

NS-305 - Industrial Energy Efficiency Improvement in South Africa

South Africa

NAMA for Recognition

A Overview

A.1 Party

South Africa

A.2 Title of Mitigation Action

Industrial Energy Efficiency Improvement in South Africa

A.3 Description of mitigation action

The project aims at contributing to a sustainable transformation of industrial energy usage practices in South Africa by putting the system of Energy Management Standards (EMS) in place and ensuring that industries in agro-processing, chemical and liquid fuels, mechanical engineering, automotive and mining industry use it. In order to achieve this goal, it is planned to stimulate the demand of Energy Efficient services through formulation and implementation of an enabling policy framework including a supportive financial mechanism for EE, creation of institutional capacity to implement the EMS, awareness raising, energy audits, and demonstration projects. It is also planned to support the supply of Energy Efficient services by building the institutional capacities to accredit, certify EMS compliance, and by training local trainers and consultants in EMS implementation and energy system optimization, as well as in energy management in the targeted sub-sectors.

A.4 Sector

- | | |
|---|---|
| <input type="checkbox"/> Energy supply | <input type="checkbox"/> Transport and its Infrastructure |
| <input type="checkbox"/> Residential and Commercial buildings | <input checked="" type="checkbox"/> Industry |
| | <input type="checkbox"/> Forestry |

A.5 Technology	<input type="checkbox"/> Agriculture
	<input type="checkbox"/> Waste management
	<input type="checkbox"/> Other <input type="text"/>
A.6 Type of action	<input type="checkbox"/> Bioenergy
	<input checked="" type="checkbox"/> Energy Efficiency
	<input type="checkbox"/> Hydropower
	<input type="checkbox"/> Wind Energy
	<input type="checkbox"/> Carbon Capture and Storage
	<input type="checkbox"/> Land fill gas collection
	<input type="checkbox"/> Other <input type="text"/>
A.7 Greenhouse gases covered by the action	<input checked="" type="checkbox"/> National/ Sectoral goal
	<input type="checkbox"/> Strategy
	<input checked="" type="checkbox"/> National/Sectoral policy or program
	<input type="checkbox"/> Other <input type="text"/>
A.7 Greenhouse gases covered by the action	<input checked="" type="checkbox"/> CO2
	<input type="checkbox"/> N2O
	<input type="checkbox"/> PFCs
	<input type="checkbox"/> Other <input type="text"/>

B National Implementing Entity

B.1.0 Name	UNIDO and NCPC-SA
B.1.1 Contact Person 1	James New
B.1.2 Address	Wagramer Str. 5, 1220 Vienna, Austria / Meiring Naude Street, Brummeria Pretoria, South Africa.
B.1.3 Phone	+43-1-26026-3641 or +27 82 779 2871
B.1.4 Email	J.NEW@unido.org
B.1.5 Contact Person 2	Alfred Hartzenburg
B.1.6 Address	
B.1.7 Phone	
B.1.8 Email	ahartzenburg@csir.co.za
B.1.9 Contact Person 3	
B.1.10 Address	
B.1.11 Phone	
B.1.12 Email	
B.1.13 Comments	

C Expected timeframe for the implementaion of the mitigation action

C.1	Number of years for completion	4
C.2	Expected start year of implementation	2010

D Currency

D.1	Used Currency	<input type="text" value="AED"/>
		Conversion to USD: 1

E Cost

E.1.1	Estimated full cost of preparation	606891
E.1.2	Comments on estimated full cost of preparation	ZAR14.00/USD

E.2.1 Estimated full cost of implementation	5275000
E.2.2 Comments on estimated full cost of implementation	The full project cost comprise a USD 3 357 000 contribution from the South African Government and a USD 1 928 000 contribution from the Government of Switzerland through SECO.
E.3.1 Estimated incremental cost of implementation	
E.3.2 Comments on estimated incremental cost of implementation	

F Estimated emission reductions

F.1 Amount	t.1.9
F.2 Unit	MtCO ₂ e
F.3 Additional information (e.g. if available, information on the methodological approach followed)	Project emission reduction calculations were based on numerous sources of power generation and industrial use CO ₂ e emission conversion rates from the USA, UK and RSA and corresponding fuels with similar Carbon and Oxygen levels were identified. Other sources applied in the determination of CO ₂ e emission factors were Energy Cybernetics in South Africa, the US Climate Registry Default Emission Factors released January 6 2012 and UNIDO Steam System Optimisation emission authored by Dr Greg Harrel, Riyaz Papar.

G Other indicators

G.1 Other indicators of implementation	<ul style="list-style-type: none"> • 2 119 GWh saved • R1.7 B in energy cost saved / avoided • 384 Industrial and commercial plants engaged • 82 Demonstration plants developed • 58 Case studies produced • 220 Training workshops conducted • 3 200 delegates trained • 155 National EnMS / ESO experts qualified • 53 National EnMS / ESO trainers produced • 40 Lead auditors qualified in ISO 50001
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H Other relevant information

H.1 Other relevant information including co-benefits for local sustainable development	Manufacturing production levels and employment restored, retained and increased.
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I Relevant National Policies strategies, plans and programmes and/or other mitigation action

I.1 Relevant National Policies	<ul style="list-style-type: none"> • National Development Plan • New Growth Path Framework • Industrial Policy Action Plan 2014/15 - 2016/17 • White Paper on the Energy Policy of the Republic of South Africa (1998) • National Energy Act (2008), Notice 259 relating to energy consumptions reporting and the submission of 5 year energy management plans to DoE. • Integrated resource plan (IRP) 2010 • National Energy Efficiency Strategy review 2 (2012) • National Energy Efficiency Action plan (2013) • Climate Change Response Policy White paper • Carbon tax discussion paper • Carbon tax offsets discussion paper
I.2 Link to other NAMAs	

J Attachments

J	Attachments	Title Description	
J.1	Attachment description	N/A	
J.2	File	<input type="text"/>	<input type="button" value="Browse..."/>