South Africa

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Main climate regulations, policies and authorities

1 International agreements

Do any international agreements or regulations on climate matters apply in your country?

South Africa ratified the United Nations Framework Convention on Climate Change (UNFCCC) in August 1997 and acceded to the Kyoto Protocol in July 2002.

As South Africa is classified as a non-annex I country, it is not required to meet targets and timetables for emission reductions in the Kyoto Protocol's first stage of commitment, ending in 2012. Heavier burdens are placed on developed nations (or annex I countries) than on developing countries under the principle of 'common but differentiated responsibilities'.

Despite being classified as a non-annex I country, at the Conference of Parties in Copenhagen in 2010 South Africa committed to lowering its GHG emissions to 34 per cent below current expected levels by 2020 and 42 per cent below current trends by 2025. This commitment is conditional on a fair, ambitious and effective international climate change agreement being reached and financial and technological support being provided by developed countries.

The UNFCCC and Kyoto Protocol provides for several flexible mechanisms to enable developed countries, with emission-reduction commitments, to partially meet their commitments through investment in other countries. If a new protocol is concluded at the Conference of Parties meeting in Durban, South Africa in December 2011 it is uncertain whether these mechanisms will be retained.

The clean development mechanism (CDM) (article 12 of the Protocol) enables developed countries or private companies to invest in GHG reduction projects in developing nations, thus earning saleable certified emission reduction credits (CERs), each equivalent to one tonne of CO_2. CDM project financers can acquire these CERs to sell to signatory countries or private parties with emission targets or commitments.

The CDM's purpose is to contribute to the UNFCCC's objective of stabilising GHGs. CDMs assist non-annex I countries in achieving development priorities, sustainability goals and environmentally safe technology transfer. It also assists annex I countries to meet Kyoto targets at lower costs.

South Africa has established a designated national authority (DNA) under the Department of Energy (DoE) to consider and approve CDM applications that will result in GHG emission reductions. This process is governed by regulations published under the National Environmental Management Act 1998 (the CDM Regulations).

South Africa produces significant CO_2 emissions and is part of the G5 group (countries with emerging economies). While South Africa has the 28th highest GDP in the world (as at 2010), it faces immense socio-economic barriers, with a 25.7 per cent unemployment rate and inequitable distributions of wealth. South Africa may be classified as an annex I country in the next round of commitments.

2 International regulations and national regulatory policies

How are the regulatory policies of your country affected by international regulations on climate matters?

As South Africa has no emission reduction obligations under the Kyoto Protocol, it is not directly affected by international climate change regulations. It has however shown its commitment to the Kyoto Protocol and the negotiations of a new protocol. A number of policy and legislative instruments have been put in place regarding emission limits and tax incentives to reduce emissions.

The National Climate Change Response Green Paper (NCCRGP) published by the Department of Environmental Affairs (DEA) states that South Africa's climate change response objectives include making a fair contribution to the global effort to stabilise GHG concentrations in the atmosphere and incorporates the principles contained in the UNFCCC.

Addressing climate change imperatives while supporting economic growth was also identified as one of the main goals of South Africa's energy policy in the Outcome of the National Energy Summit (September 2007), the Energy Efficiency Strategy Reviewed (May 2009) and the Resolutions of the Renewable Energy Summit (March 2009) and the Climate Change Policy Roundtable (May 2010).

3 Main national regulatory policies

Outline recent government policy on climate matters.

South Africa is developing its climate change policy. Certain policies and strategy documents have been published, which will guide future legislative developments. These policies are outlined below.

Integrated Resource Plan 2010–2030 (IRP 2010)

The IRP 2010 was published under the Electricity Regulation Act (2006) in 2010. It envisages new power being generated from a number of generation sources, specifically:

- nuclear: 9.6 gigawatts;
- coal: 6.3 gigawatts;
- wind power: 8.4 gigawatts;
- solar photovoltaic: 8.4 gigawatts;
- concentrated solar: 1 gigawatt; and
- other generation sources: 8.9 gigawatts.

