposed Victorian Energy Efficiency Target (VEET) Scheme. We believe the proposed VEET Scheme provides a useful and necessary opportunity to:

- Reduce GHG emissions from the residential sector
- Provide a basis for involving the disadvantaged in responding to climate change without placing an unnecessary financial burden on them
- Create a step change in the rate at which energy efficiency measures are adopted in the residential sector
- Provide a foundation for growth in the energy efficiency industry

The Brotherhood is an independent organisation with strong Anglican and community links. We fight for an Australia free of poverty. We are increasingly aware of how climate change will influence our work, and accordingly would like to make this submission in response to the Issues Paper on the VEET Scheme from the Department of Primary Industries.

We are making this submission because we want to ensure that policies and measures introduced to address climate change do not adversely affect the disadvantaged members of our community.

In particular, we see an opportunity for the proposed VEET scheme to benefit to the disadvantaged members of our community, if it is well designed. Our main recommendations on the VEET Scheme design are:

- The Scheme should focus on those areas where energy efficiency improvements have greatest social benefit, that is, on low income households.
- Maintenance of complementary measures that address the barriers faced by low income households to improving energy efficiency.
- Adoption of a portfolio approach to setting the scheme target.
- A target of 50% of energy efficiency improvements should be made in poorer households.
- Social welfare agencies should be allowed to become “eligible implementers”.
- Eligible activities should focus on energy efficiency, and in doing so should deliver emissions reductions. Fuel switching activities should be allowed only where they also deliver energy efficiency benefits.
- The Scheme target should be ambitious, reflecting the need to reduce greenhouse gas emissions from the residential sector, while safeguarding against undue increases in electricity bills, and recognising the timeframes necessary for energy efficiency products and services to be deployed in the market.

Given that increased energy prices are a likely feature of Government responses to climate change, we welcome measures that focus on assisting those in low income households to find ways to reduce their energy use.

## 2. Social issues and climate change

The Brotherhood of St Laurence believes social justice should become a major consideration in our response to climate change. Social justice is about ensuring that disadvantaged people in society are recognised in our response to climate change, and that our response does not make life more difficult for them.

We are concerned that the social impacts of climate change are not routinely considered in the national debate on climate change. We believe social issues are at least as important as environmental and economic considerations in determining the adequacy and effectiveness of our response to climate change.

Social issues include the direct impacts of climate change on people, which in some cases will be acute. The impacts of climate change on Australian society will be widespread. In all parts of Australia temperatures will rise, rainfall will change, sea level will rise, and extreme events will become more intense. These changes will inevitably come to affect the way we live, the way we work, our health, our security, and will affect the opportunities afforded to us as individuals.

The way we respond to climate change will also affect people. Social issues also include the ability of people to install new technologies and adopt behavioural changes that will protect them from climate impacts, or reduce their use of energy. The majority of our greenhouse gas (GHG) emissions come from burning fossil fuels to generate energy, so the focus of our response is on reducing energy use, and shifting energy sources to low carbon alternatives. This could mean the more widespread introduction of minimum energy performance standards, for electrical appliances, cars and buildings, all of which have the potential to increase costs for buyers. Pricing carbon into energy, including petrol and electricity, means unit costs will rise.

The capacity to respond to the impacts of climate change and to policies designed to reduce GHG emissions is not evenly distributed within our society. The most disadvantaged people in our society will likely lack access to the financial resources and knowledge required to protect their assets or re-locate away from the negative impacts of climate change, and to reduce their exposure to increased energy costs.

The aspects of climate change that present the greatest challenges for social justice are listed below<sup>1</sup>, with a summary provided in Attachment A:

- Health impacts, including heatwaves and the changed distribution of vector-borne diseases
- Impacts on livelihoods and the continued economic viability of parts of rural Australia, including the possibility of forced internal migration
- Indigenous Australians, particularly those in remote communities in northern Australia
- Changes in electricity and petrol prices, and the availability and affordability of alternatives

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<sup>1</sup> *An Australian snapshot*. Paper prepared for the national 'Equity in response to climate change roundtable' by Justin Sherrard and Alan Tate, Cambiar, March 2007. Available at: [http://www.bsl.org.au/pdfs/Cambiar\\_climate\\_justice\\_Australian\\_snapshot\\_mar07.pdf](http://www.bsl.org.au/pdfs/Cambiar_climate_justice_Australian_snapshot_mar07.pdf)

- Impacts on our everyday way of life, including access to public open space for sport and recreation and the protection of our housing stock from extreme events
- Ongoing employment in some industries, such as in energy intensive industries and in coal mining
- Border security, because climate change will not only affect how we live. The Asia-Pacific region will be badly affected, most likely displacing people and creating climate refugees.

