

2 August 2013

National Treasury

Dear Mr Morden,

## Promethium Carbon comments on the Carbon Tax Policy Paper of 2 May 2013

Please find our comments on the Carbon Tax Policy paper attached hereto.

If you have any questions, please do not hesitate to contact us.

Yours faithfully,

RT Louw

Director

Promethium Carbon

# Promethium Carbon comments on the Carbon Tax Policy Paper of 2 May 2013

This document contains Promethium Carbon's comments on the Carbon Tax Policy Paper published on 2 May 2013.

## 1 MOTIVATION FOR SUBMITTING COMMENTS TO THE POLICY PAPER

Promethium Carbon<sup>1</sup> is a leading South African supplier of GHG reduction and carbon services to both the private and public sectors. The company has been involved in the development of the South African low carbon economy over the last decade. We have a good understanding of a number of issues that are relevant to the proposed carbon tax. These include global carbon pricing developments, emission reduction potential and the development of emission reduction plans, as well as the impact carbon pricing will have on a variety of businesses in the South African economy. This comment paper is submitted as our contribution to the development of a low carbon economy in South Africa. It is our own position on the matter and does not represent the views of any of our clients either in the private or public sectors.

## 2 HIGH LEVEL/ OVERARCHING COMMENTS

The development of domestic carbon pricing systems is one of the biggest international trends of the last couple of years. This is evidenced by the high rate of penetration of regional, national and subnational carbon pricing schemes worldwide. Figure 1 below shows the emissions covered by a variety of carbon pricing schemes by 2015, as implemented or announced by the different jurisdictions, while Figure 2 shows the nominal values of the carbon prices.

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<sup>1</sup> [www.promtheium.co.za](http://www.promtheium.co.za)

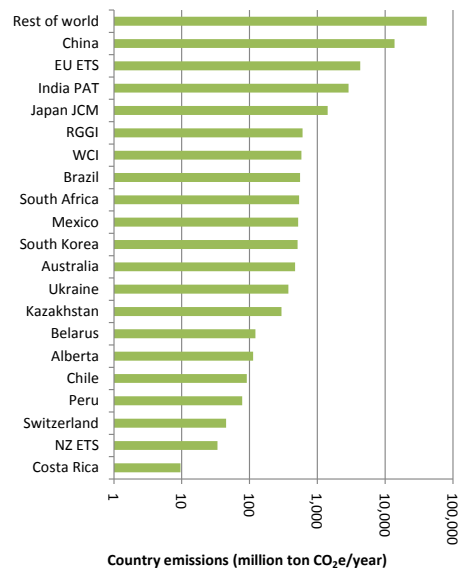
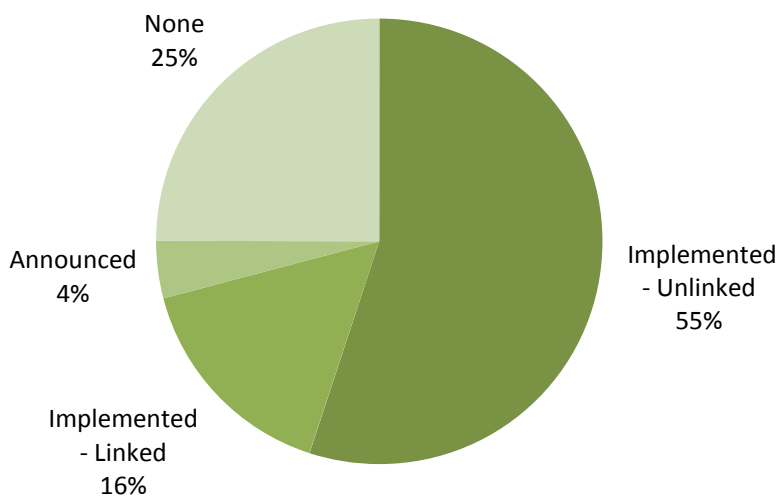
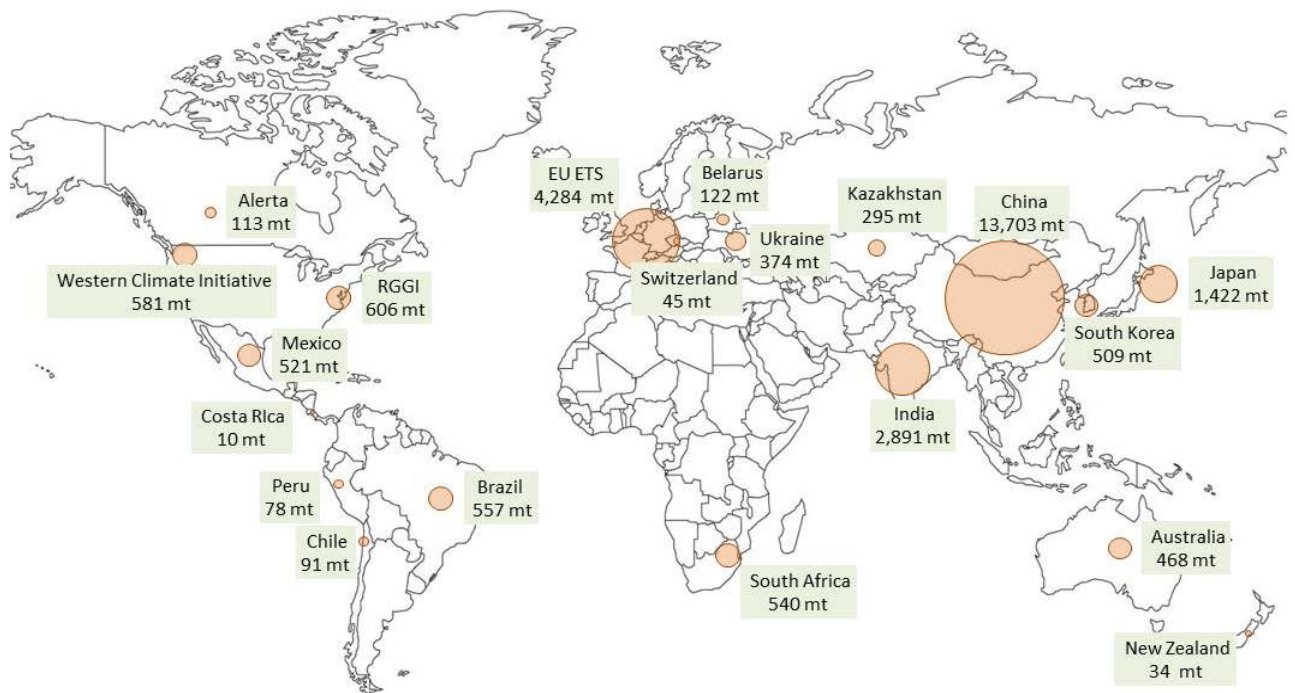
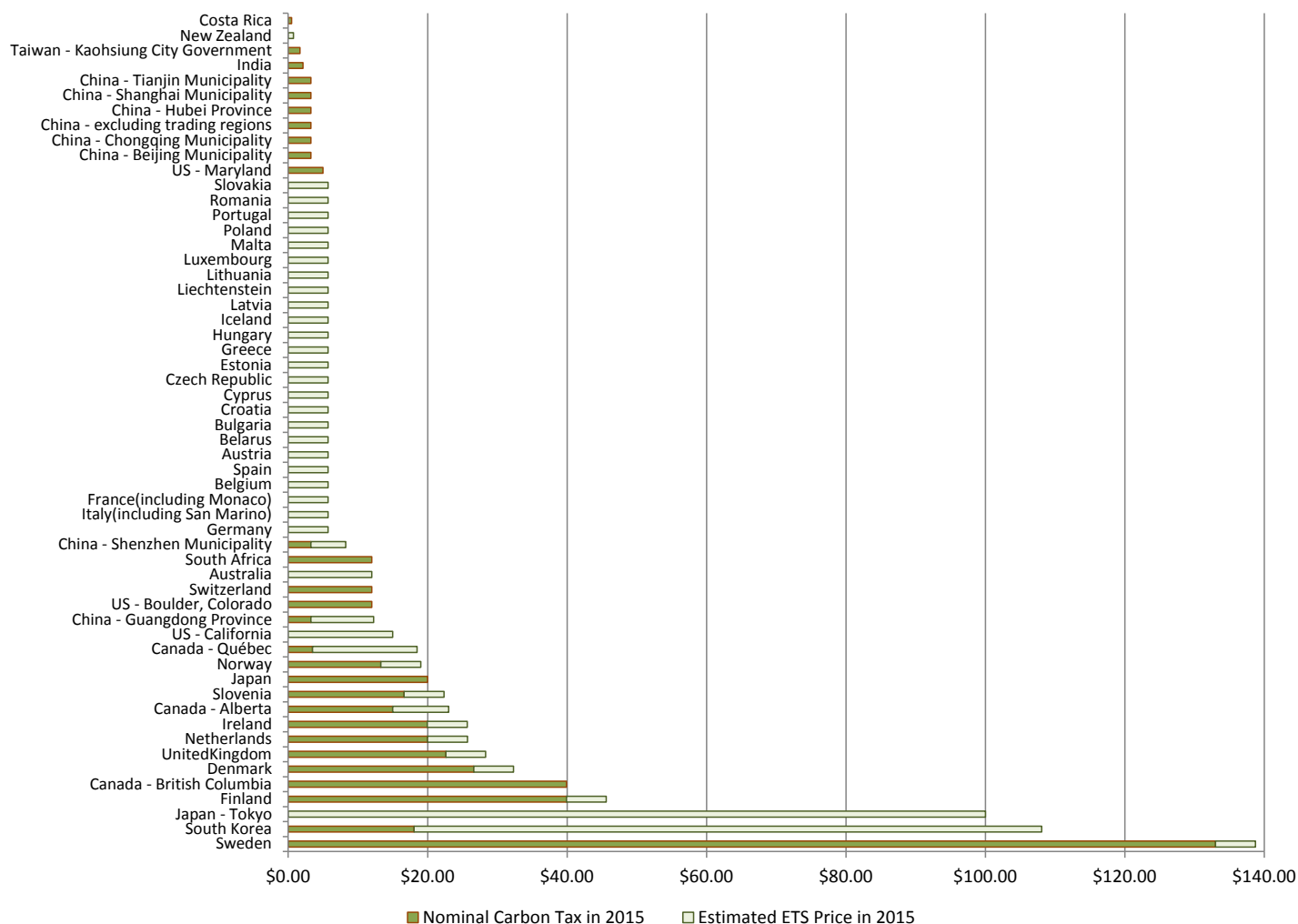