The IRP 2010 is expected to be continuously updated by the DoE. It includes revised balanced scenarios for new capacity development, while considering key constraints and risks (such as the reduction of carbon emissions; new technology uncertainties; water usage; security of supply; regional development and integration; and localisation and job creation).

National Climate Change Response Green Paper

The NCCRGP commits South Africa's government to actively engage in international climate change negotiations, to secure an agreement to limit global temperature rise to 2°C. Adapting to and managing

unavoidable climate change impacts through interventions that build and sustain South Africa's social, economic and environmental resilience is an objective of the policy.

It sets out strategies for various 'key sectors' that must contribute significantly to climate change mitigation. The energy, industry and transport sectors will require the most adaptation, while the water, agriculture and health sectors are also identified as important.

These strategies include the roll-out of renewable energy; escalating carbon tax; exploring nuclear energy potential; increasing energy efficiency and reducing GHG emissions. By 2014 every government department and state-owned enterprise must ensure all policies, strategies, legislation and plans falling within its jurisdiction or sphere of influence are fully aligned with the NCCRGP.

A National Climate Change Response White Paper is due for release shortly.

A framework for considering market-based instruments to support environmental fiscal reform in South Africa (the draft MBI policy) (April 2006)

In this draft policy the National Treasury assessed and recommended market-based instruments (MBIs), specifically environmentally related taxes (ERT) and charges.

Several MBIs have been introduced. South Africa's commitment to address climate change through MBIs was also reiterated in the minister of finance's budget speech in February 2011. Funding amounting to 800 million rand has been allocated over the next three years for 'green economy' initiatives.

The budget speech indicated that the government intends to enact new laws, incorporating climate change MBIs proposed in the draft MBI policy to encourage energy efficiency and reduce harmful emissions. These include:

- investment incentives for energy efficient equipment, by introducing an additional depreciation allowance;
- favourable tax treatment on income from primary CER sale; and
- increases from 1 October 2011 in the air passenger departure tax on flights to international destinations.

Certain laws incorporating climate change MBIs have already been enacted, including excise taxes on new motor vehicles that are not energy efficient.

Carbon Tax Discussion Paper (2010)

This policy, published by the National Treasury, favours the gradual phasing in of a carbon tax that is imposed directly on all measured emissions of carbon dioxide.

The White Paper on Renewable Energy (2003)

A target of 10,000GWhr for renewable energy by 2013 is set in this policy.

The White Paper on Energy Policy (1998)

This policy recognises climate change as a factor in the development of energy policy.

4 Main national legislation

Identify the main national laws and regulations on climate matters.

Besides the CDM Regulations, no national legislation or regulations directly pertaining to climate change have been enacted. Other legislation indirectly addresses climate change.

The National Energy Act's (2008) (the Energy Act) objectives include promoting diverse energy supplies from various sources. The Electricity Regulation Act (2006) also has among its objectives diverse energy sources and energy efficiency; the Electricity Regulations on New Generation Capacity were promulgated in terms of this Act in 2011, which will apply, inter alia, to new renewable energy generation projects.

Although not specifically focused on GHGs, the National Environmental Management: Air Quality Act (the Air Quality Act) governs the licensing of emission-producing activities and information gathering on air quality.

5 National regulatory authorities

Identify the national regulatory authorities responsible for climate regulation and its implementation and administration. Outline their areas of competence.

Various government departments are tasked with developing climate change strategies and policies, either directly or indirectly, and promoting renewable energy.

The DEA is the authority for climate change issues, with an air quality management and climate change branch. It is mandated to develop and implement legislation and other measures to protect citizens' rights to atmospheric quality not harmful to health and well-being. It drafted the NCCRGP and is leading the policy implementation process.

The DoE and National Treasury have presently taken the lead in fulfilling South Africa's objectives of increasing renewable energy generation, through the Renewable Energy Independent Power Producers Procurement Programme (REIPPP). The DoE and its branches are also responsible for energy efficiency, energy planning (including renewable energy) and capital grants to renewable energy projects.

