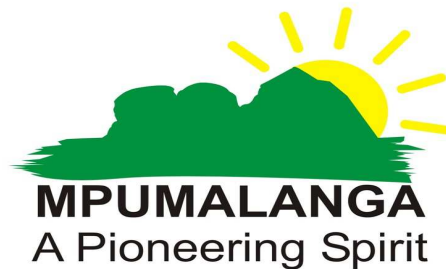




**BUSHBUCKRIDGE LOCAL MUNICIPALITY: FEASIBILITY REPORT
ON THE PROPOSED SOLID BIOFUEL PILOT PROJECT**



**FEASIBILITY REPORT FINANCED BY THE MPUMALANGA
DEPARTMENT OF ECONOMIC DEVELOPMENT AND PLANNING**



**FEASIBILITY REPORT PREPARED BY PHAMBILI ENERGY (PTY)
LTD**

BUSHBUCKRIDGE SOLID BIOFUEL PILOT PROJECT

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1 EXECUTIVE SUMMARY

Phambili Energy a South African based company has been licensed to:

- market and sell a locally developed small energy system called the Fenix Thermal Energy Unit, a domestic combined heat and power unit; and
- operate and sell an environmentally friendly solid biofuel producer. The solid biofuel producer produces solid biofuel from any biomass waste e.g. invader species, the whole tree/plant including wood, bark, branches and leaves or ordinary veldt grass.

Phambili was appointed by the Bushbuckridge LM to execute the pilot project subject to:

- Phambili obtaining funds to cover the social engineering costs of the pilot project;
- sufficient biomass sources being available to sustain the pilot project;
- community acceptance of the Fenix;
- community acceptance of the biomass conversion plant and the ownership thereof vesting in a SME solely owned by local co-operative to be incorporated with a pre-incorporation agreement;
- management support from Phambili to the co-operative and SME operating the plant for a period of at least three years;
- Phambili buying all biofuel products manufactured by the SME at an economic price determined from time-to-time;
- The identification of an ideal site for biomass conversion, the erection of buildings, the acquisition of plant, equipment and vehicles and supply, delivery and commissioning of the biomass converter; and

- The training of operators to operate the biomass converter, the assembly, installation of the Fenix units together with training to households to operate the unit; and
- The submission of a feasibility report indicating the acceptability of the pilot project by the beneficiary communities and the sustainability of the pilot project.

The main purpose of the pilot project is to:

- Prove that a solid biofuel producer can be launched successfully on rural community level generating sufficient profits for the co-operative and Phambili to replicate the project in other parts of SA with adequate supplies of biomass;
- Establish a bridge between the 1st and 2nd economies in SA;
- Prove that the solid biofuel:
 - is socially acceptable and competitive with household's current daily spending on energy; and
 - can be produced in volume and to a acceptable quality to be used in a fuel-switching programme to replace coal, paraffin and firewood for cooking and space heating purposes in terms of initiatives from the Department of Minerals and Energy as well as the Central Energy Fund;
 - can also be used for other purposes such as for the leisure and commercial markets as a renewable CO₂ neutral energy source.
- That care is taken of the Invader Alien Plants (IAP's) that Department of Water Affairs and Forestry through Working-for-Water and convert it into useful energy and involve communities in the process.
- Prove that the Fenix Thermal Energy Unit;
 - is a viable alternative to the Photovoltaic (PV) system;

- can be used as a solution to areas that will not receive electricity from the national electricity grid within 5 years or ever for that matter;
- is energy efficient and socially acceptable.
- Finally, in the spirit of co-operative governance and the creation of much needed jobs in rural areas, that a private initiative and the organs of state can take hands in achieving national, provincial and local goals.

The public facilitation on the supply and installation of the Fenix must be seen against the background that the Bushbuckridge LM was informed during a meeting held on 16 March 2009 by ESKOM, that due to a lack of supply capacity, that certain areas in Bushbuckridge LM who were promised connections in 2004, will only be provided with connections after 2012 when new substations have been built. The areas most affected will be certain households in Welverdiend, Hluvukani, Hluvukani PHP, Burlington, Huttington and Islington in the Bushbuckridge LM.

Households have been highly disappointed by the capacity problems with Eskom in the area and therefore have shown willingness to embrace and use the Fenix Utility Unit. They wanted to see the unit improved in future to accommodate a television set and probable a small fridge. Some households already connected to the grid demanded to be provided with the Fenix as they could not afford the current electricity charges. With the current electricity supply problems, the expectation of the Fenix Utility unit is very high and has raised hopes for the rural people as they might be only connected after 2013.

Adequate supplies of biomass have been identified and the exact site for locating the biomass converter must still be finalised. Phambili is assisted by the Local Economic Directorate of the Bushbuckridge LM in this regard.

The financial models indicate sustainability in terms of which the SME solely owned by the co-operative, will make a nett profit of R 50 000 per month.

Likewise, Phambili as entrepreneur will also show a similar profit. Phambili will render managerial support to the SME for a period of at least 3 years for the transfer of skills and capacity to ensure the sustainability of the project. The memorandum of understanding provides for a contract period of at least 20 years.

The Phambili business model is designed in such a way that the biomass conversion acts as a catalyst for local development whereby the profits generated from the production of solid biofuel, is used as seed finance to fund other locally identified projects in an endeavour to promote rural job creation and sustainability. This model will also assist government policies such as the Integrated Sustainable Rural Development Strategy, sustainable land reform and the promotion of technical skills and financial aid in rural communities.

The total cost for the plant and equipment is estimated at R 11 455 369,80 whereby 84 direct and 45 indirect new jobs – a total of 129 new jobs will be created at a cost of approximately R 88 800 per job opportunity. With the introduction of the new SA developed technology, poor households are expected to save at least 62% on current monthly energy costs. The cost for the provision of 1522 Fenix units (R 10 830-00 including VAT) installed in beneficiary households is estimated at R 16 483 260-00 with a total pilot project value of R 27 938 629-80 (including VAT) which amount will be funded by the Department of Minerals and Energy. The current funding does not provide for operating costs and the Department of Economic Development and Planning will be approached to assist the co-operative in gaining access to the Co-operative Incentive Scheme¹ administered by the Department of Trade and Industry (maximum of R 300 000) and the balance as an interest free loan to be repaid from profits made, which amount is estimated at R 5000 per month at 0% interest.

¹ CIS is offered as a 90% matching grant towards the qualifying expenditure incurred/to be incurred by the co-operative. The incentive scheme will operate for a period of five years, starting 2005/6 financial year. A co-operative is eligible for a total grant not exceeding R300 000-00.

In conclusion, Phambili Energy wants to express its appreciation to the following persons for their support and commitment to the project:

Mr O Aphane	DME;
Mr MM Mathebula	DEDP
Mr Kolokoto	Bushbuckridge LM
Mrs J Malebana	Bushbuckridge LM

2 INTRODUCTION

2.1 PHAMBILI ENERGY

Phambili Energy is a South African based company operating from 96 Lindfield Road, Lynnwood Manor, Pretoria, Gauteng, South Africa and is managed by its founders. The company has been licensed to market and sell a locally developed small energy system called the Fenix Thermal Energy Unit, a domestic combined heat and power unit. Wood, solid biofuel or coal is placed in the combustion chamber and water in the boiler and geyser. The Fenix is an energy efficient system as it utilizes the energy created by the fire to do a number of tasks such as a stove, a geyser, a space heater, an electricity generator and supplier of distilled water. The Fenix thermal energy unit is a combined domestic heat and power unit and has been designed and developed for deep rural, rural and urban households with no access to electricity and who stand very little chance of being connected to a National Electricity Grid in the foreseeable future.

Phambili has also been licensed to operate and sell an environmentally friendly solid biofuel producer. The solid biofuel producer produces solid biofuel from any biomass waste e.g. invader species, the whole tree/plant including wood, bark, branches and leaves or ordinary veldt grass. The average conversion ratio of biomass into the solid biofuel is 30% whereby approximately 200 ton of solid biofuel is produced from approximately 700 ton of biomass.

The Fenix Stove in Cape Town; From left to right: Victor Taylor , Musa Msimango, the Honourable Minister of Minerals & Energy, Sonjica Buyelwa, the DDG: Energy and the YEM President at the lunch function on 06/06/2008 after the Minister's Budget Speech



2.2 MANDATE

Phambili was appointed by the Bushbuckridge LM to execute the pilot project subject to certain terms and conditions. One such condition was that Phambili had to obtain funding to cover the social engineering aspects of the pilot project. This cost was estimated at R 572 000-00 including VAT and the Mpumalanga Department of Economic Development and Planning provided the funds to cover this part of the pilot project. The other condition was that sufficient biomass sources were available to sustain the pilot project. Please refer to Annexure 1 for the letter of appointment by DEDP dated 12 March 2009.

The mandate to Phambili is to implement the pilot project consisting of the following deliverables:

2.2.1 The submission of a feasibility report containing details on the execution of the pilot project after having identified a sustainable biomass source and a

- beneficiary community and after having conducted a socio-economic and bio-physical survey of the area of the beneficiary community as well as the identification of beneficiary households that would receive the Fenix thermal energy units including recommendations for other sustainable projects that may be identified;
- 2.2.2 The registration of an operational co-operative or an agreement with an existing co-operative, to be the holding company of at least one Small and Medium Enterprise (SME) and having an Memorandum of Understanding (MOU) and management contract in place with PHAMBILI or a nominated service provider for at least three years from the date of the incorporation of the last Small and Medium Enterprise (SME) in terms of which the Small and Medium Enterprises shall pay to Phambili or its nominated service provider a management fee as part of its operating costs in a reasonable and business-like manner with an agreement with the co-operative to conduct the local sales of the carbon product of value;
- 2.2.3 The registration of a fully operational SME solely owned by the co-operative who will be the owner of the biomass converter and whose main business will be the collection and conversion of biomass into a carbon product of value, the packaging and warehousing thereof with an agreement in terms of which Phambili shall buy the total production of the carbon product of value;
- 2.2.4 The identification of an ideal site for the location of the conversion plant and equipment including the provision of services essential for the operation of the plant, the long term lease of the land and the construction of buildings essential for the operation and maintenance of the plant as well as warehousing facilities for the carbon product of value;

- 2.2.5 The supply, delivery, installation and commissioning of a biomass converter with the ability to produce 200 (two-hundred) ton of carbon products per month;
- 2.2.6 The identification and training of a team to operate the biomass converter in according to the protocols of Phambili;
- 2.2.7 The supply, delivery, installation and commissioning of a number of Fenix thermal energy units to be agreed upon between Phambili, the Municipality and the Department of Minerals and Energy to identified beneficiary households;
- 2.2.8 The identification and training of a team that would assemble, install, commission the Fenix thermal energy units in the houses of the identified beneficiaries as well as training the families in the safe handling of the thermal energy units in accordance with protocols issued by Phambili;
- 2.2.9 The identification and training of a team that will be responsible for providing preventative maintenance on the Fenix thermal energy units in accordance with protocols issued by Phambili;
- 2.2.10 The demonstration of the biomass converter and thermal energy units to the Department of Minerals and Energy, the Departments of Local Government and Economic Affairs and Planning of the Mpumalanga Province as well as to the Bushbuckridge Local Municipality on a date to be agreed upon after commissioning of the conversion plant and the thermal energy units;
- 2.2.11 The rendering of managerial support and capacity building to both the co-operative and the SME incorporated to undertake the biomass conversion for a period of at least three years after incorporation at the cost of the co-operative and the SME; and

2.2.12 The appointment of at least two (2) non-executive directors on the board of directors on the SME to be incorporated in terms of the Companies Act 1973 (Act 61 of 1973) nominated by Phambili or a nominated service provider with a veto right on material matters to ensure the sustainability of the enterprise for the duration of the management agreement.

