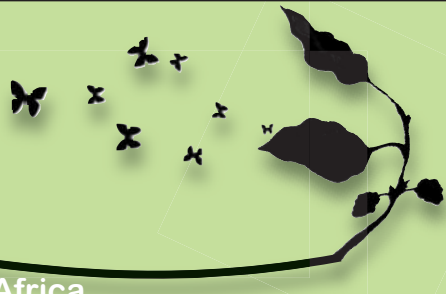


# eSEED

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## The 3rd International Solar Cities Congress: Adelaide, Australia

Nthombifuthi Ntuli  
Environmental Management Department  
Ekurhuleni Metropolitan Municipality

Firstly, I would like to pass my sincere gratitude to Sustainable Energy Africa and the SEED programme for affording me an opportunity to attend an event of such international importance. I attended the 3rd International Solar Cities Congress, which was hosted by the City of Adelaide, in Australia. The congress was about showcasing different initiatives undertaken by cities and other partners around the globe to demonstrate possibilities of capturing and using solar energy. There was a range of subjects discussed during the conference, but my particular interest as a city representative, was to see what the city councils are doing and achieving in terms of renewable energy.

The highlight of the whole conference was a showcase of the initiatives by the China Solar City, Dezhou. The Chinese government has put a lot of effort into leading by example as they will be hosting the 4th International Solar Cities Congress in 2010.

The City of Adelaide as a host had a showcase of its own: The world's first 100% solar powered bus, called Tindo. I found this an outstandingly interesting concept which goes to prove that the world can almost solely depend on solar energy and reduce the use of non-renewable energy sources.

I am not going to mention all the projects that were presented but just a few that caught my attention.



Photo: N. Ntuli  
City of Oxford, United Kingdom initiated a

project in 2002 called Oxford Solar Initiative in partnership with academic institutions, industry and the City Council which aims to help households and organisations in Oxford both financially and technically to install solar energy systems and energy efficiency measures in buildings. Thus far 80 active solar systems, 450 energy efficiency and 3000 low energy bulbs have been installed. What was also very interesting was the

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Dear Readers,

The New Year has begun with a hive of activity on the global, national and local energy scene ranging from sharp global oil price hikes and mounting evidence of global warming to our national food price increase and our all too familiar national power crisis. However not all is doom and gloom - in the face of these challenges, great opportunities emerge for smarter ways of pursuing growth and development - through acting locally. Our power crisis, despite afflicting the country with enormous challenges, provides impetus for sustainable energy development in the form of renewable energy and energy efficiency to finally take root and be driven at local government level, through effective policy development and implementation. A number of cities have energy and climate change strategies which map the route for sustainable energy development, but have long been hamstrung institutionally to implement sustainable energy projects detailed in these strategies. Our national electricity emergency therefore provides the ideal opportunity for renewable energy and energy efficiency projects on a mass scale (i.e moving beyond demonstration projects) to be brought to reality. Read this latest eSEED for news on exciting solar initiatives by cities throughout the world, progress with institutional development towards implementation of cities' energy and climate change strategies and important findings from recent research done by Sustainable Energy Africa on improving the energy welfare of the urban unelectrified poor.



Yachika

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### The SEED Programme



The Sustainable Energy for Environment and Development (SEED) Programme aims to promote sustainable development through the integration of energy and environmental issues into urban development in South Africa. The Programme develops partnerships with national and local government and with NGOs. It builds capacity in these organisations and provides training, supports information campaigns, demonstrations and implementation. At a national and international level SEED supports exchange of experience, networking and policy development. SEED is a co-operation programme between South Africa and Denmark and is funded by DANIDA and the partner organisations.

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### Feedback

Please let us know if you would like to be removed from the list or suggest recipients to whom eSEED would be of interest. You can also send news of projects related to housing, environment and energy in which you are involved. Comments are encouraged and suggestions are always welcome.

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GIS based model that they use to estimate baseline energy use and CO<sub>2</sub> emissions on a house-by-house level.

City of Copenhagen, Denmark, financed by Copenhagen City & Danish Energy Authorities has a project that will reduce the energy consumption in buildings by utilizing energy efficiency equipment, and by integrating solar energy in terms of passive and thermal solar as well as solar photovoltaics. The project is called Solar City Copenhagen.

