

Status and outlook of South Africa's carbon market and the anticipated impact of the proposed carbon tax

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Marrakech | 11 April 2015

African Regional Workshop on Carbon Finance

AFRICA

content

- Credentials
- The question(s):
 - Did South African have a carbon market?
 - Does South African have a carbon market?
 - Will South Africa have a carbon market?
- Status of the South African carbon market
- The potential offered by the proposed carbon tax

credentials (1)

- ENSafrica (Edward Nathan Sonnenbergs Inc.: www.ensafrica.com):
 - Africa's largest *independent* law firm
 - Not a legal network but branch offices
 - 700+ practitioners
 - Currently branch offices in:
 - South Africa
 - Mauritius
 - Rwanda
 - Namibia
 - Uganda
 - Burundi

credentials (2)

- ENSafrica Climate Change & Carbon Markets Practice Leader
- South African lawyer: twelve years in the climate change and carbon market arena
- eThekweni Landfill Gas to Power Generation CDM Project (UNFCCC Ref. 1921) – 2003 to 2012
- National and regional climate change policy work
- Work with SADC negotiation delegations, e.g., in the approach to COP15
- Recently: training for the Law Society of the Republic of Uganda – carbon contracting and negotiations for lawyers
- Currently:
 - Business Unity South Africa: business issues related to the South African Intended Nationally Determined Contribution
 - Long Term Adaption Strategy (South Africa)

the questions

- Did South African have a carbon market?
 - Yes
- Does South African have a carbon market?
 - Hybernating
- Will South Africa have a carbon market?
 - It depends

Did South Africa have a carbon market? (1)

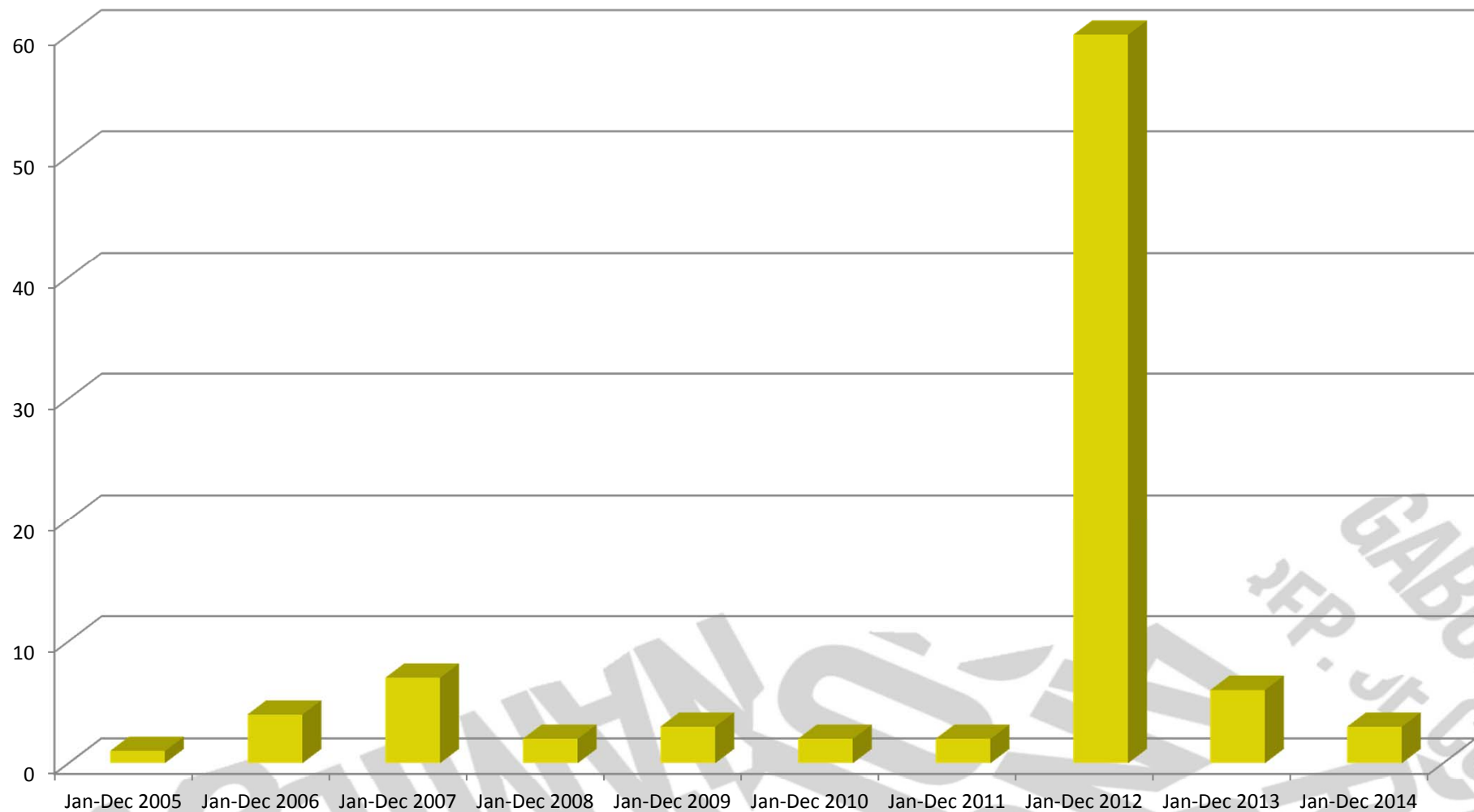
- Yes – most active years: 2004 to 2012
- Driven by the mitigation potential and the potential offered by the CDM
- Project types:
 - bio-fuels, energy efficiency, waste management, cogeneration, fuel switching and hydro-power, and cover sectors like manufacturing, mining, agriculture, energy, waste management, housing, transport and residential
- Local offices of DOEs: SGS, DNV, Carboncheck (local)

