

SUSTAINABLE ENERGY NEWS on EMAIL (SENSE) number 19

Welcome! SENSE is a service of the Sustainable Energy and Climate Change Partnership (SECCP), a project of Earthlife Africa Johannesburg in partnership with WWF, Denmark.

SENSE is a monthly publication, edited by Elin Lorimer. We welcome any feedback and submissions. Also let us know if you wish to be removed from this list, know someone else who should be receiving SENSE, or if you'd like to receive our separate Climate Change email newsletter, CCEN.

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1. SECCP News

A note from the Editor

Once again SENSE is coming out mid-month – we'll get back to issuing on the first next year. This edition will also serve as the last for this year as I will away attending the Ninth Conference of the Parties to the UNFCCC (COP9) in Milan when the next one is due. The next SENSE will be sent to you at the beginning of February with all the news on the end of this year.

This month the SECCP is anticipating the conclusion of the final study report for this year: "Employment Potential of Renewable Energy in South Africa" commissioned from Agama Energy. This study will serve to compliment to the "Independent PAMs Study", which was launched in April this year. The study report will be distributed later this month at events such as the Cities Energy strategies Conference and World Wind Energy Conference in Cape Town. We hope that this will once again add to the renewable energy debate and provide solid reasons for supporting the development of renewable energy in South Africa.

There has also been a flurry of activity in preparation for COP 9, which is to be held in Milan this year. This year's event should see the launch of the 'CDM Gold Standard', which is a set of standards and criteria to apply to projects that are intended to attract carbon financing under the Kyoto Protocol. The CDM (Clean Development Mechanism) of the Kyoto Protocol provides that industrialised countries can buy 'credits' (Certified Emission Reduction units) for greenhouse gas emissions avoided through the implementation of projects in developing countries. The Gold Standard already has much support from civil society organisations – The South African Climate Action

Network passed a resolution supporting the Gold Standard at its recent meeting. COP9 will also provide opportunities for networking among members of the new coalition: CURES - Citizens United for Renewable Energy and Sustainability – and to build support for the CURES Declaration, which sets out what many NGOs advocate for the success of the Bonn Renewables Conference 2004. If any readers have not for some reasons seen either of these documents yet, contact us at the SECCP or download information on the Gold Standard from the links below.

So, on that note I wish you a happy Festive Season and all the best for the new year.

Elin Lorimer

[Gold Standard – background and overview](#)
[Gold Standard CDM Project Design Document](#)

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2. SA's sustainable energy progress

Government investigates local bio-diesel viability

The Department of Science and Technology (DST) has been investigating the viability of the bio-diesel industry in South Africa. In partnership with the National Treasury, Department of Minerals and Energy and Department of Trade and Industry, the DST last year commissioned research from the CSIR on the commercial aspects of bio-diesel production in South Africa. DST now has ownership of the completed study report, which looks at the technical, economics and agricultural issues surrounding the production of bio-diesel in South Africa.

The DST held a Bio-diesel Workshop in Midrand on the 24th October to discuss the research findings with various role players in the bio-diesel industry. At the workshop it was put forward that a joint implementation plan committee was required for the introduction of bio-diesel in South Africa.

Bio-diesel has been receiving some government support since 2002 in the form of a tax concession. In last year's budget speech, Trevor Manuel noted that the Treasury proposed that "a levy at 70 per cent of the general fuel levy rate should apply to the consumption of environmentally-friendly alternative diesel fuels", although other taxes and levies would still apply. This concession favours bio-diesel in order to create an enabling environment for local manufacture and consumption of bio-diesel.

For more information contact Somila Xosa, Department of Science and Technology (t) 012 337 8215 or e-mail: Somila.Xosa@dst.gov.za

NER grant Eskom 2.5% price increase for 2004

Source: Business Day

Despite high expectations, the National Electricity Regulator (NER) announced on the 16th of October that Eskom's average price increase for next year would be only 2.5%, the lowest increase they've had in years. The increase, which will be in effect from January next year, is below inflation levels and well below Eskom's requested 8.5% increase. Eskom is currently negotiating with the NER around this figure, and is likely to take the challenge further should no satisfactory agreement be met.

The NER have stated that their methods for reaching the 2.5% increase figure are clear and transparent. The figure is based on a number of factors including Eskom's budgets for the next year, their financial statements for the last year and the returns they will need to meet their future requirements. Part of the reason for the low increase is that Eskom sold more electricity in 2002 than anticipated when the last increase was approved. The NER believe that this rate will allow Eskom a reasonable rate of return and help to keep the cost of electricity down, with an estimated 4.9% increase in revenue for the next year. Electricity prices will therefore continue to rise, albeit at a lower rate, in the coming year. The lower rate should also put pressure on Eskom to improve the efficiency of energy use.

