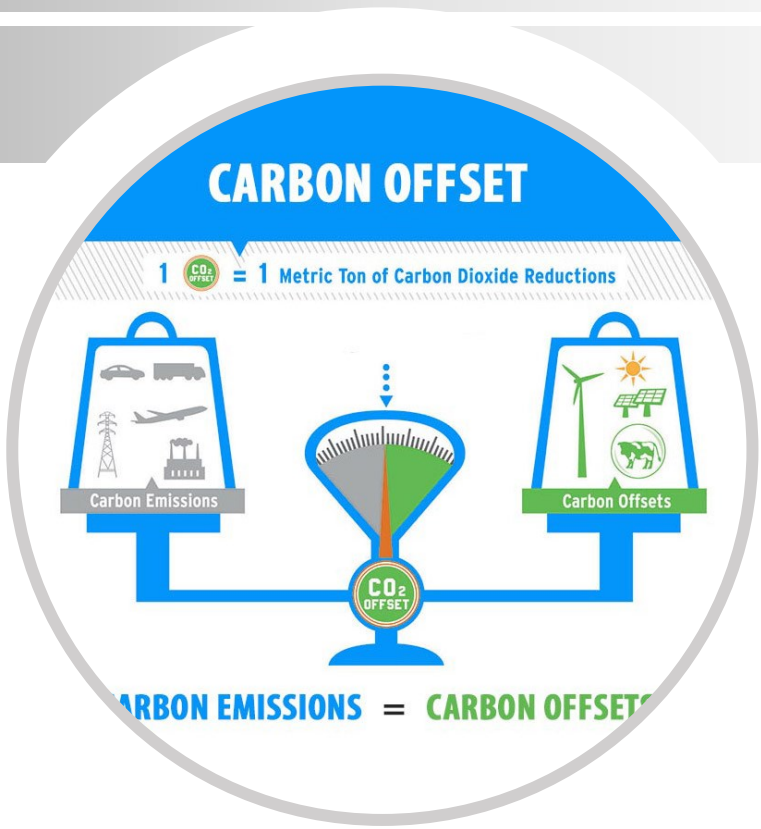


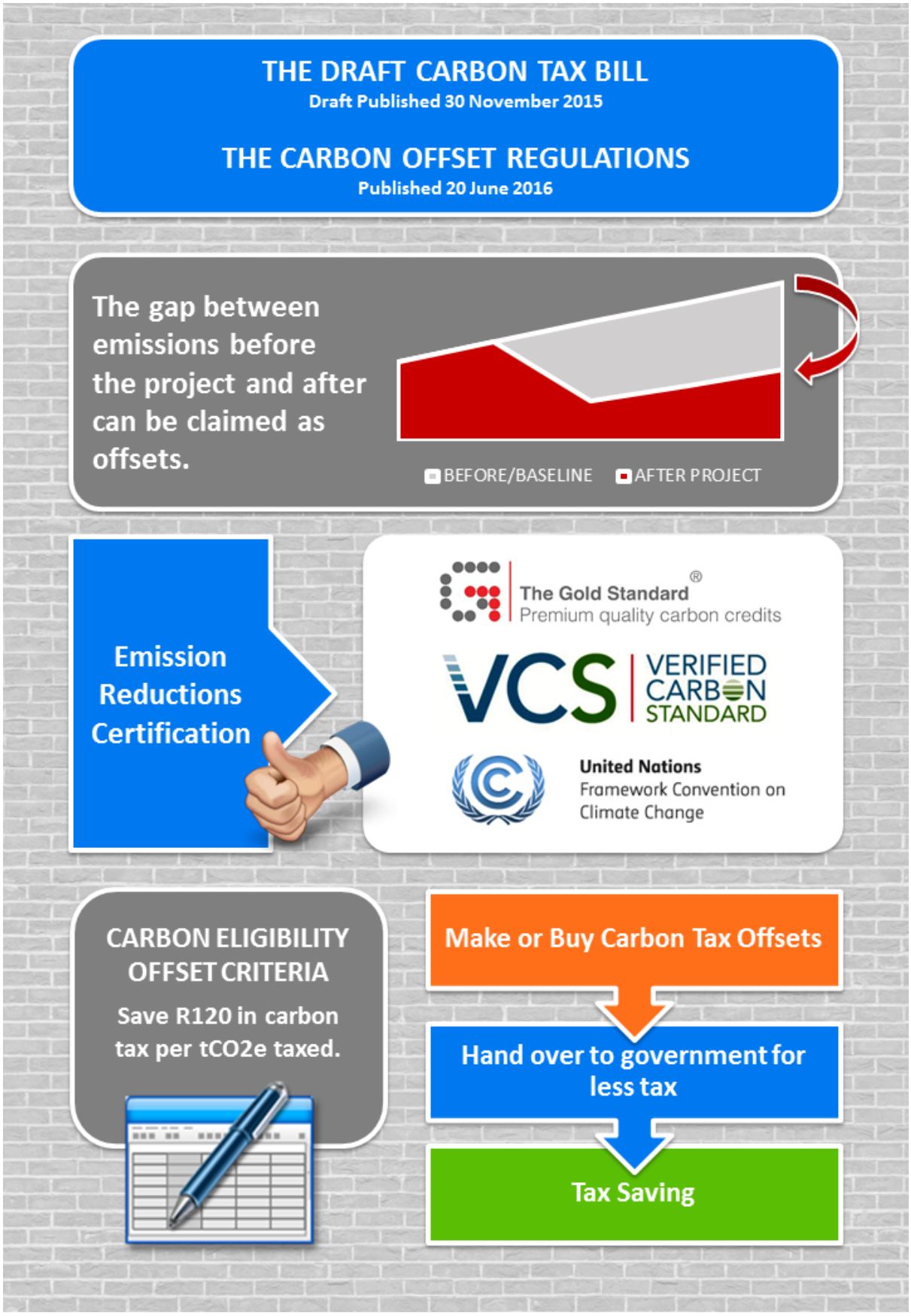

TECHNICAL NOTE #28

# Carbon Tax Offsets and opportunities for the clay brick industry

A Carbon Tax Offset can be used by a brick maker to reduce the volume of Greenhouse Gas (GHG) emissions over which he has to pay Carbon Tax. This summary is based on the Draft Regulations: Carbon Tax Offsets published by National Treasury on 20 June 2016.

## 1. Technical Contributor

This summary was developed by EcoMetrix Africa for the Energy Efficient Clay Brick (EECB) Project.


THE DRAFT CARBON TAX BILL
Draft Published 30 November 2015
THE CARBON OFFSET REGULATIONS
Published 20 June 2016
The gap between emissions before the project and after can be claimed as offsets.
BEFORE/BASELINE
AFTER PROJECT
Emission Reductions Certification
The Gold Standard®
Premium quality carbon credits
VCS
VERIFIED CARBON STANDARD
United Nations
Framework Convention on Climate Change
CARBON ELIGIBILITY OFFSET CRITERIA
Save R120 in carbon tax per tCO2e taxed.
Make or Buy Carbon Tax Offsets
Hand over to government for less tax
Tax Saving

# CARBON TAX OFFSETS UNDER THE CARBON TAX AND OPPORTUNITIES FOR THE CLAY BRICK INDUSTRY

## 1. How can a Brick maker use Carbon Tax Offsets

A Carbon Tax Offset can be used by a brick maker to reduce the volume of Greenhouse Gas (GHG) emissions over which he has to pay Carbon Tax. Technical Note 24 '*The South African Carbon Tax legislation and its impact on the Clay Brick Sector*' provides more detail on the Carbon Tax design itself but