



SUMMARY OF THE FIRST STAKEHOLDER FORUM OF THE AFRICA-EU ENERGY PARTNERSHIP (AEEP): 9-10 MAY 2012

The First Stakeholder Forum of the Africa-EU Energy Partnership (AEEP) took place from 9-10 May 2012 in Cape Town, South Africa. The aim of the Forum was to achieve progress on the AEEP 2020 targets in the fields of renewable energy and energy efficiency, energy access, and energy security, with a focus on renewable energy. The Forum brought together over 250 representatives from government, civil society, research and the private sector, including financial institutions, to explore, among other issues, how to enhance synergies among different stakeholder groups and address barriers to increased investment and development assistance in the energy sector. The meeting also provided a platform for dialogue and exchange of ideas and experiences to facilitate implementation of “actions on the ground.”

The meeting was hosted by the Department of Energy, South Africa, in collaboration with the AEEP Co-Chairs: the African Union (AU) Commission for Infrastructure and Energy; the Federal Ministry for Economic Cooperation and Development, Germany; the Federal Ministry of European and International Affairs, Austria; and the Ministry of Energy and Public Utilities, Mauritius. Additional support was received from the European Commission.

The Forum included: a panel discussion on the future outlook for the AEEP; a breakfast session to launch the baseline report: “Monitoring Progress in the Africa-EU Energy Partnership”; a Renewable Energy Business Roundtable; and nine interactive parallel sessions to explore key issues relating to the core AEEP themes of renewable energy and energy efficiency, energy access, and energy security. During the closing session, the Special Rapporteur for the Forum reported on some of the proposals for the way forward that emerged during the discussions, and highlighted specific messages to the UN Conference on Sustainable Development (UNCSD, or Rio+20) and the UN Secretary-General’s Sustainable Energy for All (SE4ALL) initiative.

A BRIEF HISTORY OF AFRICA-EUROPE COOPERATION ON ENERGY DEVELOPMENT

Africa and Europe have a shared interest in accelerating access to sustainable, efficient and secure energy supplies. Although it is endowed with abundant renewable energy resources, Africa requires significant technical and financial investments and capacity building to reduce its fossil fuel



The South African Deputy Minister of Energy, H.E. **Barbara Thompson**, opens the First Stakeholder Forum of the AEEP on behalf of the host.

dependence, power economic growth and promote social progress. Europe, in turn, seeks to enhance its energy security in cooperation with African partners.

The following is an overview of important recent initiatives and programmes in the framework of Africa-EU collaboration on energy issues, as well as some related international developments.

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EUEI: Established at the World Summit on Sustainable Development (WSSD) in August-September 2002, the EU Energy Initiative for Poverty Eradication and Sustainable Development (EUEI) has put in place instruments such as the EU-ACP (Africa, Caribbean and Pacific) Energy Facility. With a total funding of EUR 420 million, the Facility aims to promote modern, affordable and sustainable energy services in rural and peri-urban areas.

AEEP: Launched during the second Africa-EU Summit in Lisbon, Portugal, in December 2007, the Africa-EU Energy Partnership (AEEP) is one of eight strategic partnerships that emerged from the Africa-EU Joint Strategy and Action Plan. The AEEP is a long-term framework for structured political dialogue and cooperation on energy issues of strategic importance, reflecting African and European needs. The AEEP's overall objective is to increase the effectiveness of efforts to secure reliable and sustainable energy services and extend their access on both continents, enhance access to modern energy services and expand renewable energy and energy efficiency in Africa.

EU RENEWABLE ENERGY DIRECTIVE: Adopted in April 2009, the EU Renewable Energy Directive commits EU Member States to ensure that 20% of their energy comes from renewable sources by 2020, as part of efforts to improve energy security and competitiveness, and combat climate change. It aims to maintain the EU's global leadership in renewable energy technologies. However, it states that the EU will undoubtedly be required to import some of this capacity, and, as a result, inter-regional renewable energy projects between Africa and the EU have begun to take shape.

AGECC and SE4ALL: In 2009, the UN Secretary-General established an Advisory Group on Energy and Climate Change (AGECC) to provide recommendations on how to ensure universal access to modern energy services in the context of climate change, poverty eradication and sustainable development. In November 2011, UN Secretary-General Ban Ki-moon formally launched the High-Level Group on Sustainable Energy for All and the related SE4ALL initiative to mobilize action by all stakeholders on energy access and energy poverty. The Secretary-General's "Vision Statement" for the initiative sets three broad goals for 2030: ensuring universal access to modern energy services; doubling the rate of improvement in energy efficiency; and doubling the share of renewables in the global energy mix. The UN also designated 2012 as the International Year of Sustainable Energy for All, to bring attention to this issue.

PIDA: The Programme for Infrastructure Development in Africa (PIDA), developed by the AU Commission, the New Partnership for Africa's Development (NEPAD) Secretariat and the African Development Bank (AfDB), came into existence in July 2010. PIDA aims to improve access to integrated regional and continental infrastructure networks, and has a programme to identify priority renewable energy projects for investment.

AEEP-HLM: The first High-Level Meeting (HLM) of the AEEP took place on 14-15 September 2010 in Vienna, Austria and addressed a number of themes. The HLM agreed on a set of concrete targets to be attained by 2020, grouped under six priority areas: energy access; energy security; renewable energy and energy efficiency; institutional capacity building; scaling up investment; and dialogue. Until 2020, the AEEP has committed itself to: ensure access to modern and sustainable energy services for at least an additional 100 million African



H.E. Dr Elham M.A. Ibrahim, Commissioner for Infrastructure and Energy of the African Union Commission welcomes the participants on behalf of the African co-chairs.

people; substantially increase the use of hydropower (10,000 megawatts), wind (5,000 megawatts) and solar energy (500 megawatts), as well as triple the capacity of other renewables, such as geothermal and modern biomass. AEEP also aims to enhance energy security by doubling the capacity of African cross-border interconnections within the continent and to the EU, as well as doubling the use of gas in Africa and its export to the EU.

