

CESU City Network comment to National Government:

How cities plan to assist in achieving National target of 1 million SWH's by 2014



CITY ENERGY SUPPORT UNIT

a south african sustainable energy and climate protection initiative

Output from the City Energy Support Unit workshop held in Cape Town on 25 February 2010, attended by line managers from the following cities:

Joburg (City Power, Finance), Tshwane (Building Management, Environmental), Cape Town (Environmental, Electricity), Ekurhuleni (Electricity), eThekweni (Energy Office), Nelson Mandela Bay (Building management), Sedibeng (Environmental), Sol Plaatje (Environmental)

Background on CESU, and its mandate/role

The City Energy Support Unit (CESU) unit is the formalisation of 12 years of a City sustainable energy networking programme (the SEED network). It was established after it was highlighted that Cities needed a national platform to come up with solutions to energy and climate issues that were common amongst them.

This City network has always functioned within the ambit of memoranda of understanding between the project co-ordinator (Sustainable Energy Africa) and the partner cities, and has been accountable to a project steering committee (PSC) made up of City line department managers and others including the South African Cities Network (SACN), SALGA, Enerkey and ICLEI.

CESU, like the SACN functions as a convening body. It is not a mandated voice of Local Government, but provides a forum which can bring forward the voice of Cities in the following areas:

- i) Bringing content and knowledge into policy discussions and development eg National SWH Strategy development*
- ii) To support SALGA to make official comment through providing them supportive information around city concerns*
- iii) To provide a convening power to national government and/or SALGA to bring together the cities on energy and climate related issues*

Purpose of this document

This document is a formal output of a CESU workshop held on 25th February 2010 in Cape Town, which focussed on **what approaches Cities are taking to assist in accelerating SWH implementation locally**. This document summarises City policy and targets for SWHs and highlights initiatives currently underway to achieve these. It then goes on to link these to the targets set in the National SWH Strategy. It also provides a call to national government to ensure that the EE legislation for new buildings meets its target of being promulgated by July 2010, and highlights some key areas of concern around the implementation of these targets.



City action plans and targets

Several South African Cities currently have Energy and Climate Change Strategies built into their policy framework. Within these strategies are action plans for SWH implementation and in some cases targets are included. A summary of these per city is provided below:

City Energy Strategies

Local Authority	Initiative	Proposed interventions	Targets
eThekweni Municipality	eThekweni Municipality Energy Strategy (2008 draft)	<ul style="list-style-type: none"> - all new housing stock to utilise SWH technology as a mandatory specification - establish an energy by-law to enable rapid roll-out and deployment of SWH systems throughout the eThekweni municipality area - short-list and recommend various financing options per income group. - the programme would initially focus on retrofitting existing formal housing. - these financed solutions to end users, provided through low interest loans from the French international development bank -SWH standards to be formalised and adopted. Ongoing liaison with SABS regarding mandatory standards. - ensure maximum uptake of SWHs in public buildings where technically viable 	<p>1. 50% of all households targeted for solar conversion by 2020 <u>Long-term SWH objective</u></p> <ul style="list-style-type: none"> i) For new build houses: 100% ii) For retrofit in existing high-income housing: 100% iii) For retrofit in existing middle-income housing: 80% iv) For retrofit in existing low-income housing: 50%
Ekurhuleni Metropolitan Municipality	<p>Energy and Climate Change Strategy (2006)</p> <p>Electricity Energy Efficiency Policy (2009)</p>	<ul style="list-style-type: none"> - promoting SWH in all households - work with key local governments to introduce SWH by-laws - working with CEF to provide attractive financed solutions to end users and collecting through the rates bill - all new houses to be more energy efficient - explore potential for collaboration with the Department of Human Settlement's Sustainable Human Settlements Facility -financing of low income SWHs and SWHs for City housing stock through a ¼% energy efficiency levy on the tariff -investigating imposing additional monthly electricity payment on buildings which do not have SWHs through the Electricity Bylaw - new connections criteria to include efficient water heating as pre-requisite for approval 	<p>Achieve the following targets:</p> <ul style="list-style-type: none"> - 15% by 2015 - 50% by 2025 - 100% by 2050
Nelson Mandela Bay Metropolitan Municipality	Integrated Energy Plan	-Roll-out of up to 60,000 SWHs in the metro in the mid-high income sector through CEF by providing attractive financed solutions to end users and collecting through the rates bill	Revised target of 60,000 SWHs



		-In partnership with Provincial government develop mechanism to subsidise SWHs for low income implementation	
City of Johannesburg	Energy and Climate Change Strategy (work in progress)	-Development of targets in progress -financing of SWH rollout through 2% energy efficiency levy on the tariff - investigate imposing additional monthly payment on buildings which do not have SWHs through the Electricity Bylaw - new connections criteria to include efficient water heating as pre-requisite for approval	Development of targets – Mid-High 150 000 by 2014
Sol Plaatjie Municipality	Sol Plaatjie Municipality Energy and Climate Change Strategy (SPECCS) (version 1, Sep 2008)	<u>Medium term measures</u> -all new government and municipal facilities fitted with a SWH - promote roll-out of solar energy technologies for hotels, lodges and eco-tourism sites in the province <u>Key actions</u> i) Address building requirements in low cost housing through the installation of insulated ceilings, CFLs and SWHs in a phased approach for all low income homes ii) Monitor current efforts in the country to promote the mass rollout of SWHs, including the potential introduction of a SWH by-law iii) Establish SWH financing schemes for households	- at least 25% of all government and municipal facilities fitted with a SWH (year not specified)
City of Tshwane Metropolitan Municipality	Tshwane Local Authority Energy Strategy (2006)	- pass green building legislation requiring SWH in all new middle to high- income housing	
City of Cape Town	Energy and Climate Change Strategy (2005)	<u>Short-term (2 years)</u> - undertake an assessment of SWH market access mechanisms, industry capacity and incentives to stimulate the market - compile standards and codes for the installation and performance of SWHs or adopt suitable national standards - aware of national and provincial situation and initiatives regarding SWHs, coordinate and support where appropriate - promote SWHs for residential institutions such as old-age homes, boarding houses e.g through information dissemination - installation of SWHs on city owned housing . <u>Long-term (2+ years)</u> - establish a SWH financing scheme for households , privately operated with city collection mechanisms through the rates bills in place	- 10% of all households to have SWHs by 2010 - 10% of city owned housing to have SWHs by 2010 -300 000 mid-high by 2014



