

eSEED

Welcome

Welcome to the summer (Christmas!) edition of eSEED. By now, if you are lucky, the year should hopefully be winding down, providing time to reflect on all that has been accomplished in another hectic year of energy and climate change events and happenings.

The most exciting event that has taken place this quarter is the COP 15 United Nations Climate Change Conference. Four members of the SEED team manned a stand in Copenhagen, showcasing the innovative work carried out by South African metros towards adapting and mitigating against the impacts of climate change; made possible through the DANIDA-funded National Urban Environment Management Programme.

Public comment has recently been received on two substantial documents: the National Climate Change Strategy and the National Solar Water Heating Framework and Implementation Plan. The latter could see the mass roll-out of solar water heaters through a national utility by next year.

October saw the launch of the country's first Energy Efficiency Forum for commercial buildings, where businesses bucked the trend by sharing financial data on energy efficiency intervention costs and paybacks; and in November, Cape Town hosted a ground-breaking international World Town Planning Day conference, focused on the role planners could take towards a low carbon city.

A successful and thoroughly engaging SEED/CESU Network Meeting took place in September, where city



officials had a platform to discuss the key impacts of the national electricity crisis on municipal functioning, and outlined their key energy efficiency focus areas and indicators for progress towards implementation. Happy reading!

-Zanie Cilliers (SEA)

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CITY ENERGY SUPPORT UNIT

a south african sustainable energy and climate protection initiative

1. United Nations Climate Change Conference in Copenhagen

The United Nations Climate Change Conference took place at the Bella Center in Copenhagen, Denmark, between 7 -18 December 2009. The conference included the 15th Conference of the Parties (COP 15) to the United Nations Framework Convention on Climate Change and the 5th Meeting of the Parties (COP/MOP 5) to the Kyoto Protocol. The Conference of the Parties is the governing body of the Convention, and advances implementation of the Convention through the decisions it takes at its periodic meetings.

The conference was attended by more than a hundred heads of states in its final days, with the intention of signing a new agreement. During the two weeks, party delegates continued to meet and talk. Some of the plenary sessions were open, to observers (in particular the NGOs), although much of the work took place behind closed doors. In addition there were numerous side events, exhibitions, demonstrations and meetings taking place amongst the many observers, NGOs, media and others attending the talks. Some figures indicate that as many as 34,000 people were milling around the Bella Centre. It was a hive of activity, information and lobbying and planning.

The main aim of the COP15/MOP5 Climate Change Conference in Denmark was to establish an ambitious global climate agreement for the period from 2012, when the first commitment period under the Kyoto Protocol expires. Ultimately the outcomes of COP 15 were disappointing, with nothing more than a Copenhagen accord being signed, containing no legally binding agreements.



The next Conference of the Parties will be held in Mexico (COP16) and COP17 will be held in South Africa.

COP15
COPENHAGEN

For more information on COP15 please visit: <http://en.cop15.dk/>

South African Cities' Solutions to Climate Change



Exhibition stand at COP15 showcasing South African Cities' Solutions to Climate Change

Sustainable Energy Africa was appointed by the Department of Environmental Affairs (DEA) and DANIDA to design an exhibition stand

showcasing the work of the Urban Environment Management Programme. This programme is a collaboration between DANIDA and DEA to develop projects that will assist five key South African cities in dealing with climate change. The work was showcased from the 3rd - 6th December 2009 in Øksnehallen, Copenhagen, at a Climate Change Exchange hosted by the Danish Society for Nature Conservation. The purpose of the pre-COP15 exhibition was to send a clear message about climate change to the COP15 negotiations. It also provided a networking opportunity, with a sharing of information through the many talks and discussions that were held, and providing information to school students. Our vibrant stand, equipped with slide shows, posters and a documentary, showed a number of technologies that have been introduced into four of our cities (Cape Town, Ekurhuleni, eThekweni and Johannesburg), as well as giving a good picture of the context and social and economic issues we are faced with.

