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The ElSol III Project Completed Bringing light and electricity to families

A cooperation between Rotary clubs in D2260 and Polokwane, South Africa

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Members from the RC of Polokwane and Solar Vision at the official ElSol III handover

Background

Early 2015 the Climate Group Rotary D2260 proposed, and their clubs decided to develop, a third solar cell project providing electricity and light to families with children in an off-grid village in South Africa. The project should follow the same scheme as the two previous solar cell projects. The Climate Group has members from eight Rotary clubs: Lillestrøm, Lørenskog, Lørenskog Vest, Nittedal, Skedsmokorset, Skedsmo Nord, Strømmen and Sørumsand. Other clubs should be invited to participate.

The first project was finished in 2012 with installation of **50 Solar Home Systems (SHS)** in the village Thatlagnaya in the underdeveloped Province of Limpopo north in South Africa. The success of this project also rested on the close collaboration with the **Rotary Club of Polokwane**, which gave an outstanding contribution locally, and

the supplier, the former REC company, **Solar Vision (PTY) Ltd**, which designed and installed the SHS sets and provides up to 20 years maintenance through a subsidized monthly fee arrangement. The contact with Solar Vision was established through the Norwegian humanitarian organization Solar Energy Without Borders (Solenergi uten Grenser, led by a former REC director, Tommy Fernandes). In addition to the eight members of the Climate Group, the Rotary Club of Kløfta also contributed.

The second project, EISol – Enlightening through Solar Power – was successfully completed in the autumn of 2014. An application for Global Grants was rejected because the advantages for the beneficiaries were said to be too indirect to match the requirements of Rotary's six focus areas, a view not shared by many Rotarians. The project had to be scaled down to 35 SHS financed by the District 2260, NORFO, the eight Climate Group Clubs plus Fredriksten and Moss RCs. Two extra SHS sets were financed by RC of Polokwane. The village selected was **Nobody** New Stands in the Limpopo Province, where **37 families** with schoolchildren received SHS sets.

The project manager, Henry Kjell Johansen, was invited to visit the RC of Polokwane and inspect the installations of SHS units in the two villages in February 2015. The financing was organized outside the project by the parties involved. The tour to the villages was convincing. Bringing electricity and light to the families gave the children opportunities to do homework, and it definitely improved the quality of life for the whole family. A **video** was produced from the visit with no cost for Rotary. The link to the video is: <https://www.youtube.com/watch?v=6m4OcNoGFVo>.

The visit to Solar Vision and the RC of Polokwane was very reassuring. The Club set aside RAN 100 000 (**NOK 61 000**) for a **follow-on project**. This gave the inspiration to establish a new EISol project, named EISol III.

Organizing the EISol III project

The Climate Group decided to manage the project in the spring of 2015. Skedsmokorset RC accepted the role as the legally responsible club for the project on behalf of the participating Rotary Clubs. Because the rules of awarding Global Grants had not changed, it was necessary to invite more clubs to participate in financing the project. Chymie Naidoo was appointed contact person at the RC of Polokwane. Members in his club assisted him.

EISol III was promoted at the House of Friendship under the District 2260 Conference 2015 and through favourable presentation of the EISol projects at the Conference. The project was also mentioned at District gatherings. All the presidents and incoming presidents in District 2260 were invited through e-mails 2-3 times, the project was announced at the District's web site, and clubs were visited.

The effort resulted in participation of **14 clubs** in District 2260 willing to pay for 1-2 SHS sets each. These were: Fredriksten, Kråkerøy, Lillestrøm, Lørenskog, Lørenskog Vest, Moss, Nittedal, Rygge, Sagdalen, Skedsmokorset, Skedsmo Nord, Strømmen, Sørumsand and Årnes in addition to the RC of Polokwane.

The project also applied for funds from the **District Grant** that was given a positive support. In addition, a second grade university **student from NTNU** in Trondheim donated the earnings from his summer job to our Rotary project in Africa, a most

impressive gift from a young man. With the contribution from the RC of Polokwane and backup from the Climate Group's saving account, the project could go ahead.

Solar Vision gave a firm offer on their latest Solar Home Systems. The necessary agreement documents with Solar Energy Without Borders/Solar Vision were developed, and the RC of Polokwane affirmed in writing their contributions; the project was ready to be launched with 47 SHS sets for families with schoolchildren in the autumn of 2015.

