

# The PIESA Newsletter

• December 2012 •



## End of Year message from the Chairman Felchesmi Mramba



Dear PIESA family,

It is such an honour to write this message to you as we move closer to the year's end. When we look behind we see a trail of successes and challenges. Both are very useful for our growth as an association.

We managed in this year to carry out all necessary gatherings that were aimed at furthering our cause and strengthening our organization. These included the Work Group meetings, Board meetings as well as the AGM.

It is a fact that we are now living in a time where science and technology are two arms of daily life that cannot be ignored. For many years rate of assimilation of science and technology in the electricity sector has been trailing other key sectors like telecom and transportation. However of late, there has been rapid inclusion of science and technology in this sector. There is more and more usage of smart technology in metering, protection, SCADA systems, solar technologies and electrical equipment. This will equally ensure rapid growth in electrification, power quality and reliability.

Relevance of PIESA within the region it operates will in a large extent depend on the role it plays in improving the livelihood of people in the region. That is why it is important for PIESA to enhance its involvement on speeding up electrification. This will be achieved through shared electrification standards, low cost designs, innovation and technology.

As we come to the end of 2012, we are obliged to reflect on our achievements and prepare for the challenges ahead.

I wish you all, merry end of year festivals and a happy New Year to all PIESA family and partners.

**Eng. Felchesmi Mramba, PIESA Board Chairman**

# End of year message from Chief Operations Officer Paul van Niekerk

Well, we have come to the end of another PIESA year, I wish to express my gratitude to all the working group conveners and office bearers for the work that they have done during the year, and for progress made.



It is always a good idea to remind ourselves about the mission and objectives of the PIESA, and to ensure that remain on track.

The primary mission is of course is quite simply to – ‘promote the Electrification of Africa’, while the secondary mission is the transfer of skills and providing the technology to facilitate this.

We hope that during the next year, we will assist to facilitate the transfer of skills by means of workshops and training courses to exchange technology and share experiences.

I wish you all and your families the very best for the festive season and a prosperous new year.

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## PIESA Training and Skills Transfer

There is no single action or arrangement which, on its own, will be a panacea for successful implementation of the wishes for PIESA to achieve its aims and objectives for the transfer of skill and development of capacity for the Electrification of Africa adopted by the Board as the primary objective of the PIESA.

However, the Engineering Profession in general, comprising the skills of the PIESA members and the PIESA affiliates employed in many sectors of the Electricity industry, not only in utilities, can make a significant contribution towards the successful implementation of this objective. We will persevere and make it work

The following is an update of the PIESA training and skill transfer initiatives that are planned, or in progress.

<b>Training Course/Project</b>	<b>Working Group</b>	<b>Progress</b>
SWER Pilot Project	Electrification	For completion 2013
Standards Drafting	Standardisation	Completed May 2012
Environmental Engineering	Env. & Safety	Completed in November 2011
Asset Management training	Cross Cutting	2013-2014
Geographic Information Systems	Electrification	2013-2014
Electrification Planning	Electrification	2013-2015
Revenue Protection	NTLR	2013
Regional Academia co-operation	Electrification	2013-2014
Standards Harmonisation	Standardisation	2012-2014
Renewable Energy Mini Grids	Cross Cutting	Start 2013

## **Board Resolutions**

Some of the significant board resolutions and decisions taken during this year include the co-optation of Mr Paul Johnson, the immediate past Chairman of PIESA onto the PIESA board in his new capacity as the Secretary General of AFSEC.



**This photograph of the new board was taken at the new PIESA offices in Bryanston, South Africa.**

## **AFSEC Workshop**

During 2012, AFSEC was appointed by the African Union to draw up an electrification guideline for the electrification of rural areas in Africa, and as the PIESA are affiliate members of AFSEC, we were invited to participate in the first drafting workshop. PIESA volunteered that a member of the Standardisation WG will serve on a working group

## **IERE meeting in Korea 2012**

The PIESA COO attended the 12th IERE GM and Korea forum in Seoul in November 2012: The IERE Chairman Mr Mark Dudzinski stepped down as he has retired from GE Energy, and the new Chair is now Dr Rolande Nieve Gomez from IIE in Mexico.