RECP: Launched at the first AEEP-HLM, the Africa-EU Renewable Energy Cooperation Programme (RECP) aims to increase energy access by promoting renewable energy and thereby contributing substantially to the AEEP 2020 targets, by: enhancing industrial and business cooperation between the two continents; improving policy and regulatory frameworks for renewable energy in Africa; contributing to the development and financing of concrete renewable energy projects; and helping to develop the next generation of energy professionals on the continent. The RECP complements ongoing initiatives such as the EU-Africa Infrastructure Trust Fund and the ACP-EU Energy Facility, as well as bilateral EU Member State and European Commission activities.

REPORT OF THE MEETING

The First Stakeholder Forum of the Africa-EU Energy Partnership included opening and closing sessions, a keynote address, panel discussions, a breakfast session, a business roundtable, as well as 9 interactive parallel sessions on renewable energy and energy efficiency, energy access, and energy security.

This report summarizes all these sessions, starting with the discussions in the opening session, keynote address, panel discussions, breakfast session and business roundtable, and followed by the discussions in the interactive parallel sessions and the closing session. IISD Reporting Services attended 6 of the 9 parallel sessions, but this report includes a summary of all the parallel sessions.

OPENING SESSION

The First Stakeholder Forum of the Africa-EU Energy Partnership (AEEP) opened on Wednesday 9 May. Barbara Thompson, Deputy Minister of Energy, South Africa, noted that development of Africa's vast renewable energy resources has the dual objectives of delivering energy services to the poorest and developing energy infrastructure to promote

economic development. Thompson commended the achievements of African regional power pools in extending energy access and the integrated approach of the AEEP Stakeholder Forum.

Elham Ibrahim, Commissioner for Infrastructure and Energy, African Union (AU) Commission, commended the AEEP implementation teams for their results to date. She highlighted efforts made by the Programme for Infrastructure Development in Africa (PIDA) to interlink African energy infrastructure, noting that US\$40 billion of a total of US\$68 billion for PIDA's priority action plan is allocated to 15 energy infrastructure projects to be achieved by 2020.

Ingo Herbert, German Embassy, South Africa, highlighted Germany's contribution to sustainable energy development in Africa, indicating his country's commitment to more than double its current annual portfolio to almost EUR 1.8 billion, in order to meet the AEEP and Sustainable Energy for All (SE4ALL) targets.

Jean-Paul Joulia, European Commission, welcomed the contribution of the AEEP as a well-established framework "in which the EU and Africa are equal partners." Noting that lack of energy is inhibiting the realization of development goals, he underscored the role of the private sector in bridging the funding gap to realize the AEEP and SE4ALL targets in sub-Saharan Africa.

Concluding the session, Ingmar Stelter, AEEP Secretariat, provided a brief introduction to the 2020 political targets, which constitute the joint Africa-EU contribution to reaching the goal of universal energy access by 2030 as set out by the SE4ALL initiative. He urged the Forum to mobilize the expertise of the assembled stakeholders to propose innovative actions to meet the AEEP targets.

TECHNOLOGY AND INNOVATION – SOLUTIONS FOR RENEWABLE ENERGY AND ENERGY ACCESS:

Ogunlade Davidson, University of Sierra Leone, gave the keynote address on applying technology and innovation to enhance renewable energy and energy access in Africa. Davidson noted that although vast resources are available, the technology to exploit them is expensive or not available. He called for improving the implementation phase of technology transfer, saying it requires not just theory, but involvement and practice, including learning from failure. He noted that National Innovation Systems are absent in the majority of African countries, underlining their role to nurture innovation and create an attractive climate for innovators. Davidson emphasized the need to collaborate better with politicians to understand their development priorities, and called for improved capacity building for both the human and institutional resources concerned. He also noted the need for technologies to stimulate demand for secondary energy resources, and recommended that technology transfer should form the cornerstone of EU support.

FACING THE FUTURE – AN ENERGISING PARTNERSHIP WITH PRIVATE SECTOR, CIVIL SOCIETY AND RESEARCH: This panel discussion, which was held on Wednesday morning, was moderated by Daniel Makokera, South Africa, with contributions from panelists: Mosiah Ntlai, Standard Bank of South Africa; Jean-Paul Joulia; Ogunlade Davidson; Thomas Akabzaa, Ministry of Energy, Ghana; Mokgadi Modise, Department of Energy, South Africa; and Elham Ibrahim.

On country-level experiences in working with multi-stakeholder partnerships, Ibrahim noted that there are many good examples of public-private cooperation with involvement of civil society, such as projects to disseminate improved fuel stoves, and highlighted an AU and EU-supported project that has established a risk mitigation fund for private investors in Kenya's Rift Valley. She called on governments to provide start-up financing to support the scaling up of such initiatives, for example through revolving funds. Joulia noted the need to recognize the roles of different stakeholders, in order to set up realistic profit-sharing models. Modise stressed the importance of stakeholders' buy-in in dealing with uncertainty and risk, noting this requires concerted engagement and dialogue, especially where social and environmental safeguards are needed. Akabzaa observed that while research and development help to adapt available technologies to mitigate negative social and environmental impacts, what is needed is demonstrated good practice and adapting this to the African situation.

In response to a question on what considerations need to be taken into account in stimulating multi-stakeholder engagement, Ntlai noted that "there is false money and true money" and called on governments to develop clear roadmaps for renewable energy development to encourage the involvement of all actors. He cited the contribution of South Africa's Council for Scientific and Industrial Research in closing the gap between research and development, and commercialization, thus helping entrepreneurs to minimize risks. However, Davidson called for academia to be more proactive in initiating dialogue with the private sector, noting "we cannot simply sit in our ivory towers."

On possible overlaps between national and regional action, Ibrahim stressed that the role of regional bodies is to harmonize national efforts, and cited the case of the Southern African Development Community which has achieved significant success in establishing a common power pool for the benefit of member states.

DATA COLLECTION AND MONITORING THE AEEP TARGETS

This breakfast session was held on Thursday morning. The AEEP Co-Chairs and AEEP Secretariat launched the report "Monitoring Progress in the Africa-EU Energy Partnership," which will provide a basis for monitoring the AEEP political targets.



