National Climate Change Response White Paper: Market based instruments

Carbon Tax & Environmental Fiscal Reform

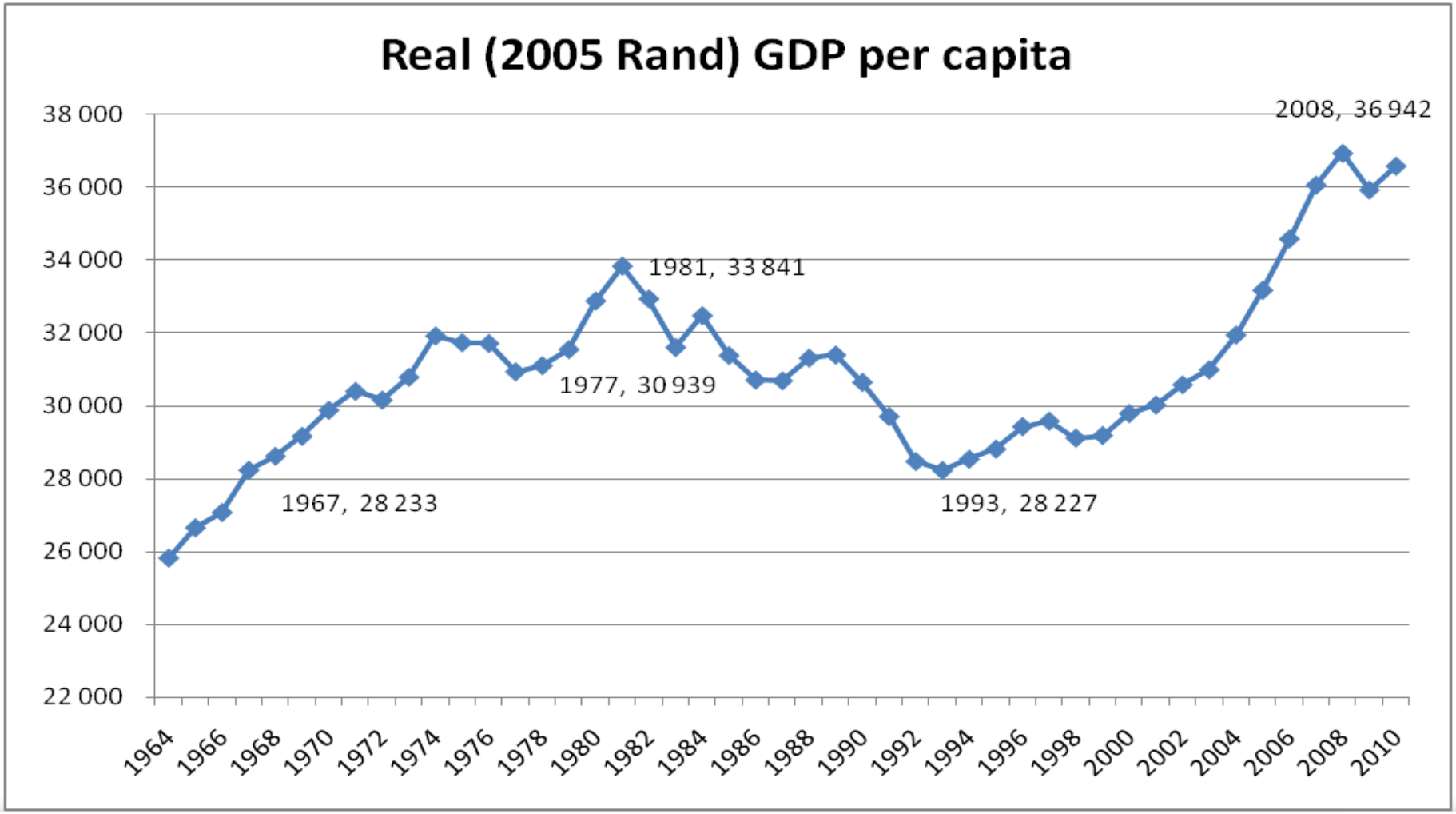
Cecil Morden | Chief Director – Economic Tax Analysis | 18 October 2011

national treasury
Department:
National Treasury
REPUBLIC OF SOUTH AFRICA

Introduction

- High levels of economic growth must be sustained to facilitate significant reductions in the levels of unemployment, poverty and income inequality.
- However, it's not just the quantity of growth that matters but also quality, and incorporating sustainable development considerations in policy development and decision making must actively be pursued.
- Market failure: market prices do not always reflect full economic costs of production or consumption / use;
- Government intervention necessary, e.g. through, regulations, taxes, incentives, etc.