Did South Africa have a carbon market? (2)

- Project development supported *inter alia* by investments from various development banks and (limited) private sector interest
- Modest CDM market expansion in the traditional sense, i.e., as per the bi-lateral notion of the CDM in the Kyoto Protocol
- Greater market development with the introduction of Programmatic CDM
- Inclusion of carbon value in Renewable Energy Independent Power Producer Procurement Programme

Did South Africa have a carbon market? (3)

Total: Projects registration per year



South African DNA for the CDM

Does South Africa have a carbon market?

- Best case: a market in hibernation
- Limited / no carbon project investments over past 2 years:
 - Linked directly to the international price of CERs and the focus of the market on the CDM as conduit to the market
- International DOEs have closed South African offices
- REIPPPP: project developers' views that developing the CDM aspects of the project is no worth the effort
- Case study: Durban landfill gas project



eThekwinini Landfill Gas to Power Generation CDM Project
UNFCCC Reference 1921





Why did the Durban landfill gas project work?

- Political will – municipal level
- Executive willingness – municipal level
- Internal project champion
- Financial capacity and ability to raise further project finance as required – municipal level
- Engineered landfills
- Technically proficient project management team
- Legal support
- Integrity of underlying project – landfill gas to power generation

Challenges facing the Durban project

- Out-performing its PDD
- 2011 – deal for 1million CERs, over 4 years, at Euro 15.07/tCO₂e
- Rapid CER price reduction led to cancellation of the deal at a time when the market was also contracting and offering no new deals
- Currently seeking to become an offset provider to the proposed carbon tax
- The difficulty posed by still holding KP1 CERs.

Will South Africa have a carbon market? (1)

- Various dynamics at play – international and national
- Primarily - health of the international market:
 - Dependent on an outcome of the negotiations which include carbon market mechanisms
 - Such mechanisms are supported without becoming the victim of future rounds of negotiations
 - The CDM as a victim of its own success and dependent on demand that is defined by the whims of international politics

Will South Africa have a carbon market?

- National (not an exhaustive list):
 - South Africa government's attitude/approach to the market *per se*:
 - Follow-through of this attitude/approach into the negotiations
 - Support of this attitude/approach in the national economy
 - Success of the carbon tax

Status quo of South African CDM - DNA

- 360 CDM projects submitted to the DNA (222 Project Idea Notes (PINs) and 138 Project Design Documents (PDDs))
- Out of 138 PDDs:
 - 90 have been registered as CDM project activities
 - including 35 registered PoAs (fairly high rate)
 - 12 Issued with CERs
 - 48 are at different stages of the project cycle

The potential offered by the proposed carbon tax

- Origin of the carbon tax
- Proposed design
- Use of carbon offsets
- Dynamics in the economy

statement by South Africa to the UNFCCC COP13 Plenary

- “some of our partners say that we will not get a climate deal without developing countries”.
 - “let’s be clear on that...as a developing country we **will** take ambitious **mitigation** action”.
 - South Africa **will** contribute its fair share towards our common responsibility for the future”.
 - “our actions **will** be measurable, reportable and verifiable”.
 - “given the urgency indicated by science, there is no longer a plausible excuse for inaction by any country”.