The DNA regulates CDM applications.

In terms of the Energy Act, the South African National Energy Institute has been created. Its functions are, among others, to increase energy efficiency throughout the economy; optimise utilisation of finite energy resources; conduct energy research and implement technology development.

There is also a South African Tradable Renewable Energy Certificate Issuing Body (SATIB), being formed by the South African National Tradable Renewable Energy Certificate Team, under the DoE.

The National Treasury was mandated to draft the MBI policy. The National Energy Regulator of South Africa (NERSA) regulates electricity and issues licences to renewable energy producers supplying to the electricity grid. The National Energy Efficiency Agency, a Central Energy Fund (Pty) Ltd subsidiary, recommends energy efficiency and demand-side management projects; addresses growing energy demand; stimulates energy inefficient areas and undertakes awareness campaigns.

The government has also formed an Intergovernmental Committee on Climate Change in order to operationalise cooperative governance in the area of climate change.

General national climate matters

6 National emissions and limits

What are the main sources of emissions of greenhouse gases (or other regulated emissions) in your country and the quantities of emissions from those sources? Describe any limitation or reduction obligations. Do they apply to private parties in your country?

The NCCRGP indicates the main sources of emissions are as follows:

- energy: 346,535GG, (including fuel combustion) by:
  - energy industries: 213,304GG;
  - transport: 39,348GG;
  - manufacturing and construction: 39,029GG;
  - Industrial Processes and Product Use: 61,469GG; and
  - Agriculture, Forestry and Land Use: 28,592GG.

Due to the absence of GHG reduction targets and timetables South Africa has no capping or limitation or reduction obligations on emission volumes that domestic sectors produce.

7 National emission projects

Describe any major emission reduction projects implemented or to be implemented in your country. Describe any similar projects in other countries involving the participation of government authorities or private parties from your country.

The main emission reduction projects have previously been CDMs. 228 CDM projects are presently submitted to the DNA – 189 project idea notes (PINs) and 39 project design documents (PDDs). Out of 33 PDDs, 20 are registered with the CDM executive board (seven issued with CERs) and 19 are at different project cycle stages.

These projects cover biofuels, energy efficiency, waste management, cogeneration, fuel switching and hydropower and include the manufacturing, mining, agriculture, energy, waste and residential sectors.

REIPPP Programme

A request for proposals (RFP) by independent power producers for new generation capacity was made by the DoE. Successful bidders will sign a power purchase agreement with Eskom Holdings Ltd, South Africa's sole electricity supplier. Bid replies must be submitted before 4 November 2011, and on subsequent dates should the allocations below not be met in the first round of bids.

The RFP has allocated generation capacities to the following renewable technologies:

- onshore wind: 1,850MW;
- concentrated solar power: 200MW;
- solar photovoltaic: 1,450MW;
- biomass: 12.5MW;
- landfill gas: 25MW; and
- small hydro (less than or equal to 10MW): 75 MW.

Domestic climate sector

8 Domestic climate sector

Describe the main commercial aspects of the climate sector in your country, including any related government policies.

Commercial aspects in the South African climate sector have increased significantly in 2011, with the DoE's RFP, which has attracted worldwide investment in renewable energy project companies that are bidding.

The other main potential commercial application in the climate sector is CDMs. Few CDMs have, however, been registered in South Africa. Of the 3,511 CDMs registered worldwide, only 72 are in Africa (2.05 per cent) and 20 in South Africa. These potential commercial benefits have therefore not been realised.

General emissions regulation

9 Regulation of emissions

Do any obligations for emission limitation, reduction or removal apply to your country and private parties in your country? If so, describe the main obligations.

As a non-annex I country, South Africa and domestic private parties presently have no Kyoto Protocol or international obligations relating to emission limitation, reduction or removal in the first stage of commitment.

The minister of energy has signed a voluntary Energy Efficiency Accord with over 32 large industrial consumers and voluntary energy efficiency standards have been compiled. The Energy Efficiency Strategy sets a national target for energy savings of at least 12 per cent by 2015, broken down into sectoral targets. The national target is voluntary, but sub-sectoral targets may become mandatory.

