

PIESA ELECTRIFICATION ADVISORY COMMITTEE NOTES- 12 MAY 2015

There are a few actions from our WG meeting which I hope you can give some attention to as well as for noting for the Board Meeting on Friday:

1) There was an item from the Malawi meeting (and before) for the **Electrification WG to visit the Zim SWER project and compile a report on the learning from the project**. It was suggested by the WG to combine this visit with the September PIESA conference at Victoria Falls. We understood from Bukhosi Siso that the 2nd SWER project has been completed in Zimbabwe at Lupane, Matebele Land North, if that is the same location we pick up on google, it is around 120 km from Vic Falls. So this would be very convenient if that would be possible?
It would therefore comprise of 2 days before or after the Vic falls meeting where the electrification group will visit and compile the report.

2) We have applied our mind on how you may engage with Power Africa (PA) and have the following suggestions to make:

- PIESA can offer value to PA through its superior knowledge of technology and networks in Southern and East Africa. (Which is very different to electrical network technology in the USA.)
- PIESA can assist in capacity building on which PA projects depend for the execution of projects.
- PIESA can benefit in its activities if grant funding can be made available for projects such as capacity building.
- PIESA offer access to 6? Eastern and Southern African utilities in one package.
- PIESA shares the objectives of PA.

3) **Electrification project planning and electrification network development planning.... Capacity Building Project:**

We are proposing a capacity building project that focuses in electrification project planning, electrification network development planning and could also expand to project procurement and management as well as regulator and government engagement.

The electrification project planning can comprise of the following modules

- Geo-identification of town and house hold identification classification etc.
- Conversion of above data into potential electrical load consumption and demand
- Grid options and off grid options for electrification of communities
- Capital and operating cost of electrification solutions
- High level budget compilation
- Budget plans for electrification project formulation
- Project proposal
- Funding mechanisms and options

The Electrification Network development plan can comprise of the following modules

- Service connection technologies and costs

- LV feeder technologies, options, benefits and costs
- MV-LV transformer installation and protection options benefits and costs
- MV technology options, benefits, trade-offs and costs
- Upgrade options
- Phased development and upgrade strategies and costs.

Off-grid electrification development for entrepreneurs (Should this be part of it?)

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Each of the above modules could easily take a week to work through. A typical budget for this work would take typically 2-3 consultants for a week, as well as the preparation for the work that would depend much on the amount of prior work that can be used for the course. At R 8000 pd x 5 x 2.5 + R 8000 x 5 x 2.5 = R 200 000 to R 500 000 for the two courses. I would suggest we have a long term vision on this, with training and follow up with pilot projects that include “bankable” aspects. An overall budget of around \$100 000 (grant for training) and \$500 000 or more (capital earmarked) for bankable pioneer projects should be thought about.

The above could be done with Power Africa objectives in mind and with some IERE funding????

We will need the commitment from our members that they will support the capacity building program. Meaning that at least between 5 to 10 (could be more) staff members would be supported to attend the development event. **SO one of the key questions is weather the board members see the need and would commit to such a program?**

(This does not yet include the travelling cost of participating utilities or the accommodation for it etc.)

So this is quite an ambitious proposal, but might just be attractive to Power Africa as it address their aims and needs in my understanding.

Any comments and additions would be greatly appreciated.

If there are broad enthusiasm for the proposal we should workshop it a little and polish it up as well for discussion with the likes of Power Africa.

Your views please.