Real GDP (2005 prices) per capita



Environmental Challenges

- South Africa faces a number of environmental challenges that is likely to be aggravated as the economy grows if natural resources are not properly managed and protected. These include:
  - emissions of local air pollutants that manifest in poor air quality with adverse impacts on society;
  - excessive emissions of greenhouse gases that contribute to global warming (Climate Change);
  - inappropriate land-use that results in land degradation;
  - biodiversity loss and damage to terrestrial ecosystems;
  - deteriorating water quality with severe impacts for South Africa as a water stressed nation; and
  - increasing levels of solid waste generation comparable to many developed countries.

National Climate Change Response White Paper (1)

- South Africa is a relatively significant contributor to global climate change with significant GHG emission levels from its energy-intensive, fossil-fuel powered economy .(page 8)
- Principles (9): The Polluter Pays Principle (page 11)

  Those responsible for harming the environment paying the costs of remedying pollution and environmental degradation and supporting any consequent adaptive response that may be required.
- Strategic Priorities (10): (pages 13 & 14)
  - Facilitated behaviour change

    Prioritise the use of incentives and disincentives, including regulatory, economic and fiscal measures, to promote behaviour change towards a lower-carbon society and economy
  - Resource mobilisation

    … non-market and market-based instruments, etc.
- Adaptation (pages 14 to 24)

National Climate Change Response White Paper (2)

- Mitigation (pages 24 to 29)
  - Using the market
  - Defining carbon budgets for significant GHG emitting sectors and / or subsectors
- Mitigation potential (Energy & Transport) (page 26)
  - energy efficiency, demand management, less emission-intensive energy mix, (e.g. renewable energy)

    … with the consequent economic benefits of improved efficiency and competitiveness as well as incentivicing economic growth in sectors with lower energy (and emissions) intensity .
  - *A mix of economic instruments, including market based instruments such as carbon taxes and emissions trading schemes, and incentives, complemented by appropriate regulatory policy measures are essential to driving and facilitating mitigation efforts and creating incentives for mitigation actions across a wide range of key economic sectors.*
  - Carbon capture and storage

National Climate Change Response White Paper (3)

- Managing response measures (page 29)

  …..,South Africa may be economically vulnerable to measures taken both internationally and nationally, to reduce GHG emissions.

  … trade barriers, a shift in consumer preferences and a shift in investor priorities.
- Market-based instruments (pages 39 to 41)
  - Carbon pricing
  - Carbon markets
  - Incentives
- Resource mobilisation (pages 41 to 46)
  - Finance
  - Education
  - Science and technology development

Externalities

- “Externalities refers to situations when the effect of production (and) or consumption of goods and services imposes costs or benefits on others which are not reflected in the prices charged for the goods and services being provided”.
- “A Pigovian tax is a tax imposed that is equal to the negative externality. The result is that the market outcome would be reduced to the efficient amount. A side effect is that revenue is raised for the government, reducing the amount of distortionary taxes that the government must / should impose elsewhere”.

Options for Intervention

- **Command-and-control measures**:
  - Use of legislative or administrative regulations that prescribe certain outcomes;
  - Usually target outputs or quantity, e.g. minimum ambient air quality standards, within which business must operate.
- **Market-based instruments**:
  - Policy instruments that attempt to internalise environmental externalities through the market by altering relative prices that consumers and firms face;
  - Utilise the price mechanism and *complement* command-and-control measures. Under certain circumstances MBIs are considered more efficient than command-and-control measures

Market based instruments

- Market-based instruments are a package of policy instruments that seek to correct environmentally-related market failures through the price mechanism.
- By seeking to alter relative prices that individuals and firms face, market-based instruments could be a more efficient way of addressing certain environmental concerns.
- In some instances, such instruments could be used to replace command-and control measures, but in most cases they have a complementary role.

The importance (and limitation) of markets (price signals)

- In general, markets provide an efficient (although not necessarily the most equitable) means of allocating scarce resources.
- However, some markets are subject to failures, particularly with respect to environmental goods and services due to the public good nature of these goods.
- This can lead to insufficient consideration of environmental issues in production and consumption decisions.
- Government intervention necessary – regulations, standards, taxes, etc.