in a nutshell the Carbon Tax bill calls for a levy of 120 ZAR/$tCO_{2e}$ for direct onsite emissions from stationary activities after the application of a number of deductions on the GHG emission volume over which Tax needs to be paid.

In essence a brick maker can hand over a Carbon Tax Offset to the South African government and by doing so he has to paid Carbon Tax over 1 $tCO_{2e}$ less then he otherwise would have. It is expected that the tax rate will increase over time but economically speaking a Carbon Tax Offset will never be worth more that the Carbon Tax rate since in that case just paying the tax would be the cheaper alternative.

The question therefore is that, can a brick maker purchase Carbon Tax Offsets or produce Carbon Tax Offsets at a cost lower than the current and future tax rate?

According to the current draft Carbon Tax bill and the draft Carbon Offsets regulations the Clay brick sector is covered under the Carbon Tax and covered activities are not eligible to generate Carbon Tax Offsets. This leaves generating Carbon Tax Offsets on activities that are outside of the Carbon Tax net (in forestry or transport for example) or the purchase of Carbon Tax Offsets on the local Carbon Market.

Historically the production of a Carbon Credit (from which a Carbon Tax Offset is derived) has always been the complicated part and the buying and selling of these Carbon Credits the easy part. There is no reason why this won't be the case for Carbon Tax Offset when the Carbon tax is implemented (expected in 2017).