-Sivuyile Maboda (SEA)

2. One-million solar water heaters by 2014

SEA attended the Solar Water Heating Conference held on 5th November at the Indaba Hotel in Johannesburg. The conference was well attended, with a large number of solar water heater (SWH) businesses present. The Minister of Energy Ms Dipuo Peters outlined the importance of large scale SWH use in the country in her keynote address, and has set a target for the installation of 1 million SWHs by 2014.

Presented at the conference was a picture of the global experience on SWH roll-out, the current SWH industry in South Africa, the role of the insurance industry in SWH roll-out, training and capacity building programmes for SWH installation required and currently functioning, and a background to programmatic CDM.

But the meat of the matter was the release to the media and public of an executive summary of the Draft South African National Solar Water Heating Framework and Implementation Plan, which sets out how the country plans to achieve the SWH target set by the Minister. SEA has been integrally involved in the development and design of this Draft National Framework and Plan.

It is proposed to roll-out SWHs through a national utility, which will have bulk buying power and can secure the necessary finances. Energy Services Companies could undertake the role of actual delivery, installation and maintenance.

A key focus area of the Strategic Framework is the provision of universal access to modern, affordable and environmentally beneficial SWH services for all households in South Africa. The market was divided into groups; each with a different proposed solution. These groups are as follows:

- Upper-income residential retrofits of existing electric geysers
- Mid- to low-income electric geyser retrofit
- SWH delivery to homes with no electric geysers

- New-build homes (ranging from RDP through to upper-income)
- Replacement of failed electric geysers
- Industrial and commercial sector

Regulations are to be considered to require mandatory SWH installation in new build and RDP houses, and when a geyser blows. The insurance industry replaces 400 000 geysers per annum. If this market can be captured, then the country will be well on its way to the installation of 1 million systems in 5 years.

Initially a percentage of the systems will need to be imported, but there will be a strong focus on shifting manufacturing (at least of the tanks) to the local level.

Primary sources of funding will be the standard offer based on electricity savings; programmatic Clean Development Mechanism funding, which will be centrally coordinated to ensure adequate scale; and other small funding components, such as support for the indigent. In terms of funding for local manufacture, the national SWH entity will turn to the Department of Trade and Industry (DTI) to provide incentives.

Comments were received on the Strategic Framework by the 27th November and it is planned to launch the roll-out programme in April next year.

The executive summary of the Strategic Framework can be found here:

<http://www.sessa.org.za/home/1-latest-news/167-swhframework>



-Zanie Cilliers (SEA)

Minister of Energy Ms Dipuo Peters (photo by Duane Daws)



3. Municipalities and climate response – examining the local dimension of a global problem

After a thorough process of consultation across provinces, the South African Local Government Association (SALGA) has submitted input into the Draft National Climate Change Response Policy. This input notes the urgency of addressing climate issues and seeks to support a national response sensitive to the needs and perspective of local government. SALGA makes the case for government to recognise local government as a key partner in the National Climate Response, noting the need for this to be articulated within policy in the form of a 'common but differentiated' role, or responsibility, given vastly differing levels of GHG emissions contributions across municipalities, different mandates relating to Municipal types and the regional nature of climate impacts. required matches.

Key mitigation interventions talk to powers and functions residing at the local level: building efficiency, power conservation, a transition to renewable energy sources of power, massive investment in public transport, and people-centred urban development approaches. Emissions data needs to facilitate municipal boundary data collection to enable effective monitoring of emissions reduction through local action. Local action requires effective support by the other spheres of government. This must include a legislative and fiscal framework for local government that brings together the areas of planning and transport to ensure people-centred, dense urban areas that simultaneously address poverty through greater inclusion of marginal communities.

Local government is also at the forefront of responding to the impacts of climate change. This is both in terms of ensuring sustainable and resilient infrastructure and development, but also in meeting climate disasters when they happen.

Local government must lead with locally relevant adaptation strategies. A commitment to sustainability is also critical for climate-robust development. Given regional impacts, structures to support adaptation planning at the local level must be established. Trans-boundary impacts may also require regional responses and this should be accommodated within institutional frameworks that enable such partnerships.