Welcome address of the Chargé d'Affaires of the German Embassy to South Africa, Mr. Ingo Herbert on behalf of the German co-chair.



The AEEP Forum provided space for interaction between stakeholders from both continents, Africa and Europe

Presenting the report, Steffen Behrle, AEEP Secretariat, enumerated the steps taken so far in developing a monitoring framework to track progress in achieving the AEEP targets. He highlighted the establishment of an AEEP Monitoring and Evaluation Working Group in 2011 to spearhead the establishment of a “fit-for-purpose” monitoring tool to produce accurate metrics for policymakers and other stakeholders. Presenting an overview of the methodology used in the study, Jon Marks, Cross-border Information, UK, explained that this initial mapping exercise had drawn on available national data that had highlighted major gaps, for instance with regard to information on available versus installed energy capacity. Noting that this posed major challenges for informed decision making, he underlined the need to update the database prior to the completion of the first monitoring report that will be produced as an input to the next High-Level Meeting (HLM) of the AEEP (AEEP-HLM).

In the ensuing discussion, speakers highlighted, among other issues: strengthening monitoring capacity in African countries; ensuring close alignment to the SE4ALL monitoring process and existing regional initiatives; providing public access to monitoring data; harmonizing measurement standards; and disaggregating data on energy access to enable better targeting of the most marginalized groups. Several contributors noted that the available data can be enhanced through better integration with datasets produced by large energy projects and the regional economic communities.

In response to a question on possible duplication of efforts by AEEP and SE4ALL, Franz Marré, Federal Ministry for Economic Cooperation and Development, Germany, emphasized that achieving the AEEP targets will directly contribute to energy access for an extra 100 million people and boost monitoring efforts.

On enhancing African “ownership” of energy information, Bernard Barandareka, AU Commission noted that the AU’s capacity to mobilize energy projects has improved and cited a recently completed study of solar generation capacity in 24 countries. In conclusion, several speakers noted that despite major gaps, the baseline report provides a useful starting point

for more concerted monitoring efforts and also highlights the need for African policymakers to take energy planning more seriously in order to leverage international support.

MAKING IT HAPPEN – BRINGING THE AFRICAN AND EUROPEAN PRIVATE SECTORS TOGETHER ON RENEWABLE ENERGY

On Thursday morning, a renewable energy business roundtable was held on insights from the African and European private sectors involved in energy initiatives in Africa, by a panel consisting of: Erica Johnson, ESKOM, South Africa; Nolitha Fakude, Executive Director Sustainability, Sasol Limited, South Africa; Lawrence Jones, Alstom Grid Inc.; Boldewijn Sloet, Barefoot Power, Uganda; Carlo van Wageningen, Lake Turkana Windpower, Kenya; and Gregory Tayi, REPRO Limited, Rwanda. The session was moderated by Daniel Makokera.

On the current status of renewables in Africa, Johnson said South Africa is on the verge of a shift in the energy mix, with increased uptake of renewable energy at both supply and demand sides. She underlined that stability of the national grid remains a priority for the national utility, and encouraged partnerships to help facilitate the uptake of emerging renewable energy technologies. Fakude noted that Sasol is looking to diversify its energy offerings, and is looking for partnerships to enable it to share its expertise in harnessing energy resources. Fakude further highlighted government regulations that facilitated Mozambique gas pipeline partnership, and Sasol’s cogeneration agreement with ESKOM where it feeds 140MW into the grid.

On good practice relating to the policy environment, Jones said national grids around the world are opening up to accept feed-in agreements for wind and other renewable energy sources. He noted that the type of partnerships and best practices for managing those partnerships will vary according to the renewable resources and scale of the projects. Sloet noted that although the country is “more comfortable” to talk about big systems and infrastructure, grid access cannot keep up with demand in Uganda, which makes micro-scale

sustainable energy appliances relevant. He noted that such appliances move individuals up the energy ladder and set them on the pathway to modern energy services.

Van Wageningen enthused that Africa is the ideal place for renewable energy developments due to accelerated demand from high economic growth, and because of the vast expanses of land and renewable resources. Van Wageningen and Sloet both opined that Africa has the unique opportunity to adopt clean technologies, bypassing massive fossil fuel generation infrastructure. Tayi underscored the challenges faced in Rwanda when seeking financing for mini-hydro projects, and reflected on the subsequent successes in getting plants up and running, noting how mobilizing ground-level programmes for small-scale generation can be profitable. On regulations for small-scale generation, Jones recommended regulations to incentivize local cooperative distribution systems that are independent of the national grid, and can interconnect local micro generators.

During the general discussion, participants highlighted, among other issues: the need for renewable energy programmes to take on board demand for solid cooking fuel, which is the dominant energy source in Africa and key to tackling energy access and opening up economic opportunities at the local level. Cautioning that clean applications for bioenergy require greater investments in research and development and commercialization, as well as regulation, one participant called for “partners with big pockets to fund the necessary technical studies.” Others stressed that successful scaling up in the renewables sector requires a long-term view to enable Africa to fully develop its potential, as exemplified by the development of the biofuel sector in Brazil.

THE WAY FORWARD FOR THE AEEP

On Thursday afternoon, Albert Butare, Special Rapporteur, highlighted steps taken since the First AEEP-HLM held in September 2010, including the launch of an online stakeholder platform and the convening of a Joint Expert Group Meeting and Stakeholder Consultations in Bonn, Germany in February 2012. He then summarized the key issues as raised by three stakeholder groups at the Forum.

For civil society: advocating inclusiveness in energy-related businesses at all levels; ensuring that large-scale energy projects have a stronger access and poverty alleviation focus; and moving beyond the current dominance of electricity to explore bioenergy applications.

For the private sector, the key issues were: recognition that renewable energy is happening in Africa and that it offers a unique and long-term opportunity for African industry; the critical role of a conducive policy environment; and the need to explore innovative financing instruments for private sector renewable energy projects in Africa, such as “special interest windows” and first-mover incentives.

For research institutions: enhancing strong partnerships between industry and research institutions for relevant applied research; making better use of European research capacities for technology transfer and skills development in Africa; and ensuring that policymaking is better supported by socio-economic research, especially in exploring “nexus” issues relating to competing needs for water, food security and energy.