Social justice issues are not being routinely considered in climate change policy. For example, recent discussion papers on emissions trading, from the National Emissions Trading Taskforce and the Prime Minister's Task Group on Emissions Trading do not explicitly mention the possible social implications of emissions trading schemes.

The Brotherhood believes policy-makers should adopt a more systematic approach to considering social issues in climate policy formulation, and give special consideration to assisting the disadvantaged members of our community respond to climate change. Further, we believe this should include establishing programs and initiatives that specifically target low income households, and considering the disadvantaged in mainstream policy processes around climate change.

We therefore welcome the opportunity to focus on the disadvantaged in climate change policy provided by the proposed Victorian Energy Efficiency Target (VEET) Scheme.

The Brotherhood believes that if well designed the VEET Scheme offers considerable scope to assist low income households in the response to climate change.

### **3. Design principles for the VEET Scheme**

#### ***Scheme focus and objectives – response to Sections 3.2 and 3.2 of the Issues Paper***

*Recommendation 1: The VEET Scheme should focus on those areas where energy efficiency improvements have greatest social benefit, that is, on low income households.*

Anecdotal experience in similar schemes in other jurisdictions is that eligible implementers will quickly focus on those efficiency improvements that offer them the greatest margin. For example under the NSW Greenhouse Gas Abatement Scheme, implementers found a sizeable margin in giving away compact flouro lamps (CFLs), and focused their initial distribution efforts on high volume sites close to their geographic base, such as the Sydney CBD and major shopping centres. This sort of approach does not necessarily offer any assistance to those who would benefit most from energy efficiency improvements – low income households.

*Recommendation 2: In addition to the VEET Scheme having a specific focus on low income households, it is important to maintain complementary measures that address the barriers faced by low income households in improving energy efficiency.*

These barriers are well set out in Table 1 of the Issues Paper; we would like to draw attention to those barriers that are most relevant to low income households:

- Lack of awareness of the potential for energy efficiency measures to reduce energy bills
- Lack of understanding of where to go for information on using energy more efficiently
- Focus on up-front costs of appliances and equipment, rather than operating costs, and a lack of access to financial resources needed to adopt more energy efficient appliances and equipment
- Split incentives, and in particular the landlord/tenant barrier, whereby the owner of the house is responsible for capital improvements and major appliances (eg. hot water system, oven and cook-top) that could increase energy efficiency, yet does not benefit from a reduced energy bill. Similarly tenants, who benefit from reduced energy bills, have no incentive to invest in capital improvements or major appliances that offer energy efficiency improvements.
- Major appliances such as refrigerators and space heaters are not replaced until failure, and in these circumstances householders prioritise replacing the appliance over energy efficiency

The VEET Scheme will certainly assist in overcoming these barriers. However the Brotherhood believes additional and complementary programs and measures will be required to ensure these barriers are reduced.

These additional and complementary measures should include:

*The 'black balloon' energy saving campaign.* Raising overall awareness of climate change and energy issues will be important for the success of the VEET Scheme. The 'black balloon' campaign is already underway and it would be preferable to integrate awareness of the VEET Scheme into this campaign than to run a new, separate campaign

*The proposed rebate program for retrofitting or replacing old appliances.* It is unlikely the value of VEET Scheme certificates will be sufficient to fund the upgrading or replacement of major energy using appliances, such as refrigerators. An additional program, such as the Victorian Government's proposed rebate scheme, will be required to assist low income households to realise the benefits of more energy efficient living. The VEET Scheme and rebate scheme could be integrated by allocating the Certificates created to the rebate scheme (to extend its reach), or by 'topping up' the rebate available to householders.

