

ARE NEWSLETTER JANUARY 2008



Editorial

ARE Secretariat

Happy new year 2008

Dear ARE members, partners and supporters, dear friends,

2007 has been a shining year for the Alliance for Rural Electrification: 16 new members in a few months, most of them among the world's most dynamic renewable energy companies and organizations; new materials built upon the great experience and expertise of these members; new communication tools (website, newsletters, press releases, ...); new partnerships; participation to many different events (PV med, CIER, EUSEW 08 ...) and, overall, new objectives, projects and hopes for the year(s) to come!

However, there is still work to be done, materials to be released, awareness to be raised, and electrification rates to be increased. As we move forward, more challenges appear ahead and the fact that we start (and our members through us) to be heard at the highest levels and known as a relevant stakeholder, make us realize that the voice of rural electrification has to be heard and addressed.

The reality is that rural electrification is, slowly but surely, recognized as an essential tool to achieve a fair and sustainable development within rural areas and is also becoming high within international agendas. Moreover, there is an emerging off grid market based on renewable energy solutions, which is being increasingly supported by relevant players, and influencing, at the same time, industrial development policies. 1.6 billion persons are waiting for their light to shine... 1.6 billion potential customers... a win-win combination waiting to be implemented!

Of course this number does not mean anything if the solutions provided by the renewable energy industry are not passed on to the decision makers, or if the international organizations and local authorities do not pay attention to them. This number does not mean anything if actors do not bring in their financial and political support, or if local authorities do not favor and encourage the renewable energy industry to invest in their countries, as well as the establishment of public and private partnerships. This number doesn't mean anything if an ambitious policy on training and capacity building is not developed and implemented, or if credible studies precisely assessing the needs and potential for rural electrification through renewable energies are not made to encourage the industry to move forward within this field.

A new strategy, based on the above mentioned objectives will be put in place this year and with your support we hope to accomplish, at least, some of them!



News from the Alliance

New members in the Alliance

We are proud to announce that several new members have joined the Alliance. With its enlargement, the Alliance is also continuing its diversification. Indeed, one new industry from the renewable energy sector has joined ARE, as well as a new consulting company and a foundation active in rural electrification projects in Africa.

Innovation Energy Développement (IED) was already a good friend of ARE. In fact, this organization was active in the Working group on Technological Solutions that ARE created in 2007. We trust that the successful achievements of the Working group was one of the reasons that pushed them to join the Alliance and convinced them of its added value. IED is an independent engineering and consultancy firm which has played a pioneering role in the formulation of the concept of Decentralized Rural Electrification at the beginning of the 1990s and has, since then, effectively implemented a significant number of projects in this field.

Solarpack is a Spanish company active in the development of power generation out of renewable energies with the latest technologies. They believe renewable energy will play a key role in energizing the developing countries and are willing to co-operate in channeling these energies into countries that desperately need them. Moreover, they believe that activities towards rural electrification should take place on both levels: corporate (corporate skills and experience) and philanthropic (donations and other initiatives).

The Fondazione Madre Agnese Manzoni is an independent, non profit organisation focusing on social solidarity in every part of the world but in priority in Africa and Eastern Europe. They promote initiatives to favor the local and rural development and have a highly specialized experience in the implementation of renewable energy systems (More than 2 MWp of PV systems already installed). By joining the Alliance, this association wishes to widen the extension and the efficacy of its participation in developing countries and to participate to global plans for rural electrification.

We believe that the participation of new companies and organizations such as Solarpack, IED or the Fondazione Madre Agnese Manzoni show that the Alliance can bring and added value to the daily work of many different types of entities. We believe that our new members will be able to bring in new contributions for the benefit of rural electrification and will also perfectly fit in our growing platform of different stakeholders, where private and non-lucrative actors can exchange and share their expertise in order to promote the best solutions for rural electrification and to influence all the relevant stakeholders of this sector. In fact, it is important for the Alliance, which has and will keep a strong industrial approach, to enlarge its scope as well, in order to share its expertise but also to understand the challenges to be met on the field.