Figure 1: Emissions from regions covered by carbon pricing systems in 2015<sup>2</sup>

<sup>2</sup> Promethium Carbon analysis



**Figure 2: Nominal values of carbon pricing schemes - Estimated for 2015**

The development of these regional and national schemes is not driven by international agreements like the UNFCCC Durban Platform, but rather by each country looking after its own interest. In the words of the Executive Secretary of the UNFCCC, Christiane Figueres<sup>3</sup>: *"Nothing is going to be agreed internationally until enough is legislated for domestically. We're not doing it from an altruistic point of view, to save the planet. We will save the planet also, but climate legislation at the domestic level must be absolutely grounded in national reality, and it must be for the purpose of national benefit"*.

<sup>3</sup> Bloomberg - <http://www.bloomberg.com/news/2013-01-14/un-s-figueres-says-self-interest-must-drive-climate-laws.html>

The designs of most of the pricing mechanisms worldwide differ in many aspects. They however all have in common that they are putting the infrastructure for carbon pricing in place while delaying the impact of carbon pricing, and thereby shielding their domestic economies, until an effective level of global pricing can be established. The South African proposals are no different in this respect. The relief measures in the proposed tax are designed to shield SA industry from impacts on its global competitiveness.

The design of carbon pricing schemes in most countries is based on two main drivers. The first is *environmental integrity* and the second *economic competitiveness*. The biggest issue with respect to environmental integrity is the concept of *carbon leakage*. Carbon leakage occurs when the implementation of a carbon pricing scheme causes emission intensive activities to be moved from the jurisdiction where pricing is implemented to jurisdictions with a lesser level of pricing. Economic competitiveness, on the other hand, is impacted when the pricing of carbon in one jurisdiction makes the businesses in that jurisdiction less competitive than those in jurisdictions without carbon pricing.

**Issue:**

Internationally many countries are put carbon pricing infrastructure in place but ensure that their own national interests are preserved.