Environmental Fiscal Reform

- The Environmental Fiscal Reform Policy Paper (initially published in April 2006 and now updated as an official policy paper) provides a foundation to build on and support environmentally related initiatives in South Africa.

- Maintenance of a coherent tax policy framework;

- Development of a coherent process and framework to consider and evaluate environmental taxes; and

- Consider both environmental and revenue outcomes and the "double-dividend" hypothesis.

Criteria / Design Considerations

- **Environmental effectiveness** – linked to the environmental externality and aim for best design possible;
- **Tax rate & revenue** – tax rate to be phased-in, revenue use in terms of government priorities;
- **Support for the tax** – public support and acceptance is important (e.g. tax payer morality);
- **Legal, technical & administrative feasibility**:
  - *Define taxable commodity - tax base*; or nature of incentive;
  - *Setting the tax rate;*
  - *Tax avoidance and evasion;*
  - *Collection costs; and*
  - *Compliance costs.*
- **Competitiveness impact**s – may require phase in approach to allow adequate time for adjustments;
- **Distributional impacts** – compensating measures may need to be considered; and
- **Adjoining policy areas** – is the instrument capable of contributing to other social and economic objectives?

Competitiveness concerns

- Aims to internalise externalities to a socially optimal level cannot be achieved overnight.
- There are “win-win” cases where more environmentally informed business practices could lead to corresponding improvements in competitiveness.
- Improved environmental performance may also improve access to certain markets – e.g. exports.
- However, these benefits are not immediately possible in all cases.
- A phased-in approach taking account of potential impacts on competitiveness must be adopted to give specific sectors time to adjust.

Distributional concerns

- The poor and low-income groups are often hardest hit by negative environmental externalities.
- Important for environmentally-related fiscal policy to ensure that environmental instruments are pro-poor where possible, or at least do not place a disproportionate burden on low-income groups.
- A sustainable growth path should provide protection and support to the poor.
- Development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

Key messages on environmental fiscal reform

- Market-based instruments (e.g. environmentally-related taxes, charges and incentives) can complement and reinforce environmentally related regulatory measures and at the same time contribute towards fiscal objectives;
- The development of environmentally-related tax and incentive proposals should, as far as possible, be adequately integrated into a coherent fiscal policy agenda;
- Attention should be given to the possible distributional and competitiveness implications of environmental taxes and charges. The appropriate design and phasing-in of such taxes could deal with these two important aspects.

Economics of Climate Change

- Economic theory suggests that well functioning markets tends to ensure an optimal allocation of scarce resources.
- Through the price mechanism, incentives are created for all participants in the economy to optimise resource use.
- However, the market often fails to put an adequate price on the use of environmental resources.
- Why:
  - *environmental resources such as air; climate and biodiversity are non-rival and non-excludable in consumption ("public goods").*

Rationale for a carbon tax

- The external costs of GHG emissions are not reflected in the market prices of certain goods and services, e.g. energy

- A carbon tax is a means by which government intervene by way of a market based instrument to appropriate take into account the social costs resulting from carbon emissions

- A carbon tax seeks to level the playing field between carbon intensive (fossil fuel based firms) and low carbon emitting sectors (renewable energy and energy efficient technologies).

- An alternative or in some instance complementary mechanism to prices carbon by way of an emission trading scheme can be considered over the longer term, however such a mechanism is probably not feasible in South Africa over the medium term

Carbon Pollution Reduction Scheme Australia's Low Pollution Future, White Paper Volume 1, December 2008

- "The consequent economic cost (*of GHG emissions*) is not currently reflected in the costs of business or the price of goods and services – because firms face no cost from increasing emissions, the level of emissions is too great. Unless businesses and individuals bear the full responsibility for their consumption and production decisions, the level of carbon pollution will remain too high (page xxv)".

- "Placing a limit, hence **a price**, on emissions has the potential to change the things we produce, the way we produce them, and the things we buy (page xxvi)".

- "The introduction of a carbon price will change the relative prices of goods and services, making emission-intensive goods more expensive relative to those that are less emissions intensive. This provides a powerful incentive for consumers and businesses to adjust their behaviour, resulting in a reduction of emissions (page xxviii)".

