

ENERGY SHOP ROLL-OUT IN NAMIBIA

1. INTRODUCTION

The energy shop model was conceptualised as one of the models to be followed in the implementation of the Off-Grid Energisation Master Plan (OGEMP) of the Ministry of Mines and Energy in 2007. In providing access to energy, the OGEMP puts un-electrified areas into three categories; off-grid, pre-grid, and grey areas.

According to the Regional Electricity Distribution Master Plan (REDMP), **Off-grid** areas are those areas that will not have access to electricity within 20 years. **Pre-grid** areas are those that would not have access to electricity within 5 years. **Grey** areas are locations where it is not clear in the 2005 REDMP how or if access to electricity will be provided

The OGEMP will focus on off-grid and pre- grid area. However, the OGEMP will only focus on providing access to pre-grid areas that would not have access to electricity within 10 years in the updated REDMP GIS database.

Examples of grey areas include;

- 1) Informal settlements -where the majority of the inhabitants either do not have access to electricity or clearly cannot afford it, and
- 2) Farm worker settlements on commercial farms – although the farm owner may have access to electricity, the farm worker families most often do not. The OGEMP will focus on providing informal settlements with access to energy.

2. ENERGY SHOP APPROACH

The OGEMP will provide access to energy through an Energy Shop approach. The plan is to establish energy shops within a reasonable distance of the targeted communities. The energy shops would sell suitable, approved energy products and compatible appliances modelled as **energy baskets**. Emphasis would be placed on energy technologies and appliances that utilize renewable energy and energy efficiency. The energy shops would also serve as payment collection centres for a national off-grid energy financing mechanism - thus working hand in hand with the Solar Revolving Fund (SRF) administrator. It is envisaged that each region will one energy shop in the first year of implementation.

Table 1: Energy Shop Rollout Plan

| | Total Number of Off-Grid, Pre-Grid & Informal Settlement Households * | Number of New Energy Shops to be Established Each Year during the 20-Year Planning Period | | | | | | | | | | | | | | | | | | | | Total Energy Shops |
|-----------------------|---|---|-----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|--------------------|
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | |
| Regions | | | | | | | | | | | | | | | | | | | | | | |
| Caprivi | 6,473 | 1 | 1 | | | | 1 | | | | 1 | | | | 1 | | | | | | | 5 |
| Erongo | 3,686 | 1 | 1 | 1 | 1 | | | | | | 1 | 1 | | | 3 | | 1 | 2 | | 1 | 2 | 15 |
| Hardap | 3,320 | 1 | 1 | | | | | | 1 | 1 | 1 | 1 | 2 | 1 | | | | | 2 | 2 | | 13 |
| Karas | 2,752 | 1 | 1 | | | | 1 | | | | | | 1 | | 2 | 1 | 1 | 2 | | | 2 | 12 |
| Kavango | 13,627 | 1 | 1 | | 2 | 1 | 1 | 2 | 1 | 2 | | 3 | 1 | 1 | | | 1 | 1 | | | 1 | 19 |
| Khomas | 22,607 | 2 | 2 | | | | | | | | | | | | | | | | | 2 | 1 | 5 |
| Kunene | 6,066 | 1 | 1 | | 2 | 2 | 3 | | 2 | 1 | 1 | | 1 | 1 | 2 | 1 | | | 1 | 2 | | 21 |
| Ohangwena | 11,113 | 1 | 1 | 3 | | | | 1 | 1 | | | | 1 | | | | | | | | | 8 |
| Omaheke | 5,118 | 1 | 1 | | | | 1 | 1 | 1 | 2 | | 1 | 1 | 2 | 1 | 1 | 1 | | 1 | | | 15 |
| Omusati | 9,299 | 1 | 1 | 1 | | 1 | | 2 | | 1 | | 1 | 1 | | 1 | | | 2 | | | 1 | 13 |
| Oshana | 7,372 | 1 | 1 | | 1 | 1 | | | | | | | | | | | | | | | | 4 |
| Oshikoto | 8,493 | 1 | 1 | 3 | 2 | 2 | | | | | | | | | | | | | | | | 11 |
| Otjozondjupa | 6,628 | 1 | 1 | | | 1 | 1 | 1 | 1 | | 2 | | 1 | | 1 | 1 | 2 | 1 | 1 | | | 15 |
| National Total | 106, 554 | 13 | 13 | 8 | 8 | 8 | 8 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 156 |

* The total number of households per Region represents the number located within the market areas of the energy shops to be established in each Region. In some cases, there are households from one region that fall within the market area of an energy shop that would be located in a different region. As a result, the total numbers of households listed do not exactly represent the number of households located in the respective regions.

During the first two years of the OGEMP rollout plan, all 13 Regions would be focused on equally. During year 1, 1 energy shop would be established in each region, with a focus on urban, informal settlement areas. During year 2 and subsequent years, the regions will have more shops based primarily on the size of un-electrified areas, but with more focus on rural areas. Table 1 above shows the roll out plan.