City of Dezhou, China has a project called China Solar City. Their Solar City Strategy 2050 includes implementing the plan of a million roofs with solar water heaters, starting up the project of a hundred villages with solar bathrooms, building more solar equipped communities and more solar-lamp-lighted streets. The project is coordinated by the Strategy Promoting Committee, headed by the Mayor of Dezhou

City of Malmö, Sweden in its project called Solar City Malmö funded by the Swedish government will use 70% of its funding for installation of PV systems in public buildings. Twenty three million US dollars has been allocated for this purpose. Their target is to reduce CO<sub>2</sub> emissions by 25% between 2008 and 2012

City of Daegu, Korea calls its solar projects Daegu Solar City and 50% of its funding comes from central government and 50% from Daegu City. They have 4 solar PV power plants, a solar PV system on the roof of the convention centre and a 2050 plan which includes a Solar canopy project which is a private sector invest-

ment project, solar PV system for every building, solar PV on public institutions, as well as 10 000 solar houses by 2015.

Other cities that have adopted the Solar City strategies are City of San Jose, USA; Alice Springs, Australia; City of Santa Monica, USA; as well as City of Townsville, Queensland, Australia.

Most of the cities have embarked on large scale solar PV initiatives funded by the cities themselves, and in other cases in partnership with private sector and national government. It is easier for countries like China to embark on large scale implementation of solar initiatives as they have the manufacturing plants within their country, which makes the projects less costly than in other countries like ours, as we have to largely import solar technology. Another thing that makes a success of solar projects in these countries is that most of them, like Germany, have approved feed-in tariffs, which encourage participation as the energy produced can be sold back into the grid.

There was an enormous wealth of information presented at the conference, more than is able to be captured in this article. On the whole, the conference was useful, informative and a window to endless possibilities of solar energy initiatives.

Last but not least a quote from a very motivational keynote address by Robert F Kennedy Junior "We do not need to choose between economic and environmental benefits, because in many cases a good environmental policy and a good economic policy are identical, they talk the same language".

# Improving the Energy Welfare of the Urban, Unelectrified & Poor

SEA recently conducted a research project, funded by the South African National Energy Research Institute (SANERI), looking into ways to improve the energy welfare of the urban, unelectrified poor. This sector was selected as the focus for this study because these are the households which are typically falling through the cracks in terms of receiving services – this was confirmed in the study. There has been a trend, nationally and internationally, to focus on electricity supply as the only way to meet energy needs, but the questions arise: when will all households be electrified and what kinds of energy sources can households use in the meantime? This study looked at the status quo and projected the situation into the future to get a better idea of what we may be dealing with if the appropriate policies and implementation thereof is not put in place. Preliminary results suggest that marginalised, informal, unelectrified households are increasing. As of 2007, there is a national housing backlog of 2.4 million households and an electrification backlog of 3.4 million households. Although the national Department of Housing is positive

that the housing backlog will be cleared by 2016/7, indications are that the electrification backlog will not be cleared by the target date of 2012. This means that despite having adequate housing, many households will still need to use alternative fuels – which are often more polluting and dangerous - to meet the majority of their energy needs. A survey of international and national strategies was conducted to review the effectiveness of current strategies to improve the energy welfare of the urban poor. National government has developed a Free Basic Alternative Energy Policy (FBAE), which provides a good basis to address the energy needs of poor, unelectrified households. Implementation challenges, however, abound and government and NGOs are putting their heads together to find solutions. What are the challenges? Delivery of FBAE is more costly than the electricity equivalent and local governments are finding it challenging to fund implementation; there are major complexities around identifying the target

Photo: Mark Lewis



group as well as appropriate alternative, safe, sustainable energy sources; lack of infrastructure to deliver the alternative energy sources and lack of awareness amongst householders about their energy options. DPLG is working with local government on an indigent registration process and exploring ways of overcoming challenges in implementing the FBAE policy. Collaboration amongst the different sectors – national and local government, NGO and energy service sector – can further help to find solutions to address these barriers. It is anticipated that solutions to the implementation barriers indicated above will be accommodated in the (revised, if necessary) FBAE policy and support provided to municipalities to implement the policy.

# Institutional Development Towards Energy and Climate Change Strategy Implementation

Driving action at the local government level



A number of South African cities have made good progress with developing progressive and realistic energy and climate change strategies. However, implementation remains largely beyond reach. The reasons for this are multiple. Energy is a new area to local government. It is cross-cutting and has no 'home' or driver in most municipalities. Cities' ability to act can be hampered by existing legislation and the tendency for local government to be risk averse (in general a sound attribute). Public-private partnerships, which could help overcome a number of these barriers, are tricky for local government to establish.