Eskom, on the other hand, based their 8.5% increase request on their expected capital expenditure of R50 billion over the next 5 years. This figure includes upgrades on transmission lines and the recommissioning of mothballed power stations. They are also concerned that a low increase will obtain a rate of return high enough to attract private sector investment to build the new power stations that will shortly be needed. However, the NER not only believes that the new capacity can be built without increasing real prices, but also noted that Eskom may not need to build the new capacity themselves as the electricity sector restructuring allows new players into the market. It would therefore be inappropriate for Eskom to collect returns now for future investments that may be financed by others.

Eskom legally has 60 days to appeal the decision through the Department of Minerals and Energy (DME). They have begun by initiating talks with the NER and have planned a joint workshop to discuss the issue further. However, if the talks are not successful they may still lodge an appeal through the DME and courts.

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3. Unsustainable Energy

DME makes Radioactive Waste Management Bill more accessible

Richard Worthington

The DME must be acknowledge for responding to civil society requests for translation of the Draft Radioactive Waste Management Bill, now available on their website in Afrikaans and isiXhosa (we'd love to hear some opinions of the efficacy of the translations) and for more time for comment on the policy paper – the deadline for comment is now the end of the year. We encourage all people interested in energy and/or the health of our ecosystem to submit comments, as there are some fine principles but also some very worrying proposals that could undermine all the good provisions - it is not a highly technical or especially long document. One serious short-coming is that it is evasive on the issue of import and export – the policy must explicitly address cross-border movements, particularly the issue of the cradle to grave responsibility for nuclear fuel. If a fuel production plant for the PBMR programme is approved, the fuel SA produces for export (a prerequisite for the viability of the whole programme) could be returned as spent fuel (high-level waste) without being regarded as import.

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4. General Sustainable Energy News

UNEP launch Sustainable Energy Finance Initiative

Source: RE Focus Weekly

The United Nations Environmental Programme (UNEP) has launched a new initiative aimed at supporting investment in sustainable energy. The Sustainable Energy Finance Initiative (SEFI) was launched on the 20th October at the UNEP Finance Initiative Global Roundtable in Tokyo. UNEP Executive Director Klaus Toepfer emphasised the need for a new mindset to solve the pressing issues of energy security and climate change. He also noted that energy systems will remain vulnerable as long as we keep relying on large centralised fossil fuel power stations, with centralised distribution networks.

The Sustainable Energy Finance Initiative (SEFI) is an initiative by the UNEP, supported from the United Nations Foundation (UNF). The initiative will build on the experience of other initiatives of UNEP and the Basel Agency for Sustainable Energy (BASE) in financing sustainable energy projects, and will encourage the financial community to support sustainable energy. They hope to boost renewable energy into the mainstream, as the key to secure energy systems.

This initiative recognises the fact that despite great advances in renewable energy technologies, there are still elements that make it seem a costly risk for financial institutions to take. High transaction costs and current market uncertainties in this field are combined with a general lack of information, experience and appropriate tools in financial institutions to quantify, mitigate and hedge project risks. SEFI aims to foster the sustainable energy financing community and build alliances and partnerships to increase the resources available for sustainable energy initiatives. The focus will be on mainstream financiers, encouraging them to invest in renewable energy and energy efficiency projects.

For more information contact Robert.bisser@unep.fr, or visit the SEFI website: <http://www.sefi.unep.org>

IEA releases Renewables Information 2003

Source: [E-announcements](#)

The International Energy Agency (IEA) has released its annual publication: Renewables Information 2003. This publication, first released last year, addresses the need for reliable and comprehensive information on the use of renewable energy and waste for energy in the OECD. The publication also aims to increase the understanding of current markets and recent market trends for renewable energy, particularly in light of the growing support for renewables in the energy sector.

The report provides an analysis of renewable energy waste in OECD countries with regards to primary energy supply, electricity production and installed generating capacity.

The report can be downloaded in PDF from the IEA website: <http://www.iea.org/> or for a hard copy contact books@iea.org

Global PV standards to be set

Source: [RE Focus Weekly](#)

The International Electrotechnical Commission (IEC) will be adopting the calibration process for solar photovoltaic (PV) cells proposed by the European Union's (EU) Joint Research Commission (JRC). This will allow the procedure to be internationally accepted, and will assist with the establishment of international standards for solar PV cells. International standards will hopefully help to harmonise and improve the competitiveness of the global PV market.