A framework for considering market-based instruments to support environmental fiscal reform in South Africa, April 2006 (p.17)

- As a signatory to the UN Framework Convention on Climate Change (UNFCCC), South Africa has no current obligations to reduce its greenhouse gas emissions although this situation may change post 2012.
- However, partly due to the fact that the South African economy has one of the highest energy intensities in the world (i.e. energy consumption per unit of output), improvements in energy efficiency and the promotion of renewable energy sources have been highlighted as an important component of the Department of Minerals and Energy (DME) future energy policy. The DMEs proposed Energy Bill would allow the Minister of Minerals and Energy to establish a National Energy Efficiency Program to regulate energy efficiency matters.
- With respect to climate change adaptation, a National Climate Change Response Strategy was adopted in 2004 that highlights potential areas for government intervention to both mitigate and adapt to the effects of climate change.

Policy synergy and the context for a carbon tax

- Climate Change Response White Paper 2011
- National Environmental Management Act (Act No. 107 of 1998). Air Quality Act (Act No.39 of 2004)
- Environmental Fiscal Reform (2006)
- LTMS (2007/08)
- ANC Resolution on Climate Change, 2007
- New Growth Path, Green Growth
- IRP2 (2010/11)
- Low carbon economy – NPC
- Global Sustainability Panel

Carbon Tax vs. Emissions Trading

Carbon Tax

- Price certainty – fixed price
- Emission reductions – **quantity uncertain**
- **Administration** and compliance – piggy back on existing administrative systems
- **Visibility** of tax
- **Design** – tax base, collection point, price level

Emissions trading

- **Price uncertainty** – volatility
- Emissions are capped – **quantity certain**
- **Complexity** – negotiations, high transaction costs, new institutions.
- Some costs (and benefits) are **hidden**
- **Coverage**, point of obligation, cap level

Carbon Tax: Design Considerations

1. Carbon Emissions Tax

Actual measured emissions; or

2. Proxy tax bases:

A. Fossil Fuel Input (Upstream):

where fuels enter the economy based on the carbon content of the fuel.

B. Output Tax (Downstream):

(i) At point where fuel is combusted.

(ii) May be based on average emissions of production processes.

Tax Design Considerations (2)

- **Actual measured emissions**
  - Can be precisely targeted – as emissions rise, polluters tax liability rises.
  - Administratively challenging: a large number of emission sources need to be monitored and measured.
  - Requires technological capacity, systems and human resources to measure and monitor

- **Upstream Taxes**
  - Close correlation between energy source carbon content and eventual levels of emissions.
  - Upstream – involves fewer taxpayers. Lower administrative costs if carbon tax is levied upstream on producers rather than downstream on fuel users.
  - Piggyback on existing tax systems.
  - Upstream tax systems should be combined with a crediting system to encourage development and adoption of carbon capture and storage technologies.

Long Term Mitigation Scenarios (Wedges) – rank emission reductions

- Escalating CO_2 tax (1)
- Nuclear and renewables extended (2)
- Renewables with learning extended (subsidy) (6, 7)
- Industrial, Commercial, Residential energy efficiency (5, 22, 21)
- Passenger modal shift (16)
- Improved vehicle efficiency (14)
- SWH subsidy (25)
- Nuclear (12, 8)
- Cleaner coal (28)
- Limit use of SUVs (36)
- Land use: afforestation (27)
- CCS (2 Mt & 20 Mt) (26, 19)
- Biofuel subsidy (29, 15)
- Hybrids (23)
- Synfuel CCS (2Mt) (32)

Border tax adjustments (BTAs)

- BTAs forms part of policy proposals by developed countries targeted at countries not participating in global emissions reduction agreements.
- What are BTAs?
  - Taxing imports according to emissions associated with their production at the same carbon price as domestically produced goods and services.
  - Imports will be taxed at a rate equal to the “domestic” carbon tax / carbon price.
- BTA’s seek to achieve two objectives:
  - Provide competitiveness offsets for domestic producers.
  - Address possible carbon leakage concerns – reduction of emissions in a taxing country results in increases in emissions in other countries.
- BTA’s
  - Will impact negatively on countries that don’t take appropriate action to price carbon.
  - Might also impact negatively on global trade.