2.3 FUNDING

The Mpumalanga Department of Economic Development and Planning provided in the amount of R 572 000-00 including VAT for the social engineering aspects of the pilot project. The Department of Minerals and Energy approved funding for the plant and equipment. The current funding does not provide for operating costs and the Department of Economic Development and Planning will be approached to assist the co-operative in gaining access to the Co-operative Incentive Scheme² administered by the Department of Trade and Industry (maximum of R 300 000) and the balance as an interest free loan to be repaid from profits made, which amount is estimated at R 5000 per month at 0% interest.

2.4 PURPOSE

There are three aspects from a technology point of view that Phambili wants to demonstrate, test and have to accredit at the end of the pilot project:

1. That the Solid Biofuel Producer (SBP) can produce 200 tons of solid biofuel per month and that it is financially feasible in that it makes an adequate operating profit after wages and other input cost have been paid as well as the ability to repay a loan as if it had been financed by a commercial bank. Sufficient operating profit needs to be generated to

² CIS is offered as a 90% matching grant towards the qualifying expenditure incurred/to be incurred by the co-operative. The incentive scheme will operate for a period of five years, starting 2005/6 financial year. A co-operative is eligible for a total grant not exceeding R300 000-00.

enable the co-operative to become a business incubator of additional SME's that will take care of not only the energy and financial security, but also of their food security such as chicken farms, spinach and other vegetable production in tunnels or under shade cloth and other agricultural activities to plant some form of starch. Ultimately what the Government, DBSA, IDC, MIG, wants to see is exit strategies for the current social grants and alternative infrastructure financed by the various SME's. In short a replicable model that can be financed through private capital as opposed to government grants that achieves the APEX priorities and MDG.

It is vital to note that a project of this nature is building a bridge between the 1st and 2nd economies of South Africa which necessitates a new look at the redemption period of capital incurred from 5 to 10 years. In addressing their corporate social responsibilities commercial banks will have consider the 10 years redemption period as a prerequisite to ensure the sustainability of such projects.

2. That the Solid Biofuel (SBF):
 - is socially acceptable and competitive with the household's (in the area and nationally) current daily spending on energy; and
 - can be produced in volume and to a acceptable quality to be used in a fuel-switching programme to replace coal, paraffin and firewood for cooking and space heating purposes in terms of initiatives from the Department of minerals and Energy as well as the Central Energy.
3. That care is taken of the Invader Alien Plants (IAP's) that Department of Water Affairs and Forestry through Work-for-Water and convert it into useful energy and involve communities in the process.

4. That the fuel has markets locally and internationally in both the fuel-switching and leisure markets such as local lodges, the Kruger National Park as well as to Supermarkets and forecourts at filling stations.
5. That the Fenix Thermal Energy Unit;
 - is a viable alternative to the Photovoltaic (PV) system;
 - can be used as a solution to areas that will not receive electricity from the national electricity grid within 5 years or ever for that matter;
 - is energy efficient and does what we say it can; and
 - is socially acceptable.

Finally that Phambili proves to all the relevant spheres of government as a whole and separately that Phambili has a solution to assist in achieving their mandates, goals, deliverables and objectives. The following institutions have already committed in being part of the pilot in Bushbuckridge to collect data and determine possibilities of replicating this project to other areas of the country:

- IDC (Strategic High Impact Program) Proposed to establish a full reference site supported by 4 communities with a central buying of the solid biofuel from the co-operatives, immediately after the Bushbuckridge Pilot - is a mini version of what Phambili wants to do in a National scale or African continental level;
- Nedbank Asset Finance Division: To determine the funding mechanism for asset financing after the completion of the Bushbuckridge Pilot;
- Department of Social Development (National - Sustainable Livelihood Directorate): To gauge and package the project for possible replicability to other areas after the Bushbuckridge Pilot under the sustainable livelihood programme;
- Department of Minerals and Energy through the following programmes;
 - Integrated National Electricity Program;
 - Clean and Renewable Energy;

- Clean Development Mechanism;
- Special Projects Section; and
- Gender Empowerment.
- Development Bank of Southern Africa, under infrastructure development;
- National Working-for-Water Program on the use of alien invasive plants for income generating projects and developing a secondary industry with the use of invader plants; and
- Department of Environmental Affairs and Tourism

The pilot should be able to test and allow IDC, Umsobomvu, DBSA, Nedbank and any other institution that will have to fund through a loan basis to gauge the commercial and financial feasibility of the Solid Biofuel Producer in repaying the loan.

2.5 FINDINGS

2.5.1 FENIX THERMAL ENERGY UNIT

2.5.1.1 The public facilitation on the supply and installation of the Fenix must be seen against the background that the municipality was informed during a meeting held on 16 March 2009 by ESKOM, that due to a lack of supply capacity, that certain areas in Bushbuckridge LM who were promised connections in 2004, will only be provided with connections after 2012 when new substations have been built.

2.5.1.2 The areas most affected will be certain households in Welverdiend, Hluvukani, Hluvukani PHP, Burlington, Huttington and Islington.

2.5.1.3 The Fenix was introduced by way of a video presentation and was well received by all communities - especially the geyser facility was welcomed by all in attendance – it was even mentioned in a prayer at the conclusion of one facilitation session.

2.5.2 IMPACT ON THE COMMUNITY AND THEIR EXPECTATIONS

2.5.2.1 Households have been highly disappointed by the capacity problems with Eskom in the area and therefore have shown willingness to embrace and use the Fenix Utility Unit.

2.5.2.2 Households want to see the unit improved in future to accommodate a television set and probable a small fridge.

2.5.2.3 Poor households connected to grids requested to be provided with the Fenix Unit as they cannot afford the current electricity charges.

2.5.2.4 With the current capacity problem in the communities, the expectation of the Fenix Utility unit is very high and has raised hopes for the rural people as they might be only connected after 2013.

2.5.3 COMMUNITY PARTICIPATION

Often than not community participation is used a smoke screen in doing what was originally planned not as a genuine process of accommodating people's needs and expectations. From this survey, it is clear that community's needs and expectations were accommodated and the communities were consulted from the inception of this project, through their leadership structures, local government, council, councillors, ward committees, traditional leaders and through community meetings.

To ensure sustainability and continuity, a steering committee will be formed in line with the implementation of the project.

Hluvukani Community



Hluvukani Community



Wolverdiend Community



2.5.4 COMMUNITY'S SATISFACTION AND APPRECIATION

Community satisfaction and appreciation is greatly influenced by the perception and expectation of the quality of service. Although the communities of Bushbuckridge want grid electricity, they have shown a huge interest and appreciation of the Fenix Utility unit and have also expressed satisfaction that it will serve the purpose under the current prevailing conditions of bulk electricity capacity in the area. Studies have shown that even people with grid electricity do not use it for cooking and heating because of its perceived high costs, therefore the Fenix Utility unit because of its multi purpose functionality, cooking, space heating, charging cell phone, playing a radio and providing electricity for lighting, have been well received by the communities of Bushbuckridge as a long term solution.

2.6 RISKS, CHALLENGES AND MITIGATION MEASURES

2.6.1 THEFT AND VANDALISM

A study conducted by The Department of Minerals and Energy Policy Centre in 2002 on strategies to address Theft and Vandalism and Lack of Maintenance for No-Grid Electrification of schools and clinics found out that the major causes were the following:

- Lack of ownership of the systems by communities;
- Poor security of system;
- Lack of involvement of the communities in the planning and implementation of the projects;
- Non-functioning of the systems due to poor installation or lack of maintenance;
- Lack of awareness on use of the system; and
- Poor management of those responsible.

In view of the study and findings thereof, Phambili Energy has extensively involved the communities of Bushbuckridge through a consultation process in order to involve them in planning and implementation of the pilot project. Series of meetings were held with the communities to benefit from the Fenix Utility Unit and further explanations were made to ensure that there was a broader understanding of what the up-coming pilot project entails.

All beneficiaries of the Fenix Utility will be trained on how to use and perform what would be called a first line maintenance whilst a team mentored and trained by Phambili Energy operating within the communities, will perform all maintenance required by the units.

2.6.2 OWNERSHIP AND MAINTENANCE

Since the communities will not contribute financially or otherwise to have their units installed in their houses, local ownership from the conceptualisation through implementation of the project is of utmost importance. The consultation process during the feasibility study process of this project indicates the level of understanding from Phambili Energy's side that all members of the community affected by this project should be incorporated at the initial stages of conceptualisation and implementation of the project as it is directly related to caring, looking after and maintenance of the units.

During the survey, some people suggested that the maintenance teams should be people amongst the communities of benefit to ensure a very good service of the unit and smooth implementation of the project. Ensuring that, Phambili Energy's deployment model of the units is in line with the community's suggestion ensuring job creation and building a sense of ownership. The low level of sophistication of the units does not require high levels of skills which exist in the rural communities of the project.

2.7 DEMAND ASSESSMENT

During our visit and consultation to the communities of Bushbuckridge, all households saw the need of the Fenix Utility Unit as it serves a numbers of purposes under their current conditions. The fact that Eskom have a capacity problem in the Municipality and will only be able to start building a sub-station by 2012 emphasizes the demand of the Fenix Unit into the communities of Bushbuckridge. Further to that, during the consultation process, there were some members of the community who felt that even those who have electricity but cannot afford to pay must be given the Fenix Utility Unit and in view of this, the pilot will not only be a solution to the capacity problem in the municipality but an alternative infrastructure development towards accelerated service delivery to the people.

2.8 LOCAL CONTENT AND MANUFACTURING

All components of both the Fenix and the biomass converter are sourced and manufactured locally barring the mechanical press which is imported from Denmark. Further discussions will take place between Phambili Energy and the Department of Economic Development and Planning in Mpumalanga with the view to exploring possibilities of setting up a manufacturing plant in the Province to ensure that the products are proudly “Mpumalangan” and to bring the total cost down.