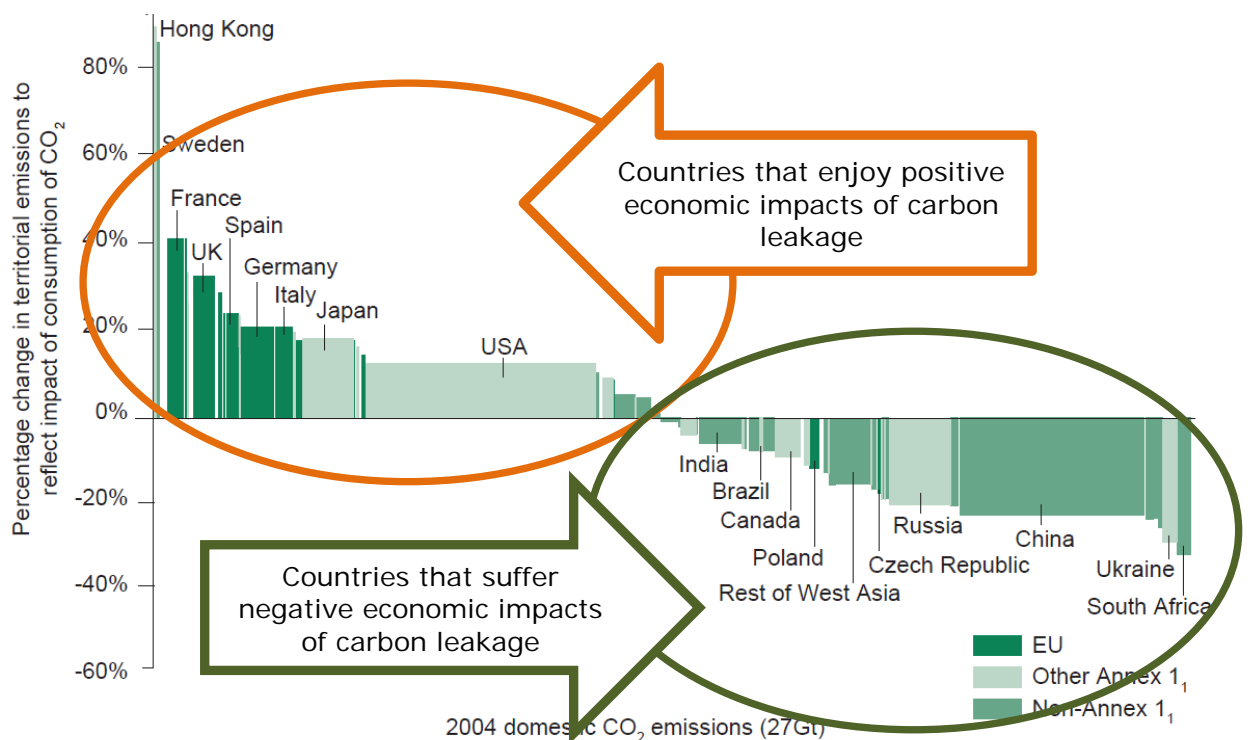
**Recommendation 1:**

South Africa needs the carbon tax infrastructure to be implemented. Competitiveness is however at risk – and the relief measures must be in place and accessible when the carbon tax regime starts.

Figure 3 below indicates the relationship between production and consumption based emissions for a number of countries. It shows that a number of European countries' emissions would be substantially higher if these countries would be required to report on emissions associated with consumption rather than the current system of production based reporting. It also shows that South Africa's emissions would be in the order of 40% lower should we report our emissions on the basis of consumption rather than production. This huge discrepancy is due to the fact that South Africa exports a large number of very emission intensive commodities to the rest of the world. It will be patently unfair to have South African industry carry the cost of the emissions associated with goods consumed in other jurisdictions until such time as international agreements allow the cost of those emissions to be passed on to the consumers.

The overlay in Figure 3 shows the fundamental difference in carbon pricing system design requirements between emission-importing and emission-exporting countries. In

jurisdictions where emissions are historically imported, protection of the environmental integrity of the carbon pricing system should be the main imperative. These economies benefit economically if carbon is priced in other jurisdictions and the carbon price is not transferred via an international carbon pricing mechanism. In the case of countries that export emissions, like South Africa, economic competitiveness should be the driver as these countries will bear the burden of carbon pricing if carbon is priced into the local economy without an international mechanism to transfer the cost of carbon to the consumers in other countries. South Africa falls squarely in the latter category. It is therefore important to consider the impacts on competitiveness in the proposed South African carbon tax context as one of the most important design features.



**Figure 3: The Impact of Consumption of CO<sub>2</sub> of Territorial Emissions<sup>4</sup>**

The information presented in Figure 3 above shows that South Africa is the country with the highest differential between production and consumption based GHG emissions. This means that we are probably the most vulnerable country with respect to exposure to

<sup>4</sup> Underlying graph from House of Commons, Energy and Climate Change Committee, Consumption-Based Emissions Reporting, Twelfth Report of Session 2010–12, Volume I, commentary overlay by Promethium Carbon

international carbon pricing practices. This fact highlights the imperative to implement measures to prepare our economy for the pricing of carbon into the world economy.

The concept of introducing a carbon tax is fundamentally good as it places a tax on bad behaviour as opposed to other taxes that often places burdens of doing something good. In this respect we refer to the comments about tax shifting made in the Policy Paper, as well as statements made by National Treasury that the objective of the proposed tax is not to generate additional revenue for the fiscus. We believe that it is essential that National Treasury clearly articulates the envisaged tax shifting and commits to this as it will significantly enhance the acceptability of the proposed carbon tax.

It is however important to understand the distributional effects of a shift in the tax base can cause. The internalisation of externalities requires that the polluter pays for the economic damage caused to public goods. In many cases the pollution is caused by neglect by the producer of the goods in a competitive market, and in those cases the producer must pay. In other cases goods produced are non-essential goods, and in those cases the payment for environmental damage may lead to the suspension of production of the goods. In a limited number of cases pollution can be caused as an unavoidable impact of essential goods. In such cases it must be possible to pass on the cost of internalisation of the externality to the end consumer. South Africa has a number of such examples. These are commodities that are essential for the operation of the global economy such as platinum group metals and ferroalloys. Failure to ensure that producers of these commodities can pass internalisation costs brought about by the carbon tax on to consumers will severely compromise the horizontal equity of the proposed tax.

It must be kept in mind that South Africa's international commitment to emission reduction is conditional upon the receipt of international financial assistance. It will be unfair to expect SA business to carry the financial burden of meeting this commitment if the financial assistance on which the pledge is conditional is not used to assist business in meeting this commitment. We understand that the utilisation of the assistance will be subject to certain political conditions, but a portion of the funds must contribute to reducing the carbon tax burden of business. Some examples of how this can be achieved are projects to reduce the emission intensity of the national grid and the development of low carbon transport infrastructure.

### 3 ENVIRONMENTAL IMPACTS

The prime objective of the carbon tax is to change behaviour in the economy to produce environmental benefits by reducing greenhouse gas emissions. This is not a nice-to-have, but a survival imperative. Arguments to the effect that SA's emissions constitute such a small portion of global emissions that we should not bother come down to wilfully positioning the country as an international free-rider and this should be unacceptable to all responsible citizens.

The carbon tax design should therefore clearly articulate how it will change behaviour to achieve emission reductions. If this cannot be done, the tax would have failed. The three elements included in the Policy Paper that can achieve this objective are:

- The level of the price put on emissions
- Benchmarking emission intensity with the Z-factor
- The use of offsets to offset tax obligations

#### 3.1 LEVEL OF THE CARBON PRICE

Emerging international carbon pricing practices provide structures where a distinction can be made between the effective, or average, price of carbon in the economy and the absolute, or marginal, price of carbon. The Policy Paper managed to capture this distinction. This approach has many benefits, but also carries some risks.

**Issue:**

It is important to distinguish between the absolute level of the carbon price and the effective carbon price after implementation of the relief measures.

The Policy Paper sets the absolute price of carbon at R120 per ton. The effective price paid by taxable companies will vary. If a company, after access to relief mechanisms, for example, pays tax on 30% of its emissions, its effective cost of carbon will be R36 per ton. The distinction between the absolute and the effective price of carbon is important because whereas the relative low effective price reduces the economic impact on the tax payer, the high absolute cost enables mitigation actions to be implemented at higher marginal costs than would have been the case if there was only an effective price.



The downside risk of pricing carbon on margin is much more relevant to cap-and-trade schemes than what is the case for carbon tax systems. The current low price of carbon in the European Union Emission Trading Scheme is due to the fact that the carbon is priced on the marginal reduction required in the jurisdiction and that the economic contraction in Europe has eroded the margin to zero. The closing of the margin to zero removed all financial incentive for buyers to buy the credits.

The proposed carbon tax will only achieve its goal of having an effective environmental impact if the level of the carbon price can stimulate behavioural change amongst greenhouse gas emitting companies. This needs to be analysed on both the effective carbon price and the absolute carbon price levels.