The JRC, which provides scientific and technical support for EU policy development, has been working on developing standards for solar PV since 1981. Research Commissioner Philippe Basquin noted that the JRC aimed to improve the competitiveness of the PV market and encourage collaboration between industry and the scientific community. The standardisation of solar cells is likely to increase the need to keep abreast with new developments in a growing and competitive international market. The falling cost and rising yield in the solar industry have also resulted in rising sales worldwide, and the EU also plans to increase its PV capacity to 3GW by 2010 as part of its renewable energy commitment under the Kyoto Protocol.

Research organisations and industry use reference cells calibrated by the JRC to determine the efficiency and power of their cells, with calibration accurate to within 1.5%. As the retail price of cells is set by the power output, sales are directly related to calibration. The calibration itself is not highly priced, and can be performed almost anywhere in the world where there is reasonable weather. The test measures the electrical current and voltage from the cells.

For further information: <http://ies.jrc.ecc.eu.int/Units/re/>

Green buildings pay for themselves ten times over

Source: [GreenBiz](#)

A Californian study on Green Buildings has indicated that environmentally friendly building techniques are not only cost-effective, but pay for themselves more than ten times over and provide a healthier and more stimulating indoor environment. The study, conducted by the Capital E group, Lawrence Berkley Laboratory and several California state agencies, was based on national data on a hundred buildings and reviews of several hundred existing studies. The study provides a fairly comprehensive cost-benefit analysis comparing traditional building techniques with those built according to "green" principles.

Green buildings differ from conventional building in that they are built in a sustainable manner. They are designed to use resources such as energy, water, materials and land more efficiently, thus saving money by reducing operation and maintenance costs and lowering utility bills. Green buildings also provide a healthier work, learning and living environment as they rely on natural lighting and circulate clean air, leading to improved health, comfort and productivity.

The study claims that green buildings can lead to financial benefits of between \$50 and \$70 per square foot, which is more than ten times the additional cost of green building design. In fact the energy savings alone exceed average increased cost of green design. The positive impact on productivity and health also lead to even greater direct and indirect savings through employees, where even small changes can have large financial benefits.

The report concludes that green buildings are cost effective and make good business sense. This study will hopefully serve to disprove the myth that green buildings are not cost effective, and encourage higher standards in building design for more than just environmental reasons.

For more on this topic see:

The "water battery" – new energy source discovered

Source: [The Cape Times](#)

In a chance discovery two Canadian scientists have discovered a new way to generate electricity. The “water battery” is powered by water alone and shows great potential for smaller applications such as cellphones and other portable electronic devices that currently rely on rechargeable batteries. The batteries are completely portable, are non-toxic and produce no pollution. When batteries run low they could simply be refilled by pumping them up with water. This new type of renewable energy could also potentially be applied on a larger scale in the future, providing another alternative source of electricity generation.

Larry Kostiuk and Daniel Kwok, researchers at University of Alberta, discovered the “water battery” by chance when comparing notes on their different fields of study. Kostiuk, a combustion chemist, decided upon his appointment as head of the university department of engineering to find out more about what his colleagues were working on. Kwok was working in nano-fabrication, and it was in his explanation of his work in electrokinetics (the science of electrical charge in moving substances such as water) that Kostiuk saw the potential for the water battery.

Essentially the water battery relies on the movement of water through microscopic channels to generate electricity. When water travels over a surface, the constituent ions rub against the solid and leave the surface slightly charged. In a simple experiment with a piece of glass with 10 000 microchannels, using a syringe to push the water through the channels, they can achieve about 10 volts, which is ample to power an LED.

This work has been hailed as a breakthrough in the application of nanotechnology, and was published in October by the Institute of Physics journal, Journal of Micromechanics and Microengineering. Although this is a very recent discovery, the water battery should be ready for commercial production within a decade. Although a fairly large area would be needed for larger applications, the scientists do think that it could eventually be applied to full-scale power generation.

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5. SA Energy Bills

Air Quality Management Bill progress

Source: **Contact Trust**

The Air Quality Management Bill, which will replace the Air Pollution Prevention Act no. 45 of 1965, is due to be discussed by the Select Committee on Land and Environmental Affairs on the 18th November. The National Council of Provinces will also vote on the Bill on the 25th November. Once these processes are complete, the Communications Section of the Department of Environmental Affairs and Tourism will issue a statement on the status of the Bill.