3 RECOMMENDATIONS

3.1. In view of the fact that abundant biomass sources have been identified in the Bushbuckridge municipal area and that beneficiary communities as indicated in the schedule below have applied for the Fenix Thermal Energy Unit, that the pilot project be commenced with without delay:

REGIONAL OFFICE	VILLAGE	NUMBER OF HOUSEHOLDS	IDP NO
Hluvukani	Welverdiend Hluvukani	850	ES113
Hluvukani	PHP	79	ES105
Hluvukani	Hluvukani	100	
Acornhoek	Burlington	200	ES007
Lillydale	Huttington	114	
Hluvukani	Islington A	179	
Total		1522	

- 3.2. That it be noted that the exact location of the biomass conversion site must still be finalised.
- 3.3. That the Department of Minerals and Energy and the Bushbuckridge LM be requested to give direction on the demand by certain poor households already connected to the grid to be provided with the Fenix units.
- 3.4. That negotiations be entered into with the Bushbuckridge LM on the possible use of the solid biofuel as part of the free basic services.
- 3.5. That negotiations be entered into with the Bushbuckridge LM on the following alternative distribution systems:
 - Linking in with the gel distribution system; or
 - Making use of spaza shops in the various communities to sell the solid biofuel to households; or
 - Recruiting local sales ladies who will undertake the local sale of the solid biofuel; or
 - A combination of the three systems depending on circumstances.
- 3.6. That negotiations be entered into with the Mpumalanga Department of economic Development and Planning for a interest free loan to the SME solely owned by the co-operative for working capital to be repaid from profits made as the current funding only provides for the cost of the feasibility report and the plant and equipment.
- 3.7. That the following documents be made part of the project deliverables:

- 3.7.1 Commissioning report, including signed original certificates of all commissioning tests including a record of all prevailing conditions at the time of the tests;
- 3.7.2 Training manuals;
- 3.7.3 Safety manuals and safety operating procedures;
- 3.7.4 Warranty documents;
- 3.7.5 Plant and units layout drawings;
- 3.7.6 Components installation directions and schematics;
- 3.7.7 Details of civil works, including foundations for support structures;
- 3.7.8 Listing of special tools required; and
- 3.7.9 Plant control specifications, describing all possible settings of controls and protective equipment

4. BIOMASS SOURCES

- 4.1 The western part of the municipality is well endowed with biomass in the form of indigenous forests and commercial forests.
- 4.2 Discussions and correspondence with the regional Working for Water Programme leaders indicated that sufficient sources of biomass were available from their invader plant clearings.
- 4.3 One such area is located immediately west of Bushbuckridge town at Mphenyatsapsi. The area was formerly used for a coffee plantation and once it was cleared, it was invaded by lantana and buck weed. The area is situated on tribal land under the jurisdiction of Chief George Mashego.

- 4.4 The Bushbuckridge LED Executive Director, Mr Kolokoto indicated that his directorate would facilitate in conjunction with the ward councillor access to land for the establishment of the biomass conversion site.
- 4.5 Macadamia shells in the area as well as firebreak cuttings and forestry clearings further west was also available as biomass source.

5. ACCREDITATION OF THE FENIX THERMAL ENERGY UNIT

Various components of the FENIX have subjected to quality testing over the past four months and Professor J Annegarn of the University of Johannesburg was commissioned to undertake the final accreditation of the Fenix Thermal Energy Unit. Phambili was informed that certain equipment vital for the accreditation of the Fenix was only expected to arrive from overseas during the last part of April 2009. Mechaneer Mechanical Engineers undertook to complete the accreditation

Please refer to Annexure 2 containing information in this regard.

6. ESKOM ELECTRIFICATION MAP AND CALENDAR

Various discussions took place between the Bushbuckridge LM and ESKOM on the electrification calendar and an indication was given by ESKOM, that the following areas will not be connected to the grid within the next 5 years:

REGIONAL OFFICE	VILLAGE	NUMBER OF HOUSEHOLDS	IDP NO
Hluvukani	Welverdiend Hluvukani	850	ES113
Hluvukani	PHP	79	ES105
Hluvukani	Hluvukani	100	
Acornhoek	Burlington	200	ES007
Lillydale	Huttington	114	
Hluvukani	Islington A	179	
Total		1522	

Please refer to Annexure 3 compiled by ESKOM relating to the Bushbuckridge capacity feedback. Attached as Annexure 4 is a letter dated 17 March 2009 on behalf of the Director Municipal Works in which the figures mentioned above are confirmed.

7. SOCIO-ECONOMIC PROFILE OF THE AREA³

7.1. HISTORICAL OVERVIEW

The Bushbuckridge Municipality was established in 2000 as a result of the amalgamation of the three former transitional local councils (TLCs) of North and South Midland. Historically it was made up of the two apartheid homelands of Gazankulu and Lebowa:

- Gazankulu was designated for the Shangaan- and Tsonga-speaking people; and
- Lebowa was designated for the Pedi- and Northern Sotho-speaking people.

Until recently, it was a cross-border municipality that spread across parts of Limpopo and Mpumalanga provinces. It is now fully within Mpumalanga Province.

The Bushbuckridge Local Municipality (LM) has a population of about 509 970⁴ (approximately 124 595 households) residing in a total of 235 dispersed villages and rural settlements.

The municipality has eleven regional offices/areas and borders the Blyde River Canyon in the west and the Kruger National Park/Sabie Sand reserves in the

³ Extensive use was made of the *Nodal Economic Profiling Project* by the Business Trust and the Department of Provincial and Local Government, 2007 relating to Bushbuckridge

⁴ <http://www.statssa.gov.za/Publications/Report-03-01-21/Report-03-01-212007.pdf> as viewed on 2009/03/02: as viewed on 8 March 2009

east and the Manyeleti and Andover Game Reserves fall into its area along the northern border.

The municipal area faces large infrastructure and service backlogs, with access to water posing the single greatest challenge.

Bushbuckridge has a limited economic base, and only 14% of the adult population is employed. The local economy is strongly driven by remittances.

The majority of the land is traditionally administered, with approximately 83% of the total municipal area currently under land claims.

A lack of urban/settlement planning and the resulting residential sprawl is complicating and driving up cost of service delivery and may affect the future viability of agriculture as land becomes scarce.

7.2. PERCENTAGE OF HOUSEHOLDS BY TYPE OF ENERGY USED

7.2.1. LIGHTING

Percentage distribution of households by type of energy/fuel used for lighting:

HOUSEHOLDS	SA		MP		BBR	
	2001	2007	2001	2007	2001	2007
Electricity	69,7	80,1	68,9	82,2	78,9	90,1
Gas	0,2	0,2	0,3	0,1	0,1	-
Paraffin	6,8	5,3	4,4	2,8	4,4	0,8
Candles	22,7	13,7	25,9	14,3	16,0	7,8
Solar	0,2	0,2	0,2	0,2	0,1	1,0
Other	0,3	0,5	0,4	0,5	0,4	0,3

7.2.2. HEATING

Percentage distribution of households by type of energy/fuel used for heating

HOUSEHOLDS	SA		MP		BBR	
	2001	2007	2001	2007	2001	2007
Electricity	49,0	58,7	37,4	45,0	28,9	27,7
Gas	1,1	1,0	0,8	0,8	0,3	0,1
Paraffin	14,6	13,0	7,3	5,9	3,8	3,6
Wood	24,6	20,2	30,7	26,5	61,6	66,0
Coal	6,6	3,9	19,1	15,9	0,4	0,1
Animal dung	0,7	0,2	0,6	0,3	0,2	-
Solar	0,2	0,1	0,3	0,2	0,3	0,1
Other	3,1	2,8	3,8	5,3	4,5	2,3

7.2.3. COOKING

7.2.3.1. Percentage distribution of households by type of energy/fuel used for cooking

HOUSEHOLDS	SA		MP		BBR	
	2001	2007	2001	2007	2001	2007
Electricity	51,4	66,4	38,0	55,7	23,0	36,0
Gas	2,5	2,0	1,8	1,2	1,2	0,8
Paraffin	21,4	14,8	15,9	13,3	8,3	5,6
Wood	20,5	15,2	28,4	21,0	66,6	57,2
Coal	2,8	1,2	14,4	8,3	0,2	0,2
Animal dung	1,0	0,2	0,8	0,3	0,2	-

Solar	0,2	-	0,3	-	0,2	0,2
Other	0,2	0,1	0,3	0,1	0,4	0,2

7.3. OFF-GRID HOUSEHOLD ENERGY USE

7.3.1 According to a study⁵ conducted during 2002 in the Bushbuckridge area⁶, the following observations were made:

7.3.1.1 Almost a decade after the introduction of electricity, over 90% of households still used fuel wood for thermal purposes, especially cooking, and the mean household consumption rates over the 11 year⁷ period had not changed, even with a policy of 6 kWh per month of free electricity.

7.3.1.2 The proportion of households purchasing fuel wood had increased, probably in response to a number of factors, including:

- increased fuel wood scarcity in the local environment as reflected by increased fuel wood collection times, changes in fuel wood species preferences, and ranking of scarcity by local collectors; and
- increases in the price of fuel wood well below that of other fuels and the prevailing inflation rate.

7.3.1.3 The majority of households in the region depend on biomass fuels as their primary source of energy, especially fuel wood. Collected fuel wood accounts for a large proportion of the total fuel wood used in the region although some households buy it from local vendors. Other fuel types used include paraffin, candles, gas, coal, dry cell batteries, dung and lead acid batteries. Across all settlements mean consumption of wood was reported at 317.2 kg per household per month in 2002.

⁵ Changes in fuel wood use and selection following electrification in the Bushbuckridge lowveld, South Africa M. Madubansi and C.M. Shackleton

⁶ The survey was conducted in Athol, Okkerneutboom, Rolle, Welverdiend and Xanthia

⁷ Period between 1991 and 2002 when the last study was conducted

- 7.3.1.4 Most of the fuel wood is gathered free of charge from the surrounding environment and 64% of house gathered fuel wood in 2002. The decline in the proportion of households collecting their own fuel wood mirrored the increase in those purchasing fuel wood, as well as a decline in fuel wood availability as measured through collection time. There was a significant increase in the time spent on fuel wood collection between 1991 and 2002, from 239 minutes per trip in 1991 to 268 minutes per trip in 2002.
- 7.3.1.5 There is an increase of households purchasing fuel wood as an increasing number of people no longer considered fuel wood to be a free commodity.
- 7.3.1.6 Fuel wood gatherers frequently cut live wood because of the relative scarcity of deadwood. The proportion of households admitting to cutting wood in the region was 49% in 2002. Many households were reluctant to admit their involvement in wood cutting, except where this was obvious, such as a pile of recently cut wood within the vicinity. Such reluctance was related to fears of arrest. Over 60% of households reported that wood collection became more difficult as dry wood was not easily available. Other reasons given was the presence of criminals deterring collectors from walking long distances to locate dry wood, and the other that they were getting old and could not longer walk far. The latter suggests an aging population, or that younger households are more reliant on electricity.
- 7.3.1.7 Despite the increase in fuel wood scarcity and the availability of electricity, the majority of households continued using wood as their main source of energy for thermal applications. This emphasises the importance of fuel wood as an energy source for cooking, heating water and keeping warm. Yet the proportion of households lighting a fire (outside) for keeping warm had decreased dramatically.