National ambition

- President Jacob Zuma's statement of the country's greenhouse emissions mitigation ambition – just prior to COP 15, Copenhagen, Denmark, December 2009:
- SA's voluntary pledge to the UNFCCC (29 January 2010):
 - 34% reduction against a business as usual emissions growth trajectory by 2020.
 - 42% reduction against a business as usual emissions growth trajectory by 2025.

carbon tax – development to date (1)



carbon tax – development to date (2)

- Budget Speech 2015:
 - Confirmation of release of draft legislation before mid-2015 with a view to implementation by mid-2016
- Implementation has been delayed three times:
 - Impact on the market
 - Impact on expectations
 - Reasons for the delay
 - Possible further delay

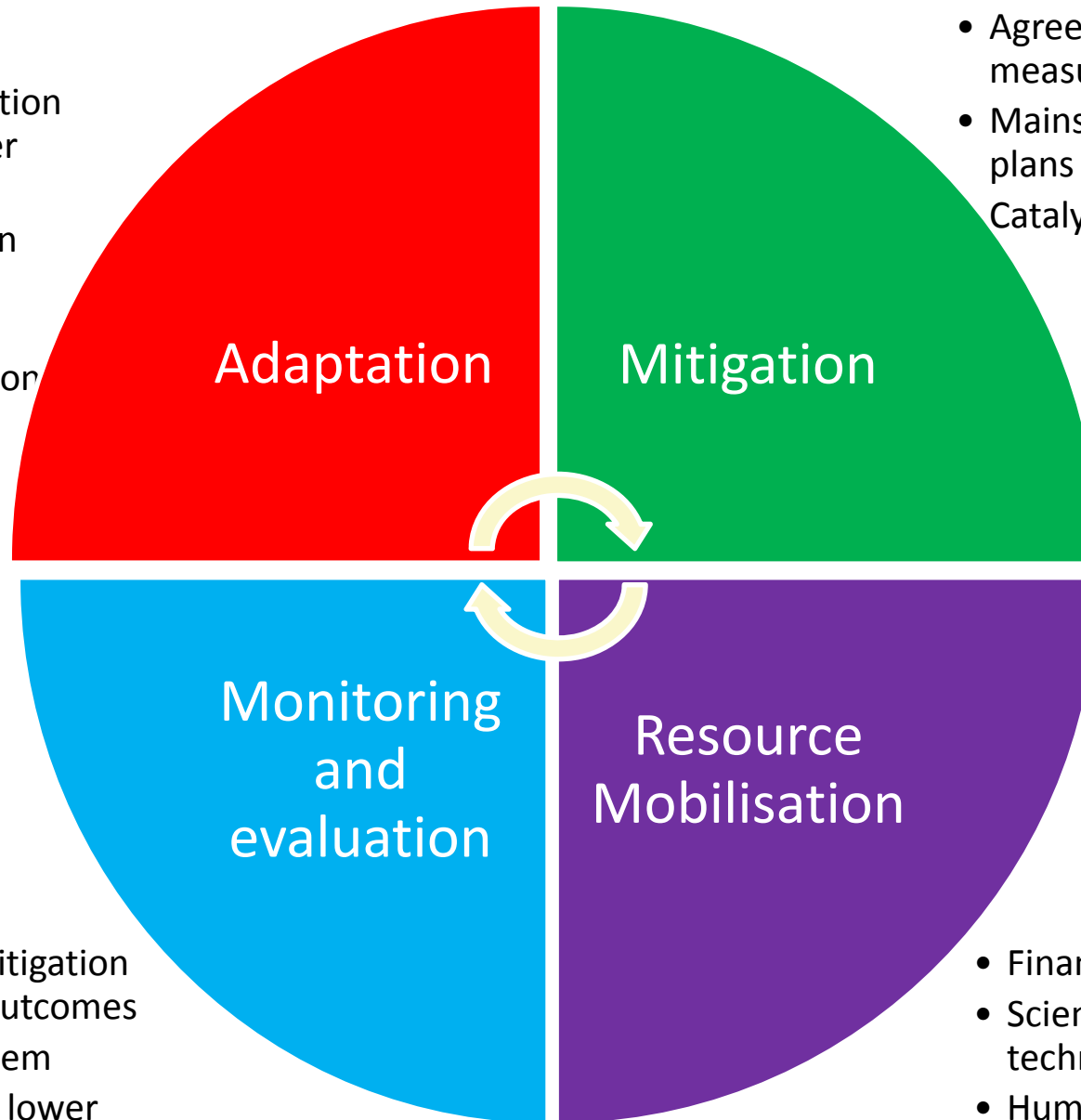
underlying concepts

- **Treasury**: *A Framework for Considering Market Based Instruments to Support Environmental Fiscal Reform in South Africa* (April 2006):
 - Internalisation of environmental externalities
 - No ring-fencing of revenues (evolving)
- **Department of Environmental Affairs**: *National Climate Change Response White Paper* (November 2011):
 - Link to objectives of UNFCCC (mitigation and adaptation)
 - Serves macro-economic policy
 - Sustainable development supported by carbon tax revenues

Air Quality and Climate Change Directorate

- Assess risk and impact scenarios in key sectors
- Assess costs
- Agree adaptation responses per sector
- Mainstream in sector plans
- Catalyse implementation

- Assess mitigation potential
- Assess costs / benefits
- Agree DEROs and mix of measures to achieve
- Mainstream in sector plans
- Catalyse implementation



- Assess current mitigation and adaptation outcomes
- Design M&E system
- Track progress to lower carbon, climate resilient society

- Financial resources
- Science and technology platform
- Human resources
- Outreach and communication

mitigation policy - elements

- Mitigation mapping
- Grouping of sectors: grouping of key sectors, for which mitigation potential will be assessed