For more information contact Reginald Mabalane at 012 310 3840 or email: **imabalane@ozone.pwv.gov.za**

Environmental Management Co-operation Agreements (EMCAs)

Source: **Contact Trust**

The Department of Environmental Affairs and Tourism has indicated that they are currently collating comments on EMCAs from the recent National Workshop. The

Guideline Documents will then be finalised and Gazetted, although no timeframes have been set as yet.

EMCAs fall under Section 35 of the National Environmental Management Act (NEMA), and are essentially voluntary agreements between industry and communities. EMCAs are intended to encouraging organisations and communities to take on responsibility for environmental management, setting and achieving their own goals. Within the framework of government regulated environmental objectives, these agreements will allow industry to negotiate the methods of achieving these objectives.

For more information contact Anben Pillay at 012 - 310 3951 or email:
Apillay@ozone.pwv.gov.za

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6. Events

South African Events

- Nov 13** Workshop on Investments in the Clean Development Mechanism (CDM)
Sandton Sun & Intercontinental Hotel Conference Room: JACARANDA
Fifth Street, Sandhurst, 2196
Free of charge, booking essential
Organizers: UNIDO and JETRO
Contact: Louise Binge
Japan External Trade Organisation (JETRO)
Assistant to the Executive Director
Projects and Research
Tel: + 27 11 784-6084
Fax: + 27 11 784-8721
E-mail: Louise_Binge@jetro.go.jp
OR Mr Steven Phillips Tel: (011) 450 2477
E-mail: steven@tradeprojects.co.za
- Nov 17 - 18** Environmental Fiscal Reform Workshop
Espada Ranch Conference Centre, Pretoria
The National Treasury
Enquiries: Cecil Morden
Tel: (012) 315-5476
Fax: (012) 315 5516
e-mail: cecil.morden@treasury.gov.za
- Nov 17 - 21** MEETI Training Course Management Programme in
Energy Policy & Industry
(Accredited with the University of the Witwatersrand)
This programme covers new developments and legislation in the
South African energy sector
Contact: Minerals and Energy Education and Training Institute (MEETI)
Keshnee Govender, Training Co-ordinator
Tel no: 011 709 4360
E-mail: info@meeti.org.za
- Nov 20 - 21** MEETI Seminar: Reform of the Electricity Industry
The focus is on restructuring of the electricity industry, regulation,

cross subsidies, pricing and the environment
Contact: Minerals and Energy Education and Training Institute (MEETI)
Keshnee Govender, Training Co-ordinator
Tel no: 011 709 4360
E-mail: info@meeti.org.za

- Nov 19 – 21** City Energy Strategies Conference
Cape Town international Convention Centre
The conference will be inspirational and practical and will build on why a city energy strategy is so important, what it is and how to do it.
Registration before 30 September 2003
Cost: R900 per delegate incl. R300 carbon tax
On content contact: Sustainable Energy Africa:

info@sustainable.org.za

For logistics: African Equations
Tel: (021) 461 5735; Fax: (021) 461 5775
E-mail: gerald@afrianequations.co.za
Website: www.sustainable.org.za/CESConference.htm

- Nov 21 - 22** Earthlife Africa Annual Congress
Environmental Centre, Valkenberg, Cape Town
Contact: Earthlife Africa Cape Town Branch

- Nov 23 - 26** World Wind Energy Conference and Renewable Energy Exhibition
Cape Town, South Africa
Contact: The Registrar, Strategic Business Services,
P O Box 1059, Bellville 7535, South Africa
Tel: (021) 914 2888
Fax: (021) 914 2890
E-mail: registrar@sbs.co.za
<http://www.sbs.co.za/wwec2003>

- Nov 24 – 26** Successfully Implementing Environmental Impact Assessments
Volkswagen Conference Centre, Midrand
Conference
Cost: R7180.86 – R10 258.86
Contact: IQPC South Africa
Tel: (011) 707 9200
Fax: (011) 707 9219
E-mail: registration@iqpc.co.za

- Nov 20-21** Energy for Africa & African Preparatory Meeting for Renewables 2004
UN Gigiri Conference Centre, Nairobi, Kenya
The conference is a dialogue between the European Union and African partners and stakeholders to take forward the EU Energy Initiative for Poverty Eradication and Sustainable Development (euei).
The preparatory meeting will be jointly hosted by the Governments of Kenya and Germany.
EU Energy Initiative website:
http://europa.eu.int/comm/development/body/theme/energy/initiative/index_en.htm