The effective carbon price is the product of the absolute price and the portion of emissions that a tax payer must pay tax on, minus the net cost of any offsets used. At this level one needs to keep in mind that the price must be a compromise, where, on the one hand, it is expected to stimulate behaviour change, but on hand, it is expected to not damage the domestic economy by burdening industry with excessive costs, as is explained in the National Development Plan. The effective carbon price must at once be in line with international developments and be predictable to ensure long term planning. Unfortunately these two issues conflict with each other. The effective carbon price in many of South Africa's trading partners will be close to zero in 2015.

We **recommend** that the proposed tax system be adjusted to allow individual companies to access relief measures that will make their effective carbon price comparable to that faced by their international competitors and trading partners. This can be done by increasing the access to relief measures and removing the proposed cap on the tax-free threshold of 90%. In extreme cases where international competitiveness requires total exemption from carbon tax to protect South Africa's economic interest in the international arena, this must be achievable.

**Issue:**

A high absolute price on carbon will provide the certainty in the market to change behaviour, but a low effective price is required to protect the SA economy.

**Recommendation 2:**

Ensure access to the relief measures to maintain the competitiveness of SA firms by keeping the effective carbon price in line with international trends

The second level at which the carbon tax can stimulate behaviour change is through the level of the absolute value of the carbon tax. The Policy Paper sets the absolute price of carbon at R120 per ton in 2015 and it escalates thereafter. In an effectively structured tax system companies will be able to get R120 per ton benefit for implementing emission reduction activities<sup>5</sup>. This means that emission reduction activities with marginal abatement costs of up to R120 per ton in 2015 can theoretically be implemented. We believe that this is sufficient to stimulate behaviour change and that many companies will implement emission reduction activities at this level of carbon price.

We **recommend** that the maximum use of offsets be increased from the proposed 10% to the full amount of taxable emissions as it will enhance the environmental effectiveness of the proposed tax and is the most effective way of stimulating behaviour change. Such a change to the tax system will be in line with both the stated objective of reducing greenhouse gas emissions and the statements by National Treasury that the main objective of the carbon tax is not to raise additional revenue for the fiscus.

**Issue:**

Offsets provide direct measurable emission reductions in line with the main objective of the carbon tax.

**Recommendation 3:**

Remove the 10% cap on offset use.

Long term effectiveness of the carbon tax dictates that there must be a clear price path. Whereas this is possible in the case of the absolute price of carbon in the proposed tax system, it is not the case with the effective price of carbon. The challenge is to manage the alignment of the domestic effective cost of carbon with international pricing developments. The lack of an agreement on carbon pricing in the international arena makes it impossible in the short term to give clear long term signals for a domestic carbon price. The only way to manage this dilemma is to assume that a reasonable agreement can be reached with respect to the Durban Platform. The proposed carbon tax is therefore constrained in its ability to give long term signals with respect to the effective carbon cost.

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<sup>5</sup> Even though it is not explicitly stated, we assume that this means that an offset can be surrendered to SARS instead of paying R120 for a ton of CO<sub>2</sub> on which tax is payable.

The proposed tax structure does however succeed in providing long term predictability in the absolute price of carbon.

### 3.2 BENCHMARKING EMISSION INTENSITY WITH THE Z-FACTOR

The second area in which the implementation of the carbon tax can change behaviour in a way that can have positive impacts on the environment lies in the provision to adjust the basic tax-free threshold through benchmarking with rewards for companies that improve performance through reducing emissions. The inclusion of this provision is important in the tax design as it allows for 2 important incentives:

- Recognising early movers for achievements in emission reduction prior to the implementation of the carbon tax, and
- Rewarding emission reduction activities on an on-going basis.

Although the adjustment of the basic tax-free threshold through benchmarking is a significant tool to achieve the behaviour change required of the carbon tax system, it does have some serious drawbacks that need to be addressed in order for it to be implemented in a practical way.

The Policy Paper refers to the benchmark to be used as "*either the agreed benchmark emissions intensity ... for the sector, or the emissions intensity ... with reference to an historical date*", and "*... agreed sector benchmark*". The analysis below will show that the benchmark methodology should differentiate between existing installations and new installations. The practical challenges of introducing a sector benchmark for existing and legacy installations in South Africa make this proposal unworkable. In the case of installations that are in production on the date of the implementation of the carbon tax, the benchmarking should be based on the historical performance of that specific installation. This is simply in recognition of the fact that the penalisation of installations for emissions intensities dictated by designs that were made when no emission targets were set will be both unfair and will damage the level of economic activity in the country.

The data presented in Figure 4 below shows the emission intensity for a number of gold and platinum mines operating in the country. It shows that the emission intensity based on ton CO<sub>2</sub> per ton of rock mined varies by a factor 10 between shallow and deep mines. This metric excludes the effect of ore grade. If the same data is generated for ton CO<sub>2</sub> per ounce of precious metal, the variance in the data is even bigger. Implementation of

a sector benchmark in the mining industry will unfairly penalise the deeper mines for their inherent emission intensity. As many of these mines are marginal mines, the economic and social impact of this could be huge.

Promethium Carbon has performed similar exercises in other industries, and although the differences in intensities are not as marked as is the case in the mining industry, the effect is the same.

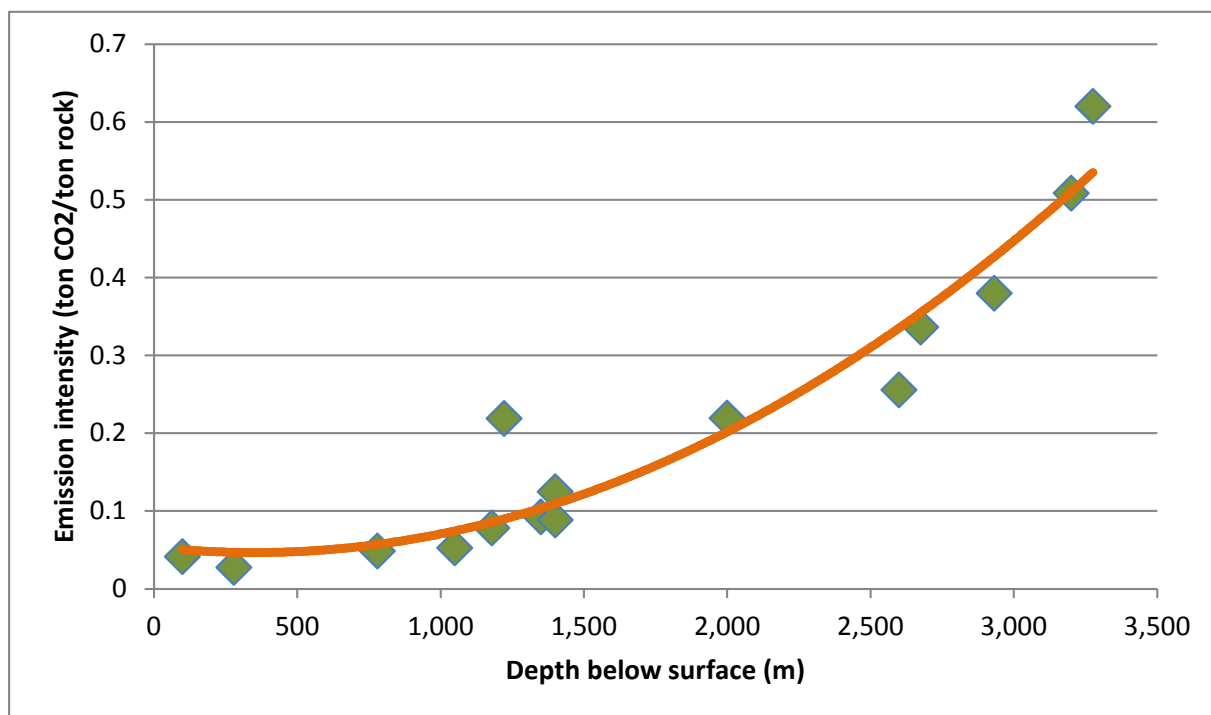


Figure 4: Emission intensities of South African mines<sup>6</sup>

In principle sector benchmarks can be used for new installations that are built after the implementation of the carbon tax. This can be done as there are no legacy issues for which companies can unfairly be penalised and will ensure that the tax changes the behaviour of industry by encouraging the construction of installations with low emission intensities.