With regard to specific suggestions on “What the AEEP can do for you,” Butare noted the discussions had highlighted the need to:



Mr Jean-Paul Joulia, Head of Energy Unit, DG Development Cooperation, European Commission addresses the stakeholders at the opening session.

- support stakeholder groups at the country level in advocating pro-access and pro-renewable energy policies (all stakeholders);
- operationalize results-oriented and subject-specific (for instance biomass and productive use of energy) stakeholder networks and platforms (civil society, private sector);
- support ongoing work towards assessment and development of an integrated plan for regional and/or pan-African research and skills development (research);
- contribute to bridging the renewable energy bankability gap within the framework of the Africa-EU Renewable Energy Cooperation Programme (RECP) (private sector); and
- organize business roundtables where “we can roll up our sleeves and get concrete results” (private sector).

On “what you can do for the AEEP,” proposed actions included:

- strengthening capacities for financing energy access, energy efficiency and renewable energy projects in Africa, such as training hubs for energy financing (private sector);
- establishing effective links among African and European business associations to support the organizational development of African associations and provide market information to European associations (private sector);
- developing an agenda for development-oriented energy research and innovation, for example through accelerated deployment of renewable energy and enhanced equitable access to national oil and gas resources in Africa for the benefit of all (research, civil society);
- initiating a transparent Africa-Europe dialogue on the future of oil and gas trading between the continents (all stakeholders); and
- strengthening the advocacy capacity of African civil society organizations working on energy issues (civil society).

On immediate next steps, the Forum called for the AEEP Monitoring and Evaluation Working Group to invite other stakeholder representatives to participate in monitoring progress in the AEEP targets. It was noted that the upcoming AU Conference of Energy Ministers of Africa Meeting in November would provide an opportunity for AEEP stakeholders to maintain the momentum by participating in the investment forum being organized during the meeting. All stakeholders were invited to continue to contribute to the online forum in preparation for the Second AEEP Stakeholder Forum scheduled for 2014. Can be accessed via <http://aepforum.energypedia.info/> (registration required).

Concluding that “renewable energy is happening in Africa,” Butare called on all stakeholders to make better use of these partnerships to achieve the commitments made for the current and future generations.

MESSAGES TO RIO+20 AND SE4ALL

Albert Butare outlined specific messages to the UN Conference on Sustainable Development (UNCSD, or Rio+20), in June 2012 and the UN SE4ALL initiative, as highlighted by the AEEP Stakeholder Forum discussions, including a number of concrete contributions to be achieved through realizing the AEEP 2020 targets, namely:

- expanding energy access to 100 million more people in Africa;
- increasing the share of renewable energy in the energy mix;
- achieving substantial increases in energy efficiency; and
- facilitating SE4ALL stakeholder involvement in the African region.

INTERACTIVE PARALLEL SESSIONS

On Wednesday afternoon and Thursday morning and afternoon, nine interactive parallel sessions were held on the AEEP’s three core themes of renewable energy and energy efficiency, energy access and energy security. This section summarizes the discussions in these sessions, organized according to the discussions in each core theme.

RENEWABLE ENERGY AND ENERGY EFFICIENCY HOW TO CATALYZE INVESTMENT IN MESO-SCALE RENEWABLE ENERGY PROJECTS IN AFRICA:

This session was held on Wednesday afternoon, and focused on the enabling policy and regulatory environment required for increased investment in renewable energy projects in Africa, in order to transform “good ideas” into bankable projects.

Introducing the session, moderator Wisdom Ahiataku-Togobo, Ministry of Energy, Ghana, noted that while much has been said about meso-level investments, very little has been achieved so far on the ground in Africa. Franz Marré, Federal Ministry for Economic Cooperation and Development, Germany, highlighted the role of governments in creating an institutional framework to stimulate renewable energy markets. Martin Lugmayr, Economic Commission for West African States (ECOWAS) Centre for Renewable Energy and Energy Efficiency (ECREEE), emphasized the market potential of mini-grid and off-grid solutions.

Hussein El-hag, African Energy Commission, highlighted ongoing studies and capacity-building initiatives to scale up renewable energy investments on the continent. Noting the failure of large-scale grid projects, Teodoro Sánchez, Practical Action, welcomed the focus on the meso-scale and called for sufficient attention to issues of equity, ownership and efficiency.

Yaw Afrane-Okese, Development Bank of Southern Africa, highlighted the role of development banks in encouraging innovation and pooling creative ideas. Marc Hankins, African Solar Designs, said it was time for a reality-check on stakeholders’ commitment to photovoltaic development in Africa, noting that not only are the “messengers” of renewable energy not practicing what they preach, but there is also no policy to enable it. On the practical challenges of getting renewable energy technologies to market in Africa, he highlighted the lack of realistic feed-in tariffs and the absence of large international investors. Richard Claudet, African

Development Bank (AfDB), highlighted the need to lower financial transaction costs and strengthen local manufacturing as key factors in making renewable energy projects bankable.

In the ensuing discussion, participants lamented low research and development capacity in the renewables sector, noting that this is a prerequisite for realizing Africa’s full potential. Several speakers called for energy partnerships to focus on transferring technology and building local production capacity in Africa. One participant cited Cape Verde as a “best practice” example of government’s role in attracting public-private partnerships in the renewable energy sector, enabling the national utility to reduce its dependence on diesel and realize profits for the first time in its history. Other contributions listed useful entry points for partnerships as including cost-sharing for due diligence studies, investing in standardized procedures for renewable energy projects, and exploring ways to lower transaction costs and leverage different financing sources.

On creating incentives for the private sector to replicate such successes, participants stressed the need to: create demand for renewables; share best practices; invest in pilot projects; address the concerns of all stakeholders; and create awareness and build the capacity of smaller banks, which are best placed to finance meso-level renewable energy projects.

On the role of development partners, participants called for support at various levels, including: building the capacity of financial institutions to work with new client groups; enhancing the capacity of civil society actors to influence demand; and encouraging good governance and sharing positive experiences. Several participants decried “gaps” in the current renewable energy discourse, highlighting, among other issues, the exclusion of private investors and rural women during the formulation of renewable energy projects.