- National carbon sinks assessment
- South Africa's 2050 Pathways Calculator
- Desired Emissions Reduction Outcomes (DEROs)
- Carbon Budget
- Mitigation Flagship Programmes, e.g., renewables, energy efficiency, CCS
- **Carbon tax** (not the first instance of a tax on carbon in the South African economy)

proposed design (1)

- Carbon tax of ZAR 120.00/tCO₂e above the tax free thresholds (allowances) (ZAR 1 : Euro 0.10), commencing mid-2016
- Tax liability directly measured tax on **Scope 1** emissions from fossil fuel inputs based on appropriate emissions factors agreed for particular sectors
 - *Emissions Intensity Benchmarks for the South African Carbon Tax*, PMR, October 2014)
- Mandatory **reporting** for installations (not linked to a carbon tax liability): emitting > 0.1 GtCO₂e annually or that consume fossil fuel electricity that results in > 0.1 GtCO₂e annual greenhouse gas emissions

proposed design (2)

- A phased approach to the implementation of the carbon tax.
 - The first phase (introductory), effective from mid-July 2016 to 31 December 2020 (bear in mind delays, to date)
 - Phase 2 from 2021 to 2026
 - Follow up phases can be explored at a later stage
 - Parameters re-assessed for each phase

Sector ¹	tCO _{2e} per sector ²	Taxable emissions (tCO _{2e})	Total exposure (ZAR)
Electricity	199,040,000	79,616,000	9,553,920,000
Petroleum (coal to liquid)	60,047,000	18,014,100	2,161,692,000
Petroleum - oil refinery	13,288,900	3,986,670	478,400,400
Iron & steel	92,620,000	18,524,000	2,222,880,000
Aluminium	2,000,000	400,000	48,000,000
Cement	9,300,000	1,860,000	223,200,000
Glass & ceramics	30,000	6,000	720,000
Chemicals	5,030,000	1,006,000	120,720,000
Pulp & paper	7,490,000	2,247,000	269,640,000
Sugar	1,393,200	417,960	50,155,200
Agriculture, forestry and land use	38,000,000	-	-
Waste	21,000,000	-	-
Fugitive emissions: Coal	1,800,000	360,000	43,200,000
Other	Unknown	-	-
Total:	451,039,100	126,437,730	15,172,527,600