**Issue:**

Facilities that are in operation at the time of the introduction of the carbon tax were designed without the carbon tax in mind. Operators should not be penalised for such built-in inefficiencies.

<sup>6</sup> Data obtained from annual reports and CDP disclosure of listed mining companies in the gold and platinum sectors in South Africa.

In view of the above, we **recommend** that benchmarks be set on a facility level for facilities that are in operation on the date of introduction of the carbon tax. This benchmark should take cognisance of the nature of the operation and be based on the most appropriate metric for that installation. Furthermore, the impact of the benchmark on existing facilities should not be punitive, which means that the application of the Z-factor should not increase the tax liability of existing facilities. We also **recommend** that the benchmark allows companies to benefit for emission intensity improvements made in a period of up to 5 years prior to the date of introduction of the carbon tax.

We further **recommend** that benchmarks be set at a sector level for new installations to be built after the introduction of the carbon tax, provided that the specific segmentation be done in a way that allows for a benchmark to be set at a fair level. The practicality of this must be dictated by issues such as the availability of benchmark data from sources relevant to South African industry and the specific attributes of the industry. In the event that sufficient data is not available to set a reasonable benchmark, the tax-free threshold should remain at 60%, or the relevant default level at that time.

### 3.3 THE USE OF OFFSETS TO OFFSET TAX OBLIGATIONS

The use of offsets to mitigate a tax payer's carbon tax obligation will result in a direct achievement of the object of the tax – to reduce emissions. This instrument is the most powerful tool in the Policy Paper in that it constitutes a direct, measurable impact on the emissions of the country.

We believe that this instrument will be the most powerful tool in changing behaviour of greenhouse gas emitting entities.

#### **Issue:**

The diverse nature of existing business makes sectoral benchmarking impractical.

#### **Recommendation 4:**

Allow facility based benchmarking for existing facilities in a way that allows compensation for early mover initiatives. Benchmarking of existing facilities should not be punitive.

#### **Issue:**

The design of new facilities should take the carbon tax into account.

#### **Recommendation 5:**

New facilities should be benchmarked on an industry level. If this is not practical, the tax-free threshold should be set at the default level.

Some critics of carbon trading schemes argue that the ability of companies to buy in offsets allow them to keep on polluting and therefore constitutes a “license to pollute”. It is important to clearly understand that this argument is not valid as the trading of carbon offsets simply allows companies to spend their mitigation money where they can have the highest economic impact. Carbon trading gives companies access to least cost mitigation options and form one of the most important tools in changing the behaviour of emitting companies.

In the light of the direct link of this mechanism to the stated objectives of the carbon tax, we **recommend** that the application of offsets not be limited as is contemplated in the Policy Paper, but that tax payers be allowed to offset all of their taxable emissions with offsets.

**Issue:**  
Access to offsets provides a direct impact on changing the behaviour of companies to reduce emissions and achieve the environmental objective of the carbon tax.

**Recommendation 3:**  
Remove 10% cap on the use of offsets.

## 4 ECONOMIC IMPACTS

The design of the carbon tax system could have economic impacts in two areas. The first is in generating more revenue for the fiscus, and the second is the increased cost of doing business in South Africa. Both these impacts can potentially influence the socio-economic conditions in SA and they need to be balanced carefully.

The current South African economic landscape is far from ideal. Our economic growth rate has slowed to 0.9% in the first quarter of 2013<sup>7</sup> compared with 2.1% in the previous quarter. The level of inequality in our society remains one of the highest in the world with unacceptably high rates of unemployment. In addition to this our very open economy is exposed to the economic turmoil of the international arena. The challenge embedded in the design of the carbon tax is to implement this tool for the conversion of the economy to a low carbon economy in a way that will not only prevent negative unintended consequences, but will enhance the economy in a way that contributes to our national objectives as outlined in the NDP2030.

The elements contained in the Policy Paper that can address these issues are:

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<sup>7</sup> Stats SA, P0441 - Gross Domestic Product (GDP), 1st Quarter 2013, 28 May 2013

- Tax shifting
- Carbon price level
- Relief measures
- Use of offsets

## 4.1 TAX SHIFTING

Promethium Carbon has argued<sup>8</sup> since the carbon tax was first mooted that any discussion about ring-fencing of carbon tax revenue should be superfluous as the carbon tax needs to be revenue neutral. The Policy Paper opens the door to revenue neutrality by introducing the concept of tax shifting.

British Columbia implemented a revenue neutral carbon tax in 2008<sup>9</sup> which resulted in more emissions reduced than any other Canadian province as well as strengthening the economy of the province to outperform all other Canadian provinces. A recent poll showed that public support for the British Columbia carbon tax has grown to 64 percent, and 59 percent of Canadians say they would support a similar carbon tax system in their provinces.

The principle of tax shifting be further strengthened in the implementation of the tax and that National Treasury gives the country a clear view on the details of the tax shifting.

## 4.2 CARBON PRICE LEVEL

South Africa has the benefit in being able to view the successes and failures of a number of carbon pricing mechanisms in the international arena. The most important carbon pricing system to date has been the EU ETS. This scheme is currently in a state of crisis because of the low level of prices. These low prices are insufficient to stimulate investment in low carbon technologies, and thus the scheme is failing to meet one of its stated objectives.

The low prices in the EU ETS are due to the fact that the volume of emission allowances has been hard-coded in the design of the system. This was done when Europe forecast

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<sup>8</sup> Engineering News, 8 July 2011

<sup>9</sup> Can a carbon tax work without hurting the economy? Ask British Columbia, The Guardian, 30 July 2013

their emissions prior to the 2008 financial crisis and fixed the amount of allocations based on this forecast. The impact of the financial crisis was that the emissions were reduced to below the forecasts.

The proposed South African tax system differs from the EU ETS in that whereas an ETS fixes the amount of emissions allowed, a tax fixes the price. This puts the price of carbon in control of the authorities. In the South African price the absolute price is set at R120 per ton, escalating over time, while the effective price is set by the level of the tax-free threshold and the relief measures. Hard-coding the effective price of carbon into the tax system by fixing the tax-free threshold and the relief measures will be a repeat of the mistake the EU made when they hard-coded the emission volumes into the EU ETS.