		- SWHs to be mandatory for all new houses . The necessary enabling financial mechanism (e.g. incentives) to be developed and applied so that this is feasible.	
Hessequa Municipality	Hessequa Energy and Climate Change Strategy	Short term (2 years) Promote the use of SWHs including via the following- - undertake an assessment of SWH market access mechanisms, industry capacity and incentives to stimulate the market - promote SWHs for residential institutions such as old age homes, boarding houses etc through information dissemination - compile standards and codes for the installation and performance of SWHs or adopt suitable national standards - aware of national and provincial situation and initiatives regarding SWHs, coordinate and support where appropriate	1. 10% of all households to have SWHs by 2015 2. 10% of households-owned housing to have SWHs by 2015

The approaches to implement SWHs in cities listed above can be categorised into the following categories:

Market segment	New Build / Retrofit	Intervention
Mid-High income and commercial	New Build	-Legislation through national energy efficiency regulations or local energy efficient water heating bylaw (Cape Town, eThekweni, Ekurhuleni, Tshwane, Hessequa, Sol Plaatje) -Conditional electricity connections (Ekurhuleni, Joburg)
	Retrofit	-Financed solutions offering attractive monthly repayments equal to or less than monthly electric geyser costs, collected through the rates bills. These can be either i. Local government driven, internally funded (eThekweni) ii. Privately driven with City support, externally funded (Cape Town, Joburg, Nelson Mandela Bay, Ekurhuleni) -Additional monthly electricity payment for houses without efficient water heaters
Low income	New Build and retrofit	-Work in partnership with provincial govt to include SWHs



		<p>in all new low income developments (Nelson Mandela Bay)</p> <p>-Financing of new SWHs through EE levy on the tariff (Ekurhuleni, Joburg)</p> <p>-Financed solutions (Cape Town-Kuyasa)</p>
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Role of Cities in achieving National SWH Strategy Targets

Based on the above summaries, it is clear that cities can make an impact on SWH rollout in the mid-high residential, low income residential and commercial sectors. The most financially sustainable solutions proposed by cities though fall into the mid to high income market segment. If the National SWH strategy implements a successful rollout of SWHs in low income households nationally, it is clear that **current City efforts underway in the mid-high income market listed in the table above will be critical in achieving the targets set in the strategy.**

In summary, the role of Cities in the rollout of the National SWH Strategy will be as follows:

1. Mid-High income and commercial rollout through
 - a. National or bylaw enforcement in all new buildings through the building inspectorate
 - b. Financed monthly repayments for the new build and retrofit markets driven either internally or externally. If internally driven, financing to come from City EE levy on tariff and development bank loans
 - c. Additional incentivisation through increased levy on monthly electricity bill for electric geyser users.
 - d. Additional enforcement through disallowing electrical connections in new structures not complying with efficient water heating requirements, or reducing maximum demand limits to new developments.
2. Low income and city housing stock
 - a. Rollout using internal funding from City EE levy on tariff and donor funding

The national SWH Strategy targets for the high income sector stand at 236 500 units (retrofit) and 48 500 units (new build) by 2015.

Linking these to concrete city targets, relative city contribution can be summarized as follows:

City	Target (by 2015 unless otherwise stated)
Joburg	150 000
Cape Town	300 000
eThekweni	50% by 2020
Nelson Mandela Bay	60 000
Ekurhuleni	7 000 by 2011
Tshwane	60 000



Much depends upon legislation and financial systems being in place to achieve these targets. Current efforts to implement these have undergone delays for a variety of reasons. However, with the increased momentum around SWHs both nationally, provincially and in Cities it is expected that faster progress will be made in 2010 than in previous years.

Key issues raised by CESU Network Meeting for National Government's Attention

1. The CESU city network supports the DME national SWH target of 1 million SWHs by 2014, and can play a major delivery and facilitation role, particularly in the mid-high income and commercial market segments. This will be through building and electricity reticulation legislation enforcement and facilitating or driving financed solutions for end users, and collecting through the rates system. However, financing through MFMA restrictions continues to be a problem. **National financing mechanisms to support City implementation of these initiatives must be investigated.**
2. The CESU city network supports the national DTI initiative to include energy efficiency in the National Building Regulations Act and National Building Codes by July 2010. However, the **City of Cape Town will continue to pursue an energy efficient water heating bylaw** until such time as National legislation is promulgated. This is in order not to retard progress currently underway locally should the national process be delayed.
3. City building inspectorates and all other city staff involved in the construction of buildings will require additional technical training and potentially additional staff to deal with the extra workload being placed on them by national EE building legislation.
4. Electricity departments in Ekurhuleni and Joburg (City Power) will investigate the feasibility of applying the electricity bylaw in a manner which will impose an additional monthly levy on buildings with electric geysers without smart meters or timer linked SWHs. Conditional connections for new developments can ensure energy efficient design and efficient water heating installations.