THE PARLIAMENT

Ernesto Macias president of the Alliance has contributed to the last issue of "the Parliament". This European newspaper is focused on the European Parliament's work, and has dedicated one of its

issues to renewable energies, especially in the framework of the EUSEW 2008. Therefore, they did an overview of the opportunities offered by renewable energies and asked for the opinion of our president.

Mr. Macías presents through this article the work of the Alliance and demonstrates the great potential that renewable energies have for the rural areas of the developing world.

To download the Article please click [here](#)

To see the entire Issue please click [here](#)

To visit the website of The Parliament www.theparliament.com



THE EUSEW 2008

The highly expected European Sustainable Energy Week 2008 finally happened. With more than 5.000 participants, it was considered as a large success by the European Commission.

Concerning the ARE activities, we are proud to say that our event went very well. Through several interesting presentations - that will be available very soon on the website of the Alliance (www.ruralelec.org) - our speakers had the opportunity to demonstrate the suitability of renewable energy technologies to provide a sustainable access to electricity within rural areas, and the involvement of the renewable energy industry therein.

Our event was extensively followed, inside and outside the room, and hundreds of people came to visit our stand, which represented a life-size model of a Irbid power system. The European commissioner on Energy, Mr. Andris Piebals, and Andrej Vizjak, the Slovenian Minister for Economy representing the EU presidency, also honored us with their presence and visited our installation with great interest. A number of journalists and local and national televisions were also attracted to the stand..

In sum, the "Stand for Rural Electrification" constituted a great success for the Alliance, its members and, more specifically, for our sponsors.

Pictures will be also available very soon on our website.

By clicking here you will have access to the press corner of the EUSEW 08 as well as to pictures of the "Stand for Rural Electrification".

In few days you should also be able to have access to the video recording of ARE's events on this website: www.managenergy.net

We would like to take this occasion, to sincerely thank our sponsors, who trusted our work; without them, this remarkable stand would not have been possible.

Our **PLATINUM SPONSOR** was:



SMA: Platinum Sponsor of ARE's activities within the EUSEW 2008

Our **GOLDEN SPONSOR** was:



Isofoton: Golden Sponsor of ARE's activities within the EUSEW 2008

NEWS FROM ARE'S WORKING GROUPS:

*The **Working Groups of the Alliance for Rural Electrification** have been created following the workshop on hybrid systems that was held in 2006. It constituted the first milestone to generate a common industry approach to rural electrification by assessing the services and technologies currently supplied and discussing the challenges faced by the industry in the field of rural electrification with hybrid systems.*

The **Working Group on Technological Solutions** has been working for the past few months on several basic decentralized hybrid configurations with different technologies in a modular way using AC and DC coupled technology, with the objective to provide the best technological solutions for rural electrification already adapted to market needs.

The brochure "**Hybrid power systems based on renewable energies: a suitable and cost-competitive solution for rural electrification**" is the first important outcome of this intensive work.

Autonomous decentralized (off grid) rural electrification systems based on the generation of

renewable energy power on site through the installation of stand-alone power systems in rural households, and the set up of electricity distribution mini-grids, have been proven capable of delivering high quality and reliable energy. These technologies satisfy energy demand directly and avoid the need for long distribution infrastructures.

Hybrid systems (combination of different but complementary energy generation systems) capture the best features of each energy resource, provide “grid-quality” electricity and can be developed as new integrated designs within small electricity distribution systems (mini-grids). They can provide a steady community-level electricity service, such as village electrification, offering also the possibility to be upgraded through grid connection in the future. Furthermore, due to their high levels of efficiency, reliability and long term performance, these systems can also be used as an effective backup solution to the public grid in case of blackouts or weak grids, and for professional energy solutions.