## 2. Background

By ratifying the Kyoto protocol, the South African government provided local industry with the opportunity to generate Certified Emission Reductions (CERs) that can be sold into the industrialised world. These CERs are generated by implementing Greenhouse Gas (GHG) mitigation activities under the Clean Development Mechanism (CDM). In essence, these CERs represent GHG emissions that did not occur in comparison to the emissions that would have occurred in the absence of the mitigation activity.

Due to various technical and political factors the demand for CERs drastically reduced over the last decade resulting in a crash of the market price for these CERs. In parallel to this, a range of alternative standards to determine emission reductions for the purpose of issuing Carbon Credits similar to CERs under the CDM was developed. In recent years, the lack of a new global agreement in the fight against climate change has triggered the development of provincial, national and regional policies across the globe. Many of these regulations include offsetting components and therefore link to instruments such as the CDM and others.

As part of the introduction of the South African Carbon Tax, the South African government went the same route and included an offsetting component into the design of the Carbon Tax which is scheduled to be introduced in mid-2017.

The *Draft Carbon Tax Bill* as issued by National Treasury (NT) proposes that a taxable entity can reduce the volume of GHGs over which it should pay Carbon Tax by submitting Carbon Credits that meet the eligibility criteria as set out in the *Draft Regulations: Carbon Offsets* by National Treasury or the agency that will be tasked with this function on its behalf. The volume that can be offset by the submission of Carbon Tax Offsets is limited up to either 5% or 10% of the total taxable emissions depending on the sector in which the entity operates. The Draft Carbon Tax Bill indicates that the Clay Brick sector is eligible of receiving a discount of up to 10% on its taxable volume under the allowance category.

### 3. What are Carbon Tax Offsets?

The *Draft Regulations: Carbon Offsets* state that Carbon credits issued under the following international Carbon Standards can be converted into Carbon Tax Offsets provided they meet the eligibility criteria as set out in the regulations:

- The CDM – finds its origins within the United Nations Framework Convention on Climate Change (UNFCCC) Kyoto Protocol and was initially developed to enable industrialised countries to obtained Carbon Credits from mitigation projects in developing countries within an internationally institutionalised framework;

- The VCS – formerly known as the Voluntary Carbon Standard, is a Carbon Standard that provides Carbon Credits for the voluntary carbon offset industry. The VCS is largely based on the CDM but is not subject to the international and domestic requirements that come with an institutionalised Carbon Standard;

- The GS – is in its essence is a top-up Carbon Standard that can be realised if a CDM or VCS project meets the additional GS requirement around sustainable development and falls within the activities that are covered by the GS.

Once a Carbon Credit is issued under one of these Carbon Standards, it can be converted into Carbon Tax Offsets and used to reduce an entity's taxable GHG emissions.

It is important to note that one could implement a mitigation activity and go through the process of obtaining one's own Carbon Credits/Carbon Tax Offsets and use those to reduce its taxable volume or one could purchase eligible Carbon Credits/Carbon Tax Offsets. Either way, a two-stage process needs to be followed to be able to reduce an entity's Carbon Tax exposure in this way. First, Carbon Credits need to be issued under one of the International Standards and, second, they need to be converted into Carbon Tax Offsets.

The next two sections of this Technical Note will address these two stages.

## 4. How is a Carbon Credit produced?

There are many ways in which GHG emissions can be reduced compared to the 'business as usual scenario' (often referred to as the baseline scenario). For a GHG emission reduction to be recognised as a Carbon Credit, it needs to be issued under a recognised Carbon Standard. A Carbon Standard ensures that emission reductions are real, measurable, additional, permanent, independently verified, unique and traceable.

With this objective, a Carbon Standard establishes criteria for validating, measuring, and monitoring emission reductions and, once found compliant to this objective, issues Carbon Credits. For most Carbon Standards, these Carbon Credits are emission reduction projects expressed in $tCO_{2equivalent}$ ($tCO_{2e}$).

Although having different origins and having evolved in a different ways, most Carbon Standards have a number of shared concepts, including:

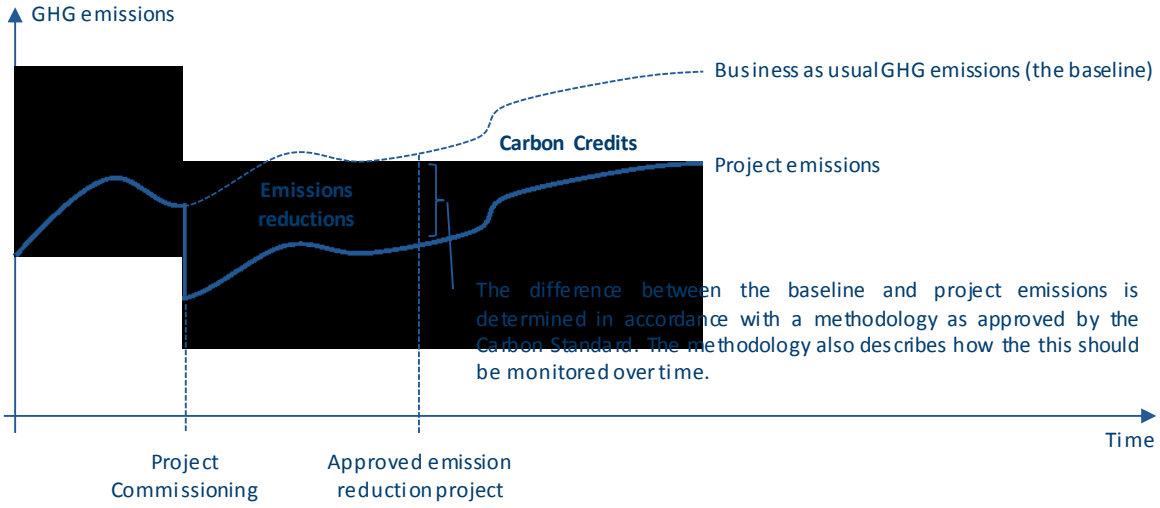
- **An approved emission reduction methodology** – Whereby the Carbon Standard has adopted a methodology for a specific type of emission reduction activity according to which it can meet the criteria to generate Carbon Credits;

- **An additionality test** – which an emission reduction project has to pass to become eligible to generate Carbon Credits by demonstrating the project would not have happened in the absence of the Carbon Credit scheme (i.e. the baseline); and

- **A monitoring and verification protocol** – that prescribes the manner in which project-specific parameters need to be recorded and verified from an operational emission reduction project before its emission reductions to become Carbon Credits.

The diagram below provides a graphic representation of the shared concepts applied by the most common quantitative Carbon Standards.

*Figure 1 Conceptual design of a Carbon Credit generating activity*




Generically speaking, emission-reduction methodologies can be divided into small-scale and large-scale methodologies. Small scale methodologies are developed to enable smaller emission reduction activities to participate in a carbon standard. This is often achieved by reducing the registration criteria and monitoring requirements compared to the large-scale methodologies. To prevent that large emission reduction projects are presented as a set of separate small projects to fall within a more lenient, small-scale methodology, international carbon standards include a so-called 'bundling/de-bundling' check to ensure that this will not happen.

Initially, Carbon Standards were developed with the notion that at large single point sources of emissions mitigation activities would be developed that, once found compliant with the Carbon Standard, could generate Carbon Credits. Globally, thousands of carbon credit projects were developed.

However, as time went on, the different Carbon Standards realised that in addition to these large single points of emissions, there were many small emission sources on which mitigation activities could be implemented provided they could be grouped together to represent a material volume of emission reductions. For these grouped mitigation activities, the different Carbon Standards developed, what are often referred to as, mitigation programmes.

If a Clay Brick producer intends to develop a mitigation project and register it under a Carbon Standard, one should decide if it is possible to join a programme and, if so, decide if this is the desired way forward or that going it alone is preferred.

## 5. What are Carbon Tax Offsets

To convert a Carbon Credit issued under a Carbon Standard to a Carbon Tax Offset, a number of eligibility criteria need to be met. This set of eligibility criteria against which a Carbon Credit project is assessed is rather elaborate and some of the criteria overlap each other. The table below provides a schematic overview of the eligibility criteria as they can be found in the Draft Carbon Tax Bills and the Draft Regulations: Carbon Offsets.

*Table 1 Eligibility of mitigation activities under the carbon tax offset regulations.*

| **Overall Criteria** |
|---|
| Mitigation activities eligible to offsetting should be in relation to economic sectors or activities that are not directly subject to the carbon tax. (Regulations: Preamble) |
| Mitigation activities eligible to offsetting should be in relation to economic sectors or activities that are not benefitting from other government incentives. (Regulations: Preamble) |
| Offsetting is only allowed in respect of certified emission reduction derived from the furtherance of an approved project "meaning — (a) a CDM project; (b) a VCS project; (c) a gold standard project; or (d) a project that complies with another standard approved by the Minister of Energy or a delegated authority." (Regulations: Part I, 1 and Part II, 2.1) |
| Approved projects shall be carried on, on or after 1 January 2017. (Regulations: Part II, 2.1) |
| Approved projects shall be wholly undertaken in the Republic (Regulations: Part II, 2.1) |
| **Special conditions for approved projects that were already conceived or in the process of being conceived before 1 January 2017:** |
| In case of an approved project in respect of which an offset is in existence prior to 1 January 2017: the approved project may only be utilised for the purposes of these Regulations until 31 December 2017. (Reg.: Part II, 2.2) |
| In case of an approved project in respect of which an offset (a) is not in existence prior to 1 January 2017; and (b) of which registration has commenced before 1 January 2017: an offset may only be utilised as an offset for the purposes of these Regulations for a period of 6 months after that offset has come into existence. (Reg.: Part II, 2.2) |