THE GREEN ECONOMY AND JOB CREATION – TRAINING, CAPACITY BUILDING AND APPLIED RESEARCH: This panel session, held on Thursday morning, presented and discussed job prospects in Africa and the EU, with a focus on skills needs for renewable energy, research and development, and vocational training. The panelists were: Johan van den Berg, South African Wind Energy Association; Pierre Dembele, Mali-Folkecenter, Mali; Izael Da Silva, Strathmore University, Kenya; Aicha Adamou, L’Union des professionnels des Energies Renouvelables (UPER) Algeria; and Mamadou Saliou Sow, Sustainable Power Electric Company (SPEC Solar), Senegal. The moderator was Mike Ensat, Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, Germany.

The session began with a presentation by Ulrike Lehr, Institute of Economic Structures Research, Germany, on the findings of a study exploring the macro-economic effects of generating employment from renewable energy. Drawing on experiences from Germany and Tunisia, Lehr identified the key success factors as a coherent policy framework, strong domestic demand, a well-established domestic industry, and, where possible, international demand. Noting that an enabling policy stimulates growth in domestic production and capacity building along the entire value chain, Lehr said that in the case of Germany, this led to more than doubling of renewable energy jobs between 2004 and 2011. In the case of Tunisia, she noted that a vibrant domestic industry had emerged, with a few large companies and numerous small and medium enterprises (SMEs) now involved in producing solar water heaters, and creating about 12,000 jobs. Lehr however stressed that

stimulating job creation requires having clear renewable energy and efficiency targets and combining foreign investment and local content.

In the ensuing discussion, participants debated the extent to which this model was relevant for most African countries. Sow lamented the lack of a coherent policy framework, noting that some countries have enacted investor-friendly regulation without providing guidance on priority energy sectors for such investments. He called for enhanced public-private cooperation to tackle the remaining gaps and ensure policy coherence. He also stressed that developing renewable energy targets should go hand in hand with establishing relevant training programmes to create the required human capacity, particularly upstream of the energy value chain where there is a lack of skilled technicians to install and maintain local renewable energy systems.

Highlighting lessons from South Africa's experience, Van den Berg emphasized that political buy-in is closely linked to creating sufficient employment, which requires large upfront investments in skills development. He noted that the wind sector alone requires training of 950 engineers a year, which necessitates sending staff abroad until sufficient local training capacity has been developed. On Algeria's experience, Adamou stressed that sustainability considerations, rather than employment generation, was the primary driving force in an ambitious programme to generate 20,000 MW from renewables. She stressed that all players must play a role in creating demand and should not wait for a "perfect" regulatory framework to be established first. On the role of civil society, Dembele noted the need to demonstrate workable renewable energy models, especially at the local level.

With regard to good practices in public-private-research partnerships, Da Silva encouraged all participants to make use of the AEEP focal points for each of the three stakeholder groups, to build synergies and maximize opportunities. He pointed to the World Bank's Climate Innovation Centers framework as a good example of multi-stakeholder collaboration to strengthen innovation in SMEs.

Other contributions highlighted the need to create an accessible database on technology transfer and training opportunities, and to distinguish between direct and indirect employment in quantifying employment generation. Several speakers noted that conventional renewables are capital intensive while bioenergy has more potential for job creation in rural areas. One speaker pointed out that since the bulk of European research and development is done by public bodies, these bodies should also play a greater role in technology transfer.

REGULATION AND LEGISLATION FOR RENEWABLE ENERGY: This session, which was held on Thursday afternoon, aimed to showcase country commitment in creating a conducive environment for renewable energy and energy efficiency and was moderated by Marcel Raats, Ministry of Economic Affairs, Agriculture and Innovation, the Netherlands. The panel consisted of: Matthew Matimbwi, Tanzania Renewable Energy Association (TAREA); Oliver Patent, WKN AG, Germany; Sisa James Njikelana, Parliamentary Portfolio Committee on Energy, South Africa; and Ibrahima Thiam, ECOWAS Regional Electricity Regulatory Authority.

During the discussion, speakers highlighted the need for reliability, trust and confidence in regulatory and framework conditions, as well as legal environments to attract investors.

Noting that solutions must be tailored to a country's needs, some contributors stressed that while a feed-in tariff may work in one place, it may discourage competitiveness in other contexts. The need for capacity building on renewable energy for regulatory agencies, energy ministries and other governmental institutions was also highlighted. Other issues raised included the need for: involving all relevant stakeholders in renewable energy policy design and regulatory processes in order to enhance transparency; increasing advocacy at all levels to create demand; and ensuring the independence of regulatory agencies. The session also highlighted various best practices, including two recent calls for tenders for renewable energy projects in South Africa and tax exemptions for rural applications of renewable energy technologies in Tanzania.

Participants called on the AEEP to support the capacity building of key stakeholders by facilitating: exchanges among regulators and pan-African and European parliaments; transfer of technology between the EU and Africa; and formulation of roadmaps for the development of regulatory frameworks.

ENERGY ACCESS

THE AEEP AND UN SE4ALL INITIATIVE – WHAT ROLE FOR PRIVATE SECTOR, RESEARCH AND CIVIL SOCIETY IN ENERGY ACCESS? This session was held on Wednesday afternoon and explored how to realize energy access and renewable energy through increased private investment, technology and innovation, and enabling policy environments. The session was moderated by Nathaniel Mjema, AEEP Secretariat, and the panelists were: Steven Lennon, ESKOM, South Africa; Jean-Paul Joulia; Alois Mhlanga, UN Industrial Development Organization (UNIDO); Simon Rolland, Alliance for Rural Electrification (ARE) Belgium; and Ishmael Edjekumhene, KITE, Ghana.