The input calls on national government to represent local needs within international negotiations processes, including ensuring international climate finance regimes that are accessible by capacity-constrained local government and commensurate to adaptation and 'clean development' needs, and support local knowledge and local job creation are important for local government.

Local government is vital in the national climate response. Their ability to respond will remain muted unless mandates are clarified and the financial and legal frameworks in place to support action on the ground. Central to this is the creation of sufficient human capacity at the local level to take on new approaches. Ultimately, the mobilisation of new political will to support a paradigm shift (including framing of climate change as a sustainable development problematic, with a substantial poverty and equity focus; decision making beyond short term political office time frames or short term financial returns rather than life cycle costing) will be the deciding factor.

-Megan Euston-Brown

4. A first in the commercial sector

SEA attended the launch of the Energy Efficiency Forum held on 21 October in Cape Town. The Forum aims to provide practical knowledge on how to implement energy efficiency measures in commercial buildings, such as shopping centres, hotels, offices, etc, through the sharing of experiences and information.

The Forum was formed through collaborative effort amongst the City of Cape Town, Eskom, the SA Property Owners' Association (SAPOA) and the SA Council of Shopping Centres. It is also supported by the Green Building Council of South Africa, the Provincial Government of the Western Cape and the Cape Peninsula University of Technology.

The formation of the Energy Efficiency Forum follows a recent SAPOA workshop, held in September, which highlighted the need for a regular forum to address energy efficiency issues in the commercial sector. Both the workshop and the launch of the Energy Efficiency Forum were well attended, with excellent participation from commercial property delegates.

The Forum represented a paradigm shift. Businesses are usually loath to release financial information, but during the course of the day several case studies of commercial buildings and areas, including the V&A Waterfront and Cavendish, were presented. The case studies provided the costs of implementing energy efficiency measures, mainly focused on efficient HVAC and lighting, as well as the savings realised per month and the payback times. Communication and sharing of information amongst commercial businesses is seen as a key factor of the Forum; enhancing learning from others' experiences and accelerating across-the-board implementation of energy efficiency measures.

The commercial sector has taken a leading role in energy efficiency. Due to the short payback periods and financial savings, energy efficiency measures are not seen as a financial burden, but rather an opportunity for decreasing running costs. This has resulted in a huge investment into energy efficiency by businesses, to the tune of R9 billion. As a comparison the Demand Side Management funds, made available by Eskom for energy efficiency interventions across all sectors, are roughly R550 million for 2009.

Other issues discussed during the Forum were methods of incentivising energy efficiency in businesses, and the National Energy Regulator of SA's draft Power Conservation Programme, which if implemented will require a mandatory electricity cut of 20% in high-use commercial buildings - enforced by high penalty tariffs.

- Zanie Cilliers (SEA)



Cllr Marian Nieuwoudt (centre), Mayoral Committee Member for Environment & Planning, opens the Energy Efficiency Forum



5. Planning for low carbon cities



The World Town Planning Day Conference, organised in partnership with SEA, the City of Cape Town and Inwent, took place in Cape Town on 10-12 November. World Town Planning Day is observed in 30 countries on 4 continents to draw attention to the aims, objectives and progress of town planners and to look at town planning from a global perspective. The theme this year was "Planning for a Low Carbon City."

The first World Town Planning Day conference that took place in South Africa was a local event held in 2007. This, the second event, has now reached international standing. Participants included urban planners, development practitioners, researchers, property developers, international and local experts, and SEA's city energy programme partners amongst others.

An interesting fact is that, unlike cities in developed countries, South African cities are only half built. They will see rapid growth in the future and action needs to be taken now, during the narrow window of opportunity presented, to ensure that this growth follows a low-carbon path. Cities are seen as the major drivers, but also the future major victims, of climate change, and as such are important centres for change.