*The Energy Task Force program.* Tenants of public housing have benefited from this program and will continue to do so. The VEET Scheme and Energy Task Force program could be integrated by allocating the Certificates created to the Task Force program (to extend its reach), or by 'topping up' the retro-fitting funds available to public housing tenants.

***Adopting a portfolio approach – response to Sections 3.4 and 3.5.6 of the Issues Paper***

***Recommendation 3: The VEET Scheme should adopt a portfolio approach to setting the scheme target.***

A portfolio approach will ensure the benefits of the proposed VEET Scheme flow to low income households.

This approach has been used in the UK's Energy Efficiency Commitment (EEC)<sup>2</sup>. EEC requires all UK electricity and gas retailers to achieve energy savings by subsidising energy saving measures (such as insulation, efficient appliances and lighting) for their household customers. EEC sets a portfolio target of 50% of those energy savings coming from "Priority Group" households. The Priority Group includes households eligible for a range of welfare benefits, including low income elderly and disabled people and low income families.

About 35% of UK households fall into the priority group and it is estimated that about two thirds of them received some measures through EEC from 2002-05 (mainly compact fluoro lamps – CFLs)<sup>3</sup>.

The rationale for establishing the 50% portfolio target for the Priority Group households was to ensure the benefits of the EEC flow to all households<sup>4</sup>. The portfolio approach counters the retailers' incentive to achieve the energy savings at lowest cost, which tends to drive them towards schemes targeting higher income households who require lower subsidies. As all households are paying the costs of EEC the scheme, the portfolio approach reduces the risk of inequitable outcomes, where most of the benefits could go to higher income households, by spreading the benefits across all household types.

*Recommendation 4: Under the Portfolio approach the proposed VEET Scheme should set a target of 50% of the energy efficiency improvements being made in poorer households*

"Poorer households" number about 600,000 and represent about 30 per cent of Victorian households. Table 1 shows the distribution of these household types across income brackets, and can be compared with ABS projections of total number of households in Victoria of just under 2 million for 2006<sup>5</sup>.

A portfolio target of 50% for poorer households would ensure the benefits of the proposed VEET Scheme flow to those households where they are needed most. It would over-represent poorer households for the uptake of energy efficiency measures.

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<sup>2</sup> For more information on the UK Energy Efficiency Commitment refer to the scheme regulator OFGEM: <http://ofgem2.ulcc.ac.uk/ofgem/work/template1.jsp?id=1596&section=/areasofwork/energyefficiency&isbpage=yes> and the scheme advisor DEFRA: <http://www.defra.gov.uk/environment/energy/eec/>

<sup>3</sup> See scheme evaluation by DEFRA: <http://www.defra.gov.uk/environment/energy/eec/pdf/eec-assessment.pdf>

<sup>4</sup> *Equity and Climate Change – UK and EU Experience*. Paper prepared for the National Equity in Response to Climate Change Roundtable by Dr Gill Owen. Available at: [http://www.bsl.org.au/pdfs/GOwen\\_equity&climate\\_change\\_UK&EU\\_paper\\_mar07.pdf](http://www.bsl.org.au/pdfs/GOwen_equity&climate_change_UK&EU_paper_mar07.pdf)

<sup>5</sup> Household and Family Projections: Australia 2001 to 2026. Australian Bureau of Statistics, 2004. ABS Cat No. 3236.0. Available at: [http://www.ausstats.abs.gov.au/ausstats/subscriber.nsf/0/DF2989BFFA7392E1CA256EB6007D63F4/\\$File/32360\\_2001%20to%202026.pdf](http://www.ausstats.abs.gov.au/ausstats/subscriber.nsf/0/DF2989BFFA7392E1CA256EB6007D63F4/$File/32360_2001%20to%202026.pdf)

This portfolio target is also in line with that adopted by the UK's Energy Efficiency Commitment. The EEC program has proven cost-effective; it has been estimated that the cost of saving a unit of electricity under the EEC, of less than £0.01/kWh, is considerably less than the value of the energy saved<sup>6</sup>.