10 Emission permits or approvals

Are there any requirements for obtaining emission permits or approvals? If so, describe the main requirements.

Emission permits or approvals are not required.

The Air Quality Act governs air emissions generally and has licensing requirements for air emission activities listed under it. These include activities emitting indirect GHGs such as SO_2, NOx and CO_2, as well as hydrogen chloride, hydrogen fluoride, dioxins and furans.

11 Oversight of emissions

How are emissions monitored, reported and verified?

National Ambient Air Quality Standards were published under the Air Quality Act in March 2010, identifying substances that are a threat to health, well-being or the environment and include indirect GHGs. These standards require reduction within specified time frames for each listed substance in respect of its specific concentration.

Lists of activities and associated minimum emission standards were published in terms of the Air Quality Act, for which atmospheric emissions licences are required, and which also regulates how emissions should be measured; undertaking compliance monitoring; and annual reporting to the licensing authority. New plants must comply with the minimum emission standards from 31 March 2010. Existing plants must comply with the minimum emission standards within five years for existing plants and within 10 years for new plants.

Emission allowances (or similar emission instruments)

12 Regime

Is there an emission allowance regime (or similar regime) in your country? How does it operate?

There is no emission allowance regime.

13 Registration

Are there any emission allowance registries in your country? How are they administered?

Other than the DNA, which registers CDM projects, there is no domestic register.

14 Obtaining, possessing and using emission allowances

What are the requirements for obtaining emission allowances? How are allowances held, cancelled, surrendered and transferred?

Not applicable.

Trading of emission allowances (or similar emission instruments)

15 Emission allowances trading

What emission trading systems or schemes are applied in your country?

Emission trading

The Kyoto Protocol's International Emissions Trading is limited to countries with targets and timetable commitments.

South Africa, therefore, has no capping of domestic industries emissions or any formal emission trading, and no regulatory or voluntary 'cap-and-trade' market exists, as in many annex I nations. The Johannesburg Stock Exchange trades carbon credits, but the carbon market is in its infancy.

South Africa's only carbon trading is through derivatives. In 2005 Sterling Waterford Holdings released a carbon credit derivative and carbon investment product. The notes are bought and sold as derivatives, with carbon credits as the underlying security. The carbon credit note (CCN) is a pre-paid forward contract, being a fully underwritten obligation of the issuer to deliver either a carbon credit or cash equivalent on the delivery date. It is fully tradable and saleable. Delivery of the carbon credits is obtained by contracting with various countries through established intermediaries. Investors do not have to participate directly in CDMs.

The company also released a fixed-interest carbon credit-linked instrument – the collateralised enhanced yield certificate. Sterling Waterford Holdings is presently marketing a carbon note release to European investors and hedge funds and looking to diversify the market with hybrid products based on CCNs, such as high-yield bonds. Sterling Waterford is the issuer of the second listed carbon credit note after a successful listing of the first carbon credit note in 2005.

There have been no other such derivative listings by other investors.

Trading CERs through CDMs

As developing countries have not agreed to emissions reduction targets, they presently only participate in international emission trade through CERs generated from CDMs. In return for CDM investments, the CDM Executive Board issues CERs, acquired by developed-nation investors to be used alongside other Kyoto credits to satisfy their emission limitation obligations and reduction commitments. CERs can also be transferred between developed nations and their public and private enterprises requiring them for compliance, and traded on compliance markets.

Under the CDM Regulations, CERs constitute real property rights and are transferable. Once CDMs are registered, resultant CERs can be bought, sold, traded, transferred or delivered, even before projects begin. The South African requirements for eligibility of a CDM are based on article 12 of the Kyoto Protocol.

16 Trading agreements

Are any standard agreements on emissions trading used in your country? If so, describe their main features and provisions.