Discussed at the conference were the challenges and opportunities experienced by South African cities in moving towards a less energy intensive lower carbon future. Planning legislation, regulations and systems have been ear-marked as a major leverage point. Currently South Africa sits with outdated planning legislation that still encourages an Apartheid urban form, placing the poor far away from their areas of work, and contains parallel separate planning systems for formal and informal sectors. These inefficiencies lead to an energy and financial burden on the city and its citizens, as vast amounts of money and energy is needed to move people and goods.

Recommendations that emerged from the conference to drive the move towards low carbon city development included the following:

- A firm understanding of the current high-carbon hardwiring, including the political and institutional setting.
- Partnerships need to be formed amongst planning, public finance, infrastructure and transport experts, as well as between government and developers and communities. Planners should take on the leadership role.
- Lawyers must drive substantive reform, through the creation of a new regulating environment. There needs to be a focus on property rights for the public, not the private, good.
- Citizens need to be informed and engaged. Individuals and groups need to accept responsibility, through the shifting of values and behaviours.
- South Africa must learn and share experiences with other countries/cities.

The next World Town Planning Conference will take place in 2011.

- Zanie Cilliers (SEA)

6. Cities and municipalities outline key energy efficiency focus areas

A vibrant and thoroughly engaging SEED and City Energy Support Unit (CESU) Network Meeting was held on 9-10 September. In attendance were SEED and CESU city partners, the programmes' funders, and ICLEI amongst others. Major issues and challenges of energy planning in cities were discussed in detail with a view to developing an action plan to resolve some of the serious energy challenges faced by municipalities.

Topics covered during the two-day meeting were energy efficiency at the municipal level, the Renewable Energy Feed-In Tariff, solar water heater and ceiling roll-out, the progress towards programmatic Cleaner Development Mechanism, ecosystem (holistic) housing development and sustainable transport.

Cities and municipalities were asked to provide a list of key areas they felt were important for implementation, as well as indicators against which to measure progress. Following are these key areas and their indicators:

Solar water heaters (SWHs)

- Visible presence of SWHs on roofs
- SWH targets in Energy Strategy
- Political will: SWH on every council member's roof
- Visible advertising and public familiarity as part of a rigorous marketing and communication strategy
- Clear public awareness programmes/campaigns (linked to above)
- All initiatives included in Integrated Development Plan budget
- Policy by-laws (positive disincentives)
- Showcase: have SWHs on municipal buildings, public buildings, etc
- Assess social impact and long-term benefits of having SWHs

- Mass rollout initiatives (capacity building/Plumbing Industry Registration Board)
- Establish an independent technical advice unit
- Regulations in place to enforce that all new buildings and private housing must have SWHs installed and have old buildings retrofitted
- Conduct a baseline survey
- Lobby insurance companies to get involved (e.g. replace blown electric geysers with SWHs)

Energy efficiency in cities

- Get cross-cutting political commitment (have energy efficiency initiatives on management scorecards). Get all the different directorates to contribute towards energy efficiency
- Measure efficiency/GDP% - absolute baseline
- Energy efficiency efforts must be redistributive in nature: there must be enough capacity to reach the poor
- Each city must work towards having dedicated energy efficiency resources (human and financial)
- Each city must have a plan in place: who does what, by when, with what resources and how. This plan should also be informed by the desired Urban Quality Of Life goals
- Establishment of a high-level multi-disciplinary task team that will deal with all strategic issues
- Political will and institutionalisation of all the above

Transport:

- Safety indicators (less fatalities, safer public transport system, etc)
- Higher percentage of budget allocated to improving transport systems (public and private)
- Lessening of average distance and continuous kilometres travelled by commuters (both public and private)

- Modal shift: private to public, motorized to non-motorized, peak to whole day, etc
- Changing public perceptions (from negative to positive)
- Better/more transport options for commuters
- Visible disincentives (e.g. getting rid of parking allowances and car allowances, etc)
- Encouraging employers to get involved in transport schemes
- Each municipality to have more vigilant fleet management and fuel efficiency policies
- Having an Integrated Transport Plan

For the full Network Meeting report, go to the following link:

<http://www.cityenergy.org.za/resources/network-meetings>

- Zanie Cilliers (SEA)