7.3.1.8 The monthly consumption rates of fuel wood remained unchanged between 1991 and 2002. Annual consumption was approximately 3.8 tons per household, which is well within the range reported by others from the southern African region. Only 1% of the households in the region used only electricity for all thermal purposes. A few households that used paraffin and gas for cooking did so in combination with fuel wood. Thus, rural households have a complex mix of energy sources that they use at different times and for different purposes, as do poor peri-urban and urban communities.

7.3.2 Trees can only be cut in tribal areas once a permit has been issued by the tribal authority. If found cutting down a tree that bears edible fruits, people are fined. The fines are as follows:

- Chief Khosa Jongilanga (Jongilanga Tribal Authority) - R500;
- Chief Nxumalo (Amashangana Tribal Authority) - R500 and confiscates the cutting tools (axes, saws and pangas);
- Chief Chiloane (Sehlare Tribal Authority) - R300; and
- Chief Mnisi (Mnisi Tribal Authority) - R300.

Charges for the permit range differ from one Tribal Authority to the next. Permits start from R1.00 for 10 poles⁸.

7.3.3 The National Department of Social Development offered to undertake an in-depth survey prior to the installation of the Fenix units and then another survey within six months after installation to determine the change in

⁸ Evaluation of the Marula Project in Bushbuckridge: Prepared by Felicia Chiloane and Jackson Phala: September 2002: p13

household patterns after being exposed to the features the Fenix offers. The survey is due to commence during the second week in April 2009.

7.3.4 The current method of delivering fuel wood is by way of a wheelbarrow and the principle of necessity applies where a household would use such delivery over a period of two days. In view of different trees being used the accurate weight is difficult to determine, however, the amount spent was taken as the norm. The price per wheelbarrow varies between R 25-00 and R 30-00 resulting in a price of approximately R 2-50 per kg.

7.3.5 The current price of paraffin is R 9-00 per litre and candles around R 15-95 per packet of six. The following is a summary of total monthly energy costs for off-grid households:

	Candles	Paraffin	Wood	Dry cell bat	TOTAL
Small HH (4 persons)	24	20		2	
Rand	63.60	180.00	375.00	42.00	660.60
Medium HH (6 persons)	30	25		2	
Rand	79.50	225.00	375.00	42.00	721.50
Big HH (8 persons)	36	30		2	
Rand	95.40	270.00	375.00	42.00	782.40

8. COMMUNITY FACILITATION

8.1. CO-OPERATIVE BUSINESS ARRANGEMENTS

Phambili acquired a generic constitution – please refer to Annexure 5 - and a pre-incorporation agreement - please refer to Annexure 6 - from a professional service provider which will be used as basis for the business arrangements between Phambili and the to-be established co-operative. The professional service provider will facilitate both the pre-incorporation agreement and the constitution with the founder members to be identified.

8.2. MINUTES OF PUBLIC FACILITATION MEETINGS

Meetings with beneficiary communities were held on 18 and 19 March 2009. The following minutes are attached:

Annexure 7 Hluvukani: 18 March at 09:00;

Annexure 8 Islington: 18 March at 11:00;

Annexure 9 Burlington: 18 March at 14:00; and

Annexure 10 Huttington: 19 March at 12:00

8.3. LISTS OF FENIX BENEFICIARY HOUSEHOLDS

Attached please find the lists of persons who attended the facilitation meetings and expressed the wish to receive a Fenix unit. Attention is directed that these list are not final and that a final verification will be undertaken in conjunction with the Bushbuckridge LM.

Annexure 11 Hluvukani;

Annexure 12 Islington;

Annexure 13 Burlington; and

Annexure 14 Hutterington.

9. POSSIBLE ESTABLISHMENT OF OTHER SME'S

9.1. ECONOMY OF BUSHBUCKRIDGE⁹

Bushbuckridge is exceptionally poor – over 85% of households live below the household subsistence level (HSL) and only 14% of the adult population are employed. The description of the economy of Bushbuckridge is provided at three levels: GDP (output), employment and consolidated sectoral analysis.

The nodal economy essentially comprises four divergent sub-economies:

Government and public service: Public spending (infrastructure spending, salaries) is an important source of capital for the area.

Services and retail: There are a number of shopping centres in some of the larger towns. These host national brands like Spar, Shoprite, Jet, OK Furniture, Pep and Chicken Licken. Informal trading also occurs.

Agriculture: Although there is very limited commercial farming at present in Bushbuckridge, many households rely on small-scale farming for their livelihoods. Numerous estates, which used to be large employers, lie dormant.

Tourism: Some trading of arts and crafts is found on access roads to the large game farms and reserves in the east.

However, considerable income is earned outside Bushbuckridge. According to

⁹ Bushbuckridge Nodal Economic Development Profile: Narrative Report prepared by the Department of Provincial and Local Government and the Business Trust: p 7

USAid, “almost 70% of working-age males and 40% of females work outside the area for more than half the year, while half the males and 14% of females between the ages of 25 and 59 are long-term migrant workers.”

The potential for economic growth is lies in two sectors, namely:

Agriculture: reactivating dormant commercial farms/unlocking growth in small holding farming; and

Tourism: developing local attractions and capturing spending of visitors to surrounding attractions.

9.2. AGRICULTURE¹⁰

The current strategy of the provincial Department of Agriculture is to move farmers up the value pyramid, which promises to unleash considerable dormant capacity in the area. Bushbuckridge is mostly a rural area, dominated by subsistence and small farming activities. Most households farm for household consumption only. The lack of access to markets implies that many producers sell only to the community. Inefficient and untargeted activity means that considerable income potential remains latent.

Numerous former Development Corporation projects lie abandoned and unused. Targeted interventions could develop subsistence to smallholding activity with creation of slight disposable income; and small farmers could move into a more commercial arena, generating stronger inflow of capital into the area. Although ecological circumstances (soil types, land and water availability) may limit the total size of commercial farming activity in the area, a considerable gap between current and potential activity remains.

¹⁰ Bushbuckridge Nodal Economic Development Profile: Narrative Report prepared by the Department of Provincial and Local Government and the Business Trust: pp 10 and 11

Agricultural development will be constrained by a shortage of water, and the competition with domestic uses and conservation will be fierce, implying the need for careful management. The area is dry, with approximately 600 mm of rain p.a. There is no rainfall from April to October, rainfall is highly variable and rain often occurs in intense downpours, increasing risk of erosion and irrigation/dam damage. There are few catchment areas in the region.

Irrigation systems currently feed off rivers, with only Champagne Irrigation being supplied by the Casteel Dam, and Injaka Irrigation by Injaka Dam. There are three major irrigation schemes, all of which are currently being rehabilitated. The area generally does not have a high groundwater-bearing capacity.

9.3. FOCUS AREAS

The initial focus of Phambili will be on household level where the proven field-to-fork methodology of household food security will be introduced. Please refer to Annexure 15 for the lay-out of such garden. Mvimbi Holdings, a strategic partner of Phambili has developed a unique combination of plants to be planted in such home garden. Please refer to Annexure 16 for an outline of the aspects involved in establishing and maintaining a home garden: Outline: Sustainable Vegetable Garden Systems.

Further research will also be conducted on the marula potential of the area.

10. LOGISTICS

10.1. BIOMASS AS ENERGY SOURCE

10.1.1 Solid biofuel briquettes can be produced from wood, reeds, straw, grass sawdust or any plant material which can be grained down to particles

smaller than 3mm in diameter. Currently many thousands of cubic meters of wood, are burned on a daily basis by households to cook their meals, heating of water for washing purposes or to heat their homes in winter. Other sources used by households in this regard, are normal coal, but the pollution factor of the smoke is no longer accepted due to health risks and the "Greenhouse" effect of global warming. Phambili envisages to utilise some of this sources of biomass and to produce charcoal from it which is smokeless, odour free and which is more energy efficient.

10.1.2 The invasion of foreign trees like Saligna, Port Jackson, South American "Siring", Black wattle, "Rooikrans", Poplar, Lantana is a serious threat to our rivers and our indigenous Flora. DWAF started with the Working-for-Water Program (WfW) which is partly for job creation, but mainly to eradicate these invaders from our water sources. Phambili will be working in close liaison with WfW and create a large resource of raw material.

10.1.3 Large quantities of branches and "waste" are also available from the forestry sector. Phambili will harvest and chip down all wood resources at the site where it is available to 50 mm x 3mm chips and then transport the chips to the conversion plants for the production of solid biofuel.

10.1.4 There are many contractors who cut and bale the grass alongside our highways and roads. Phambili plans to procure some of this grass for the production of solid biofuel. Use will also be made of agri-rests on farms such as wheat straw and maize stover.

10.2. BIOMASS COLLECTION

The Working-for-Water Directorate of DWAF has indicated their willingness to cooperate with Phambili in the supply of biomass from invader plants. However, a supply of at least 40 ton of biomass is required on a daily basis to keep the plant

operating and for that purpose, Phambili will make adequate arrangements to ensure that production is not relying solely on the WfW program.

10.3. BIOMASS CONVERSION

10.3.1 All the chipped material will be transported to the briquetting plant in 1 ton bulk bags from the sites where it was sourced. The chips will then be milled down to sawdust with particle sizes not larger than $3 < 6$ mm in a hammer mill.

10.3.2 The sawdust must be dried to a moisture content between $12 > 6\%$, before it can be fed into the mechanical presses. If the moisture content is higher than 12%, solid briquettes can not be pressed because the moisture destroys the briquette.

10.3.3 Drying takes place in a circular "blower-drier" where the circulating air is heated by a fire. The fire will initially be started by wood, but the combustible gasses released in the carbonisers during the exothermic process will be routed to the driers where it will be ignited by the heat and smaller wood fire.

10.3.4 The dried sawdust is then fed into a dosing silo which then fed the mechanical presses at the required quantities. The press then extrudes and cuts the briquettes on a continuous basis. The briquettes are then packed into retractable containers to be carbonised

10.3.5 .The retractable containers are then loaded with the assistance of an overhead hoist into the carboniser and the oven of the carboniser is ignited. The fire in the oven will initially be started by wood, but the combustible gasses released in the carbonisers during the exothermic process will be routed to the ovens where it will be ignited by the heat and smaller wood fire.

10.3.6 After \pm 5 hrs the carbonisation process is completed and the retractable containers are hoisted out of the carboniser and transported to a "cooler"-container for curing. The carbonisers are then loaded for the next batch.

10.4. SBF PACKAGING

The solid biofuel for local distribution will be packed in transparent 20 micron plastic bags weighing 4 kg. In respect sale for the leisure market, industrial engineers have been appointed to submit proposals on packaging of the SBF and an advertising company marketing is busy with the logo.

10.5. SBF DISTRIBUTION

10.5.1 It is anticipated that in the initial stages, that households will slowly switch from the current fire wood which is being used by 57.2% of households to the SBF. In respect of households using paraffin, it is expected that the change will be much quicker as it will boil down to a change in the purchase of a product.

10.5.2 The municipality introduced a distribution system of gel to some 3 600 households through the various regional offices as part of free-basic services.