There are no standard agreements but parties have the freedom to contract as they choose in South Africa. Most emissions trading agreements that have been drafted for other jurisdictions can be made applicable in South Africa with minimal amendments.

Sectoral regulation

17 Energy production, use and efficiency

Give details of (non-renewable) energy production and consumption in your country, including types and quantities of energy, and related emissions. Describe any regulations on emissions in this regard. Describe any obligations and applicable rules for limitation or reduction of energy use or for energy efficiency improvement that apply to your country and private parties in your country. Describe the main features and provisions of any scheme for registration of energy savings or energy efficiency improvements and for trade of related accounting units or credits in your country.

Production and consumption of non renewable energy

Coal currently dominates South Africa's indigenous energy resource base, with the world's sixth-largest coal reserves providing 77 per cent of primary energy needs. Most of South Africa's liquid fuel requirements are imported in the form of crude oil. It has a highly developed synthetic fuel industry, largely sourced from coal. South Africa's economy consists of large-scale, energy intensive primary sector industries, with energy intensity at above-average levels (11th globally). Its energy sector is economically critical, contributing about 15 per cent of its GDP, as in 2009. Due to large coal deposits, South Africa is one of the cheapest electricity suppliers in the world.

In 2009, DoE statistics indicated that non-renewable energy sources include coal (70 per cent); oil (13 per cent); gas (3 per cent); and nuclear (3 per cent). 2008 IEA statistics reflect the following non-renewable energy supply and use in terms of total primary energy supply (TPES) and total final consumption (TFC) in thousand tonnes of oil equivalent (ktoe) on a net calorific value basis:

- Coal and peat:
  - TPES: 95,832.
  - TFC: 14,252.
- Crude oil:
  - TPES: 20,487.
  - TFC: 0.
- Oil products:
  - TPES: -3,218.
  - TFC: 20,266.
- Gas:
  - TPES: 4,163.
  - TFC: 1, 936.
- Nuclear:
  - TPES: 3,389.
  - TFC: 0.

Regulations on emissions

There are currently no international regulatory obligations that apply to South Africa.

The Air Quality Act's licensing requirements for listed activities and minimum emission standards published under the Air Quality Act, which include reduction obligations on indirect GHGs, regulates various sectors, including non-renewable energy production for electricity generation from combustion installations utilising solid and liquid fuel, solid biomass and gas. Activities involving petroleum, carbonisation and coal gasification are also regulated.

Limitation or reduction of energy use and energy efficiency improvement

South Africa has no international obligations to reduce energy use or implement energy efficiency improvement. Save for the reduction obligations published in respect of the Air Quality Act, there are also no domestic obligations in respect of the reduction of GHGs at the moment.

Legislation has however been implemented and strategies published that promote reduction of energy use and energy efficiency.

The Energy Efficiency Strategy, published on 26 June 2009, sets national targets for energy savings of at least 12 per cent to be achieved by 2015. It plans to achieve energy efficiency through enabling instruments and interventions, including economic and legislative measures; information activities; energy labels; energy performance standards; energy audits and management; and promotion of efficient technologies.

The Energy Act is the enabling legislation to ensure availability of diverse energy resources and promote energy efficiency and has incorporated the objectives of energy efficiency from the Energy Efficiency Strategy. It provides for regulations to be published under it to meet these objectives.

Energy Efficiency and Demand Side Management (EEDSM) is included as an objective in the IRP 2010. It is recognised that by increasing EEDSM the carbon emission target can be reached while reducing the need for additional capacity.

Schemes for registration of energy savings and energy efficiency

The Energy Act mandates the DoE to provide for energy planning and measures for furnishing data relating to energy demand, supply and generation. The South African National Energy Development Institute (SANEDI) was also established under the Energy Act

of 2008 to conduct national energy research and development and undertake energy efficiency measures, aligned with the objectives of the Energy Act.

Regulations on the allowance for energy efficiency savings were published on 16 September 2011 under the Energy Act. These Regulations provide for the procedures of claiming allowances from SANEDI; the annual registration with SANEDI in respect of energy efficiency savings and the submission of reports for purposes of evaluation.