Therefore, the work of the WG and its conclusions appear as a very interesting statement at a time where we try to find a long term solution to provide energy to the most secluded areas within developing countries and ultimately to eradicate poverty. **This brochure will constitute a powerful informative instrument** to raise awareness among the international community, relevant stakeholders and decision makers, of the existence of a compelling solution to provide a cost-competitive and environmentally friendly electricity service to rural communities, but also to stress the importance of including renewable energies within the international development agendas.

The Brochure can be downloaded [here](#)

In 2008, ARE will be launching two other highly expected working groups which will work on very critical and important issues. Therefore, after having announced in previous newsletters the launch of the **Working Group on Financing Schemes**, we are proud to say that ARE will be soon setting up its **Working Group on Market Analysis**, thanks especially to some of our members willing to commit themselves to this issue.

The Working Group on Market Analysis will aim to **fill in a critical information gap** on socio-economic and energy data needed to address the access to electricity, especially with renewable energies and rural electrification.

ARE is already working on this fundamental issue with some key partners in order to gather data and to assess the need and potentialities in terms of rural electrification of different countries and regions.

The working group on Market Analysis will allow us to go further and to provide a realistic outlook on off grid electrification rates and the off grid markets. We trust that the outcomes of this Working Group will further encourage investment in rural electrification by public actors, donors and private investors and will, ultimately, accelerate the deployment and use of renewable energies for off grid applications.

If you wish to participate to this working group or if you want more information please contact us [here](#).



ACTORS FROM THE RURAL ELECTRIFICATION WORLD

Juan Garcia Montes is the General Director of Isofoton Morocco. As such, he is responsible for the coordination of Isofoton's activities in this country. In this interview, he describes the projects of Isofoton and explains the difficulties and challenges met by his teams on the fields.

First of all, could you please describe the rural electrification's activities of Isofoton in Morocco. What are your projects and what is your position?

Isofoton Morocco started its activities in October 2005 with the signature of a contract with the ONE (Office National d'Electricité - National Electricity Authority) for the furniture, the installation and the after sales services of 34.500 PV kits. This project is part of the global PERG process (Programme d'Electrification Rurale Global - Global Rural Electrification Program -) for the complete electrification of the country in 2010.

In this framework, Isofoton Morocco acts as a service provider on behalf of the ONE with the objective to electrify 34.500 households in 13 provinces of the Kingdom. This project is implemented through a "fee of service" system where Isofoton assumes the functions of prospecting, commercialization, installation, maintenance and of monthly payment collections for a period of 10 years. The ONE plays a role of supervisor.

At the beginning, our mission was to implement all the project infrastructures. To this end, , we have traveled throughout the provinces concerned by the project (about 115.000 km²) to validate our field studies and surveys on potential clients. Therefore, we have recruited and formed around 100 technicians which are taking care of our field activities. These multidisciplinary teams have the necessary means to realize their work and to adapt themselves to the difficult geographical and climatic conditions. They speak Arabic and Berber to communicate with the customers.

From my part, I am the general director of Isofoton Morocco and I also manage the general coordination of this project. The whole project is coordinated from our headquarters of Casablanca. The team of Isofoton Morocco counts with 70 employees, 35 vehicles and 8 local agencies to provide quality services in rural communities. Nowadays, we are a consolidated company in the renewable energy sector in Morocco and we envisage the extension of our activities towards other PV applications.

Could you please shortly describe the systems which have been implemented (size, power, number of people electrified etc.)? What was the impact on the population? Did you feel that something had changed within the communities after your work? Could you tell us about your relations with the people and their reactions towards your work and your technology?

In the framework of the PERG, we are installing two types of systems: some of 75W and some of 200W. The system of 75W includes the installation of a PV panel, a regulator, a battery, 4 lamps (3 of 7W and one of 11W) and one plug, as well as the whole inside installation. The system of 200 W includes all these applications plus one fridge.

We currently have 10.000 client representing around 70.000 final beneficiaries. Most of our clients had already access to electricity before the installation of the PV kits, but were often using systems such as candles, gas cylinders, cars' batteries etc. The PV kits have substituted these basic installations. Right now our clients dispose of a source of energy clean and reliable and we act as a proximity services provider in rural areas with preventive maintenance visits and a 48h repair service.

