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Southern African Preparatory Workshop for WIREC 2008

Actions for accelerated deployment of Renewable Energy in Southern Africa

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Executive summary

Overview of outcomes

Energy services are simultaneously both i) critical inputs to the regional (and national) economies in Southern Africa and, ii) significant contributors as a sector of the economy(ies) - including the distributed employment dimensions.

A key opportunity for efficiency and success in accelerating the market uptake for RE in Southern Africa is regional co-ordination of activities and services for the market. These include: common policy development and modes of implementation (including legislation); common regulatory approaches and frameworks; and, regional trading mechanisms for physical power and RE support mechanisms. RE markets and resources do not begin and end at political borders. Key institutional stakeholders include: SADC Energy Programme Office; the Southern African Power Pool (SAPP); the Regional Electricity Regulators Association (RERA); the New Partnership for Africa's Development (NEPAD); the African Union (AU); the Development Bank of Southern Africa (DBSA); and, African Development Bank (ADB). Clearly, national governments and institutions would need to provide commitment to regional co-operation. Lastly, key institutional stakeholders, such as the African Energy Commission (AFREC), the Forum of Energy Ministers of Africa (FEMA), the World Bank and the UN agencies are important stakeholders which should support this overall initiative for RE in Southern Africa.



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Acronyms and abbreviations

ACRONYM	Full Name
ADB	African Development Bank
AU	African Union
DBSA	Development Bank of Southern Africa
DME	Department of Minerals and Energy (South Africa)
IEA	International Energy Agency
IPP	Independent Power Producer
NEPAD	New Partnership for Africa's Development
O&M	Operation and Maintenance
R&D	Research and Development
RE	Renewable Energy
RERA	Regional Electricity Regulators Association
SADC	Southern African Development Community
SANERI	South African National Energy Research Institute
SAPP	Southern African Power Pool
TRECs	Tradeable Renewable Energy Certificates
WIREC	Washington International Renewable Energy Conference



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1. Introduction

1.1 Background:

The US State Department requested that the Renewable Energy and Energy Efficiency Partnership (REEEP) carry out preparatory regional consultation meetings for the Washington International Renewable Energy Conference (WIREC), which will be held on 4-6 March 2008. REEEP undertook three regional consultations in Latin America and the Caribbean, Asia and Southern Africa. These consultations looked to gain direct input from regional decision makers - governments, RE companies, energy utilities, financial institutions, regulators, NGO's and consumers. These meetings sought to find out what is needed within these regions in order to accelerate the deployment of renewable energy (RE) in four primary avenues: Agriculture and Rural Development, Technology/Research and Development, Finance, and Commercialization. WIREC 2008 is anticipated to bring together government, civil society and private business leaders to address the benefits and costs of a major and rapid scale-up in the global deployment of renewable energy technology.

1.2 Context in Southern Africa

Essentially, Southern Africa is at the point of committing public and private sector investments in new energy infrastructure to address backlogs and secure new capacity in anticipation of continued economic development in the region. At the same time, the challenge of global climate change invites creative solutions to energy investments that are both far-sighted and co-operative. At least 50% of southern Africa's primary energy could be provided from renewable sources by 2050, which would stabilise the economies (through portfolio risk benefits of essentially fixed-cost supply whereby at least 50% of the energy price uncertainties will have been fixed) and provide regional/local employment.

It is therefore opportune to formulate a Southern African consensus that seeks to scale up investments in fixed cost (and more sustainable) energy infrastructure through international partnerships. The Southern African Preparatory Workshop for WIREC 2008 provided a platform to pursue this opportunity. This preparatory workshop aimed to frame a regional response, and include debate about the current status of Renewable Energy in Southern Africa, from a national government, local government, industry, civil society and regulatory perspective.

2. Preparatory workshop

2.1 Participation

The Regional Secretariat for REEEP in Southern Africa, supported by the U.S. Agency for International Development, hosted a one-day **SOUTHERN AFRICAN PREPARATORY WORKSHOP for WIREC** on 7 February 2008 at the Innovation Hub, Pretoria. Thirty-eight stakeholders representing governments, regulators, financiers, industry, agriculture, R&D and civil society from seven countries (Angola, Lesotho, Malawi, Mozambique, Namibia, South Africa and Zambia) engaged in intense discussions regarding the acceleration of renewable energy within the region (see Annexure I).

Formal invitations were sent to the REEEP mailing list of 302 stakeholders in the region. Unfortunately, due to the short lead times on the planning and invitations, only thirty-eight of these stakeholders were able to attend. However, relevant information and the outcomes of the preparatory workshop continue to be circulated amongst REEEP-SA networks and is available on the REEEP-SA WIREC regional portal at: <http://reeep-sa.org/wirec/>. In addition to the workshop proceedings, representatives of the Association for Renewable Energy Cooking Appliances (AFRECA) provided a solar cooking demonstration during the coffee and lunch breaks.