Schemes for trade of related accounting units or credits

South Africa has no international obligations or domestic schemes yet for such trade.

18 Other sectors

Describe, in general terms, any regulation on emissions in connection with other sectors.

South Africa has no international obligations to regulate emission in other sectors.

Save for the requirements under the Air Quality Act for listed emission activities, there is no domestic regulation of other sectors.

The Air Quality Act is applicable to certain emission activities from the following industries: metallurgical; mineral processing; chemical production; waste incineration; pulp and paper manufacturing and animal matter processing, which could result in the emissions of, inter alia, SO_2, NOx, CO_2 as indirect GHGs.

Renewable energy and carbon capture

19 Renewable energy consumption, policy and general regulation

Give details of the production and consumption of renewable energy in your country. What is the policy on renewable energy? Describe any obligations and applicable rules for renewable energy production or use that apply to your country and private parties in your country. Describe the main features and provisions of any scheme for registration of renewable energy production and use and for trade of related accounting units or credits in your country.

South Africa has high renewable energy potential, including abundant wind resources, among the highest solar radiation levels in the world (with the average daily solar radiation varying between 4.5 and 6.5kWh per m^2) and excellent potential for use of paper and pulp, bagasse and other biomass by-products. South Africa generally has low rainfall, limiting hydroelectric power generation.

These resources have been largely unexploited; however this is beginning to change with recent developments in the renewable energy sector.

Policies on renewable energy

Integrated Resource Plan for Electricity

As discussed above, while not a policy on renewable energy, the IRP 2010 plans to generate power from renewable energy sources. The use of renewable energy is likely to increase significantly with the RFP.

Present production and consumption of renewable energy

The 2008 IEA statistics reflect the following renewable energy supply and use in terms of total primary energy supply (TPES) and total final consumption (TFC) in thousand tonnes of oil equivalent (ktoe) on a net calorific value basis:

- Hydro:
  - TPES: 108.
  - TFC: 0.
- Geothermal, solar etc:
  - TPES: 55.
  - TFC: 50.
- Combustible renewable and waste:
  - TPES: 13,981.
  - TFC: 10,243.

White Paper on Renewable Energy (2003) and the Renewable Energy Summit

The White Paper sets a 10,000GW renewable energy target by 2013. It highlights technologies to be implemented first, based on commercialisation levels and natural resource availability, including sugar-cane bagasse for cogeneration; landfill gas extraction; mini-hydroelectric schemes and commercial and domestic solar heaters.

The Renewable Energy Summit 2009 reviewed the progress since the White Paper's approval. South Africa's potential competitive advantage in renewable energy was recognised as being the quickest option to addressing climate change. The National Energy Summit also committed to stimulating the renewable energy sector, fully exploring its role and implementing subsidies.

Obligations and applicable rules for renewable energy production or use

There are no general rules and obligations for renewable energy production or use. If renewable energy projects are obtained through a procurement process by government, such as the RFP, the project company would need to comply with the rules and obligations contained in the bid documentation (such as local shareholders, community upliftment and complying with qualification criteria, which includes land use requirements and obtaining consents from various authorities necessary for implementation of a project). The obligations in the standard power purchase, transmission and generation agreements contained in the bid documentation would also need to be complied with.

The requirements for specific renewable energy projects, in terms of licensing requirements and obtaining consents from the relevant authorities are discussed below.

Schemes for registration of renewable energy production and use and for trade of related accounting units or credits

Tradable renewable energy certificates can initially be obtained by registering a renewable energy generation as a renewable energy production device, which is done by completing the renewable energy declaration process. This will involve an inspection of the generation system under the auspices of the SATIB. As SATIB is still being formed, registration is being undertaken by suitably qualified energy consultancies and GreenX Energy maintains the central certificate register.

20 Wind energy

Describe, in general terms, any regulation of wind energy.

There are no specific regulations on wind energy, unless it is utilised to generate electricity onto the power grid under the REIPP Programme or otherwise. An application to generate electricity must then be submitted to NERSA, under the Electricity Generation Act 2006.