### *Board Members for 2013 - 2014 (15 members):*

- CEPRI (China), CRIEPI (Japan), GdF Suez (France), EDF (France)
- Enel (Italy), EPRI (USA), Eskom (South Africa), GE (USA)
- Hydro-Quebec (Canada), IIE (Mexico), Kansai EPCO (Japan)
- KEPCO RI (Korea), NTPC (India), RWE AG (Germany), SGEPRI (China)

### *IERE Officers for 2013 - 2014:*

- Chair: Dr. Rolando Nieva Gomez (IIE, Mexico)
- Vice Chair: Prof. Jianbo Guo (CEPRI, China)
- Treasurer: Dr. Denis Faubert (Hydro-Quebec, Canada)

PIESA then presented the preliminary planning for the 13th Tanzania IERE GM and Africa forum which was generally accepted by the Board, and agreed that final planning will be done on site in February.

The pre-announcement for the conference will be sent out to all members in December 2012, and will be available on the PIESA website at this link <http://www.piesa.com/storage/PreAnnouncement1.pdf>.

The pre-announcement will include a call for papers, and is a good opportunity for PIESA members to offer technical papers to an international conference.

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# PIESA General Meetings

Please make a calendar entry and provide for travel budget to attend the PIESA general meetings next year. The following is a preview of what we are planning for the year.

## **May 2013**

The May meeting will be held in liaison with the Africa Utility week in South Africa for the Board and all working groups. The AUW conference will be on **14 - 15 May 2013, in Cape Town, South Africa** at the International conference centre (ICC).

The ICC is always a very popular venue for meetings and in a beautiful part of South Africa, therefore, please make timeous arrangements and budgetary provision to attend. The Secretariat will circulate registration details during March 2013.

## **September 2013**

The September PIESA general meetings will be very special occasion in that our International partners , the International Electricity Research Exchange (IERE) will have their Annual meeting the **'13th IERE General Meeting and African Forum '** in Africa. This only happens once every seven years, and has been in Africa on two previous occasions, once in Cape Town, in 2001 and once in Livingstone in 2007 at the Victoria Falls.

The PIESA Board has already agreed that this meeting will take place on 23-25 September 2013 at the Mount Meru Conference Hotel in Arusha in Tanzania.

The preliminary announcement of the conference will be circulated internationally to all IERE members around the world, and of course to all PIESA members during December 2012 and more details will be provided on regular occasions during 2013.

Some very exciting developments regarding research Exchange will be announced at the meeting. It is proposed that the conference will be divided into three separate sections as follows:  
Day One will be the usual PIESA AGM and Plenary, Board meeting and working group meetings, while simultaneously the IERE will have their Board meeting and R&D meetings.

Day Two will be the IERE General Meeting combined with PIESA  
Day three will be the PIESA-IERE African forum

We are working on a very interesting themes and sub themes to suit the African continent  
More information will be provided in the pre-announcement at the end of 2012

**Please make a note of the dates and make the required provision to attend these meetings.**

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# Working Group matters

As previously stated, the PIESA working groups are the heart and soul of the PIESA and that is where things happen.

## **Non-Technical Loss reduction Working Group**

### **Office bearers**

The Convenor is Macvittie Chiphwanya of ESCOM Malawi while the Deputy Convenor is Leonard Chisina from ZESA Zimbabwe and the Secretary is Rens Bindeman from SARPA South Africa.

### **Overall objective**

The overall objective of the Workgroup is to enhance the financial viability of PIESA Distribution Industry, (thus; through the individual utilities) through reduction of non-technical revenue losses by setting acceptable standards, procedures and projects.

### **Specific objectives**

The specific objectives include the following:

Establish standards/procedures /projects to reduce non-technical losses and improve revenue recovery.