Participants noted that while there is agreement on the feasibility of SE4ALL targets, the question is how these can be achieved. They underlined that enhancing the involvement of all sectors in renewable energy development offers investment opportunities. Some participants stressed that sufficient resources can be mobilized by making better use of existing financial mechanisms and mentioned the RECP as a good example of North-South collaboration. Others highlighted the importance of focusing efforts on clean energy for cooking, noting this is the greatest unmet need in Africa. With regard



Prof Ogunlade R. Davidson, Professor of Mechanical Engineering at the University of Sierra Leone delivers the keynote speech.

to meeting the AEEP 2020 targets, participants identified some of the immediate issues as the need to create a platform for monitoring and coordination of activities at the regional level, and sectoral coordination at country level for effective planning and budgeting. The “nexus approach” to tackle competing needs for energy, water and food security was also highlighted.

DECENTRALISED SYSTEMS FOR ENERGY

ACCESS: This session was held on Thursday morning and addressed how to catalyze markets for modern lighting and off-grid and stand-alone grid solutions for rural electrification, from the perspective of practitioners and entrepreneurs. The session was moderated by Simon Rolland and the panel consisted of: Ahmed Hamza Ali, Egypt-Japan University of Science and Technology; Nico Peterschmidt, Integrated Energy Supply Systems, Inensus GmbH, Germany; Joseph Nganga, Renewable Energy Ventures, Kenya; Marcel Raats; Pepukaye Bardouille, International Finance Corporation (IFC); Stephen Karekezi, AFREPREN; and Wilhelm Karanitsch, Andritz Hydro.

Speaking on effective business models, Peterschmidt highlighted energy companies with mobile generation equipment supplying villages on short-term, renegotiable contracts, while Nganga described entrepreneurs that rent out solar lanterns nightly for a fee equivalent to the cost of kerosene generated light.

On overcoming prohibitive startup costs, Karekezi noted successes with energy generation projects that piggyback on existing agro-industries, which meets a pre-existing energy demand and makes use of existing technical capacity. He also recommended rehabilitation of disused small hydro plants that can be operationalized at low cost and in a short period of time. Bardouille added that there is a need to provide working capital along the distribution chain for new low-cost off-grid energy appliances, as well as to raise product awareness and ensure quality.

Ali called for the development of an energy resources map to enable investors to recognize potential development opportunities, while Karekezi, Nganga and Peterschmidt said that the large amount of data needed to provide useful and relevant information may not be the best way to use available funds. They said such funds should instead be channeled to the private sector to expand existing projects. Bardouille clarified that the Sustainable Business Advisory division of the IFC makes strategic use of funds to catalyze and leverage private

sector growth, rather than pumping money directly into the private sector. Nganga and Peterschmidt noted the positive role that development finance can play when used to stimulate private investment through partnership with governments to ensure a better policy environment. Karekezi recommended minimizing regulation and providing favorable subsidies for small-scale generation below three megawatts to boost the sector and create high growth in the market.

On whether electrification and energy access for the continent should focus on ground-level initiatives or big business, panelists agreed that the dire need for services requires all approaches, and that there are market opportunities at both ends of the spectrum. On key recommendations to decision makers, Ali called for cost-effective technology for decentralized systems, Peterschmidt recommended rationalizing tariffs, Nganga underlined building capacity in early projects, and Raats highlighted capacity building at a local level, organized planning of energy developments and stimulating demand. Bardouille further called for establishing national energy access delivery entities that are appropriately funded and staffed, Karekezi emphasized deregulating markets to target local entrepreneurs, while Karanitsch said clear plans from government are required to draw private projects.

BIOENERGY FOR THE 21ST CENTURY: Held on Thursday afternoon, this session aimed to turn the spotlight on solid biomass, which is the predominant source of household energy in Africa, both now and in the foreseeable future. With a focus on gender dimensions of energy access, the discussion explored efficient and sustainable cultivation, processing and combustion of biomass to provide modern and clean energy to households. The moderator was Chimwemwe Msukwa, Development Technical Assistance Services, Malawi, with contributions from: Christa Roth, Food and Fuel Consultants; Johan Eksteen, Pelleting Ltd, South Africa; Nozipho Mabebe Wright, ENERGIA Africa; André de Groot, SEW/IFDC Burundi; Otu Danquah, Energy Commission, Ghana; Ibrahima Sall, DG, C.N.T. SUARL, Senegal; and Jörg Fingas, Consultant.

Following the screening of a short film on the contribution of wood to Africa’s green energy future, Msukwa invited panelists to reflect on how to raise the profile of biomass in the renewable energy mix, noting it is currently at the bottom of the energy value chain and is unduly perceived as a “backward” source of energy. Wright noted that more than 600 million Africans rely on solid biomass for cooking and



The Co-chairs of the AEEP launched the Baseline Report for monitoring of the 2020 Political targets on energy access, energy security and renewable energy & energy efficiency.

underlined that promoting clean and efficient uses of biomass could lead to positive impacts on health, gender empowerment and environmental sustainability. Eksteen called for the AEEP to help place biomass on an equal footing with other energy sources. Roth noted that bioenergy is viewed as a progressive and clean fuel source in many European countries, where incentives are in place to promote technologies such as wood pellets. On the issue of subsidies, there were differing views on whether providing incentives for bioenergy innovations is right for Africa, with some private sector representatives arguing that this will stifle competition in local markets. Others, however, felt that given their lack of purchasing power, poor households require support to adopt clean technologies, which necessitates carefully targeted research and development, and dissemination programmes to stimulate demand.

On balancing competing needs for bioenergy, water and food security, de Groot stressed the need for integrated approaches such as those practiced in agroforestry systems, while others called for clear sustainability criteria to guide land use priorities.

Noting that efficient use of agricultural and human waste is an important but neglected element of bioenergy, Sall highlighted his organization's work to promote biochar production from rice husks in Senegal. However, several participants emphasized that there can be no one-size-fits-all approach.

With regard to business models for enhancing energy access to the poor, participants noted that useful guiding principles include: clearly demonstrating the cost and time benefits of alternative energy services; use of cheap and locally available materials; and linking the marketing of fuel-efficient cooking devices with the appropriate fuel source, for instance by creating supply of pellets made from agricultural waste while marketing of efficient fuel stoves. Participants called on AEEP to foster the development of quality standards for improved fuel stoves and other appropriate domestic appliances and help in securing funding for pilot projects to encourage the scaling up of proven technologies.