An environment conducive to sustainable energy implementation is needed at local government level. The energy crisis provides impetus, but more is needed: political championship, proactive driving and coordination of stakeholders and action plans, and increased capacity to do the work. SEED has been working closely around institutional development and capacity building and some steps are being taken by leading cities to address the institutional issues:

- An Energy and Climate Change Portfolio Committee is to be established in the City of Cape Town to oversee policy and implementation. This goes hand in hand with proposals to introduce 'energy' throughout all council line functions through reporting requirements and adding energy to all directors' score cards.
- Both Cape Town and Ethekeweni are investigating the establishment of an 'arms-length' energy agency to drive and facilitate implementation and engage in public-private

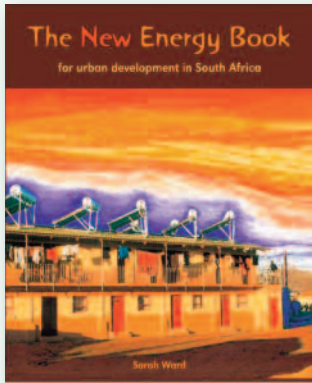
partnerships.

- Nelson Mandela Bay Metro has, with supportive political leadership, city management and champions amongst the officials, transformed its electricity department into an electricity and energy department. This has fully enabled the Council to commission renewable energy and energy efficiency projects.
  - Tshwane has an integrated Sustainable Energy Task Team which coordinates energy activities between a variety of departments. 'Energy' issues raised in the city's Energy and Climate Change Strategy are also working their way into management score cards.
  - Sol Plaatje Municipality has established a dedicated Sustainable Energy and Climate Change Unit (SECCU) which focuses on creating an enabling institutional environment for the implementation of mass scale energy and climate change projects.
- Institutional adaptation is essential in turning the strategies and policies into actual implementation. The nature of this must be appropriate to each specific municipality and its needs and capacities.

# Notices

Notices

## Just Released: The New Energy Book



The **New Energy Book** is a resource for people seeking a more sustainable future and provides a practical guide to sustainable energy approaches and practices. It aims to make the whole energy picture accessible to citizens, professionals, policy makers, development workers, teachers and students.

This second edition includes extensive new and updated information as well as new chapters on energy planning for cities and on sustainable transport. It takes the reader from the big energy picture through energy planning and projects for cities, to energy choices for the home and energy efficient housing. In this book you can find:

- The global energy story
- The South African energy story
- Sustainable transport
- Energy and local area development
- Access to energy
- Energy in the home
- Making energy efficient housing
- Working with people and energy
- Energy planning for cities and towns

The book also provides useful contacts, readings and websites. For purchase and ordering information, please view our website at [www.sustainable.org.za](http://www.sustainable.org.za).

### Book Details:

**Author:** Sarah Ward

**Publisher:** Sustainable Energy Africa

**ISBN:** 978-0-620-40184-5

**Edition:** 2nd

**Extent:** 138 pages

**Price:** R 140.00 including VAT

## City Summit on Renewable Energy, 13-14 May 2008 at Spier Estate, Stellenbosch, Western Cape.

South African Cities Network in association with Sustainable Energy Africa, REEEP-SA, SANERI and ISLGS will host the upcoming Summit. The Summit aims to inspire local government leaders to action while looking carefully at the barriers to a shift to a renewable energy future; and subsequently propose ways to resolving barriers and challenges. It will also provide a platform where local government and other stakeholders can learn from those who have managed to push through the challenges on how best to implement renewable energy service provision. Through networking and constructive engagement during the conference, it is also hoped that local government will identify partners across all sectors that will help them in their quest to increase their renewable energy share in the energy mix they offer to their citizens and energy clients. The intention is to hook this programme onto the attendance by key local government leaders in this field both internationally and nationally. Internationally, mayors from world cities that are leading the drive for renewable energy will be invited to address South Africa's mayors. For more information call SACN on: 011 407 6471.

## Website Update

▪ The Electricity Regulation Act, 2006, Department of Minerals and Energy, and a Comment to the Electricity Regulation Act, dated February 2008 can be found at [www.sustainable.org.za/resources/reports-documents.html](http://www.sustainable.org.za/resources/reports-documents.html)

▪ The 10-Point National Energy Response Plan to the energy crisis in South Africa can be found at [www.sustainable.org.za/projects/national-energy-response-plan.html](http://www.sustainable.org.za/projects/national-energy-response-plan.html)