- Develop Mechanism of capturing & sharing experience among members.
- Encourage use of resources and manufacturers within the PIESA region
- Promote relevant research
- Optimise regional equipment specifications and codes of practice
- Promote transfer of technology and skills among members
- Facilitate flexibility and adaptability to the needs of a changing environment.
- Promote Demand Side Management

### **Current focus areas**

In its recent meeting, the workgroup agreed to prioritize and focus on the some key areas based on reasons as described below:

#### **1. Training (on Meter Tampering / sealing / utility policies etc.)**

It was noted that Electricity theft continues to be a major challenge in the region as such utilities need to continuously share experiences and update their strategies. The Group intends to produce an updated guide on the above. The Workgroup submitted to the Board for consideration to hold this Training in April 2012.

#### **2. Demand Side Management (DSM)**

Most utilities have embarked on the retrofitting of the CFLs with assistance from the consultants outside the region. What had been the experiences and challenges unique to the PIESA region? Have issues of Environment and disposition been adequately addressed? What has been the impact of the exercise on the quality of power supply in the region and what should be done in future should a utility want to pursue this solution? These some of the questions the Workgroup intend to answer after this assignment.

#### **3. Smart Metering solutions**

Lots of talk and interest has developed on this agenda. The Manufacturing industry is providing a lot of alternatives in this area. The questions utilities have include the following: If we invest in solution A from company Y, will we be able to upgrade to solution C from company X? (Thus the issue of common standards). Will the solutions be able to be upgraded to incorporate new technologies? What is the safety risks associated with these solutions? These are some of the answers the WG intends to provide after the end of this exercise. The WG proposed for a stakeholder expert workshop that can culminate to a white paper on this.

#### **4. Identification of non-technical losses**

While each utility is able to provide figures for their Non-Technical losses, it is noted that various ways and assumptions are used to come up with these figures. These variations may present values that are in essence different. The group plans to come up with an acceptable guide detailing all assumptions and methodology to come up with those figures. Tasks on this have been given to group members.

## PIESA Environmental & Safety Work Group

### Year-end report

Electricity Utilities in Africa are faced with numerous environmental and safety challenges. Some of these include, public pressure (consumer pressure, lobbying, influencing voting), new standards and legislation (Constitution, ISO14001), new business opportunities (attracting and retaining customers, reducing, re-using and recycling materials), reduction of risk (financial, legal, ecological and reputational) and ethical or moral considerations given the current climate change and environmental crisis.

These safety and environmental challenges are heightened by activities involved in the distribution of electricity, such as employee and public injuries and fatalities, waste (hazardous and general) disposal, wildlife interactions (collisions and electrocutions with infrastructure, oil spills or leaks from electrical equipment, herbicide or pesticide spillage, the removal of indigenous trees, habitat destruction and the damages caused to sensitive or protected areas particularly during construction and maintenance activities.

With the above in mind, the Environmental and Safety Working Group, continued in 2012 to fulfil its mandate of providing guidance to PIESA Utilities to eliminate or minimise safety incidents and the environmental impact of utility activities.

The Environmental and Safety Working Group is made of the following members: Eskom, (Troy Govender, Convenor), KPLC (Irene Maina, Deputy Convenor), ZESA (Thandiwe Sithole, Secretary), and members AMEU (Jayshree Pershad), ZESCO (Robam Musonda), SNEL (Tshibwabwa Mutamba), ESCOM (Vera Mede), TANESCO (John Lazimah), REA (Jossylyn Mutua), UMEME (Stephen Mutungi).

Two working group meetings were held during 2012, one in May 2012 at Gold Reef City and the second in October 2012, at Emperor's Palace, both in Johannesburg, South Africa.

In the recent past, the Group has developed and published the PCB, EIA and EMP Guidelines for utilities. The Group is currently working on guidelines for Waste, Safety and Wayleave Management. It is expected that from 2013, utilities will be able to present their safety statistics (employee and public fatalities and serious injuries) to inform the development of a safety strategy and guideline for all PIESA utilities.

Furthermore, the successfully piloted three-day Environmental Engineering training, held in November 2011, in South Africa, will be rolled out in one of the PIESA utilities during 2013.

*At the time of going to press we had not received the reports from the Electrification and Standardisation working groups, however, both working groups are progressing well.*