10.5.3 Phambili is proposing the following alternative distribution systems:

- Linking in with the gel distribution system; or
- Making use of spaza shops in the various communities to sell the solid biofuel to households; or
- Recruiting local sales ladies who will undertake the local sale of the solid biofuel; or
- A combination of the three systems depending on circumstances.

10.5.4 Phambili is desirous to enter into negotiations with the municipality on the possible inclusion of the solid biofuel as part of the free-basic services

10.5.5 Solid biofuel not used by households will be distributed to local retail outlets and game lodges

10.6. FENIX THERMAL ENERGY UNITS

The cost of the Fenix amounts to R 10 830-00 inclusive of VAT and the following:

- Delivery on site of the household;
- Assembly on site;
- Installation including an external chimney;
- Wiring and a distribution box including a socket for the cell phone charger;
- Four LED lights;
- A radio; and
- Training to the household on the use of the Fenix.

Local persons with a technical background will be recruited for this purpose and a maintenance team will be established who will be employed by the co-operative.

11. FINANCIALS

11.1. CAPITAL OUTLAY

The main component of the carbonisation process is centred on the mechanical press which produces the extruded logs of biomass prior to carbonisation. The patented press is manufactured in Denmark and costs R 3,33 million. The following is a detailed summary of the capital required to establish the proposed conversion site, which amount is estimated at R 11 455 369,80 inclusive of VAT:

1	<u>Land & Buildings</u>	
	Land for buildings & storage ± 15,000 m2	40,000
	Factory building (50 tons = 350m2) (200 tons = 600m2) @ R1,800/m2	1,080,000
	Electrical Installation, ventilation & Fencing	400,000
	Roads & security	70,000
	Total costs - land & buildings	1,590,000
2	<u>Storage.</u>	
	Redundant 6m sea containers - converted to requirements	70,000
	Conveyor belts & Augers	130,000
		200,000
3	<u>Sourcing.</u>	
	Chainsaws.	9,000
	Mobile Chipper P.T.O driven	175,000
	52 Kw tractor to drive Chipper (2nd Hand)	65,000
	58 Kw tractor & front-end loader with 6m trailer (2nd Hand)	300,000
	5 ton Log splitter hydraulic	30,000
		579,000
4	<u>Processing.</u>	
	Hammer mills (between 350 - 950kg/hr)	140,000
	Roll grid	70,000
	Circulating Biomass Dryer	280,000
	Augers & Conveyor Belts	70,000
		560,000
5	<u>Briquetting.</u>	
	Mechanical Press	3,328,518
	Briquette press (Charcoal grains)	0
		3,328,518
6	<u>Carbonising.</u>	
	Carbonisers	1,250,000
	"Cooling-bay"	120,000
	Overhead Hoist with rails	300,000
	Exhaust gas Pipe network	90,000
		1,760,000
7	<u>Packing & Dispatch.</u>	
	Scales & Vacuum sealers	40,000
	Pallet Wrapper	35,000
	Trolley Jacks	38,000
		113,000

8	Vehicles.	
	8 ton Truck & Trailer (2nd Hand)	850,000
	1 x LDV (2nd Hand)	175,000
		1,025,000
9	Professional fees & contingencies @ 10%	813,052
10	Environmental Impact Assessment	80,000
	Sub Total	10 048 570
	VAT @ 14%	1 406 799,80
	Total Estimated Capital Outlay	11 455 369,80

11.2. PRODUCTION COST CENTRES

11.2.1. SOURCING

Sourcing			
	Number	Cost ZAR	COST PM
Chainsaw Operators	9	1450	13050
General Labourers	19	1350	26650
Tractor Driver	3	1400	4200
TOTAL	23		43900

11.2.2. PROCESSING

Processing			
	Number	Cost ZAR	COST PM
Chipper Operator	1	1450	1450
Ham.mill & Log Sp.Ope.	3	1450	4350
General Labourers	5	1350	6750
TOTAL	9		12550

11.2.3. MANUFACTURING

Manufacturing			
	Number	Cost ZAR	COST PM
Drying of grains	3	1400	4200
Mech. Press Operator	3	2500	7500
Carbo-nising	3	2000	6000
General Labourers	10	1350	13500
Cooling emptying	3	1350	4050
TOTAL	22		35250

11.2.4. INDIRECT COSTS

Indirect Costs			
	Number	Cost ZAR	COST PM
Workshop Technician	1	2500	2500
Transport Driver	1	4500	4500
Dispatch packers	14	1350	18900
General Labourers	6	1350	8100
TOTAL	22		34000

11.3. ESTIMATED INCOME AND EXPENDITURE STATEMENT

SOLID BIOFUEL PRODUCTION - BOSBOKRAND CO-OPERATIVE.	
PROJECTED INCOME & EXPENDITURE STATEMENT	
PER MONTH IN TONS :	
	200
INCOME	
Charcoal sold	464 843
Total Income	464 843
Expenditure	414 843

	Direct Costs	245 901
	Sourcing	147 211
	Processing	32 860
	Manufacturing	65 830
	Indirect Costs	168 942
	Indirect Costs	168 942
	Nett Profit	50 000
	Nett Profit %	11%

11.4. ESTIMATED MONTHLY EXPENDITURE STATEMENT

2	<u>EXPENDITURE</u>		
	Direct Production Costs.		
2.1	<u>SOURCING</u>		
a	<u>Fuel -</u>		
	Diesel consumption by tractors @ 220l/tractor per week	l	850
	Diesel consumption by truck @ ± 800km per week	l	900
	Total consumption		1 750
	Estimated price per lit	R	7.10
	Cost per week	R	12 425
	Petrol & 2-stroke oil for chainsaws @ 25 l /day/chainsaw	l	150
	Estimated price per lit mix	R	8.50
	Cost per week	R	1 275
		w	4.33
	Estimated costs per month	R	59 321
b	<u>Powersaw chains & lubricants</u>		
	12 new chains/month /chainsaw	R	1 450
	Chainoil @ 5 l/month/chainsaw		360
	Estimated costs per month	R	1 810
c	<u>Herbicide.</u>		
	Tordon/Access - killing of trees which was cut.(cost/l)	R	170
	Estimated consumption per month	l	0
	Estimated costs per month	R	0
d	<u>Repairs & Maintenance</u>		
	- mechanical presses (± eur 1.70/ton + 2.70/hr on BP5500)	R	26 880
	- machinery & equipment per month		4 200
	- tractor & trailer		2 500
	- vehicles		8 500
	Estimated costs per month	R	42 080
e	<u>Protective clothing</u>		
	Gloves, gogele, masks, etc.		1 100
	Estimated costs per month	R	1 100
2.2	<u>PROCESSING.</u>		

a	<u>Bags.</u>		
	Poly propolyne bags for storing, etc - 1ton mass bags	mb	95
	Estimated cost per bag	R	42.50
			4 038
	Poly propolyne bags for storing, etc - 80kg bags	b	600
	Estimated cost per bag	R	3.10
			1 860
	Estimated costs per month	R	5 898
b	<u>Protective clothing</u>		
	Gloves, gogees, masks, etc.		450
	Estimated costs per month	R	450
c	<u>Electricity usage.</u>		
	Dryer motor @ 17kw running/hour.	kw	16 700
	Hammer mill motor @ 37 kw running for 144 hours /week	kw	37 000
	Total estimated consumption		53 700
	Cost per Kw hour	R	0.26
	Estimated costs per month	R	13 962
2.3	<u>MANUFACTURING.</u>		
a	<u>Electricity usage.</u>		
	Augers, conveyor belts, overhead hoist, etc. tot 15kw	kw	10 500
	Mechanical Press running for 144 hours/week	kw	33 000
	Extraction fans,lights & hoist motors @ 25kw for 144 hrs	kw	14 500
			58 000
	Cost per Kw hour	R	0.26
	Estimated costs per month	R	15 080
b	<u>Protective clothing</u>		
	Gloves, goggles, masks, etc.		500
	Estimated costs per month	R	500
f	<u>Salaries</u>		
	General supervisor x 3 -per month	R	15 000
2.4	<u>Indirect Costs.</u>		
a	<u>Repair & maintenance.</u>		
	Workshop consumables - monthly estimated consump.	R	4 200
b	<u>Fuel.</u>		
	Diesel consumption per week - truck	l	1 800
	Diesel consumption per week - LDV	l	175
	Total estimated consumption per week	l	1 975
	No of weeks		4.33
	Total consumption per month		8 552
	Estimated price per lit	R	7.10
	Estimated costs per month	R	60 717
c	<u>Packing material.</u>		
	Estimated production per month	kg	200 000
	Number of 4kg bags		47 500
	Estimated cost per plastic bag	R	0.99
	Total costs for bags		47 025

	Staplers, pallets & netting - estimate/month		17 000
	Estimated costs per month	R	64 025
d	<u>Electricity usage.</u>		
	Estimate cost per month		1 800
e	<u>Rent of Premices.</u>		
	Monthly rent payable for renting of sheds @ R7.50 / m2.		0
	900 m2 @ R7.50 / m2.		
g	<u>Telephone costs</u>		
	Telkom & Fax	R	1 700
	Cellphone costs		2 500
	Estimated costs per month		4 200

11.5. ESTIMATED MONTHLY INCOME STATEMENT

Co-operative

Cost per Kg	R			
	2.07			
<u>Income</u>	<u>per Kg</u>	<u>per Ton</u>	<u>per Month</u>	
	R	R	R 50	
Mark-up per kg for co-operation (their profit)	0.25	250.00	000.00	

Phambili Energy

Cost per Kg	R			
	2.32			
<u>Income</u>	<u>per Kg</u>	<u>per Ton</u>	<u>per Month</u>	
Mark-up per kg for Phambili Energy (our turnover)	R	R	R 136	
	0.68	680.00	000.00	
<u>Less: Expenses</u>				
Logistics	R	R	R 50	
	0.25	250.00	000.00	
Marketing	R	R	R 36	
	0.18	180.00	000.00	
Mark-up per kg for Phambili Energy (our profit)	R	R	R 50	
	0.25	250.00	000.00	

Retailer / Final Vendor

Cost per Kg	R			
	3.00			
<u>Income</u>	<u>per Kg</u>	<u>per Ton</u>	<u>per Month</u>	
	R	R	R 100	
Mark-up per kg for Phambili Energy (our profit)	0.50	500.00	000.00	

Consumer	<u>per Kg</u>	<u>per Ton</u>	<u>per Month</u>
	R	R 3	R 700
Consumer Price	3.50	500.00	000.00

11.6. OPERATING COSTS

The funding received for the project only covers the cost for preparing the feasibility report and the plant and equipment. The Department of Trade and Industry introduced the Co-operatives Incentive Scheme (CIS)¹¹. CIS is offered as a 90% matching grant towards the qualifying expenditure incurred/to be incurred by the co-operative. The incentive scheme will operate for a period of five years, starting 2005/6 financial year. A co-operative is eligible for a total grant not exceeding R300 000-00.

The Department of Economic Development and Planning will be approached to assist the co-operative in gaining access to the CIS and to provide the balance required as an interest free loan to the co-operative which loan will be repaid from profits made by the SME.