We have established relationships with the clients based on trust since we are going to deliver these services for 10 years. We also give our clients instructions to follow in order to maintain their system in perfect functioning state and therefore to ensure a long shelf life to the systems.

According to your experience, are you convinced that the installation of decentralized renewable energy systems are the best options to electrify rural communities in Morocco and else where? Has Isofoton benefited from a specific support from any national or governmental institutions etc? Who are your real clients and is the National State helping them?

In Morocco, the specific geographic and sociologic characteristics make PV kits an optimal option to electrify villages in rural areas. The country counts several mountainous regions such as the Atlas which cross the country from East to west, as well as the Rif and Di Jbala, or desert areas in the southern country. Moreover, the important households' dispersion is also very characteristic of the Moroccan rural areas.

Isofoton Morocco is a service provider for the National Electricity Utility and work in the framework of the PERG program. We are in direct contact with local institutions (provinces and communes) to facilitate our missions of rural electrification. Apart from this institutional support, the ONE is also partly subsidizing these kits, once the installation is checked by their technical services.

What difficulties and/or barriers (socio-economical, tradition, technical etc.) did you meet during your work there? And how did you overcome them? What are the futur projects of Isofoton in Morocco and in the region?

The difficulties of this kind of projects are mainly logistical since we needed to build up all the infrastructures from the beginning (Staff, means, trainings, monitoring, control) but they are also linked to the socio-economical environment with different ethnical populations (Arabs, Berbers), farther remote villages with a difficult access, suspicion towards solar systems etc.

The key of the project's success consisted in the forward planning of the work and in the field monitoring, as well as the in the phase of contact with the main stakeholders involved (authorities, associations, end consumers...). The teams of Isofoton know all the villages included in their projects and meet their clients on a weekly basis at the local markets in order to provide them with solutions adapted to their needs.

Finally Isofoton Morocco has developed others innovative projects like the first connexion to the Moroccan grid with the ONE, the two first PV desalination units in Morocco with the foundation "Marrackech 21", more than 50 PV pumping systems and two PV plants installed in the regions of Ouarzazate and Zagora with the association "Tichka" and the "Instituto Energia" Solar from the "UPM of Madrid".

We are willing to continue our work here and to offer our rural electrification's services in Morocco but also to develop new projects, new PV applications and our Solar-thermal activities.

Juan Garcia Montes

General Director Isofoton Morocco



NEWS FROM THE RURAL ELECTRIFICATION WORLD

Electrification agency considers mini-grids

www.herald.co.zw

THE Rural Electrification Agency (of Zimbabwe) is considering introducing solar mini-grid systems to reduce demand on hydro-electricity in light of the power deficit threatening countries in the Sadc region, an official said yesterday.

REA project manager Mr Emmanuel Midzi said the agency had started installing the solar mini-grid systems in rural clinics and in secondary schools that received computers from President Mugabe. "We have so far installed 13 countrywide in schools and clinics," he said.

The solar mini-grid system uses inverters that convert direct current generated from solar into alternating current to produce 220 volts.

Conventional solar systems use solar panels connected to a battery and generate 12 volts.

Mr Midzi said advantages of the mini-grid system were that the consumable spare parts such as globes were readily available in the country and it used energy efficiently that the battery would last up to four days without sunshine.

He said the other advantage was that the system used the same wiring infrastructure with the electricity grid so that it did not have to be dismantled when connecting to the national grid. The system could power small fridges and computers and did not require surge protectors in case of power cuts and surges.

"It is an opportunity to introduce renewable energy to those that want it," said Mr Midzi.

As a result of interest the public was showing in the mini-grid system, REA was exploring supply markets for the cost-effective equipment.

Mr Midzi said the mini-grid systems were readily available in most industrialised countries including China and India.

He said REA expected the local industry to participate in the programme by manufacturing the components that they could.

Countries in the SADC region are facing a power deficit due to increasing demand, with the situation expected to worsen by 2015.

