

CITY OF CAPE TOWN ISIXEKO SASEKAPA STAD KAAPSTAD

Cape Town's Pathway to Net Zero Greenhouse Gas Emissions

Stephen Davis, C40 City Advisor, Energy & Climate Change Directorate

Seminar on Urban Metabolism in Policy and Practice | 9th May 2019

Making progress possible. Together.



Why climate action?





While the debate about the veracity of climate change is (mostly) over, there is still much resistance to change because of the way we frame "climate action". Low-carbon is a necessity but it is also an opportunity.



WHY CITIES CAN BE THE SOLUTION TO CLIMATE CHANGE.

City mayors are directly accountable to their constituents for their decisions, and are more nimble than state and national elected officials to take decisive action—often with immediate and impactful results. What our cities do individually and in unison to address climate change can set the agenda for communities and governments everywhere.

LOCAL ACTIONS CAN HAVE IMMEDIATE IMPACT AND ADD UP TO CREATE GLOBAL EFFECTS



How is the City of Cape Town tackling climate change?



Carbon Neutrality by 2050



Focussed Acceleration



12 key opportunities could deliver 90-100% of necessary emission reductions

C40 McKinsey&Company



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Shifting gears: from Energy2040 to Carbon Neutral 2050



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Envisioning a Carbon Neutral Cape Town





What does Carbon Neutral 2050 mean?

• **By 2050**: All of the activities that take place within our city (including all those activities that take place in our city which result in emissions elsewhere) result in zero carbon and other greenhouse gas emissions



Source: Deadline 2020 – Focused Acceleration Report

What needs to be done?

- Power our city with renewable energy
- Ensure all buildings (homes and businesses) are highly energy efficient
- Reduce our need to commute and to travel, and do so without using fossil fuels (petrol and diesel); public transport prioritised
 - Produce as little waste as possible, and re-use any waste produced

Note: system boundary considerations - pro's and cons of adopting a citywide focus



Stakeholder support and commitment

 The City cannot tackle climate change, and in particular carbon neutrality on its own. We will need to create the right conditions and an enabling environment for others to come to the party, be they local businesses, citizens, civil society groups, NGO's, academia, sector development agencies and provincial and national government.





Mainstreaming Carbon Neutral 2050 example: across CCT's spatial, land use and transport planning



Cape Town carbon neutrality - Partnerships





Bending the Emissions Trajectory



(Sector-based) emissions & current trend





Energy & Emissions Data (2012)



Consumption = Production - Exports + Imports

	Description	tCO ₂ e / capita
Sector-based (GPC) emissions = 6 tCO ₂ / capita	Bovine and other meat products	0.47
	Chemicals, rubber, plastics and machinery	0.65
Consumption-based emissions (COICOP) =	Electricity	1.11
	Construction	0.45
7.8 tCO ₂ / capita	Transport	0.89
Major contributors to this footprint are in the table alongside.	Public Admin, Defense, Education, Health	0.95
	Everything else	3.28
COCOD. Classification of Individual Consu	TOTAL 7.8 Source: C40 Cities Climate Leadership Group	
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COICOP: Classification of Individual Consumption According to Purpose GPC: Global Protocol for Community-Scale Greenhouse



Total consumption-based GHG emission account for Cape Town







Intended trajectory (current commitments & programmes)





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What initiatives are already underway?





Project examples





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SAFE AND LEGAL INSTALLATIONS OF ROOFTOP PHOTOVOLTAIC SYSTEMS COMMERCIAL AND RESIDENTIAL IN CAPE TOWN









Decarbonising the grid: Large scale renewable energy



CITY OF CAPE TOWN

26 FEBRUARY 2019

STATEMENT BY THE CITY'S MAYORAL COMMITTEE MEMBER FOR ENERGY AND CLIMATE CHANGE, COUNCILLOR PHINDILE MAXITI

City to petition court to allow electricity purchases from independent producers

Summary

- The City of Cape Town has instructed its advocate to request that the North Gauteng High Court treat the pending court matter between the City, the Minister of Energy, and the National Energy Regulator of South Africa (Nersa) as urgent
- This request aims to allow the City, and other municipalities across South Africa, to purchase energy from independent power producers (IPPs)
- The City is fighting for its right to buy cleaner energy directly from IPPs



Rooftop solar and energy efficiency



SAFE AND LEGAL INSTALLATIONS OF ROOFTOP PHOTOVOLTAIC SYSTEMS COMMERCIAL AND RESIDENTIAL - IN CAPE TOWN

If you are considering installing a rooftop photovoltaic (PV) system, but you are not sure how to do it safely and legally, these guidelines will help you to:



Make informed de about what type of PV system you are allowed to install.



ICH DION ele of desi . ing your PV system safely and lega



Ensure you have addressed all the key requirements re, during and after







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Creating a shared vision – communication & awareness raising





TOP WAYS TO HELP YOU SAVE ELECTRICITY AT HOME

Save 50% or more on your electricity. The more electricity you save, the more money you save. It's that simple. And with rising electricity tarills, the savings will only increase.



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Visit www.SavingElectricity.org.za.



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Making program paralitie. Reporter























CAPE TOWN COMMERCIAL SECTOR

A proud partnership of:



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EKAPA & Eskom



Also supported by Accelerate Cape Town, Cape Chamber of Commerce, Cape Peninsula University of Technology, Cape Town Partnership, many City Improvement Districts, Friedrich Naumann Foundation, Green Building Council SA, GreenCape, National Business Initiative and SA Council of Shopping Centres

Statistics.







Economic Benefits of the Solar Water Heater Programme:



Resource Efficient Development Criteria Enforcement of new National Building Regs EE provisions





POLICY





Ceilings and Solar Water Heaters for low income



Lwandle compact housing and SWHs



Energy Goods and Services & Small Business Development





Urban form and resource efficiency goals

Example of intensification and diversification of development along transit routes and nodes (TOD) - Voortrekker Corridor



Housing – well located, compact housing









Public Transport: Buses, trains, taxis, High Occupancy Lanes supported by non-motorised transport : bikes and walking





Waste: Recycling, Zero organic waste to landfill, waste-to-energy





Leading by example: Municipal operations



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Thank You

Making progress possible. Together.