The amount required as operating cost is estimated at R 300 000-00.

11.7. FINANCIAL IMPACT

11.7.1 The total cost for the plant and equipment is estimated at R 11 455 369,80 whereby 84 direct and 45 indirect new jobs – a total of 129 new jobs will be created at a cost of approximately R 88 800 per job opportunity¹².

11.7.2 The cost to produce 1 kg of solid biofuel by the SME owned by the co-operative is estimated at R 2-07. A mark-up of R0-25 per kg by

¹¹ DTI Booklet: Co-operative Incentive Scheme Guidelines

¹² The consensus amongst development specialists is that, on average, it costs about R million to create one new, permanent, middle-income job in South Africa: Article “How Much Does it Cost to Create a Job?” which appeared in the Swiss-South African Co-operation Initiative in December 2001

the SME as profit will take the price to R 2-32 which Phambili will pay to the SME. Phambili will add the following to this price:

- Logistics: R 0-25 per kg;
- Marketing: R 0-18 per kg; and
- Mark-up and management fee: R 0-25 per kg

which takes the price to R 3-00 per kg. The profit for both the SME and Phambili will amount to R 50 000-00 per month.

11.7.3 It is necessary to draw a comparison between the energy values between the gel being used by some 3 600 households and the solid biofuel. According to the survey, the municipality provides 5 litres of gel free to the household who uses on average 10 litres of gel per month. The use of the gel is limited to cooking only. The calorific (energy) value of the gel is 40 Mega Joules (mJ) per litre which gives a household 400 mJ per month. In the case of the solid biofuel, the calorific value is 28 mJ per kg. A household will use approximately 4 kg of solid biofuel per day which will bring the monthly consumption to approximately 120 kg with a total calorific value of 3360 mJ – a difference of 2960 mJ in comparison to households receiving the gel.

11.7.4 It is also necessary to draw a comparison between the energy values between fuel wood and SBF. The calorific (energy) value of fuel wood is 18 mJ per kg with a value of R0-14 per mJ. The SBF has a calorific value of 28 mJ per kg with a value of R 3-89 per mJ which means that the SBF is 27 times more efficient than fuel wood for the same weight.

- 11.7.5 According to the survey, the gel is costing R 200 for 4 liters with a total monthly expenditure of approximately R 400 for cooking only. In the case of the solid biofuel, 120 kg will cost the household R 360 if the solid biofuel is sold directly by Phambili to the beneficiary household with the advantage of having lights, a space heater, a cell phone charger, power for the radio, a geyser, two plates for cooking and fresh water.
- 11.7.6 There are some marketing options open such as:
- 11.7.6.1 In view of this being a pilot project, the municipality could decide to introduce the sold biofuel (SBF) as part of free-basic services policy whereby a household will receive 60 kg of SBF free which covers two week's consumption and to avail the SBF to households at R 3-50 per kg. This will mean that if a household use 120 kg per month, it will receive a benefit of R 180 and pay for the balance at R 3-50 per kg amounting to R 210-00 which in real terms cost the municipality only R 150 per month per household for free basic services; or
- 11.7.6.2 Distribute the SBF to spaza shops and allowing them a mark-up of R 0.50 per kg taking the price to R 3-50 per kg which will cost a household using 120 kg per month R 420-00 pm; or
- 11.7.6.3 Recruit sales ladies who will sell the SBF to Fenix beneficiary households at R 3-50 per kg which will generate a salary of approximately R 2 000 per month on condition that 4 ton of SBF is sold. If all beneficiary households (1522) were to consume 120 kg per month, this will mean a consumption of almost 183 tons which could result in an additional 45 indirect job opportunities.
- 11.7.7 In conclusion, the introduction of the Fenix combined with the SBF will result in substantial nett monthly savings for off-grid households

in as much as they will not have to buy firewood, candles, dry cell batteries and paraffin but only SBF at around R 3-50 per kg. The following tables depicts the expected savings:

	Candles	Paraffin	Wood	Dry cell bat	TOTAL	FENIX and SBF	NETT SAVING	%
Small HH (4 persons) Rand	24 63.60	20 180.00	375.00	2 42.00	660.60	120 kg 420.00	240.60	63.7
Medium HH (6 persons) Rand	30 79.50	25 225.00	375.00	2 42.00	721.50	130 kg 455.00	266.50	63.5
Big HH (8 persons) Rand	36 95.40	30 270.00	375.00	2 42.00	782.40	140 kg 490.00	292.40	62.6

12. ANNEXURES

12.1. ANNEXURE 1: LETTER OF APPOINTMENT DATED 12 MARCH FROM THE DEPARTMENT OF ECONOMIC DEVELOPMENT AND PLANNING

ANNEXURE 1

MPUMALANGA PROVINCIAL GOVERNMENT

Building No 4
No. 7 Government Boulevard
Riverside Park Extension 2
Nelspruit
1200
South Africa



Private Bag X 11215
Nelspruit, 1200
Tel: 013 766 4571
Int: +27 13 766 4394
Fax: 013 766 9458
Int: +27 13 766 9458

Department of Economic Development and Planning
OFFICE OF THE HOD

Litiko Letekutfutukiswa
Kwetemnotfo nekuHlela

Umnnyango Wezokuthukiswa
KoMnotho nezokuTlanywa

Departement van Ekonomiese
Ontwikkeling en Beplanning

12 March 2009

The Project Manager
Phambili Energy
96 Lindfield Road
Lynwood Manor
TSHWANE
0001

Attention: Mr Musa Msimango

APPOINTMENT AS A SERVICE PROVIDER FOR ESTABLISHMENT OF A BIOMASS PILOT PROJECT IN BUSHBUCKRIDGE LOCAL MUNICIPALITY IN MPUMALANGA PROVINCE.

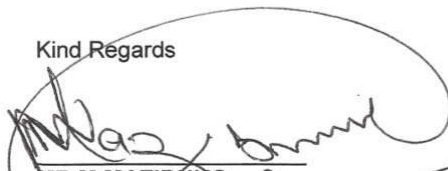
It is my pleasure to inform you that the Department has appointed your company Phambili Energy to do a scoping study for the establishment of a Pilot Project: Energy Products in Bushbuckridge Local Municipality.

This appointment is subject to the signing of a contract between your Company and the Department. You will be expected to present the project scope, work plan, detailed budget (with professional fees rates, VAT on fees, disbursements inclusive of VAT and deliverables/milestones), project team members and responsibilities to the Steering Committee that will be managing the project.

The contract will only be finalized once all the above issues have been addressed.

All technical queries should be directed to Mr MM Mathebula, the project leader, on cellphone No. 079 551 3820

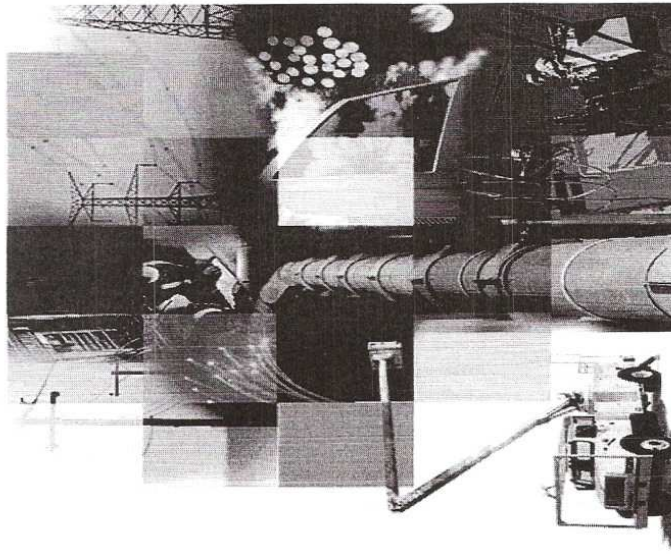
Kind Regards


MR M MAZIBUKO
HOD: ECONOMIC DEVELOPMENT AND PLANNING
DATE: 12/03/2009

12.2. ANNEXURE 2: FENIX ACCREDITATION

**12.3. ANNEXURE 3: ESKOM: BUSHBUCKRIDGE CAPACITY
FEEDBACK**

**BUSHBUCKRIDGE CAPACITY
CONFIRMATION**



Bushbuckridge Capacity Feedback

VILLAGE NAME	PROPOSED CONNECTIONS	CLOSEST POLE NUMBER	STATUS
Weverdiend	850	AT 148/218/64 & AT 148/303/2 / TM234/72/5	DO NOT CONNECT
Burlington	200	AT148/50 AT148/75/48	DO NOT CONNECT
Waterval RDP/Opposite RDP/Marcia	91	KOA125/61/7 & KOA125/74/1	
Dumphries A,B,& C	320	TC81/38/4/110/11 / TL81/4/62/20/5	CONNECT
Belfast Ext	90	CCK69/4	CONNECT
Crouquet Lawn Ext	150	TAC 197 & TC216-7-7-9	
Hluvukani	179	AT 148/217/13	DO NOT CONNECT
Hluvukani PHP	100	AT148/201	DO NOT CONNECT
Sommerset PHP	100	CL22/44/7	DO NOT CONNECT
Songeni Bombanani	24	AT 242/15/18 & AT 242/15/6 & AT242/16A/2	DO NOT CONNECT
Songeni Mabumbu	60		
Dingledale B	50		
Sondela Tekamahala	28		

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Bushbuckridge Capacity Feedback

VILLAGE NAME	PROPOSED CONNECTIONS	CLOSEST POLE NUMBER	STATUS
Thabakgolo	10	NV 37/14/9	
Orinocco A Hlamalani	98	TDW100/82/8/1	CONNECT
Orinocco Sibambayani	30	TDW100/82/8/1	CONNECT
New Forest B Tsuvulani	21	TDW95/11	CONNECT
Nkotobona	83	AK88-44-20	
Dospan	50	NV 138/3	
Shatale RDP	41	NV37/1/23	
Gottenburg A & C	215	AT148/293/26/5	
Gajosefa Ext Matshelapata	72	AC104/12A	
Wisani Ga Zitha	44		
Buffelshoek Tshabelang	41		
Greenview Garden	500	AM15-3-2 & AM18/2	
Tintswalo Ext	300	ATB59/16/16/22	

3

Bushbuckridge Capacity Feedback

VILLAGE NAME	PROPOSED CONNECTIONS	CLOSEST POLE NUMBER	STATUS
Buffelshoek (Jerusalem & Four ways)	21		
Brooklyn	150		
Plazaview 2	246		
Makaringe Hlavati School	30		
Kumane zigode riverside	280		
MP Stream Nyamande School	27	TC75/57	CONNECT
Ludlow	110		
Landela A Lephong	14		
Rolle A	93	TM41/9	CONNECT
Landela B	326		
Rooiboklaagte A	121	Post connections	
Rooiboklaagte B	18	AC121-23 & AC121/2/1	
Maromeng	43	AC35/39/10/10/14 & AC5/39/10/10/1	
Edinburg B	100	TM63/34/13/4	CONNECT
Zola B	168		
Siza Gogo	200		
Ireagh a ka masuku	300	CL145/17/4	DO NOT CONNECT
Cunningmore B	100	KOA359/4	DO NOT CONNECT
Newington A	89	TC216/7/1	CONNECT
M P Stream ka Kopeni	150	TC75/17/2A	CONNECT
Agincourt	100	TC180/2/3	CONNECT
Xanthla	80	NA81/217	CONNECT