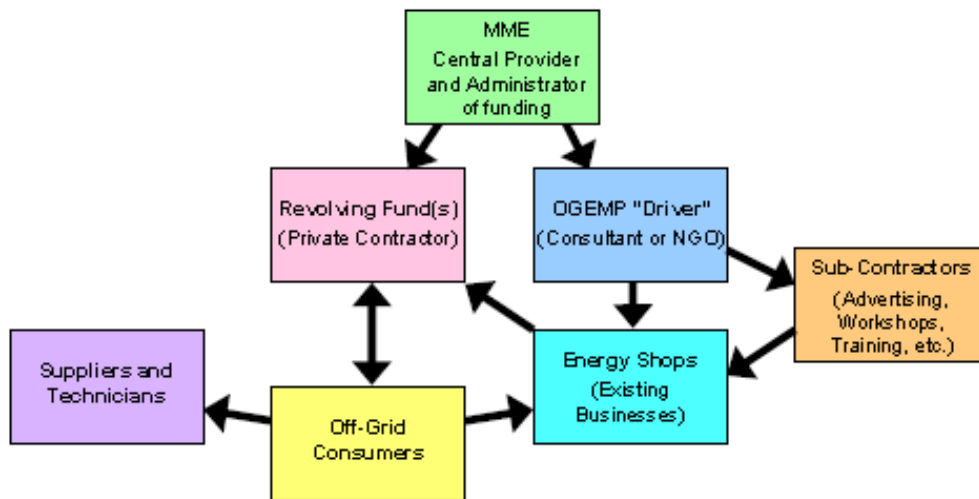


Figure 1: Allocation and Transfer of OGEMP Funds and Resources

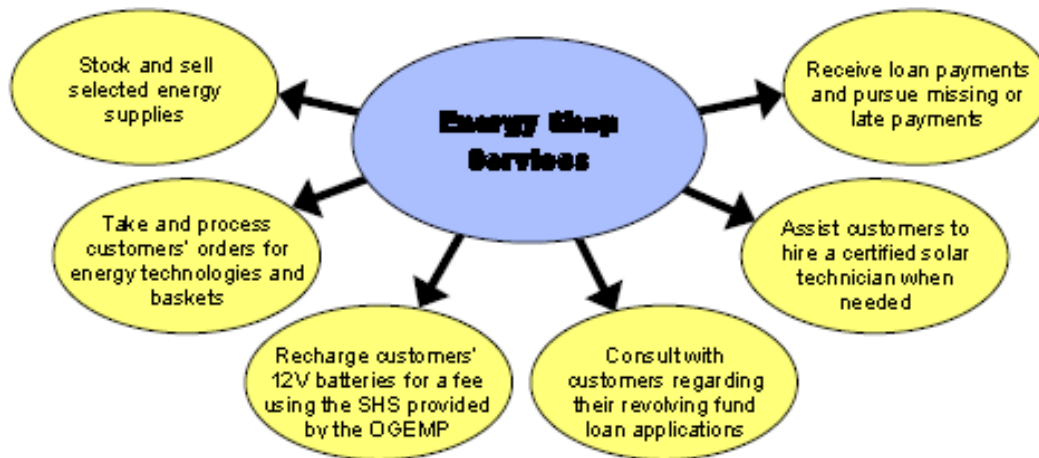


Figure 2: Typical Services to be Provided by Energy Shops

3. THE MAIN TASKS OF THE ESCA

In order to meet the objectives of the OGEMP, the ESCA will perform the following tasks;

- a. Coordinate with Regional Councils and Regional development planners on the priority areas for the locations of the Energy Shops

- b. Select and recruit existing businesses to become energy shops
- c. Organise and implement training workshops in the business and marketing management of renewable energy and energy efficiency technologies
- d. Organise and implement refresher courses to energy shops
- e. Continuously review the training needs of Energy Shops
- f. Organise and oversee the marketing and awareness campaign of the Energy Shops
- g. Regularly monitor the performance of the Energy Shops
- h. Develop strategies for the communities to access the solar revolving fund
- i. Network with all other stakeholders involved in the RE & EE sector and rural development initiatives
- j. Identify and network with local and regional suppliers of alternative and appropriate technologies

Table 2: Gantt chart - ESCA Three Year Work Plan for Energy Shops Roll Out

| Tasks to be Performed | Responsibility | Year 1 | | | | Year 2 | | | | Year 3 | | | |
|---|------------------------------|--------|-------|-------|-------|--------|-------|-------|-------|--------|-------|-------|-------|
| | | Month | Month | Month | Month | Month | Month | Month | Month | Month | Month | Month | |
| | | 1-3 | 4-6 | 7-9 | 10-12 | 1-3 | 4-6 | 7-9 | 10-12 | 1-3 | 4-6 | 7-9 | 10-12 |
| 1. Familiarise with OGEMP & Operations of SRF | REEEI | █ | | | | | | | | | | | |
| 2. Familiarisation with councillors, suppliers & installers | REEEI | █ | | | | | | | | | | | |
| 3. Select and recruit energy shops | REEEI/NAMREP/MME/Councillors | | █ | █ | | █ | █ | | | █ | █ | | |
| 4. Prepare an awareness campaign & model energy baskets | REEEI | | █ | █ | | | | | | | | | |
| 5. Prepare training programme | REEEI | | █ | █ | | | | | | | | | |
| 6. Targeted promotion of energy shop concept and energy baskets | REEEI | | | █ | █ | | | █ | █ | █ | █ | █ | |
| 7. Implement initial training | REEEI | | | █ | █ | | | | | | | | |
| 8. Implement follow up training | REEEI | | | | | █ | █ | | █ | █ | | | |
| 9. Monitor the performance of the shops | REEEI | | | | █ | █ | █ | █ | █ | █ | █ | █ | █ |
| 10. Review the training | REEEI | | | | | | █ | | | | | | |
| 11. Implement 3rd training | REEEI | | | | | | | █ | █ | █ | █ | | |