ENERGY SECURITY

LARGE-SCALE ENERGY INFRASTRUCTURE DEVELOPMENT IN AFRICA: This session was held on Wednesday morning and focused on the current status, opportunities and barriers of large energy infrastructure development in Africa with a view to enhancing linkages between the AEEP Targets and the PIDA Outlook for 2020 and 2040.

Daniel Makokera moderated the session, with panelists: Ernesto Alvarez Martínez, Grupo TSK; Wolfgang Moser, Federal Ministry of European and International Affairs, Austria; Jacques Moulot, AfDB; and Philippe Niyongabo, AU Commission.

On lessons learned from infrastructure projects, Alvarez noted concentrated solar power projects in Morocco and South Africa are being developed, and attributed this to strong signals from clear government policies and legislation promoting investments. Moulot noted that energy development had three aspects, namely energy access, security and distribution. He also highlighted the trend towards regional-level infrastructure projects, with Niyongabo calling for greater interconnectivity between the regional energy blocks. Moulot further noted the

benefits to regional approaches, such as cooperating in the development of least-cost energy resources to benefit both those with developed and underdeveloped energy resources.

Discussion then moved towards "is there money?" and "where is the money?" to fund Africa's energy development. Participants said Africa has the money, in numerous funds that have not been accessed, such as pension funds, but that there is a need for bankable projects. Others disagreed, stressing that banks follow signals given by governments and the funding will follow where government has indicated clear policy priorities. Alvarez referred to the long-term independent power producer agreements and tender processes in South Africa and Morocco that attracted a wealth of investment and projects.

Regarding a question on what the "weakest link" in the AEEP relationship is, panelists said there is a shortage of skilled human resources in the regions, calling for the establishment of more training centers and the retaining of trained staff. There were mixed views on what comes first: demand or supply, with some noting that large-scale investors require an accompanying industrialization strategy to demonstrate where the increased energy supply will be absorbed. Others felt that it is necessary to first create surplus supply to stimulate productive demand.

In response to a question on whether PIDA's targets conflicted with those of the EU-Africa Partnership on Infrastructure, Niyongabo noted that PIDA's recommendations have been assessed and at least 30% of the PIDA projects are covered by the Infrastructure Trust Fund.

DRIVERS AND BARRIERS FOR PRIVATE ENERGY FINANCE IN AFRICA: This session was held on Thursday morning and focused on questions of cost, profitability, risk and competitiveness from the perspective of private investors. The session was moderated by Daniel Makokera, with contributions from: Peter Malika, E+Co East Africa; Khilna Dodhia, Kenegy Renewables, Kenya; Madalo Minofu, Development Bank of Southern Africa; Bernard Barandareka; Jeff Murage, Kenya Association of Manufacturers; and Andreas Spiess, Solarkiosk, GmbH.



Albert Butare, Special Rapporteur of the Stakeholder Forum, summarizes the discussions during the interactive sessions on both days and highlights opportunities for the future of the AEEP.



Some of the panelists during the Renewable Energy Business Roundtable "Making it Happen - Bringing the African and European Private Sectors Together"

Dodhia highlighted the need for a stable regulatory environment that offers investors long-term security. Noting that early stage finance is particularly difficult, she said government investment in resource mapping could offer a solution to this problem. Malika pointed out that due diligence studies are complicated and time consuming and that there is need for capacity building for project developers. Highlighting South Africa's experience in establishing a conducive regulatory framework, Minofu stressed the need for security for contractual parties.

Noting that European investors are looking at shorter project and financing timeframes of around five years, Spiess highlighted the need for effective matchmaking between project developers and project financiers and the role of development banks in this. Barandareka cited the AU Commission's geothermal development and risk management facilities as examples of targeted instruments designed to attract renewable energy investments.

During the discussion, participants highlighted thorough project preparation, currency hedging and feasible exit strategies as examples of risk mitigating approaches in renewable energy financing.

ENERGY EFFICIENCY - AN ENERGY SECURITY SOLUTION FOR AFRICA: On Thursday afternoon, Ernest Asare, Ghana Energy Foundation, moderated this session, explaining that the discussion would address supply- and demand-side energy efficiency measures and initiatives taking place in Africa. The panelists were: Nebojsa Nakicenovic, International Institute for Applied Systems Analysis; L.J. Grobler, Southern African Association for Energy Efficiency; Etiosa Uyigüe, UN Development Programme (UNDP) Global Environment Facility (GEF) Energy Efficiency Programme, Nigeria; Yezouma Coulibaly, 2iE, Burkina Faso; Edouard Dahomé, *Électricité de France* (EDF); Damien Navizet, Agence Française de Développement (AFD), South Africa; and Musara Beta, Southern African Power Pool.

Nakicenovic highlighted that energy efficiency investments are essential to achieving the UN energy goals of energy efficiency and access, adding that efficiency gains will defer investment costs in the long term. Grobler highlighted that South Africa's energy efficiency industry has been stimulated by South Africa's energy crisis, with ESKOM, the national utility, spending close to US\$1 billion, raised from levies on electricity tariffs, to reach and surpass a 2300MW energy savings target.

On energy efficiency initiatives in Africa, Grobler noted that industrial energy efficiency had resulted in the largest savings, over commercial and residential initiatives in South Africa. Asare reflected on the demand side programme in Ghana to replace inefficient incandescent lamps with compact fluorescent lamps, noting that this was also in response to an energy crisis. Uyigüe described the programme in Nigeria to set national efficiency standards for refrigerators and air-conditioners. Coulibaly detailed a number of passive design methods that can be used to improve the thermal characteristics of homes and small buildings, and which also lead to air-conditioning energy savings, but bemoaned the fact that no comprehensive green building codes exist in his and other West African countries.