Revenue

- Revenue recycling
- Budget neutrality
- Revenue neutrality
- Earmarking of revenue
- Environmental Funds

  - For many stakeholders, there is a link between revenues from environmentally-related taxes and spending on the environment.
  - In general, “full” earmarking is not in line with sound fiscal management practices.
  - Need to consider different incentive / revenue use options {revenue recycling such as “soft” earmarking (on budget allocations) or reducing (or not increasing) payroll taxes}.

Existing environmentally related (with some climate change elements) fiscal measures

Taxes

- **General fuel levy** applied to petrol, diesel (a component ?)
- **Electricity generation tax** applied to non-renewable based electricity generation (2.5c/kWh)
- **Motor vehicle emissions tax** – purchase tax of R75 gCO_2/km for each emission exceeding120gCO_2/km (passenger vehicles) and double cabs subject to tax of R100 for emissions exceeding 175gCO_2/km
- **Incandescent globe tax** of R3 per globe

Tax Incentives

- **Tax exemption for revenues earned from CERs** (CDM projects)
- **Accelerated depreciation allowances** for renewable electricity generation and biofuels production
- **R&D** tax incentives (**including green technologies**) - 150 per cent income tax deduction for R&D expenses
- Tax incentives for **biodiversity conservation**
- **Energy efficiency savings** tax allowance (in process …)

CO_2 Vehicle emission tax (passenger vehicles & double cabs)

(1) Motor cars and other motor vehicles principally designed for the transport of persons (87.03(tariff subheading); 151.01 (item)):

- R75 per g/km CO_2 emissions exceeding 120 g/km
- Proxy / penalty if certified emission not available:
  - if the engine capacity <u>does not exceed 3000 cm³</u>:
    - CO_2 emissions (g/km) = 120 + (0.05 x engine capacity in cm³)
  - if the engine capacity <u>exceeds 3000 cm³</u>:
    - CO_2 emissions (g/km) = 175 + (0.05 x engine capacity in cm³)

(2) Motor vehicles for the transport of goods (87.04 (tariff subheading; 151.02 (item): double-cab; a vehicle mass not exceeding 2 000 kg or a G.V.M. not exceeding 3 500 kg, or of a mass not exceeding 1 600 kg or a G.V.M. not exceeding 3 500 kg per chassis fitted with a cab

- R100 per g/km CO_2 emissions exceeding 175 g/km
- Proxy / penalty if certified emission not available:
  - CO_2 emissions (g/km) = 195 + (0.07 x engine capacity in cm³)

Waste Water Discharge charge system (WDCS) – under consideration

- The department of Water affairs and Forestry has proposed the following 3 tier charge structure:
  - **Component 1** – an administrative charge based on the authorised volume of water discharged to cover the water resource management costs.
  - **Component 2** – a cost recovery charge aimed at recovering the costs associated with mitigating the impact of waste water discharges including the costs of regional and specific water treatment programmes and quantifiable downstream costs imposed on other users. Base of the charge will either be the authorised volume or effluent load; and
  - **Component 3** – a deterrent charge (tax) aimed at encouraging polluters to reduce the effluent load of water returned to the water resource. The tax base will be the (monitored) effluent load of water discharges and is likely to include the following pollution forms: salinity; nutrients; organic material; pathogens; and suspended solids. It is proposed that progressive rates be applied to pollution loads exceeding certain water quality management targets.

Consultation and preliminary options

- Carbon tax discussion paper - workshop March 2011
- A series of one-on-one meetings with key sectors: Mining, Eskom, Sasol, Cement, Paper; Liquid Fuel (oil); Chemicals; Manufacturing Circle; BUSA; NGOs; etc.
- Follow up questionnaire to key sectors
- Emerging design features are:
  - An initial preference for an input tax based on the carbon content of fuel. Could later migrate to actual emissions.
  - Process emissions – limited options to mitigate
  - Possibility of sectoral thresholds
  - Offset credits
- Support measures : Households (enhanced free basic energy, SWH, improved public transport) & Businesses (tax relief for CER credits, R&D tax incentive, energy efficiency tax incentive, etc.)

Sectors

1. Electricity (Fossil Fuel, e.g. coal)
2. Petroleum (CTL & Oil refineries)
3. Cement
4. Iron & Steel
5. Aluminium
6. Chemicals
7. Packaging / e.g. Glass - Limestone & dolomite use
8. Transport
   * Road
   * Civil Aviation / Domestic vs. International
   * Shipping / maritime

Summary

- A carbon tax at an appropriate level and phased in over a specific time period to the ‘correct’ level will provide strong price signals and certainty to both producers and consumers to change behaviour over the medium or long term.
- In the South African context a carbon tax seems to be the more appropriate mechanism to price carbon and thereby begin to internalise the negative externalities associated with GHG (CO_2) emissions.
- Carbon taxes affords firms the flexibility to undertake emissions reductions according to their specific processes and provide the long term price certainty which is essential for investment decisions.