Slide prepared by EcoMetrix South Africa (Pty) Ltd

(ZAR 1 : Euro 0.10)

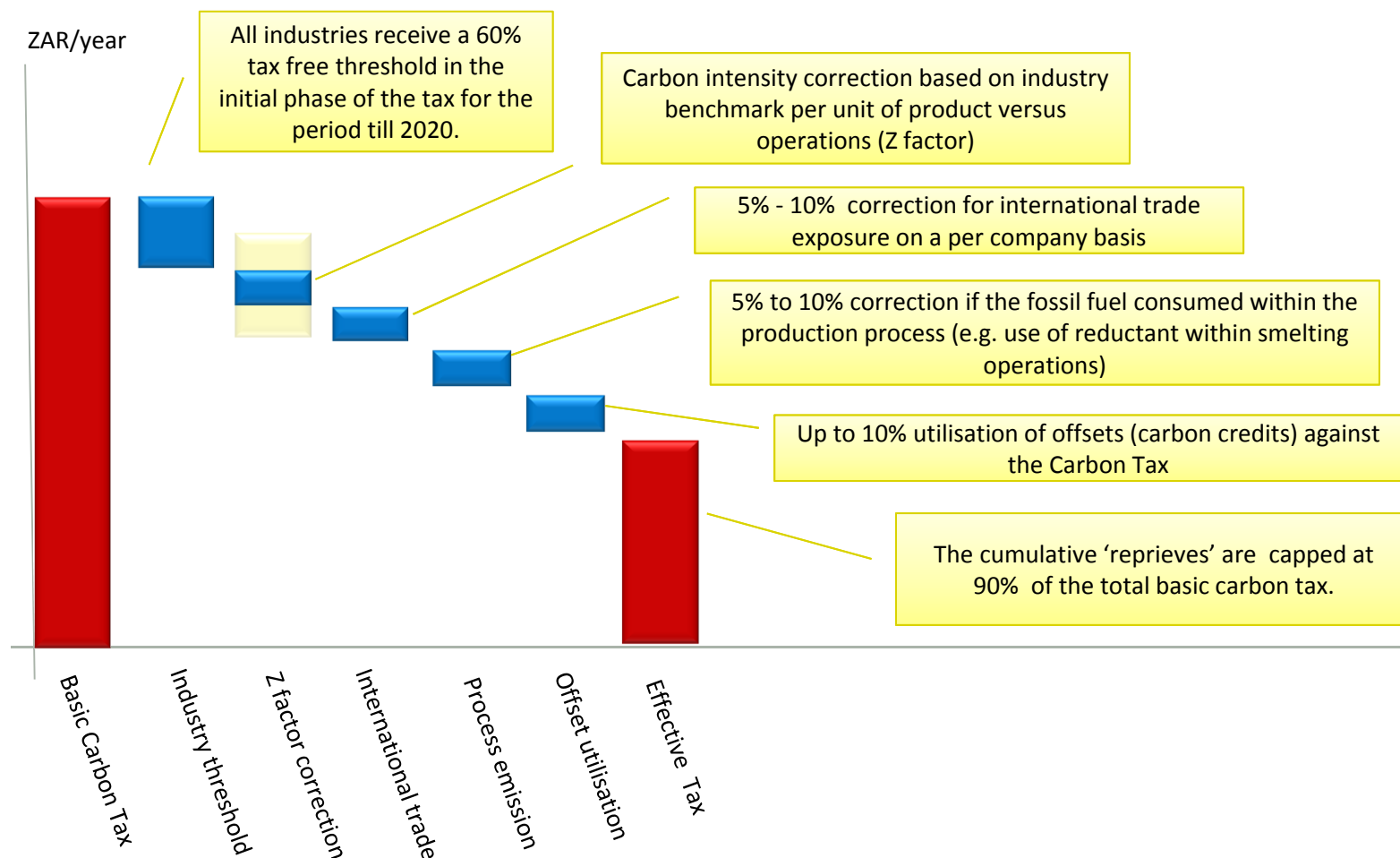
allowances (1)