Zimbabwe embarked on electrification of rural areas to improve living standards of communities and curb rural-to-urban migration. — New Ziana.

<http://www.herald.co.zw/inside.aspx?sectid=27790&cat=1&livedate=12/3/2007>

Namibia: Rural Electrification Programme Stalls

[New Era](#) (Windhoek)

The Ministry of Mines and Energy has failed to fully implement the ambitious rural electrification project during the 2007/8 financial year in some regions due to a lack of qualified contractors.

Permanent Secretary in the ministry Joseph Iita said despite Government placing tender advertisements inviting contractors to participate in the electrification programme, it received little positive response during the year under review. No electrification work was therefore carried out in areas such as the Caprivi, Karas, Kavango, and Ohangwena regions.

"These are very important projects for the socio-economic development of our people and all technically capable contractors are encouraged to participate in these projects of high national importance," the Permanent Secretary said.

The Rural Electricity Distribution Master Plan for Namibia completed in 2000 and updated in 2005 has always formed the basis for identification and prioritisation of rural localities for electrification in consultation with regional councils.

"We still have a long way to go especially because villages in most parts of the country are far apart, and connecting them is very expensive," he said.

During the 2006/7 financial year Government allocated N\$20 million to the rural electrification programme. It was considered one of the Government's priority projects for implementation immediately after independence.

<http://allafrica.com/stories/200712110351.htm>

Philippines seen as possible hub for solar panel making

[The Economy](#)

The Philippines could be the world's manufacturing hub for solar or photovoltaic (PV) panels — an industry estimated to be worth \$25 billion by 2010 — renewable energy advocates said at the recent energy summit.

"[Philippines] now has the highest performance solar manufacturing capability in the world, yet a very small PV market today," said SunPower Corp. Miguel Trinidad country director of finance.

"The Philippines has an opportunity to capture the 'solar economy' and capture the 'next semiconductor' growth industry; yet, forward looking legislation is needed," reiterated Mr. Trinidad. He lamented that the domestic commercial and residential photovoltaic market is small. "Large, up-front investment is needed for solar power, especially since there is little photovoltaic support infrastructure," he said.

The photovoltaic market is experiencing growth reminiscent of the semiconductor industry 30 years ago, he noted. Production has been doubling every two years, increasing by an average of 48% each year since 2002, making it the world's fastest-growing energy technology, reported the Washington-based Earth Policy Institute last year.

"Opportunity exists," added Mr. Trinidad, "because of rising electricity prices, and there are still large, remote populations without electricity."

The World Wildlife Fund-Philippines Vice-Chairman Jose Ma. Lorenzo Tan said renewable energy provides better profits. "You have dual revenue streams. One: you have power generation, and two: you have carbon credits,".

In its Web site on renewable energy, the Energy department tagged for the Philippines four opportunities areas: biomass, since the country is agricultural; solar energy, since it is near the equator; wind energy; and hydro and ocean resources.

Renewable Energy (RE) Coalition spokesperson Catherine P. Maceda said that, within five years, the country could position itself as: the number one geothermal energy producer in the world and the number one wind energy producer in Southeast Asia — and Ms. Maceda said this is aside from being the solar manufacturing hub in the region.

Renewable energy capacity in the Philippines can easily double to 9,148 megawatts (MW) in 2013, said the RE Coalition.

<http://www.bworldonline.com/BW020408/content.php?id=054>

Rwanda: EU Gives \$23.6m for Country's Rural Projects

East African Business Week (Kampala)

The European Union (EU) has signed a grant agreement with Rwanda worth \$23.6million to support water and energy distribution in rural areas.

The new energy project expected to cost Rwf14billion (US\$25.4million) and in which the EU will

partly fund to the tune of 10million Euros (\$14.6million), will provide electricity to rural institutions such as health centers, schools and villages throughout the country.

The project will target areas far from the national electricity network and will provide electricity primarily via photovoltaic systems to 25% of the currently non-electrified institutions.