The Network Meeting provided a platform for interactive discussion. Pictured from top left to bottom right are:

Sarah Rushmere (City of Cape Town)

Bobby Buchanan (Sol Plaatje Municipality)

Schalk Potgieter (Nelson Mandela Bay Metropolitan Municipality)

Sandile Maphumulo (eThekweni Municipality)



7. News Snippets

PE wind farm to be ready for 2010

A commercial wind farm is to be located in the Coega IDZ by Belgium firm Electrawinds in Port Elizabeth, at a cost of R1.2 billion. The first of 25, 2.3 megawatt (MW) wind turbines will be ready in time for the 2010 World Cup.

Read more...

<http://www.sabcnews.com/portal/site/SABCNews/menuitem.5c4f8fe7ee929f602eal12eal674daeb9/?vgnnextoid=d51e916d788a3210VgnVCM1000077d4ea9bRCRD&vgnnextfmt=default>

eSolar Expands Solar Mission to South Africa

eSolar, a leading provider of modular, scalable solar thermal power technology, has partnered with Johannesburg-based Clean Energy Solutions (CES) to open eSolarSA to expand sales operations across Sub-Saharan Africa.

Read more...

http://www.25degrees.nwt/index.php?option=com_content&view=article&id=114:esolar-expands-solar-mission-to-south-africa-&catid=34:latest&Itemid=110

Greening 2010 with carbon-off sets

The Royal Danish Embassy has provided R18 million of funding for the Urban Environmental Management programme to implement a massive carbon off-set project in cooperation with the Department of Water and Environmental Affairs.

Read more...

http://www.25degrees.net/index.php?option=com_content&view=artical&id=117:greening-2010-with-carbon-off-sets&catid=34:latest&Itemid=110

Eskom's tariff increase drops with 10%

Eskom's Multi-Year Price Determination (MYPD) for 2010/2011-2012/2013 has been adjusted from 45% to 35% per year/

Read more...

http://www.25degrees.net/index.php?option=com_content&view=artical&id=134:eskoms-tariff-increase-drops-with-10&catid=34:latest&Itemid=110

(Un)holy cow!

Independent power producer (IPP) Lesedi Biogas Project (LBP) is planning to build one of the world's largest open-air feedlot manure-to-power plants in Heidelberg, South Africa.

Read more...

http://www.25degrees.net/index.php?option=com_zine&view=article=802

SA makes emissions offer but wants aid

South Africa offered to slow the growth of its greenhouse gas emissions by 34% by 2020, conditional on a broader international agreement and financial aid.

Read more...

<http://www.mg.co.za/article/2009-12-07-sa-makes-emissions-offer-but-wants-aid>

Football to footprints: World Cup's carbon impact

Africa's first Soccer World Cup will generate 2,75-million tonnes of carbon emissions, one of the biggest environmental impacts of any sporting event in history.

Read more...

<http://www.mg.co.za/article/2009-11-28-football-to-footprints-world-cups-carbon-impact>

8. Events

Energy 2010 Conference

The conference theme for 2010 is "Energy: a time of change - a time for innovation, solutions and alternatives." Delegates will gain information on industry developments, and technical knowledge and an understanding of issues affecting the global and African energy industry.

Date: 24-26 February 2010

Venue: Sandton Conventional Centre -
Johannesburg

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Alternative & Bio-Energy Forum

This yearly summit provides information on the latest regulatory, technology and business developments within the biofuels sphere.

Date: 12-15 April 2010

Venue: Vodaworld
Midrand, Johannesburg

For more information please contact:

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Institute for International Research

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2010 C_: Climate Commerce Conference

The conference theme is "Positioning South African business in the transition to a low carbon economy". It aims to raise awareness of the impact that climate change will have on business in South Africa and highlight the requirements and opportunities that exist in the transition to a low carbon economy.

Date: 29-30 March 2010

Venue: The Forum
Brynaston, Johannesburg

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Please let me 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 relating to housing, environment and energy in which you are involved. Comments and suggestions are welcome.

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