A candidate village, **Mogaladi Park**, was visited by Solar Vision and the RC of Polokwane. It was found to be eligible according to the local authorities and the village head. The families would receive subsidized maintenance for up to 20 years in accordance with the national Free Basic Electricity Act. The scheme for selecting families to receive SHS sets was accepted, and the RC of Polokwane gave their recommendation to the project manager.



Based on the positive recommendations, the accepted Agreement texts by all participants, the manager signed the delivery Agreement with Solar Energy Without Borders **23 October 2015**. Solar Vision aimed at finishing the installations of the SHS sets end of December.

The **total cost of the project** amounted to NOK 241 000. In round numbers the RC of Polokwane contributed NOK 61 000, the District 2260 NOK 70 000, the student NOK 20 000 and the clubs and Climate Group NOK 90 000.

The first instalment of NOK 100 000 to procure costly solar panels was transferred in November. The other components were already acquired by Solar Vision. The installations of the SHS sets were **finished end of December**. The final instalment was paid when the inspections and specified reports were approved by the Climate Group. RC of Polokwane payed their share of RAN 100 000 directly to Solar Vision.

The ElSol III project was carried out in accordance with the contracted budget.

The SHS sets installed and benefits to each of the 47 families

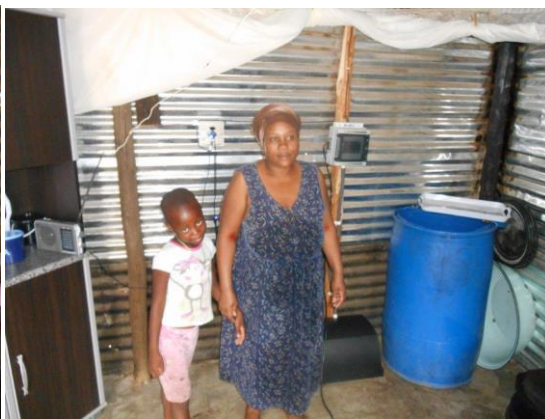
The installation at each household contains a 75 W solar panel, a 102 Ah battery, a control unit, standard 12 V outlets and cabling of four fixed LED lamps inside and two powerful outdoor lights with a motion detector or a switch. Outside lights are regarded to be necessary to reduce violence, especially against women. An FM/AM radio was included. The battery capacity is enough to supply current for lights and radio for 4 days. Cell phones can be charged and a fan is often connected. The SHS can also power a 12 Volts TV set, a CD-player etc.

Solar Vision has a 20 years' obligation to maintain the SHS sets in exchange for a monthly maintenance fee of ZAR 30 (ca NOK 20) to be paid by the recipients. In addition, the local municipality makes a monthly contribution of ZAR 60 to Solar Vision who has signed the necessary contracts with the village head level and the SHS recipients for this maintenance scheme. The arrangement is part of the obligation Solar Vision has in order to be a concessionaire in the Limpopo Province.

The local and national radio stations have a number of tutorial courses and vocational training programmes. The government prioritizes that as an important means to educate people and impart knowledge of modern society.

From the pictures, we see that the solar panels are placed on the ground. The villagers take them in at night so that they are not stolen.

Important benefits – besides the possibility to study and work in the evening – include improved health because the villagers avoid the fumes from candles and kerosene lamps. There are fewer fires and less violence especially against children and women both inside and when they have to go outside the house at night.



RC of Polokwane inspects a solar panel outside and the installation inside. The house standard varies from small concrete block buildings to corrugated plate walls huts.

Conclusions

All the involved parties regard the EISol III project to be a great success. The process followed the plan and the project was carried out within the planned timeframe and budget. Most important of all, the beneficiaries were very happy to have electricity for light and low power appliances. It opens a way out of poverty and it improves the quality of life.

In District 2260 fourteen Rotary Clubs participated in the project. A remarkable contribution from a young NTNU student should be emphasized. The RC of Polokwane was very happy to participate in the project and they made an outstanding contribution in financing and in following up the local activities.

Climate Group will also thank Solar Vision and Solar Energy Without Borders for their full-hearted participation and flexibility in times when the Rotary wheel turned around slowly. We will also acknowledge District 2260 for their strong support making it possible to finance this successful EISol III project.