Speaking on the supply side experience for energy efficiency, Dahomé noted that upfront investment costs are economic decisions that must be situation-appropriate. Beta explained that the Southern African Power Pool consisted of 14 utilities in 12 countries and, as a collective, is facing issues similar to national utilities with demand outstripping supply, and this is being addressed through demand-side management measures. On financing energy efficiency, Navizet noted that energy is high on AFD's agenda and energy projects account for one-third of its financing in the last five years, with 15% of EUR 6 billion spent on energy efficiency projects. He said AFD focuses specifically on assisting local banks to set up "green credit," and is partnering with several lending institutions in South Africa, and noted that timing is ideal, with improved regulation, higher energy tariffs and increased private interest in energy efficiency. On steps needed to promote uptake of energy efficiency by public authorities, Dahomé recommended setting correct tariffs, reviewing the efficiency of the energy mix, and making institutional arrangements for energy services companies, while Grobler recommended making energy reporting mandatory.

CLOSING SESSION

In closing remarks on Thursday afternoon, Ompi Aphane, Department of Energy, South Africa, said that it was refreshing to hear stakeholders' outlook on energy issues, and called for African nations to be more coherent and coordinated as a collective, noting that low-carbon growth trajectories will rely on cross-border energy supply, such as for large scale hydro plans. He underlined the need to collate the points raised at the conference to enhance future policy formulation.

Freddy Adams, Chairperson of the Parliamentary Select Committee, South Africa said the role of stakeholders and the path forward for renewable energy in the continent had been highlighted through fruitful discussions. Adams underlined that the large capital investment for PIDA projects must contribute to social development. He noted that a large array of opportunities in Africa is on offer to investors and financiers, but that these need to go hand-in-hand with skills development and training, and encouraged increased capacity building via universities and colleges. He called for the partnership to continue to address the dual goals of increasing Africa's energy access while helping offset Europe's carbon footprint.

The Forum closed at 5.35pm. On Friday, a visit to a wind turbine manufacturing site in Cape Town and to Darling Wind Farm was organized for interested participants.

UPCOMING MEETINGS

IAIA12 Energy Future: The 32nd annual conference of the International Association for Impact Assessment (IAIA) will address the role of impact assessment on future global, national and local energy decisions and choices, and will be structured around four thematic streams: renewable energy, fossil fuels, electric powered transportation and electric power leap. **dates:** 27 May to 1 June 2012 **location:** Porto, Portugal **contact:** IAIA Secretariat **www:** <http://www.iaia.org/iaia12/>

ACEF 2012: The 7th Asia Clean Energy Forum (ACEF) will highlight successful strategies and mechanisms for accelerating access to affordable, low-carbon energy. Participants from Asia and around the world will share practical knowledge about what works in the key areas of energy access, clean energy technology, policy and regulation, and finance, and how stakeholders can work together to accelerate low-carbon energy in the region. **dates:** 4 - 8 June 2012 **location:** ADB Headquarters, Manila, Philippines **contact:** Forum Secretariat **phone:** +66-2-793-4642 **email:** cleanenergy@adb.org **www:** <http://www.asiacleanenergyforum.org/>

EUSEW 2012: EU Sustainable Energy Week (EUSEW) is an initiative of the Sustainable Energy Europe Campaign. Every year hundreds of organizations and individuals host Energy Day events and activities that promote energy efficiency and renewable energy sources. In Brussels, a three-day high-level conference organized by European institutions and associations will give participants the opportunity to learn about EU energy policies and support schemes, meet EU staff, exchange ideas with other players in the sustainable energy sector and pursue business opportunities. **dates:** 18 - 22 June

2012 location: European Commission, Brussels, Belgium **contact:** SEE Secretariat **email:** info@eusew.eu **www:** <http://eusew.eu/energy-days-europe>

UN Conference on Sustainable Development (UNCSD, or Rio+20): Rio+20 will mark the 20th anniversary of the UN Conference on Environment and Development (Earth Summit), which convened in Rio de Janeiro, Brazil in 1992. **dates:** 20-22 June 2012 **location:** Rio de Janeiro, Brazil **contact:** UNCSD Secretariat **email:** uncsd2012@un.org www.uncsd2012.org/ **www:** <http://www.uncsd2012.org/rio20/index.html>

ECOWAS High Level Forum: This three-day High Level Forum on "Paving the Way for Sustainable Energy for All in West Africa through Renewable Energy and Energy Efficiency" is being jointly organized by ECREEE, the Global Forum for Sustainable Energy (GSFE) and UNIDO. **dates:** 8 -10 October 2012 **location:** Accra, Ghana **contact:** ECREEE Conference Secretariat **phone:** +238-260-4630 **fax:** +238-262-4608 **e-mail:** conference@ecreee.org **www:** <http://ecreee-vs120081.hl-users.com/website/index.php?ecowas-high-level-forum>

First International Off-grid Renewable Energy Conference: This conference will welcome all stakeholders interested in the off-grid renewable energy sector, but will particularly aim to bring together decision makers and industry players. **dates:** 11-12 October 2012 **location:** Accra, Ghana **contact:** Alexandra Reis **phone:** +32-2-400-1051 **fax:** +32-2-400-1010 **email:** a.reis@ruralelec.org **www:** www.ruralelec.org

The Conference of Energy Ministers of Africa (CEMA): This Conference will take place in early November 2012. **date:** tbc **location:** tbc **contact:** AU Commission **phone:** +251-11-551-2622 **www:** <http://au.int/en/dp/ie/>

AEEP High Level Meeting: The high-level section of the AEEP High Level Meeting will bring together Commissioners of the European and African Unions, ministers responsible for energy issues and others, to reinforce and promote energy cooperation and interconnectedness of Africa and Europe. **date:** tbc **location:** tbc **contact:** AEEP Secretariat **phone:** +49-61-9679-6312 **email:** info@euei-pdf.org **www:** <http://africa-eu-partnership.org/partnerships/energy>

AEEP Stakeholder Forum: The Second AEEP Stakeholder Forum will take place in 2014 and aims to bring together important members and representatives of the private sector, civil society, academia and financial institutions to jointly explore the potential of implementing "actions on the ground," as well as to discuss key issues and make recommendations to political decision makers. **date:** tbc **location:** tbc **contact:** AEEP Secretariat **phone:** +49-61-9679-6312 **email:** info@euei-pdf.org **www:** <http://africa-eu-partnership.org/partnerships/energy>



High-level representatives discuss the importance of cooperation between all stakeholder groups of the AEEP



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