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Bushbuckridge Capacity Feedback

VILLAGE NAME	PROPOSED CONNECTIONS	CLOSEST POLE NUMBER	STATUS
Motsi Ireagh B	25		
Huntington	114	CL34/26/B	DO NOT CONNECT
Kildare B Nwankupani	36	CL188/4/1/5	DO NOT CONNECT
Lillydale Hlanguleni	50	CL114/10	CONNECT
Goromani New Skom	40	MHA136/14/3	
Wern Caloutta	25		
Oakely Soweto	130	KOA287/30	DO NOT CONNECT
Oakely New Skom	85		
Oakely Hlangalezwe	80		
Boikutso Bamba Matches	100	LM65/42/3/31/4A	
Buylsnto	50	NA18/23	CONNECT
Tshamisekani			
Buyisonto Banga Section	100	NA18/23	CONNECT
Buyisonto Sam Mnisi School	40	NA18/23	CONNECT
Dwarsloop	8	NV20/4/2	DO NOT CONNECT
Motibidi	100	NV20/14/5	DO NOT CONNECT
Mathule	59		
Relani Cross	75	NV20/24	DO NOT CONNECT
Zoeknog Mphethi	13	NV10/73/19	DO NOT CONNECT
Sofaya	16		
Athol	36	TM99/8/84	CONNECT

Bushbuckridge Capacity Feedback

VILLAGE NAME	PROPOSED CONNECTIONS	CLOSEST POLE NUMBER	STATUS
HluvuKani Islington A	179	AT14A/209/9/3	DO NOT CONNECT
Delani ka Shorty	37		
Technical Acornhoek	52	NV37/65/3/6/7 / ACJ39	DO NOT CONNECT
Happy Dam	150	ACJ-6-3	
Powerline	150	ACJ-39-24	
Dikolobeng	8		
Matokereng	140		
Seville A,B,C	100		
Half Rolle Charles Mbongeni School	24	TM63/16	CONNECT
Hokwe Nobody	34		
Oakley Next to Magorushi School	25	KOA265/36/6	DO NOT CONNECT
Oakley Next to Mothibela Bottle Store	70	KOA265/36/6	DO NOT CONNECT
Cunningmore A	150	CL316A/4	DO NOT CONNECT
Mbongampisi	4		
Madras	5	KOA82/18/1	DO NOT CONNECT
Buyalani	21		
Sunford	42		
College View	40	KOA125/61/38	DO NOT CONNECT

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12.4. ANNEXURE 4: LETTER FROM BUSHBUCKRIDGE CONFIRMING THE NUMBER OF HOUSEHOLDS THAT QUALIFY FOR THE FENIX



BUSHBUCKRIDGE LOCAL MUNICIPALITY

Tel.: (013) 799 1851
(013) 799 1857
Fax.: (013) 799 1865
Cell. 079 874 3331

Email: malebanej@bushbuckridge.gov.za

Private Bag X9308
BUSHBUCKRIDGE
1280

17 March 2009

The Director
Phambili Energy
96 Lindfield Road
Lynwood Manor
PRETORIA
0001

Attention: Musa Msimango

CONFIRMATION OF PROJECTS FOR PILOT SOLID BIOFUEL AND FENIX COMBINED DOMESTIC HEATING POWER UNIT: BUSHBUCKRIDGE LOCAL MUNICIPALITY

1. Your appointment letter dated 11th December 2008 has reference.
2. The municipality is hereby confirming the following villages for a pilot project initiated:

REGIONAL OFFICE	VILLAGE	NO. CONNECTIONS	IDP NO.
Hluvukani	Welverdiend	850	ES113
Hluvukani	Hluvukani PHP	79	ES105
Hluvukani	Hluvukani	100	
Acornhoek	Burlington	200	ES007
Lillydale	Huttington	114	
Hluvukani	Islington A	179	
TOTAL		1 522	

Regards,

M. Mathebula
7 C.M. Mathebula Pr CPM
Director Municipal Works

12.5. ANNEXURE 5: GENERIC CO-OPERATIVE CONSTITUTION CONSTITUTION OF THE **BBR** AGRICULTURAL CO-OPERATIVE LIMITED

1. NAME

The name of the Co-Operative is the **BBR** AGRICULTURAL CO-OPERATIVE LIMITED.

2. FORM OF CO-OPERATIVE

This is the Constitution of a business undertaking formed as a Primary:

2.1. Agricultural;

2.2. Consumer; and

2.3. Livelihood creation: -

Co-operative with limited liability in terms of the provisions of the Co-operatives Act, 2005 (Act 14 of 2005).

3. DEFINITIONS

In this Constitution, unless the context indicates otherwise, a word or expression to which a meaning is attached in the Co-operatives Act, 2005 shall have a similar meaning and:

"the Act" means the Co-operatives Act, 2005 (Act No. 14 of 2005);

"Co-operative" means the **BBR** AGRICULTURAL CO-OPERATIVE LIMITED that is incorporated in terms of the ACT;

"entrance fee" means a once off fee payable to obtain membership of the cooperative, and is paid on application for membership;

"gender" a reference in this Constitution to the masculine gender shall also include the feminine gender and vice versa;

"membership fee or subscription fee" means an annual fee payable towards the running of the Co-operative, and may be paid off in equal monthly installments;

"member loan" means a loan made by a member to the Co-operative in terms of clause 62;

"patronage proportion" means the proportion which the value of the transactions conducted by a member with the Co-operative during a specified period bears to the value of the transactions conducted by all the members during the same period with or through the Co-operative;

"pre-incorporation agreement" means the agreement entered into by the founding members and Phambili Energy (Pty) Limited in terms of Section 9 of the Act.

4. PLACES OF BUSINESS

The main place of business of the Co-operative is situated at xxxxxx, Bushbuckridge Local Municipality, Mpumalanga Province.

5. OBJECTIVES

The objectives of the Co-operative are:

- 5.1. to undertake the marketing of agricultural products;
- 5.2. to produce and/or process agricultural products or to manufacture any article there from and to dispose of the product or thing into which it was processed or articles so manufactured;
- 5.3. to hire, buy or otherwise acquire and to let, sell or otherwise supply requisites, necessary or used for or in connection with farming operations;
- 5.4. to hire, buy or otherwise acquire, or produce or process or manufacture and to let, sell or otherwise supply any article of consumption;
- 5.5. to hire and/or acquire land for own farming purposes, establish or erect and to use or make available for use facilities necessary for or useful in connection with farming operations;
- 5.6. to render services, necessary for or useful in connection with farming operations;
- 5.7. to render any other services, including services relating to the buying, selling and leasing of immovable agricultural property;
- 5.8. to undertake insurance business which relates to farming risks to farmers;
- 5.9. to hire, buy or otherwise acquire consumer products on a wholesale basis and to sell and hire same to members and the community;
- 5.10. to produce and/or process products or to manufacture any article there from and to dispose of the product or thing into which it was processed or articles so manufactured; and
- 5.11. to establish and hold shares in companies to be established to give effect to the objectives of the Co-operative.

6. DESCRIPTION OF BUSINESS AND ANY RESTRICTIONS ON BUSINESS

- 6.1. The main business of the Co-operative will be:
 - 6.1.1. the establishment and/or acquisition of agricultural and/or other businesses and operated for the Co-operative's own account as approved by the Co-operative from time for the sole purpose of the creation sustainable livelihoods for members and the Tigani community and the sale of such products to members and the local community and the export of surplus products to other areas in South Africa;
 - 6.1.2 the establishment of a consumer supply undertaking in terms of which consumer goods will be acquired on a wholesale basis and sold to the members and the local community for profit with due recognition to patronage benefits of members and taking into account the interests of members and locally established traders;
 - 6.1.3. the rendering of agricultural and financial support services to members of the Co-operative in terms of rules accepted in terms of Clause 45 hereof; and
 - 6.1.4. to give support to the implementation of the Department of Minerals and Energy's pilot project by Phambili Energy (Pty) Ltd relating to the production of solid biofuel and the distribution of Fenix Thermal Units to off-grid households as accepted by the Mpumalanga Department of Economic Development and Planning and the Bushbuckridge Local Municipality as detailed in clause 73 hereof.
 - 6.1.5. to give support to the socio-economic initiatives of the Bushbuckridge Local Municipality, Mpumalanga Province; and
 - 6.1.6. to launch its own socio-economic initiatives as approved by the co-operative from time-to-time.
- 6.2. The Co-operative may not conduct the following activities:
 - 6.2.1. activities of a housing co-operative;
 - 6.2.2. activities of a worker co-operative;
 - 6.2.3. activities of a co-operative burial society; and
 - 6.2.4. activities of a financial services co-operative;

7. MEMBERSHIP

7.1. Requirements for membership

Any natural person, who is over the age of 18 years, may on application to the Board, become a member of the Co-Operative.

7.2 Restrictions to membership

Only persons residing within the area of the Bushbuckridge Local Municipality in Mpumalanga Province may apply for membership.

7.3 Associate Members

Any natural person, who is over the age of 18 years, may on application to the Board, become an associate member of the Co-operative subject to rules adopted by the Board in accordance with Clause 45 of the Constitution.

8. Application for membership

- 8.1. Application for membership and for the number of shares an applicant wishes to take up shall be made on the form provided for that purpose, and shall be accompanied by the entrance fee.
- 8.2. The Board must consider every application for membership and has the right to accept or reject an application.
- 8.3. The Board must, within 2 months after receipt of an application for membership, notify the applicant of its decision and, in the event of an application for membership being rejected, any amount paid by the applicant to the Co-operative must be refunded to him.
- 8.4. A person becomes a member of the Co-operative when his application for membership has been accepted by the Board and a share is issued or transferred to him.
- 8.5. A person becomes an associate member of the Co-operative when his application for membership has been accepted by the Board and an associate membership certificate is issued to him subject to rules adopted in terms of Clause 45 by the Board.

9. Entrance Fee and Membership Fee / Subscription Fee

- 9.1. An Entrance Fee of R xxxxx (xxxxx Rand) must be paid on application for membership. Such fee is not refunded on termination of membership: Provided that in the case of Founder Members, such fee is payable within 30 (thirty) days after the Co-operative was incorporated
- 9.2. A Membership Fee of R xxxxx (xxxxx Rand) must be paid annually: Provided that a member may pay off the subscription fee in equal monthly installments. Such fee shall not be refunded on termination of membership.

