



## Under2 MOU ANNEXURE - WESTERN CAPE

The Western Cape is situated on the South Western tip of the African continent and is one of nine provinces in South Africa. With 11.3% of the national population, more than 6.29 million people live in the Western Cape on 129 370 km<sup>2</sup> of land<sup>1</sup>. The GDP for the Western Cape was R375 781 million in 2014, with the services sectors, agriculture, construction and manufacturing being the predominant contributing sectors.

The Western Cape Government (WCG) has acknowledged climate change as a major threat and the transition to a low carbon economy and an economy and society that is resilient to climate change have been included across its strategic goals.

The Western Cape has adopted a two-pronged (yet integrated) approach to address climate change in the Western Cape Climate Change Response Strategy (2014):

- **Adaptation:** to reduce the climate vulnerability and develop the adaptive capacity of the Western Cape's economy, its people, its ecosystem and critical infrastructure in a manner that simultaneously addresses the province's socio economic and environmental goals.
- **Mitigation:** to contribute to national and global efforts to significantly reduce greenhouse gases (GHG) and build a sustainable low carbon economy which simultaneously addresses the need for economic growth, job creation and improving socio economic conditions.

The Strategy does not include targets but a short term (2019) energy target has been set as part of the Western Cape Government's Energy Security Game Changer: *10% MW reduction to national energy supply over the next three years generated through alternative low carbon supply and energy efficiency measures*. The Strategy is currently being reviewed and a process to develop relevant targets and reporting methodologies will be included as part of the review process. The next iteration of the Western Cape Climate Change Response Strategy will be completed in 2018.

The Strategy highlights nine focus areas for responding to climate change; each of which has a number of priority programmes identified to direct the response:

1. Energy Efficiency
2. Renewable Energy
3. Built Environment – critical infrastructure, disaster management, integrated waste management, human settlements

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<sup>1</sup> Western Cape Government, Provincial Economic Review and Outlook (2016)

4. Sustainable transport
5. Water security and efficiency
6. Biodiversity and ecosystem goods and services
7. Coastal and estuary management
8. Food security
9. Healthy communities.

The mitigation agenda in the Western Cape is predominantly focussed on the energy sector which is the main generator of GHGs in South Africa<sup>2</sup>. The WCG has concluded two energy consumption and CO<sub>2</sub> emissions data collection exercises in order to understand and track the emissions profile for the energy sector in the Western Cape. These were undertaken in 2012 (based on 2009 data) and in 2015 (based on 2012 data). A third data collection exercise is currently being finalised (the total figures are reported on in the table below). There is currently not enough data to make any statements about trends<sup>3</sup>.

	Unit of Measure	2009	2012	2015
Total energy consumption	GJ	292 342 004	276 333 250	316 251 814
Total energy related GHG emissions	tCO <sub>2</sub> e	38 532 296	36 345 753	40 779 761

The Western Cape Government has also completed a Climate Change Mitigation Scenarios exercise for the Energy Sector (2015) which identified 100 supply and demand side mitigation measures for the energy sector in order to drive the reduction of emissions associated with energy use in key sectors. A set of scenarios were used to model the uptake of these mitigation measures. The analysis reflected that the largest gains in terms of mitigation resides in the power generation sector, where the measures are associated with replacing coal-fired power plants with renewable energy plants and natural gas fired plants. It should be noted that the electricity generation mandate does not exist with the provincial/regional sphere of government in South Africa, which does limit our ability to influence the energy generation profile of the national grid.

The current mitigation priority programmes as highlighted in the Western Cape Climate Change Response Strategy, include:

- Implementation of build energy efficiency programmes and awareness raising, including improved energy efficiency in WCGs own building stock;
- Promotion and rollout of solar water heaters (both low and high pressures systems);
- Development of the renewable energy economy in the Western Cape in terms of both the appropriate placement of utility scale renewable energy generation as well as manufacturing opportunities;
- Development of opportunities around small-scale embedded generation;

<sup>2</sup> The National GHG Inventory (2000 – 2010) attributes 85% of national GHG emissions to the energy sector (a proportional breakdown is not available)

<sup>3</sup> There have been some changes in the methodology of calculating the figures of some fuels, in particular primary coal, due to the inconsistent availability of data.

- Development of waste-to-energy opportunities for both municipal and private (industrial and commercial) waste systems;
- The development of waste characterisation profiles for municipalities in order to understand the waste sectors contribution to the emissions profile in the Western Cape;
- Promotion of the waste economy and identification of opportunities to reduce waste going to landfill;
- The promotion of public and non-motorised transport, including the development of appropriate infrastructure;
- Investigation of opportunities for alternative transport fuels, including biofuels;
- Awareness raising and behaviour change programmes; and
- Government vehicle fleet efficiency programmes.

The Western Cape Climate Change Response Strategy was developed as a coordinated climate change response and although there are certain focus areas that are more strongly focussed on mitigation or adaptation, the need for an integrated response has been identified.

There are also a number of adaptation responses identified in the Strategy document focussed on water, disaster management, biodiversity and ecosystem goods and services, coastal and estuary management, food security and agriculture and healthy communities. These focus areas are being driven by the lead departments with the Climate Change Directorate providing technical and coordination support where required.

The Western Cape Government understands that local authorities have a pivotal role to play in the implementation of climate change responses and implemented a Climate Change Municipal Support Programme in 2012. The Municipal Support Programme works with local authorities to development climate change response frameworks that are relevant and implementable in the local context.

The review of the strategy that is currently underway will see some changes to the focus areas and priority programmes in terms of the current priorities in the Western Cape and the sectors that are taking the responses forward.