In addition, 3MW capacity micro-hydro electricity plants will be installed at various sites serving up to 70 villages giving access to electricity to some 15,000 households.

The EU also will contribute Rwf5.5billin (\$10million) to other two water projects to cost Rwf12.2billion (\$22.1million) targeting the districts of Huye, Gisagara, Nyamagabe and Nyaruguru in the Southern Province.

The project will also involve Australian Development Agency (ADA), Belgium government and Italian organisation AVSI with the latter contributing Rwf1.5billion (\$2.7million).

Over a period of three years, this project will increase the provision of sustainable potable water supply and sanitation services hence increasing health and productivity of the people living in targeted districts.

Water supply facilities for about 200,000 people will be put in place as well as sanitation facilities for about 8,400 people. 350km water networks will be put in place.

People who access water in Rwanda are estimated at above 75% while those who access electricity are estimated at 1% of the entire population.

<http://allafrica.com/stories/200801281178.html>

Tanzania: Dar Gets U.S\$111.5m WB Grant for Energy Project

East African Business Week (Kampala)

On the heels of a 2006 energy crisis that saw much of Tanzania's population suffer through rolling blackouts, the East African country is working to build new energy investments that will power growth, create jobs, and reduce poverty.

The Energy Development and Access Expansion Project, a US\$111.5 million hybrid International Development Association credit and Global Environment Facility grant, was approved recently by the World Bank Board of Executive Directors.

It will help improve electricity services and provide more energy to Tanzanians. As a result of the project, roughly 81,000 homes, schools, businesses, and public services will access electricity for the first time.

"Tanzania has begun to implement better energy policies, which will help it towards its objectives of growth and reduced poverty," said John Murray McIntire, the World Bank Country Director for Tanzania. "This project will help ensure a more stable and reliable electricity supply to many Tanzanians."

The project is the first in a series of projects aiming at energy development and sustainable access

scale-up through both grid and off-grid interventions.

This first project will primarily focus on the urgent upgrade of electricity utility TANESCO's transmission and distribution grid. It will also support a sustainable basis for the access expansion by supporting the Rural Electrification Agency and by targeting new approaches for future electrification scale-up.

"In some rural parts of Tanzania, the rate of access to electricity is as low as two percent," said World Bank Senior Financial Analyst and the project's Task Team Leader, Mr. Pankaj Gupta.

Despite the high incidence of poverty in rural areas, surveys show that non-electrified rural households in Tanzania spend about 10 percent of monthly income on kerosene, candles, and batteries. Making a point on that, Gupta said, "Modern off-grid technologies can provide electricity for the same price, with improved quality and additional social, economic, health and environmental benefits".

According to Dana Rysankova, an energy specialist with the World Bank's Africa Energy Group, this project will allow Tanzania to support the most significant renewable energy options, namely, mini-hydropower generation, biomass cogeneration, and solar energy.

<http://allafrica.com/stories/200801281108.html>

Renewable Energy Powers Rwandan Health Centers

www.renewableenergyaccess.com

Please find below (link) a very interesting series of Articles on Renewable Energy in the Developing World focuses on how SELF teamed with Partners in Health to bring solar energy to rural health centers in Rwanda.

<http://www.renewableenergyaccess.com/rea/news/story?id=51264>



RURAL ELECTRIFICATION AND RENEWABLE ENERGIES EVENTS: INCOMING APPOINTMENTS

11th – 13th March 2008: “Renewable Energy & Water Libya 2008” and “the 1st Conference on Renewable Energies & Water Desalination Technologies”, Tripoli, Libya.

Organizers: WAHAexpo / Academy of Graduate Studies, School of Engineering & Applied Sciences
Department of Renewable Energies.

Energy is vital for the social and economic development of Libya. Although Libya is well known as a

significant oil producer, in the present day global scenario, energy demand is on the increase, fossil fuel reserves are dwindling and environmental concerns are increasing. Renewable energy resources are now the only viable option for sustainable development.