- A **system of allowances** is proposed that would permit greater flexibility to reduce emissions, e.g., on the margin via investments outside a particular sector
- An across the board basic 60% **tax free threshold** of actual emissions below which the tax will not be payable
- Additional 10 % relief for certain sectors to allow for technical or structural limitations to reduce emissions (**process emissions**)
- Up to an additional 10 % relief for **emissions intensive and trade intensive** sectors to take into account the risk of carbon leakage and competitiveness concerns, e.g. iron and steel, cement, glass

allowances (2)

- Emissions from the **agricultural and waste sectors will be exempt** during the first phase - complete exemption will be reviewed during the second phase.
- The electricity sector will qualify for a tax free threshold of up to 70 % during the first phase.
- Some sectors will be able to qualify for a tax free threshold of up to 90% during the first phase
- **Carbon offsets could be used by firms to reduce their carbon tax liability up to limits of 5 or 10 %, depending on the sector**

tax free thresholds (allowances)



Source: National Treasury, 2012 and EcoMetrix team analysis / slide prepared by EcoMetrix South Africa (Pty) Ltd

Sector ¹	Phase 1 Basic Tax Free Threshold	Maximum trade exposure allowance	Process Emission Allowance	Total	Maximum offset percentage
Electricity	60%	-	-	60%	10%
Petroleum (coal to liquid)	60%	10%	-	70%	10%
Petroleum - oil refinery	60%	10%	-	70%	10%
Iron & steel	60%	10%	10%	80%	5%
Aluminium	60%	10%	10%	80%	5%
Cement	60%	10%	10%	80%	5%
Glass & ceramics	60%	10%	10%	80%	5%
Chemicals	60%	10%	10%	80%	5%
Pulp & paper	60%	10%	-	70%	10%
Sugar	60%	10%	-	70%	10%
Agriculture, Forestry and Land Use	60%	-	40%	100%	10%
Waste	60%	-	40%	100%	-
Fugitive emissions: Coal mining	60%	10%	10%	80%	5%
Other	60%	10%	-	70%	10%

carbon offsets – design considerations (1)

- The carbon tax, as proposed, has the potential to be a hybrid tax and trade scheme (if successfully implemented)
- Four offsets standards proposed for use, including:
 - the CDM
 - CDM Gold Standard
 - the Verified Carbon Standard
 - Climate Community and Biodiversity Standard

carbon offsets – design considerations (2)

- Positive list of **projects eligible** to provide carbon offsets in the scheme
- **Ineligible projects** include:
 - “Projects benefiting from... government incentives should also be excluded”:
 - Currently excludes REIPPPP projects
 - Specifically excluded projects, e.g., industrial gas:
 - Currently excludes the majority of CERs issues to South African CDM projects
 - CERs from KP1:
 - Durban landfill gas projects (800 CERs in EB Holding Account)

carbon offsets – design considerations (3)

- Link between the relevant registry and the South African scheme? (Voluntary cancellation?)
- Who will manage the scheme? (DNA?)
- Determination of tax exposure (auditing of input not measurement of output at point-source)
- Tax eligible entities? (Only broad sectors, to date)
- How will the South African Revenue Services interact with the tax?