**Table 1: Number of "Poorer households" in Victoria in 2006 (by income)<sup>7</sup>**

Couple with children and income under \$900 per week	135,000
Couple with children and income under \$800 per week	170,000
One parent family and income under \$700 per week	97,000
Non-family households and income under \$600 per week	199,000
<b>Total</b>	<b>601,000</b>

### ***Social welfare agencies as "eligible implementers" – response to Section 3.5.9 of the Issues Paper***

*Recommendation 5: Allow social welfare agencies to become "eligible implementers" under the proposed VEET Scheme.*

Given the range of barriers that could prevent the disadvantaged from accessing the benefits of the proposed VEET Scheme (see above), and the recommendation for the scheme to use a portfolio approach to setting the target, allowing social welfare agencies to become eligible implementers could help minimise scheme compliance costs.

Social welfare agencies, such as the Brotherhood, have a range of ongoing programs and activities, as well as extensive networks with "poorer households". In addition, social welfare agencies understand how best to communicate with this target group, to make them aware of the scheme and its benefits, and how best to provide an accessible way of facilitating their participation.

Implementation of household energy efficiency measures through social welfare agencies' channels and networks can provide a cost-effective means to engage this target group and thereby reduce overall scheme compliance costs.

### ***Eligible activities to focus on energy efficiency – response to Section 3.5.10 of the Issues Paper***

<sup>6</sup> See scheme evaluation by DEFRA: <http://www.defra.gov.uk/environment/energy/eec/pdf/eec-assessment.pdf>

<sup>7</sup> *The impact of carbon prices on Victorian selected household types – A preliminary analysis.* A report for the Brotherhood of St Laurence, prepared by the National Institute of Economic and Industry Research. Draft Report, March 2007. Available at: [http://www.bsl.org.au/pdfs/NIEIR\\_impact\\_of\\_carbon\\_prices\\_prelim\\_analysis\\_26mar07draft.pdf](http://www.bsl.org.au/pdfs/NIEIR_impact_of_carbon_prices_prelim_analysis_26mar07draft.pdf)

*Recommendation 6: Eligible activities should focus on energy efficiency, and in so doing deliver emissions reductions. Fuel switching activities should be allowed only where they also deliver energy efficiency benefits.*

To maximise its positive outcomes, the proposed VEET Scheme should focus on energy efficiency activities. Improving energy efficiency will reduce GHG emissions and reduce energy bills for households.

Some of the activities listed in the Issues Paper, such as fuel switching electric to gas or solar hot water and electric to gas heating systems, will reduce GHG emissions but may not necessarily reduce energy bills. Allowing them as eligible activities could limit the positive outcomes from the proposed Scheme.

***Level of ambition in the Scheme target – response to Section 3.5.2 of the Issues Paper***

*Recommendation 7: The Scheme target should be ambitious, reflecting the need to reduce greenhouse gas emissions from the residential sector, while safeguarding against undue increases in electricity bills, and recognising the timeframes necessary for energy efficiency products and services to be deployed in the market.*

The Government accepts the need for deep cuts in GHG emissions, and has proposed a 60% reduction in emissions by 2050. Victoria will not be able to achieve such a target without full participation of the residential sector in efforts to reduce emissions.

Over one third of Victoria's GHG emissions come from the residential sector (Issues Paper: Section 2.1). Despite improvements in energy efficiency in homes and a gradual shift of residential energy supply from electricity to lower-carbon gas and renewables, Victorian residential energy consumption and GHG emissions are projected to increase steadily (Issues Paper: Section 2.1).

The Brotherhood believes it is preferable to start making emissions reductions from the residential sector now, in a planned and gradual way, rather than deferring action and then facing the likelihood that more severe action to reduce emissions is necessary. Further, such a planned and gradual approach provides the best opportunity for the needs of the disadvantaged to be taken into account in designing response policies and measures.

Preliminary work on the technical and economic potential for energy efficiency improvements suggests there is considerable scope to improve energy efficiency in Victorian households (Issues Paper: Section 2.2).