3. Presentations and discussions

A total of eleven speakers attended with each presenting on various perspectives regarding barriers to the implementation of renewable energy in the Southern Africa. Please refer to Annexure II for the list of speakers and their presentations.

3.1 Outcomes

Despite a lower than anticipated attendance, the workshop proceeded well and stakeholders were engaged in thorough discussions regarding the challenges to the deployment of renewable energy in the region. The outcomes of the workshop are discussed in subsequent sections of this report.

3.2 Media and communications

3.2.1 Web site

The official regional REEEP portal for WIREC has been up and running since the beginning of November. This site has been regularly updated and populated both with information and proceedings from the workshop and with industry-related publications of interest. The website has been the main point of reference for interested parties to find out the latest developments in the preparation for the workshop.

3.2.2 Print media

Nine print media houses were invited to attend the workshop namely: Die Burger, Business Day, Engineering News, Financial Mail, The Mail and Guardian, The Sunday Times, Africa Eye News Network, The Economist, Financial Times. Unfortunately, none of them attended the workshop however; The Economist and the Refrigeration and Airconditioning Africa Journal were interested in reporting on the outcomes of the WIREC workshop.

3.2.3 Radio and television

Eight radio and television stations were invited to the workshop, namely: 702 Talk Radio, Classic Business Day, SABC Radio and Television Services, South African Press Association, 567mw Cape Talk, BBC, CNN and Sky News. However, none of these media houses attended the workshop.

4. Key stakeholder interviews/web survey

4.1 Questionnaire

Questionnaires were also circulated amongst REEEP-SA networks to supplement the findings of the workshop. To date, no additional input has been secured via the questionnaire. The template used for the Southern African questionnaire is the same as that used by REEEP's Asian Secretariat (refer Annexure III).

4.2 Web-based survey

A web-based survey was administered in order to gain additional input from regional stakeholders particularly those that were not able to attend the workshop. No additional responses or comments were retrieved through the web-based questionnaire.

4.3 Outcomes

Perhaps, with more time allocated towards this exercise, there would have been more responses to the questionnaires web-based survey. REEEP-SA will continue to run the survey as the information contained therein might prove to be useful at a later stage and perhaps in informing regional priorities.



5. Detailed outcomes

The key findings for each of the four thematic areas of WIREC 2008 are summarized and tabulated as follows:

Finance	Market Adoption and Deployment	Technology/ Research and Development	Agriculture and Rural Development
Opportunities/Actions Required			
<ul style="list-style-type: none"> - RE support mechanism(s) must be legislated by national governments. - Current support mechanisms such as feed-in tariffs and TRECs need to be reviewed and optimised. RERA and regulators can undertake this with government ministries. - Utilities should be required to sell and buy at (full) cost-reflective market prices. - Standard PPA's should be developed and applied. - CDM procedures should be simplified to make carbon funding more easily accessible. - Stability in the investment context is critical and leadership is required from governments and regulators to provide long-term confidence for investment. - RERA and national regulators should be more pro-active in guiding planning. 	<ul style="list-style-type: none"> - Communication and awareness of the market opportunity is required by regional and national governments. - The market for energy services is poorly understood. RE offers a long-term investment opportunity which is more attractive than some of the current energy service options. - Energy service decisions must be integrated into the planning and budgeting of line ministries / departments such as health, education, agriculture, etc. As an example, a policy decision in Malawi requires that certain infrastructure investments will not be approved unless the energy service needs are included. - Technology transfer is required by the private sector within the context of a stable market environment. - Skills development for, and by, governments is critical to ensure that there is a regional skills base for production, installation, O&M and administration. - International commitments are required to supporting RE deployment in developing countries and emerging economies. - Define who has the responsibility to perform what activities in RE. 	<ul style="list-style-type: none"> - Regional (and national) co-ordination and promotion of technology R&D is required by governments. The establishment of SANERI and the participation in the IEA's Implementing Agreements are examples. - Increased funding and financial support for R&D institutions from government, industry and international partners is required. - Open access to R&D outcomes should be encouraged to maximize the opportunities and efficacy of R&D investments. - Basic and continuing education at universities and regional / provincial energy institutes, is critical to encourage R&D. - Opportunities for practical and applied R&D include: increased efficiencies, better integration, local adaptation and production efficiency. 	<ul style="list-style-type: none"> - Big opportunities exist for farmers to become energy producers including biomass, wind, hydro and solar generation. - Energy production can diversify and stabilize rural economies. - Economies of scale are possible by getting community involvement and RE empowered. - Leasing the land to an IPP for the production of energy, e.g. wind. - Integration of different energy technologies for economic development