Responsibilities and obligations include licence obligations, such as reporting renewable energy volumes generated; monitoring and verification; and termination conditions for non-compliance. NERSA conducts verification and monitoring. Producers connecting to distribution and transmission systems must adhere to the South African Distribution and Grid Code respectively and submit annual renewable energy power generation reports to NERSA.

NEMA requires environmental authorisations for specified listed activities with certain thresholds, for which a environmental impact assessment or basic assessment may be a requirement before environmental authorisation will be granted. Relevant activities may include construction of facilities or infrastructure for generation, transmis-

sion or distribution of electricity; transformation of undeveloped land; vegetation clearance and construction of roads.

Other consents that may be necessary include water use licences, if water uses under the National Water Act are undertaken. Rezoning permission may be required. If agricultural land is to be subdivided for a wind project, consent from the minister of agriculture is required.

Consent from the Civil Aviation Authority is required for wind farms. Permits for removal or destruction of protected flora or relocation of fauna could also be required.

21 Solar energy

Describe, in general terms, any regulation of solar energy.

There are no specific regulations on solar energy unless it is utilised to generate electricity onto the power grid. The general regulations and consents mentioned in respect of wind energy may apply. Water use licences may be required for water uses, such as water used for cooling or the discharge of waste water from the cleaning of the solar panels into the environment.

22 Hydropower, geothermal, wave and tidal energy

Describe, in general terms, any regulation of hydropower, geothermal, wave or tidal energy.

There are no specific regulations on these energy sources, unless they are being utilised to generate electricity onto the power grid.

Geothermal, wave and tidal energy projects have not yet been introduced into South Africa and have not been included in the RFP.

Hydropower

An environmental authorisation may be necessary. The National Water Act 1998 would also require a water licence.

Tidal and wave energy

Environmental authorisations may be necessary and a water licence would possibly also be required.

Coastal leases and concessions over coastal public property would be required in terms of the National Environmental Management: Integrated Coastal Management Act 2009 (the Coastal Act).

Geothermal energy

An environmental authorisation may be necessary.

23 Waste-to-energy

Describe, in general terms, any regulation of production of energy based on waste.

There are no specific regulations on this form of energy, unless it generates electricity onto the power grid, which requires the licences specified above. An environmental authorisation would likely be required.

In addition the National Environmental Management: Waste Act 2008 requires licences for various listed activities. Several of these activities relate to waste energy plants, should their capacity be greater than specified in the Waste Act.

24 Biofuels

Describe, in general terms, any regulation of biofuels.

Biofuel producers may require a licence from the petroleum products controller under the Petroleum Products Act 1977 for manufacturing, wholesaling or retailing petroleum products, and also a site licence.

Additionally, environmental authorisations, atmospheric emissions licence, water use licences and waste management licences may also be required, depending on the nature of the project.

25 Carbon capture and storage

Describe, in general terms, any policy on and regulation of carbon capture and storage.

CCS is not specifically regulated in South Africa. However, the nature of the activity for the capturing and storage of the carbon will dictate whether an environmental authorisation, waste management licence, atmospheric emissions licence or water use licence would be required.

Climate matters in transactions

26 Climate matters in M&A transactions

What are the main climate matters and regulations to consider in M&A transactions and other transactions?

The main climate matters and regulations to consider in M&A transactions and other transactions are:

- South Africa's status as a non-annex I country;
- the DNA Regulations, any CDM projects registered, the transaction's impact on such projects and similarly the impact on any CERs;
- any licences issued by NERSA for electricity generation;
- any environmental authorisations, atmospheric emissions licence, waste management licences and water use licences required;
- the Voluntary Energy Efficiency Accord, signed by 40 large industrial consumers of energy and the voluntary energy efficiency standards;
- qualification criteria under a government renewable energy procurement programmes, such as the RFP; and
- South Africa's Integrated Resource Plan, to ascertain whether a type of renewable energy is included.

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