Further, in other parts of the world Governments have set ambitious goals for emissions reductions in the residential sector. For example in the UK all new homes are to have zero GHG emissions on heating and cooling by 2016 under the Code for Sustainable Homes<sup>8</sup>.

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<sup>8</sup> For more information see <http://www.dti.gov.uk/sectors/construction/sustainability/codesushomes/page13697.html>

Accordingly, the Brotherhood calls on the Government to set an ambitious target for the proposed VEET Scheme. In doing so, the Government should take into account the risk that the Scheme will result in unacceptable increases in energy bills for Victorian consumers. Further, the Government must recognise the timeframes required for energy efficiency products and services to become widely available and for business models for their deployment to be developed.

## ATTACHMENT A

### Social justice dimensions of climate change<sup>9</sup>

#### Health impacts

Prolonged exposure to high temperatures can cause heat exhaustion, cramps, heart attacks and stroke. Those most vulnerable to heat-related stress include the elderly, the very young, people under intense physical stress and those with cardiovascular disease. Without strong action to reduce GHG emissions, annual heat-related deaths of people aged over 65 years living in capital cities could rise from 1,100 to between 8,000 and 15,000 by the end of the Century.

The most disadvantaged people in society may not be able to afford to insulate or cool their home environments to counter additional heat.

Vector-borne diseases include Dengue Fever, Malaria and Ross River Fever, and their distribution is heavily influenced by climatic conditions. Dengue Fever is not endemic to Australia, although North Queensland currently supports a suitable climate for its establishment and there have been recent infections in the Torres Strait Islands. Strong action to reduce GHG emissions could limit the spread of the dengue transmission zone to Brisbane. But in the absence of strong action the transmission zone could spread south to Sydney by the end of the Century.

Other health impacts include water-borne diseases, food-borne diseases, exposure to solar radiation (skin cancer) and respiratory diseases.

#### Impacts on our everyday way of life

Climate change will cause significant change to the ways of life of Australians generally. These changes will range from the security of our homes and neighbourhoods to the availability of local amenities like beaches and parklands and holiday destinations.

For instance, as a result of the current drought, sport has been banned in some rural towns and suburbs, because of the health and safety risks of playing on dry, hard, bare ground. Because sport is important to Australians, many people will be impacted if such bans become more widespread. The people most heavily affected will be those with little or no access to alternatives to community-based sports and facilities.

Periods of prolonged heat, wind and rainfall, and increased variations in them, can lead to accelerated structural fatigue of the housing stock and of buildings, and greater demands on construction and drainage. These impacts could be exacerbated if extreme weather events like cyclones move into urban areas where houses, buildings and infrastructure are not designed to cope with them. The houses, buildings and infrastructure most at risk are those constructed from cheaper building materials, like fibre cement, and low cost housing such as caravan parks.

As the magnitude and frequency of storm damage goes up, the cost of insuring houses, buildings and infrastructure against extreme events will also increase. In some areas insurance cover may become very expensive or may even be withdrawn, leaving housing assets stranded and the risk that some areas will need to be abandoned.

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<sup>9</sup> References include: *Climate change risk and vulnerability: Promoting an efficient adaptation response in Australia*. Australian Greenhouse Office report prepared by Allens Consulting, Canberra, March 2005. Available at: <http://www.greenhouse.gov.au/impacts/publications/risk-vulnerability.html>. *Climate Change Health Impacts In Australia. Effects of dramatic CO2 emission reductions*. Australian Medical Association and the Australian Conservation Foundation report. Available at: [http://www.acfonline.org.au/uploads/res\\_AMA\\_ACF\\_Full\\_Report.pdf](http://www.acfonline.org.au/uploads/res_AMA_ACF_Full_Report.pdf)

Some people will retro-fit their houses to cope with these changes, while others move to areas that are less affected. The most disadvantaged people in society may not be able to afford to retro-fit or to move, and will see the value of their home decrease or their rent increase. Similarly the costs of protecting infrastructure and public buildings will fall to tax- and rate-payers, and the most disadvantaged people in society may struggle to afford such cost increases.

### Impacts on rural Australia

As the climate changes, it is likely that existing farming practices will become progressively more marginal in some established areas of rural Australia. Farmers will either need to adopt new farming practices that are better suited to the new climate regime, or where possible, physically relocate to continue farming practices in areas that best suit them.