Summary (2)

- The development of a carbon taxation policy regime for South Africa should be informed by the following key principles:
  - Measuring and monitoring of direct (GHG / CO_2) emissions might be a challenge (GHG inventory) over the short-term.
  - A proxy tax base could be considered and the tax should be levied according to the carbon content of fossil fuels i.e. a fuel input tax.
  - The tax rate should over time be equivalent to the marginal external damage costs of carbon to effect appropriate incentives.
  - The level of the tax can be phased-in over time. Such a price trajectory will provide certainty.
  - Distributional and competitiveness concerns to be dealt with in a transparent manner.
  - Relief measures (if any) to address competitiveness concerns should be minimized and be of a temporary nature.

Summary (3)

- The full earmarking of revenues is not in line with sound fiscal policy principles although some form of on-budget funding for specific environmental programmes should be considered. Depending on revenue requirements some form of limited tax shifting could be considered.
- A carbon tax based on measured and verified emissions is preferred, although a proxy tax base based on the carbon content of fuel inputs could be considered.

Written comments on our Carbon Tax Discussion Document (79 to date)

No	Comments received from:	Organisation
1	Chris Zweigenthal (Chief Executive)	Airlines Association of Southern Africa (AASA)
2	Zohra McDoolley-Aimone	ALSTOM - South Africa
3	Godfrey Gomwe (Executive Director)	Anglo American South Africa
4	Dirk van Vuuren (Group Tax Manager)	ArcelorMittal
5	Dr Dhiraj Rama (Executive Director)	Association of Cementitious Material Producers (ACMP)
6	Laurraine Lotter	Business Unity South Africa (BUSA)
7	Mary Jean Thomas-Johnson	Cape Chamber of Commerce
8	Oliver Stotko (Environmental Engineer)	Carbon & Energy Africa (Pty) Ltd
9	Wiebe van der Laan	Carbon Credit Creations
10	Roger Baxter	Chamber of Mines of South Africa
11	Laurraine Lotter	Chemical and Allied Industries Association (CAIA)
12	Tandokazi Nquma	COEGA
13	Yvette Abrahams (Commissioner)	Commission For Gender Equality
14	Dr Hanlie Kotzé	Consensi Consulting
15	John Bexley	Consol Glass
16	Dr Rodney Milford	Construction Industry Development Board (cidb)
17	Anton Nahman	CSIR: Natural Resources and the Environment
18	David Silverstein	David Silverstein (individual comments)
19	RD Hughes (General Manager)	Duferco Steel Processing (Pty) Ltd
20	Amar Sooklal	Durban Chamber of Commerce and Industry
21	Tristen Taylor	Earth life Africa
22	Leena Ackbar	ECA Consulting
23	Alan Murphy	ECOPEACE
24	Mansoor Parker	Edward Nathan Sonnenbe rgs Inc
25	Prof Philip Lloyd	Energy Institute, Cape Peninsula University of Technology
26	Prof. Harald Winkler	Energy Research Centre, University of Cape Town

Written comments

27	Stephen Law (Director)	Environmental Monitoring Group (EMG)
28	Mark Heaton	Envirotrade Carbon Limited
29	Willie Du Plessis (Gen Manager-Legal)	Eskom
30	Emily Tyler	Emily Tyler & Brent Cloete - Climate Change Economists
31	Ernst Venter (Executive Gen Manager)	Exxaro
32	Lushen Govender	General Motors South Africa (GMSA)
33	BUSA	Genesis
34	Linden Bradfield	Global Railway Engineering
35	Manfred Braune	Green Building Council of South Africa (GBCSA)
36	Harmke Immink	Group Five
37	Dr. Miriam Altman	Human Sciences Research Council (HSRC)
38	Ian Parry	IMF
39	Andre Ferreira	Iinvestment Property Databank (IPD) South Africa
40	Gerald Rudman (Director)	Imperial Logistics
41	Mike Rossouw (Chairman)	Industry Task Team on Climate Change (ITTCC)[1]
42	Andreas Hardeman	International Air Transport Association (IATA)
43	Kris Devan	Law Society of South Africa
44	Leandro Gastaldi, CFA	LLANDUDNO Fund Managers
45	Susanne Akerfeldt	Ministry of Finance Stockholm
46	Marthinus Van Schalkwyk, MP	Minister of Tourism
47	Jason Schäffler (Secretary General)	MTN Group Ltd
48	Valerie Geen	National Business Initiative (NBI)
49	Bernard van Rooyen (Director)	Northam Platinum Limited
50	Paolo Gianadda	PAMSA
51	Alison Futter	PetroSA