offset supply and demand

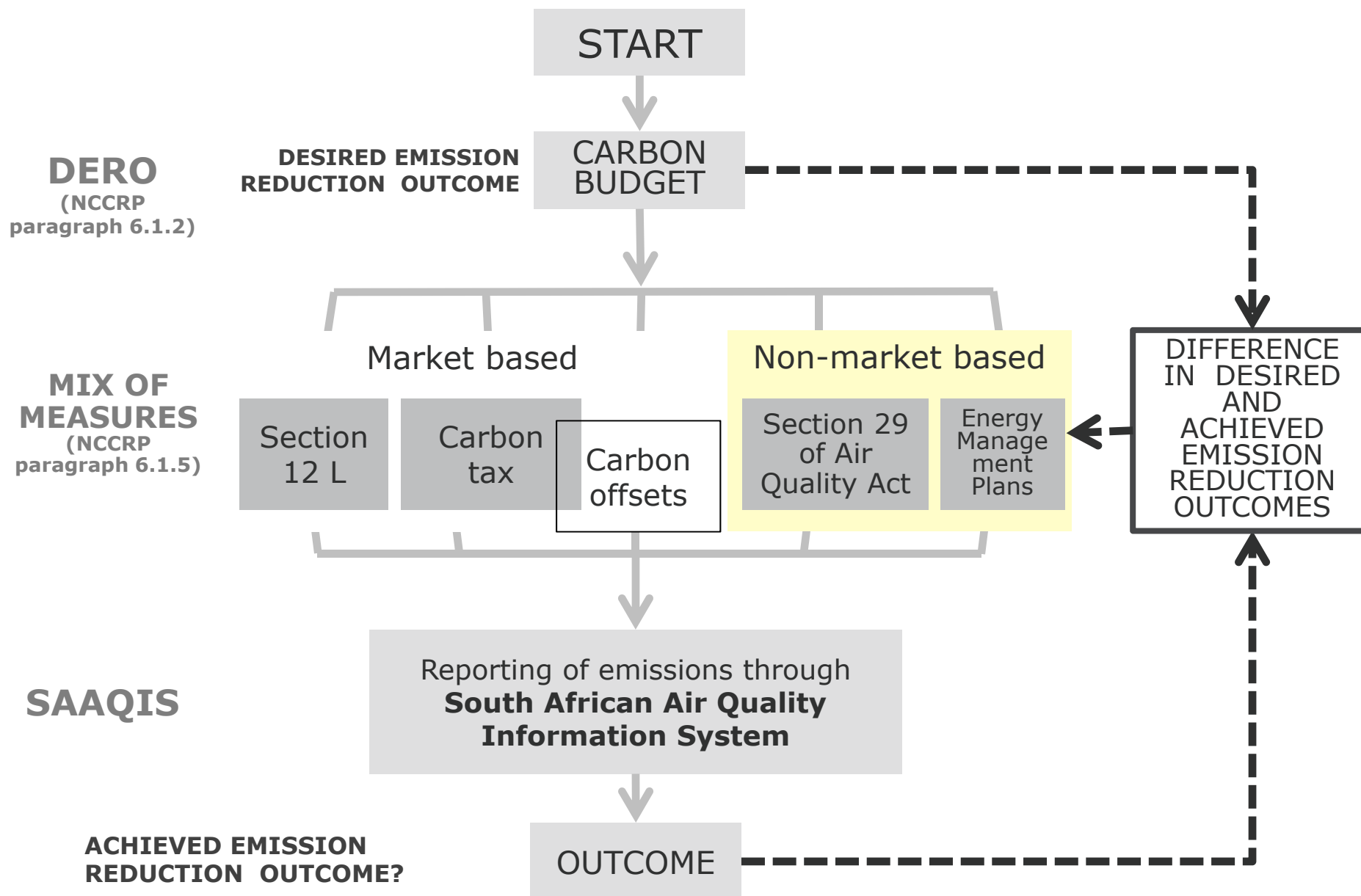
- Current eligibility criteria:
 - Supply = 13 MtCO₂e per annum
 - Falls short of the anticipated low end range of the demand at 18 MtCO₂e per annum.
- Extended eligibility criteria (conceptual):
 - Supply = 25 MtCO₂e per annum.
 - Falls within the range of anticipated demand for carbon offsets

(Supply and Demand Modelling in the South African Carbon Offset Scheme, Promethium Carbon (Pty) Ltd, September 2014)

Dynamics in the economy (1)

- Climate change policy development dynamics
 - Complexity and uncertainty
 - Business attitude to complexity and uncertainty
 - Apparent de-linking between Treasury process on carbon tax and DEA process on climate change policy development

Representation of the dynamics in South African climate change policy development



Dynamics in the economy (2)

– Business view of the carbon tax:

- Simply a revenue-raising exercise (most extreme)
- Negative impact on industry (most extreme)
- Have opposed and will continue to oppose (most extreme)
- Will continue to engage on design
- How far will business go in opposing implementation?

Dynamics in the economy (3)

– Treasury view of the carbon tax:

- Not the national custodian of the domestic carbon market
- General support for carbon pricing in the economy
- Other (easier) means if simply a revenue-raising exercise
- Determined to continue, despite apparent de-linking of carbon tax from DEA climate change policy development

way forward

- Davis Committee on Tax Reform – calling for input into carbon tax design
 - Repetition of elaborate stakeholder process that has occurred to date (three rounds, so far)
- Draft legislation by mid-2016, leading to:
 - Parliamentary stakeholder process
 - Representations to Parliamentary committees

thank you

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