Neither process will be straight-forward – they will require access to knowledge and to capital. Some farmers will struggle with these changes, and as is happening during the current drought, some farming families will experience financial hardship and chronic social pressures. The abandonment of rural towns is likely to accelerate with the consequent loss of local history and culture.

### Indigenous Australians

Indigenous people living in northern Australia will find themselves increasingly exposed to the impacts of climate change, including more extreme events, rising sea levels and increased transmission of infectious diseases. Their capacity to respond to these events is already constrained, and they will struggle to respond to more severe climatic events. Climate impacts are likely to further exacerbate the breakdown of local culture and have a negative impact on efforts to establish new economic foundations in northern Australia.

There is strong evidence that communities in the Torres Strait are already being affected by sea level rise and consideration is being given to the eventual evacuation and relocation of some island communities.

### Changes in electricity and petrol prices, and the availability and affordability of alternatives

Mitigation strategies must focus on reducing greenhouse gas emissions from the use of fossil fuels. Most economists favour using financial instruments that put a price on GHG emissions as a way of reducing demand and improving the efficiency of fossil fuel use. This means energy prices – and in particular electricity and petrol – need to rise.

Our cities and towns, and our way of life, are a product of the availability of cheap energy. Urban design and house construction have not been geared to minimising energy use, and human behaviour is a response to this.

Increasing energy prices will affect everyone in society, and a range of responses will follow. Responses for electricity include reducing demand by improving design and construction (eg. insulation), installing more energy efficient lighting and ventilation systems, and more efficient appliances. Transport responses include using cars less, with more walking and cycling, and making more use of public transport. For both electricity and petrol it is possible that while unit prices will rise, actual use can be reduced, meaning that the net cost to consumers does not change.

The most disadvantaged people in society may struggle to respond to increasing energy prices. Those who can afford to upgrade to more energy efficient living, and have better access to alternatives to using private cars for transport, will do best. Others, particularly those in outer urban areas, will have less access to transport alternatives and have longer distances to travel, and – without relief – will simply have to pay higher energy prices.

There will be associated issues with increases in the cost of water as a drier climate means expensive options, such as water recycling or desalination, are needed to secure and to ration water supplies to towns and cities. The most disadvantaged people in society may struggle to respond to rising prices. Reducing demand (eg. by installing a rainwater tank) and by installing devices and using appliances that improve the efficiency of their water use (such as water efficient dishwashers), may be beyond their financial resources and outside their knowledge base.

### Ongoing employment in some industries

Changes in electricity and petrol prices will impact on industry (as well as households) in two ways. Firstly, the direct cost of energy, or energy-intensive inputs, is likely to rise as carbon pricing is introduced across the economy. Secondly, companies that are manufacturing energy-intensive products or providing energy-intensive services may find demand for those products and services shifting to lower-carbon alternatives.

To remain competitive changes will be required in the way energy is used in production and in service delivery, and some companies will struggle to respond. Their position in the capital investment cycle may mean they cannot afford to invest in more energy efficient plant, and if they can, their access to capital may be constrained by tight margins. Some industries may be directly exposed to overseas competitors who have a rent holiday on carbon pricing, or who already have more energy efficient operations or products by virtue of already being exposed to carbon pricing.

Uncompetitive companies will likely close down or make big changes to their operations, and job losses could follow.

Climate change will also have a largely negative impact on the tourism industry where many unskilled and transient workers are currently employed. Tourism based around the Great Barrier Reef and the NSW/Vic snowfields are examples of tourist attractions that will decline over the next two to three decades.

### Border security

The combined effects of rising sea levels and increased storms will result in the inundation of large coastal areas across the Asia-Pacific region, and for island nations like Tuvalu much of the country itself, will become uninhabitable. People who are displaced may seek to re-settle elsewhere in their own country, but alternative settlements may not be available in all cases. Those who cannot settle elsewhere will become climate refugees.

Australia is likely to experience a significant increase in regional environmental and economic refugees – borne from climate impacts – seeking assistance and relocation.