<table>
<tr><th>Positive List</th><th>Negative List</th></tr>
<tr><td rowspan="3">Energy Sector<br><br>- Energy efficiency not claiming the 12L tax incentive:<br>- in the residential and commercial sector<br>- in buildings<br>- community-based and municipal energy efficiency and renewable energy<br>- Fuel-switching projects<br>- Electricity transmission and distribution efficiency<br><br>(Note: Part II, Table 1)</td><td>A taxpayer conducting an activity in respect of the REIPPP.<br>(Regulations: Part III, 4.1)</td></tr>
<tr><td>A taxpayer conducting an activity in respect of which any allowance may be received in terms of the 12L Energy Efficiency Tax Allowance. (Regulations: Part III, 4.2)</td></tr>
<tr><td>A taxpayer conducting an activity in respect of the destruction of industrial gasses HFC-23 and $N_2O$ from adipic acid production.<br>(Regulations: Part III, 4.2)</td></tr>
<tr><td>Transport Sector<br><br>- Public transport<br>- Transport energy efficiency<br><br>(Note: Part II, Table 1)</td><td>Energy efficiency projects implemented on activities owned or controlled by companies that are covered by the carbon tax.<br>(Note: Part III)</td></tr>
<tr><td rowspan="2">Agriculture, forestry and other land use (AFOLU):<br><br>- Restoration: sub-tropical thicket, forests, woodlands;<br>- Restoration and management of grassland;<br>- Small scale afforestation;<br>- Biomass energy;<br>- Anaerobic biogas digesters; and<br>- Reduced tillage.<br><br>(Note: Part II, Table 1)</td><td>Cogeneration of renewable energy projects implemented on activities owned or controlled by companies that are covered by the carbon tax; (Note: Part III)</td></tr>
<tr><td rowspan="2">Fuel-switch projects implemented on activities owned or controlled by companies that are covered by the carbon tax; (Note: Part III)</td></tr>
<tr><td>Waste Sector:<br>- Municipal waste projects<br><br>(Note: Part II, Table 1)</td></tr>
</table>

## 6. Who should pursue the opportunity?

A Clay brick maker who plans to implement mitigation measures within its operations should investigate the potential of generating Carbon Tax Offsets and thereby reduce its exposure under the Carbon Tax. As indicated, this could be done under a number of Carbon Standards and either as a stand-alone project or as part of a programme of activities.

**Brick manufacturers should indentify eligable Carbon Credits or Carbon Tax Offsets, that it could produce or procure at a rate below the Carbon Tax rate in order to reduce its Carbon Tax liability.**

Irrespective of this, a Clay Brick maker who is exposed under the Carbon Tax should identify possibilities for acquiring Carbon Credits/Carbon Tax Offsets at a rate below the tax rate as this will reduce the total tax burden of the entity.

It is important to take into account that most indications show that the demand for Carbon Tax Offsets will be far greater than the supply during the first period of the Carbon Tax. On the one hand, this would mean that obtaining eligible Carbon Credits or Carbon Tax Offsets early in the process could be wise; on the other hand, NT has indicated that it will provide a more comprehensive draft regulation somewhere in 2017, which could contain material changes as to the eligibility and or application of Carbon Tax Offsets.

**For further information on the Climate, Carbon and Energy Regulations:**
The Clay Brick Association of South Africa
Website: **www.claybrick.org/climate-carbon-energy-regulations**


EECB ENERGY EFFICIENT CLAY BRICK

Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

Swiss Agency for Development and Cooperation SDC

swisscontact

*This summary of the proposed South African Carbon Tax legislation has been developed by EcoMetrix Africa for the Energy Efficient Clay Brick (EECB) Project. The project is funded by the Swiss Agency for Development and Corporation (SDC) and implemented by Swisscontact in close partnership with the Clay Brick Association of Southern Africa (CBA).*

*This publication is based on Draft Carbon Tax Bill and the Draft Regulations: Carbon Offsets published by the National Treasury on the 2nd of November 2015 and 20th of June 2016.*

*Summary Published: March 2017*

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