“REC 2008” Renewable Energy & Water Libya 2008, in association with 1st Conference on Renewable Energies and Water Desalination Technologies are important events for the future of Libya; as they are inviting exhibitors, delegates and speakers to share their experiences, technology and expertise with us.

“REC” will feature an exhibition showcasing the latest technologies and equipment related to renewable energy utilization and water desalination.

For information about the exhibition on Tel: + 218 21 360 6082 / 83 Fax + 218 21 361 9736 or e-mail: [rec2008\(at\)wahaexpo.com](mailto:rec2008(at)wahaexpo.com)

5th - 8th May 2008 “First Global Business Conference and Development Marketplace Competition for Off-Grid Lighting in Africa”, Accra, Ghana

Organizer: Lighting Africa 2008 (World Bank Group)

Over 300 participants are expected to attend the conference, bringing together a diverse array of global players from the lighting industry, international financial institutions, private sector, government agencies, and non-governmental organizations. Lighting Africa 2008 provides a unique opportunity to share market and industry knowledge, establish strategic business partnerships, and gain the skills, tools, and capacity to tap into this new market area.

The Lighting Africa 2008 program includes: Lighting Africa Conference and Knowledge Exchange, Lighting Africa Development Marketplace (DM) Competition, Lighting Africa Trade Fair, Business-to-Business Networking Opportunities, Visits to Local Communities.

For more information and to register, visit: <http://lightingafrica.org> or contact them at: [support\(at\)lightingafrica.org](mailto:support(at)lightingafrica.org)

***Lighting Africa 2008** is part of the broader Lighting Africa Program managed by the World Bank Group and operated in conjunction with a range of global partners. Lighting Africa seeks to support the industry in reaching 250 million customers with modern, affordable lighting by 2030.*

29th-30th May 2008: “4th European PV-Hybrid and Mini-Grid Conference”, Athens, Greece.

Organizers: OTTI

This European Conference with world wide importance will review recent progresses and

achievements on PV system components and design development, with emphasis on hybrid and Mini-grid topologies. The event will be accompanied by an industrial exhibition.

Encouraged by the increasing success of the 3 previous PV-hybrid and Mini-grid events, the organizers are expecting the submissions of excellent papers not only in the traditional technical areas of components for autonomous PV power supply systems but also, in the fields of marketing and financial issues, legislative / regulatory frameworks as well as, socioeconomics, national programs and policies.

Smart grids are now under continuous development to ensure high quality, efficient and cost-effective power supply in a sustainable way. Such new grid approaches will be based on distributed generation systems which would consist of both renewable and efficient energy technologies. The role of utilities in adapting solar energy in the planning of future electricity networks is vital for the success market penetration of PV technology and Mini-grid topologies. Effectively, the role of PV-hybrid and Mini-grid systems is of great importance to fight poverty in the developing world.

ARE is a supporting association of this event and will be present through a presentation of its work on hybrid systems.

More information at: www.otti.de

2nd - 4th July 2008: "The 10th Africa Energy Forum", Acropolis, Nice, France.

The Africa Energy Forum (AEF), launched in 1999, is Africa's premier annual power and gas investment and business forum, where governments and state utilities address the international energy community on opportunities available in Africa's power and gas sectors. The large gathering of decision makers increases the likelihood that business will be done, and feedback suggests that this is indeed so.

Of the 440 attending in 2007, over 40% came from Africa, and of those almost 40% were from the public sector. Private power developers and equipment suppliers accounted for 30% of the total, while the finance sector, including investors and advisers, accounted for a further 15%. This concentration of businesses under one roof expands the opportunities for fruitful contacts, and the accompanying AEF Exhibition provides valuable corporate exposure.

Government and state utilities representatives' have presented investment and business opportunities to international power developers whereas the presence of major financial and legal institutions has generally facilitated this dialogue.

ARE is a supporting association of this great event. We will be probably directly participated to it through a conference and we can propose a discount to our members that would be interested in participating to this important conference.

More information at: <http://www.energynet.co.uk/AEF/AEF2008/index.html>