The effective price of carbon need to be managed by balancing the two conflicting requirements of minimising the impact and additional cost on society and being high enough to stimulate behaviour change. Another level of conflict that need to be managed is the need to lay out a clear price path for carbon and the need to align the effective price of carbon with that of our international trading partners and competitors.

In this regard we **recommend** that National Treasury explicitly states that the effective price of carbon be kept as low as possible within the context of managing the conflicting requirements mentioned above. This can be done through the management of access to relief measures and the use of offsets. Any increase in the effective price of carbon by changing the level of- and access to the relief measures and tax-free threshold may be triggered only by one of the three events listed below:

- An international agreement under the Durban Platform
- The provision of financial assistance as required by South Africa's Copenhagen Pledge, and agreement by the South African Government that the assistance will be used to alleviate the impacts of carbon tax on industry.

**Issue:**  
South Africa's domestic effective price of carbon should be in line with that of our international trading partners.

**Recommendation 6:**  
The access to relief measures that set the effective price of carbon should only be changed in the event of international carbon price developments to ensure that our effective domestic price of carbon remains in line with international developments.



- Significant moves by South Africa’s international trading partners or competitors to significantly increase the effective price of carbon in their economies.

We further **recommend** that the absolute price of carbon (the level of R120 per ton, escalating) be kept as proposed in the Policy Paper as this will motivate behaviour change through access the Z-factor and the use of offsets as described above.

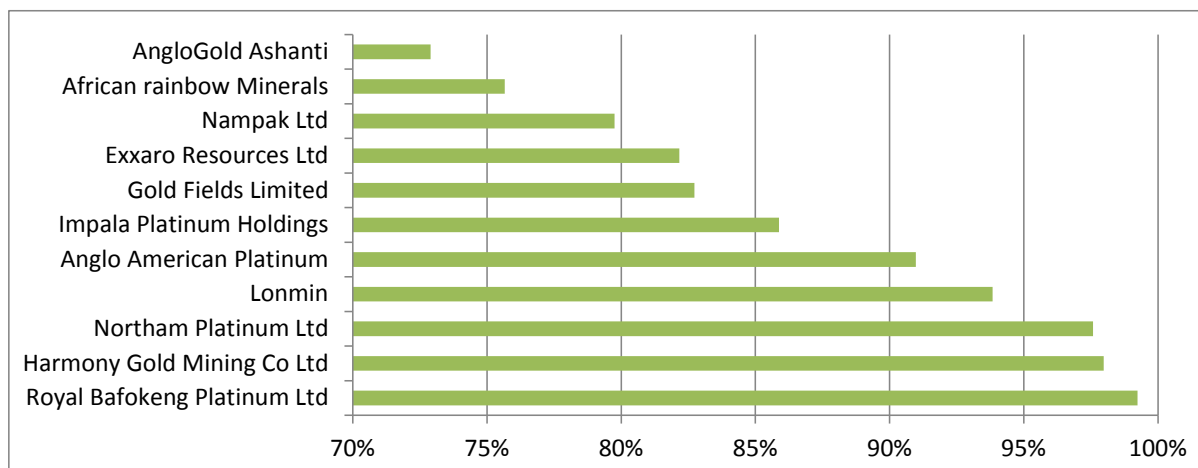
**Recommendation 7:**  
The absolute price of R120/ton and escalating should remain firm.

## 4.3 RELIEF MEASURES

### 4.3.1 Access to Relief Measures

The access tax payers will have to relief measures is one of the main mechanisms available to manage the differential between the absolute price of carbon in the tax scheme and the effective price paid by individual tax payers. Whereas a high absolute price is required to stimulate behaviour change and a low effective price is necessary to align the carbon tax with the requirement of the National Development Plan.

The Policy Paper does not state whether the access to the relief measures, expressed as percentage of emissions, will be calculated on only Scope 1 or Scope 1 and Scope 2 emissions. The structure of the Policy Paper does however suggest that only Scope 1 emission will be considered. This introduces the dilemma that companies that have the majority of their emissions in Scope 2 emissions, and are exposed to international trade, will be shielded from the relief mechanism for trade exposure. Figure 5 below indicates the portion of Scope 2 emissions relative to total emissions of the major emitters listed on the JSE that disclosed their emission data through the CDP in 2012. It shows that, if access to the relief measures is limited to Scope 1 emissions, the large emitters who employ thousands of people and produce the export goods our economy rely on for foreign earnings will be shielded from the relief measures designed to protect them.



**Figure 5: Scope 2 as percentage of total emissions for major emitters<sup>10</sup>**

The Policy Paper already addressed a similar dilemma by allowing the use of both Scope 1 and Scope 2 emissions in the calculation of the Z-factor. Should the same principle be used in allowing companies access to the relief measures, then these measures will be able to perform the function for which they were conceived.

We **recommend** that access to the relief measures be calculated on the total of Scope 1 and Scope 2 emissions.

**Issue:**  
Many exporting companies have high Scope 2 emissions.

**Recommendation 8:**  
Allow access to relief measures based on the total of Scope 1 and Scope 2 emissions.

### 4.3.2 Definition of relief measures

The Policy Paper proposes formulas based on actual imports and exports as quantification of the level to which companies are exposed to international trade. This approach disregards the treat of imports to domestic industry. One such example is the cement industry where a significant threat exists of imports from countries such as Pakistan where no carbon pricing mechanisms are in place<sup>11</sup>. Similar threats exist in the fertiliser industry.

<sup>10</sup> CDP 2012

<sup>11</sup> SA cement producer battles rising costs, cheap imports, Engineering News, 17 August 2012

We **recommend** that the definition of trade exposure be amended to also include the threat of import.

### 4.3.3 Level of relief measures

The principle of basing the relief for trade exposure on the volume of international trade rather than on price impact of international trade presents a workable option. It does however oversimplify the problem by assuming that the price elasticity of the goods in question is very low. In many cases this assumption will not hold and the impact of the carbon tax on international trade exposure may be significant and detrimental to the domestic economy. In modern volatile markets the price impact of small changes in the volume of traded goods can be huge.

We therefore **recommend** that the level of allowance for trade exposed companies be determined using a more sophisticated approach than is contained in the Policy Paper. Such an approach should include an assessment of the actual impact of the trade exposure on the competitive position of the respective tax paying companies as related to their activities in specific markets and commodities.

We will explain the importance of the trade exposure relief measure at the hand of an example. The ferrochrome industry in South Africa contributes R42-billion a year to GDP (almost as much as gold) and sustains 200 000 jobs<sup>12</sup>. Ferrochrome ore that is mined here can be smelted in SA or exported for smelting in other countries. The smelting of ferrochrome in SA produces six times value-add of exports with R9,000/t as opposed to R1,600 per ton if it is simply exported.

#### Issue:

Trade exposure is not only defined by actual trade, but also by the threat of cheap imports from jurisdictions where there are no carbon pricing.

#### Recommendation 9:

Expand the definition of the trade exposed relief measure to allow for the threat of cheap imports.

#### Issue:

The calculation if trade exposure on volume alone risks distortion of markets where the price elasticity of demand is high.

#### Recommendation 10:

Develop a more sophisticated approach to determine the level to which a company is exposed to international trade.