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Finance	Market Adoption and Deployment	Technology / Research and Development	Agriculture and Rural Development
Some affirming experiences to date			
<ul style="list-style-type: none"> - The off-grid electrification programme in SA has provided nearly a decade of service provision for >30 000 customers from RE based on government policy, regulation and equitable subsidization between grid and off-grid rural electrification - The current (and medium-term energy crisis in the region) is focusing governments and regulators attention to use full-cost accounting and portfolio planning 	<ul style="list-style-type: none"> - Experience with off-grid electrification, solar water heating and green building codes is attracting interest from developers and investors - The establishment of a Green Building Council of South Africa initially funded by the SA Property Owners Association 	<ul style="list-style-type: none"> - The establishment of SANERI in South Africa including the RE and Sustainable Energy Hub. - The initiation of RE R&D collaboration with the IEA through the Implementing Agreements under a mandate by the G8 Gleneagles Plan of Action. - The development of new or improved technologies include: <ul style="list-style-type: none"> - the thin film CIGSSe PV module developed at University of Johannesburg - the integrated prepayment/charge controller and billing system for off-grid solar PV systems in SA 	



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6. Annexures

Annexure I: List of participants

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Annexure II: List of presentations

Mr Kadri Nassiep, REEEP Programme Board Member and CEO: South African National Energy Research Institute.

Keynote address: REEEP Role in Advancing RE uptake in Southern Africa

Dr Griffin Thompson, Programme Manager: Asia-Pacific Partnership on Clean Development and Climate, US State Department.

Background on WIREC: What is WIREC 2008?

Mr Nkusuwila Silomba, Electrification Officer: Ministry of Energy and Water Development, Zambia.

A national government perspective: A National Government Perspectives on Barriers to the Deployment of Renewable Energy within the Region

Ms Linda Manyuchi, Director: Air Quality Management and Climate Change, City of Joburg.

A local government perspective: A local government perspective to barriers in implementation of renewable energy

Mr Gavin Watson, E+Co: Africa Investment Officer.

Finance: A finance perspective to the barriers in the implementation of renewable energy within the region

Ms Annie Sugrue, Managing Trustee: Citizens United for Renewable Energy.

A civil society perspective:

Mr Elijah Sichone, Executive Secretary: Regional Electricity Regulators Association of Southern Africa, Namibia.

A regulatory perspective: Universal access to clean and affordable energy - Energy efficiency Renewable energy combating catastrophic climate change

Mr Mohau Nketsi, Department of Minerals and Energy, South Africa.

Rural development (off-grid concessions): Non-grid Electrification Concession Programme in South Africa

Prof Brian Purchase, University of KwaZulu-Natal.

Agriculture: An Agricultural perspective to the barriers in implementing renewable energy in the region

Dr Thembakazi Mali, Senior Manager: Clean Energy Solutions, SANERI.

Technology R&D: SOUTH AFRICAN NATIONAL ENERGY RESEARCH INSTITUTE

Mr Ron Tulleth, Project Manager: Trium Investment Pty (Ltd), South Africa.

An industry perspective: An Industry Perspective to the Barriers in the implementation of Renewable Energy



Annexure III: WIREC Southern African Questionnaire

The Washington International Renewable Energy Conference (WIREC 2008) will bring together government, civil society and private business leaders to address the benefits and costs of a major and rapid scale-up in the global deployment of renewable energy technology.

The Renewable Energy and Energy Efficiency Partnership (REEEP) is undertaking regional consultation to gain direct input from regional stakeholders to determine what is needed in a region to fully accelerate the deployment of renewable energy technologies. The information collected below will be presented at the high level Ministerial event in Washington happening on the 4th-6th of March 2008.

Instructions:

Please provide practical examples where possible.

In which countries do you undertake renewable energy activities?

Renewable Energy (RE) in Southern Africa

1. Have the benefits of a strong global economy been reflected in the growth of the renewable energy industry in Southern Africa?
2. How does renewable energy offer value in Southern Africa?
3. What is needed to increase the uptake of renewable energy technologies in Southern Africa?
4. What is currently driving investment in renewable energy technologies in Southern Africa?

Policy and Regulation

1. What are the key elements in existing policy and regulatory frameworks that have resulted in the successful promotion of RE?
2. What prevents further investment and deployment of renewable energy?
3. Can you access energy planning information at the appropriate levels?
4. What education and skill development initiatives should be undertaken to improve the deployment of renewable energy technologies?
5. How effective are the various regional fora (e.g. AFUR, AEF) in facilitating the growth of renewable energy in Southern Africa?

Finance

1. What business models work in promoting RE?
2. What can be done to engage the finance sector and innovative financing schemes for RE?
3. From an investors perspective what would be the best way to present and manage the risk profile of renewable energy projects in Southern Africa?
4. In deciding on whether or not to invest in renewable energy projects, especially in reference to smaller scale projects, what role does carbon financing play?
5. What are the key upcoming opportunities for renewables?
6. What do you think that Southern Africa could do to better coordinate the region in carbon finance, policy and law?

Please provide contact information