Written comments

52	Richard Garlick	PFG Building Glass
53	Kyle Mandy (Head: National Tax Technical)	PwC
54	Jason Schäffler (Secretary General)	Renewable Energy Certificates South Africa (RECSA)
55	Duncan Ayling	RES
56	Sharmini Naidoo	Road Freight Association (RFA)
57	Norbert Behrens (Group Gen Manager- Strategy & Planning)	SASOL
58	Ivan Collair	Shell South Africa
59	Rob Baker	South Africa Travel Online
60	Dr (Prof) A D Surridge (Senior Manager: Advanced Fossil Fuel Use)	South African Centre for Carbon Capture and Storage (SACCCS)
61	Barry MacColl	South African Centre for Carbon Capture and Storage (SACCCS)
62	Chris Lötter	South African Chamber of Commerce and Industry (SACCI)
63	Liziwe McDaid	South African Faith Communities' Environmental Institute (SAFCEI)
64	Faith Ngwenya (Technical Executive)	South African Institute of Professional Accountants (SAIPA)
65	John Nel (Acting Gen Secretary)	South African Iron & Steel Institute (SAISI)
66	Marilyn Govender	South African Sugar Association (SASA)
67	Lorraine Wagner (Communication Officer)	Southern African Bitumen Association (SABITA)
68	Standford Mwakasonda	Stanford Mwakasonda (Individual comments)
69	Njabulo Mkhize	Steel & Engineering Industries Federation of South Africa (SEIFSA)
70	Ouma Rasethaba (Chief of Corporate Governance)	Telkom
71	Manfred Braune	The Green Building Council of South Africa (GBCSA)
72	Muneer Hassan (Project Director: Tax)	The South African Institute of Chartered Accountants (SAICA)
73	David Le Page	The Sustainability Action Movement
74	Peet du Plooy (Programme Managerg: Sustainable Growth)	Trade & Industrial Policy Strategies (TIPS)
75	Nico Stolz	Tsb Sugar
76	Nishal Ramloutan	UBS Investment Bank
77	Aleksandra Tomczak (European Gen Manager)	World Coal Association (WCA)
78	James Macgregor	Worley Parsons
79	Richard Worthington (Manager: Climate Change Programme)	WWF

Australia: Carbon Price Framework: 10 July 2011

- A broad based carbon price will be introduced in Australia, commencing from 1 July 2012 with a fixed price (tax) and transitioning to a fully flexible cap-and-trade carbon pricing mechanism on 1 July 2015.
- The fixed price will commence at Aus$23 per tonne of CO2-e
- Coverage of the scheme will include stationary energy, most business transport emissions, industrial processes, non-legacy waste, and fugitive emissions, with direct liability under the mechanism limited to large emitters.
- Household assistance measures to support low and middle income households and to support energy efficiency improvements in households to reduce energy costs.
- Business assistance measures to support jobs and competitiveness and support investment in the business sector to increase efficiency and reduce carbon 'pollution';
- Measures to support an orderly transition of our energy sector and underpin energy security.
- Enhanced support for innovation in low emissions and renewable technologies.

ANC Resolution on Climate Change, 2007

- *Recognise that the evidence for climate change is indisputable and that immediate action by all governments and the public as a whole is needed.*
- *Set a target for the reduction of greenhouse gas emissions as part of our responsibility to protect the environment and promote sustainable development, and to participate in sharing the burden with the global community under a common framework of action.*
- *Support the meeting of the target through:*
  - *a) energy efficiency improvements in industry, in households and by setting vehicle fuel efficiency standards;*
  - *b) diversifying energy sources away from coal, including through nuclear energy and renewables - especially solar power;*
  - *c) putting a price on the emission of carbon dioxide and other greenhouse gases;*