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<sup>12</sup> SA ferrochrome profitability down to zero, Engineering News, 6 September 2012

Similarly smelting represents 17.3 jobs per 1,000 tons as opposed to 7.7 jobs for ore export. The case for protecting the ferrochrome industry is therefore overwhelming. The impact of a high effective price of carbon resulting from the implementation of carbon tax will have a severe impact on the already pressurised industry.

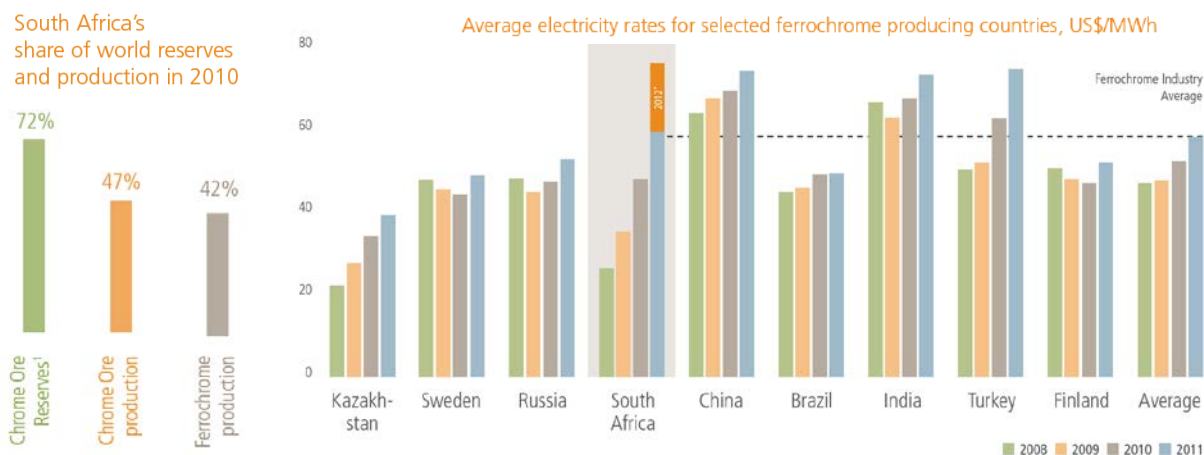


Figure 6: South Africa's ferrochrome industry<sup>13</sup>

We **recommend** that the design of the relief measure for trade exposed companies be considered in a way that will ensure that industries like the ferrochrome industry is not unduly hurt by the carbon tax as this will be to the detriment to the country.

#### 4.4 THE USE OF OFFSETS

The provision for the use of offsets against a company's carbon tax obligation is one of the most important drivers for behaviour change in the Policy Paper. The most important benefit of the proposed offset system is that it will stimulate direct investment in least cost mitigation options.

As the use of offsets links directly to the main drivers of the proposed carbon tax, the need to reduce emissions and achieve a positive economic impact, we **recommend** that the limit imposed on the maximum allowable use of offsets be removed.

<sup>13</sup> Brochure: Maximising South Africa's chrome ore endowment to create jobs and drive sustainable growth

## 5 ADMINISTRATIVE ISSUES

### 5.1 TAX BASE

The Policy Paper does not specify a limit below which companies will not pay carbon tax. The use of lower limits is standard practice in most carbon pricing schemes worldwide. The most common approach is to specify that companies or facilities emitting less than a certain amount is not liable to pay the carbon tax or participate in the cap-and-trade scheme. This is due to the high administrative burden placed on small companies by such systems. The levels at which companies become liable to pay carbon tax range from around 5,000 tons in some Canadian provinces to 25,000 in other jurisdictions.

The Policy Paper does refer to the reporting requirement limit of 100,000 tons of GHGs, either as direct emissions or through the consumption of electricity as mentioned in the National Climate Change Response White Paper.

We **recommend** that serious consideration be given to setting a lower limit for the applicability of the tax that is in line with international standards. This could be around 25,000 tons per year but needs confirmation.

**Issue:**

Carbon tax can place a disproportionate administrative burden on smaller companies.

**Recommendation 11:**

Set a lower limit, below which the carbon tax is not payable.

### 5.2 ACCOUNTING & REPORTING

The Policy Paper refers to the reporting requirements under the DEA as mentioned in the Climate Change Response White Paper.

Over the past five years GHG accounting has matured and GHG reporting are standardised under the different schemes. In South Africa the Department of Trade and Industry is the custodian of the South African technical infrastructure, including the SABS (for standards) and SANAS (for accreditation). The ISO series relating to GHG emissions (ISO14064 -1), emission reductions (ISO14064-2), GHG auditing (ISO14064-3) and requirements for validation & verification bodies (ISO14065) are all published as South African ISO standards and available from the SABS. Last year SANAS added the accreditation against ISO14065 to its portfolio paving the way for local auditors to be

accredited for GHG validation or verification work. The GHG Reporting Protocol is based on the ISO principles but provides sector specific guidance on corporate carbon footprints and supply chain GHG reporting.

The South African companies who participated in the Carbon Disclosure use the GHG reporting protocol and the ISO14064 standard. It would be advantageous – as well as rewarding companies for the voluntary action taken to date- to keep the mandatory requirement in line with the current practices, which are supported by existing infrastructure. Specifying the standards are important to ensure that similar emitting entities account and report similar values for tax purposes.

Verification is a costly activity and although it is likely that large listed companies might verify according to their own internal governance requirements, verification should be optional and not mandatory. Government might contract accredited entities to perform spot checks on GHG data, calculations, conversions, accounting and reporting, similar to current SARS sampling and evaluation protocol for companies and individual taxpayers. The results of the sampling can be used to improve the system.

Accreditation of service providers improves the integrity of the whole system – from GHG reporting to collating the overall numbers. Accreditation of South African GHG validators or verifiers is in place with SANAS from 2012 and SANAS itself is part of the International Accreditation Forum.

We **recommend** that National Treasury recognises the existing infrastructure and advises the DEA to cooperate with the DTI, who are the custodians of this infrastructure.

**Issue:**

There is no mention in the Policy Paper on standards, verification or accreditation.

**Recommendation 12:**

Recognise the existing technical infrastructure available for validation, verification and accreditation of GHG emissions, and advise the DEA to cooperate with the DTI, who are the custodians of this infrastructure.

## 6 SCOPE 2 EMISSIONS AND ELECTRICITY TARIFFS

The February 102 budget speech by the Minister of Finance stated that consideration will be given to phase out the 3.5 cents per kWhr non-renewable levy currently contained in the electricity price as regulated by NERSA. The Policy Paper however states that “*This tax will however not be abolished as part of the revenue generated from this levy funds some of the demand-side measures currently being implemented by Eskom.*” We believe that it is important in this respect to refer to the NERSA Reason for Decision of the MYPD3<sup>14</sup>. NERSA makes certain policy recommendations in this document:

**Par 151.3** *Electricity should be Value Added Tax (VAT) exempt.*

**Par151.5** *The environmental levy should be used to fund IPP development instead of imposing an additional 3% on the electricity price increase.*

**Par 151.6** *Taxes/fiscus should fund the build programme rather than the electricity tariff.*

We **recommend** that the NERSA policy recommendation that electricity be VAT exempt be implemented as part of the tax shifting that is a stated alternative in the Policy Paper. This will help to mitigate against the impacts of the implementation of the carbon tax on tax paying companies. Such a move will also enhance the vertical fairness of the system as it will pass some of the benefits of a reduction in the electricity tariffs that results from the removal of VAT from the tariff through to the poorer sections of society.