International Events

- Nov 10 - 14** International Solar Concentrator Conference for the Generation of Electricity or Hydrogen
Alice Springs, Australia
Contact: Melody Mountz, SCC Program Coordinator, 1617 Cole. Blvd.,
National Renewable Energy Laboratory, Golden, Colorado, 80401,
USA.
Tel: +1 303 384 6406,
Fax: +1 303 384 6481,
Email: melody_mountz@nrel.gov
www.nrel.gov/ncpv/scc
- Nov 10 - 15** Tecnoure, VI International Conference on Technologies for the Rational Use of Energy and Renewable Energy Use
Havana, Cuba.
Contact: Dr. Oscar L Jimenez, Energy Project Manager, GEPROP,
Calle 20 No. 4112 Alturas de Miramar, Playa. Ciudad Habana, Cuba.
Tel: +53 7 2027096
Fax: +53 7 2029372
E-mail: oscar@geprop.cu www.geprop.cu
- Nov 12 - 14** Greenbuild 2003
Pittsburgh, PA, USA
Contact: Tel: +1 215 428 9655
E-mail: abstracts@usgbc.org
www.usgbc.org/expo/abstracts.asp
- Nov 13 - 17** CIES 2003
1st International Convention on Energy and Environment,
III Symposium on Renewable Energy and Energy Efficiency,
Spanish and English.
Cuba
Info: PhD. Luis Oliva Ruiz, Energetic Efficiency
Studies Center. Universidad of Oriente,
Ave. Las Américas s/n. Santiago de Cuba, 90900,
Ph: 053- 22- 644509, 053- 22- 643120,
Fax: 053- 22- 687286, 053- 22- 632689
e-mail: oliva@ceefe.uo.edu.cu
tony@ceefe.uo.edu.cu,
cies2003@cies.ciges.inf.cu
- Nov 15 - 19** 20th International Electric Vehicle Symposium & Exposition, EVS-20
Long Beach, California, USA
Contact: Pam Turner, EVS-20 Symposium Manager;
Tel: +1 408 741 5870,
Fax: +1 408 741 5872.
E-mail: EVS20Symposium@aol.com www.evs20.org
Or contact: Kara Elsdén, Conferences Director,
Electric Vehicle Association of the Americas, 701 Pennsylvania Avenue
NW, Third Floor, Washington, DC 20004, USA.
Tel: +1 202 508 5995,
Fax: +1 202 508 5924.
Email: kelsden@evaa.org www.evaa.org or www.evs.org
- Nov 18 - 19** Sustainable Energy Asia and Energy Efficiency Asia
Raffles City Convention Centre, Singapore
Contact: Caroline Watson, Marketing Director (Asia) IIR Exhibitions Pte

Ltd, 101 Cecil Street, 09-03 Tong Eng Building, Singapore 069533.
Tel: +65 6227 6252
Fax: +65 6227 0913
E-mail: caroline@iirx.com.sg
www.iirx.com.sg

Nov 19 - 21 CIB 2003 International Conference on Smart and Sustainable Built Environment (SASBE2003)
Brisbane, Australia
Contact: Conference Secretariat, SASBE 2003, Queensland University of Technology, GPO Box 2434, Brisbane Qld 4001.
E-mail: sasbe2003@qut.edu.au
www.sasbe2003.qut.com

Nov 28 2nd Symposium 'Renewable Energy in Developing Countries'
Basel, Switzerland
Contact: Ökozentrum Langenbruck (CATSE), Schwengistrasse 12, CH-4438 Langenbruck, Switzerland.
Tel: +41 062 387 31 56
Fax: +41 062 390 16 40.
E-mail: info@oekozentrum.ch www.oekozentrum.ch

Dec 01 - 12 UNFCCC COP-9
Milan, Italy
Contact: UNFCCC Secretariat;
P.O. Box 260124, D-53153 Bonn, Germany.
Tel: +49-228-815-1000;
Fax: +49-228-815-1999;
E-mail: secretariat@unfccc.int;
Internet: <http://www.unfccc.int/>

Dec 09 - 11 POWER-GEN International 2003
Las Vegas, NV, USA
Contact: PennWell Corporation, PennWell House, Horseshoe Hill, Upshire, Essex EN9 3SR, UK.
Tel: +44 (0) 1992 656600;
Fax: +44 (0) 1992 656700;
E-mail: powergen@pennwell.com;
www.pennwell.com

A full calendar of energy events for 2003, local and international, is available on request from: seccp@earthlife.org.za

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