Unfortunately the data provided in the NERSA Reason for Decision to analyse the contribution of electricity consumers to fund IPP development is opaque as only the total Rand amounts

### **Issue:**

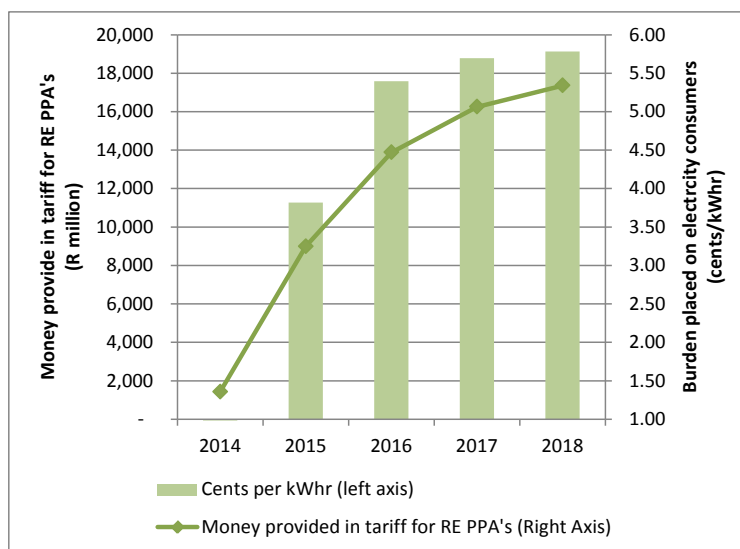
The Policy Paper lists tax shifting as a viable option to limit the economic pressure brought on by the carbon tax. NERSA recommended in the MYPD3 that electricity be made VAT exempt.

### **Recommendation 13:**

Implement the NERSA policy recommendations to exempt electricity from VAT.

<sup>14</sup> <http://eskom.ensight-cdn.com/content/NersaReasonsforDecision.pdf>

are cited. An analysis of the data, read in conjunction with the IRP2010 plus some assumptions with respect to the expected load factors of the renewable IPP's is summarised in Figure 7. This indicates that the renewable energy IPP's is costing the consumer of electricity up to 5.5 cents per kWhr by 2018. This amount can be saved if alternative sources of funding can be found.



**Figure 7: Impact of RE IPP purchase program on Eskom tariffs<sup>15</sup>**

We **recommend** that the financial assistance, that is a prerequisite to South Africa's Copenhagen pledge to reduce its emissions, be earmarked to replace the provision in the electricity tariff for the renewable energy IPP program. This move will mitigate the impact of the recent and future electricity price increases on our economy. It will give further visibility to the business community that carbon pricing can be to the benefit of local business, and have a positive impact on the poor as it will lead to a reduction in electricity tariffs.

**Issue:**

South Africa's international pledge to reduce emissions is conditional on the provision of financial assistance by the international community and NERSA recommended that the renewable energy IPP program be funded from other sources than electricity tariffs.

**Recommendation 14:**

Earmark the international funding required in terms of our pledge to the renewable energy IPP program and pass the relief through in the tariff as a mitigation measure against the impact of the carbon tax.

<sup>15</sup> NERSA reason for Decision and IRP2010



## APPENDIX: SUMMARY OF RECOMMENDATIONS

Issues	Recommendations
<p>Internationally many countries are put carbon pricing infrastructure in place but ensure that their own national interests are preserved.</p>	<p><b>Recommendation 1:</b> South Africa needs the carbon tax infrastructure to be implemented. Competitiveness is however at risk – and the relief measures must be in place and accessible when the carbon tax regime starts.</p>
<p>A high absolute price on carbon will provide the certainty in the market to change behaviour, but a low effective price is required to protect the SA economy.</p>	<p><b>Recommendation 2:</b> Ensure access to the relief measures to maintain the competitiveness of SA firms by keeping the effective carbon price in line with international trends</p>
<p>Offsets provide direct measurable emission reductions in line with the main objective of the carbon tax.</p> <p>Access to offsets provides a direct impact on changing the behaviour of companies to reduce emissions and achieve the environmental objective of the carbon tax.</p>	<p><b>Recommendation 3:</b> Remove the 10% cap on offset use.</p>
<p>The diverse nature of existing business makes sectoral benchmarking impractical.</p>	<p><b>Recommendation 4:</b> Allow facility based benchmarking for existing facilities in a way that allows compensation for early mover initiatives. Benchmarking of existing facilities should not be punitive.</p>
<p>The design of new facilities should take the carbon tax into account.</p>	<p><b>Recommendation 5:</b> New facilities should be benchmarked on an industry level. If this is not practical, the tax-free threshold should be set at the default level.</p>
<p>South Africa's domestic effective price of carbon should be in line with that of our international trading partners.</p>	<p><b>Recommendation 6:</b> The access to relief measures that set the effective price of carbon should only be changed in the event of international carbon price developments to ensure that our effective domestic price of carbon remains in line with international developments.</p>

Issues	Recommendations
<p>Many exporting companies have high Scope 2 emissions.</p>	<p><b>Recommendation 7:</b> The absolute price of R120/ton and escalating should remain firm.</p> <p><b>Recommendation 8:</b> Allow access to relief measures based on the total of Scope 1 and Scope2 emissions.</p>
<p>Trade exposure is not only defined by actual trade, but also by the threat of cheap imports from jurisdictions where there are no carbon pricing.</p>	<p><b>Recommendation 9:</b> Expand the definition of the trade exposed relief measure to allow for the threat of cheap imports.</p>
<p>The calculation of trade exposure on volume alone risks distortion of markets where the price elasticity of demand is high</p>	<p><b>Recommendation 10:</b> Develop a more sophisticated approach to determine the level to which a company is exposed to international trade.</p>
<p>Carbon tax can place a disproportionate administrative burden on smaller companies.</p>	<p><b>Recommendation 11:</b> Set a lower limit, below which the carbon tax is not payable.</p>
<p>There is no mention in the Policy Paper on standards, verification or accreditation.</p>	<p><b>Recommendation 12:</b> Recognise the existing technical infrastructure available for validation, verification and accreditation of GHG emissions, and advise the DEA to cooperate with the DTI, who are the custodians of this infrastructure.</p>
<p>The Policy Paper lists tax shifting as a viable option to limit the economic pressure brought on by the carbon tax. NERSA recommended in the MYPD3 that electricity be made VAT exempt.</p>	<p><b>Recommendation 13:</b> Implement the NERSA policy recommendations to exempt electricity from VAT.</p>
<p>South Africa's international pledge to reduce emissions is conditional on the provision of financial assistance by the international community and NERSA recommended that the renewable energy IPP program be funded from other sources than electricity tariffs.</p>	<p><b>Recommendation 14:</b> Earmark the international funding required in terms of our pledge to the renewable energy IPP program and pass the relief through in the tariff as a mitigation measure against the impact of the carbon tax</p>