10. Rights and Obligations of Members

- 10.1. The members of the Co-operative undertake to honour and respect the provisions of the Act and any regulations promulgated in terms thereof as well as this Constitution and rules adopted and resolutions taken by the Board and decisions taken at general meetings by the members of the Co-operative.
- 10.2. The members undertake to honour the co-operative principles and to give effect thereto.
- 10.3. The members undertake to honour their financial commitments to the co-operative diligently.
- 10.4. All members undertake to diligently attend orientation and training courses to give effect to the co-operative principles as contained in the Act as well as rights and duties placed on members in terms of the Act, this Constitution and rules which the Board may adopt in terms of Clause 45 hereof.
- 10.5. A member may not:
 - 10.5.1. use, take, acquire or benefit from any property or asset owned, controlled or managed by the Co-operative to which the member has no right;
 - 10.5.2. be in arrears with any payment to the Co-operative for a period longer than 30 days or such extended period as the co-operative may allow;
- 10.6. A member shall, in the event of any change of address inform the co-operative within 30 days of such change;
- 10.7. A member shall accept that the highest decision-making structure of the co-operative, is a general meeting of members;

- 10.8. Members shall at all time endeavour to promote the interests of the Co-operative and shall not allow or promote the interests of any person or group or political party or organisation.

11. ISSUE OF SHARES AND MINIMUM SHAREHOLDING

- 11.1. The shares issued by the Co-operative shall all be of the same class, ranking and nominal value.
- 11.2. Each member is required to have 100 (one hundred) shares and when the Co-operative is founded, each member must have a minimum of 20 (twenty) shares.
- 11.3. From the time that the Co-operative is three years in operation, every member shall be bound to hold a minimum number of shares in the co-operative prescribed by a scale which shall be approved by members in general meeting on the recommendation of the Board: Provided that the scale must relate to business done by members with the Co-operative.
- 11.4. Whenever it appears that a member does not hold the number of shares prescribed by the applicable scale, the Board may issue to him without application therefore such number of shares as will make up the insufficiency and 20 % (twenty percent) of the nominal value of such shares shall immediately become payable upon such issue, the balance becoming payable in accordance with the provisions of clauses 14 and 15 of this Constitution: Provided that before such issue of shares is made to any member, he shall be afforded an opportunity, of at least 30 (thirty) days, to acquire the requisite number of additional shares from any other member holding shares in excess of the above scale. The amounts that are already paid up can be utilized to pay up all the shares to the same extent.
12. The nominal value of each share shall be R 1-00 (one Rand) of which 20% (twenty percent) from a total of 100 (one hundred) shares shall be payable in money on application and the balance, subject to the provisions of clause 14 in such installments, on such dates and at such times and places as may be determined by the Board.
13. No call on shares must exceed 25% (twenty five percent) of the nominal value per share or be payable within 30 (thirty) days after the date on which the last preceding call was payable.
14. At least 14 (fourteen) days prior to the date on which a call is payable written notice thereof must be given.

15. Calls on shares must be numbered consecutively from one upwards and each call must apply to all unpaid up shares issued or held at the time such call is made as well as to all such shares issued after such call has been made.
16. Every new member who is responsible for calls made before he became a member and which are payable in terms of clause 16, shall be allowed to pay such calls over the same period as would have been allowed him had he been a member at the time such call was or such calls were made: Provided that if more than one call was made the periods within which the calls were payable must run consecutively and not concurrently and that the period meant in this clause extends from the time a call was made to the time such call became payable.
17. The Board may receive from any member willing to pay the same, all or any part of the nominal value of the share or shares held by him, and such payment shall constitute a reduction, to the extent of the payment so made, of the liability of the member in respect of the payment of the nominal value of the share or shares subscribed for by him, notwithstanding that no call be due and payable.
18. In the event of a member being in default in the payment of a call referred to in clause 13 on the specified date, interest on such overdue amount shall be payable at a rate to be determined by the Board from time to time as from the date of default.

19. CERTIFICATES OF SHARES AND LOANS

Share certificates and Loan Certificates shall be issued in such form, as the Board shall determine. These certificates shall state the name of the Co-operative, that the Co-operative is subject to the Act, the name of the person to whom it is issued and that the certificate represents membership shares in, or member loans to, the Co-operative and the number of the membership shares or the amount of the member loans.

20. LIABILITY OF MEMBERS

The liability of a member is limited to an amount equal to the nominal value of the shares in the Co-operative held by him in so far as that amount has not been paid up.

21. TRANSFER OF MEMBERSHIP, MEMBERS LOANS AND SHARES

- 21.1. Membership, Member Loans and Shares may be transferred only with the approval and on the authority of the Board who shall satisfy itself that

- the proposed transferee is qualified to be a member of the Co-Operative.
- 21.2. The Board may at any time refuse to approve and register a proposed transfer.
 - 21.3. The transfer of any membership shall be in writing in such form and signed in such manner as the Board from time to time may stipulate.
 - 21.4. When such transfer has taken place the Board shall issue to the transferee a membership card, and/or a Member Loan Certificate and/or a Share Certificate.

CONDITIONS AND PROCESSES FOR TERMINATION OF MEMBERSHIP

22. Termination on death

- 22.1. The membership of a member who has died may in terms of this clause be transferred to a member of that deceased member's family or another person appointed by the executor of the deceased member's estate subject to the approval by the Board of the proposed transferee. In the event of such transfer not taking place, the membership of the deceased member shall be terminated by resolution of the Board.
- 22.2. Upon such termination, the membership fees concerned are forfeited and the amount paid in respect thereof is credited to the general reserve of the Co-operative.
- 22.3. The shares registered in the name of a member who has died, must be cancelled by resolution of the Board at the request the executor or liquidator of the estate.
- 22.4. Upon such cancellation the Co-operative must, pay to the executor the amount paid up on the shares for payment to the estate of the deceased member: Provided that if the value of such shares, according to the latest completed balance sheet of the Co-operative, is less than their nominal value, the Co-operative shall pay:
 - 22.4.1. If the shares are fully paid up, an amount equal to the value so determined; or
 - 22.4.2. If the shares are not fully paid up, an amount that stands in the same proportion to the amount paid up on the shares as that which the value so determined of the shares stands to their nominal value.

23. TERMINATION ON CHANGE OF PLACE OF RESIDENCE

- 23.1. The membership of a member who no longer resides in the area served by the Co-operative may, on application of the member or by decision of the Board, be terminated by resolution of the Board.
- 23.2. Upon such termination, the membership fees of the member concerned are forfeited to the Co-operative and the amount thereof is credited to the general reserve of the Co-operative.
- 23.3. The shares registered in the name of such member may be cancelled by resolution of the Board.
- 23.4. Upon such cancellation the Co-operative must refund to the ex-member, the amount paid up on the shares: Provided that if the value of such shares, according to the latest completed balance sheet of the Co-operative is less than their nominal value, the Co-operative shall pay the ex-member:
 - 23.4.1. If the shares are fully paid up, an amount equal to the value so determined; or
 - 23.4.2. If the shares are not fully paid up, an amount that stands in the same proportion to the amount paid up on the shares as that which the value so determined of the shares stands to their nominal value.

24. TERMINATION WHEN A MEMBER IS NON-ACTIVE

- 24.1. Whenever a member does not actively participate in the activities of the Co-operative for a period of one year or has neglected to notify the Co-operative of any change in his address, whereby the Co-operative is prevented from contacting him, his membership may, be terminated by resolution of the Board.
- 24.2. Upon such termination, the membership fees of the member concerned are forfeited to the Co-operative and the amount thereof is credited to the general reserve of the Co-operative.
- 24.3. The shares of such member may be cancelled by resolution of the Board.
- 24.4. Upon such cancellation, the amount paid up on such shares must be transferred to a special account called "Unclaimed Share Moneys". If no

claim against this account is received and paid by the Co-operative within 3 (three) years of such transfer, the amount concerned is forfeited to the Co-operative and transferred to the general reserve of the Co-operative: Provided that if the value of the shares, according to the latest completed balance sheet of the Co-operative, is less than their nominal value, the amount to be transferred, shall:

- 24.4.1. If the shares are fully paid up, be an amount equal to the value so determined; or
- 24.4.2. If the shares are not fully paid up, be an amount that stands in the same proportion to the amount paid up on the shares, as that which the value so determined of the shares stands to their nominal value.

25. WITHDRAWAL OF MEMBERSHIP

- 25.1. The resignation of a member comes into operation at the first meeting of the Board held after the Co-operative has received the written resignation of the member.
- 25.2. The membership of a member who has resigned shall be terminated by resolution of the Board. The amount paid in respect of membership fees shall be forfeited to the Co-operative and credited to the General Reserve.
- 25.3. The shares of a member who has resigned, shall be cancelled by resolution of the Board. The amount paid up on such cancelled shares shall, at the discretion of the Board and provided funds are available, be repaid to the member within a period of two years from the date of cancellation: Provided that if the value of the shares, according to the latest completed balance sheet of the Co-operative, is less than their nominal value, the amount payable shall:
 - 25.3.1. if the shares are fully paid up, be an amount equal to the value so determined; or
 - 25.3.2. if the shares are not fully paid up, be an amount which stands in the same proportion to the amount paid up on the shares as that which the value so determined of the shares stands to their nominal value.
- 26. Any amount payable by the Co-operative in terms of Clauses 22, 23, 24 and 25, shall be set off against any debt for the payment of which the member or his estate is liable.

27. CONDITIONS AND PROCESS FOR SUSPENSION AND EXPULSION

27.1. A member who repeatedly contravenes a provision of this Constitution or who refuses to comply with such provision or to meet an obligation imposed on him by the Act or in terms of this Constitution or which he agreed to meet, may:

27.1.1. by resolution of the Board, be suspended as a member for a period to be determined by the Board but which shall not be longer than the date of the next annual general meeting;

27.1.2. by special resolution be suspended as a member for a period not longer than 12 (twelve) months from the date on which he is suspended;

27.1.3. by special resolution be expelled from the Co-operative.

27.2. The suspension of a member may be revoked by resolution of the Board at any time.

28.1. Before a member can be suspended or expelled in terms of clause 27, he has to be given 7 (seven) days prior written notice of the intention of the Board.

28.2. The notice to such member must contain the following particulars:

28.2.1. the reasons for the proposed suspension or expulsion; and

28.2.2. a time when, and place where the member may appear in person, with or without witnesses, before the Board or to which he may send a written statement signed by himself setting out his objections to the proposed suspension or expulsion.

28.3. The Board must notify him in writing if it is decided to suspend or expel a member, of:

28.3.1. the date on which his suspension or expulsion comes into effect;

28.3.2. period of time during which the suspension will apply; and

28.3.3. disciplinary measures which will be taken.

29. DISCIPLINARY MEASURES

- 29.1. While under suspension a member forfeits his right to attend general meetings or to vote thereat by proxy.
- 29.2. The members by special resolution or the Board may furthermore stipulate that certain or all transactions with a member must be suspended for the period of his suspension.
- 29.3. The membership of an expelled member must be terminated by resolution of the Board and upon such termination the member forfeits his membership fees and the amount paid in respect thereof must be credited to the general reserve.
- 29.4. The shares of an expelled member must be cancelled, subject to the provisions of Clause 30.1, by resolution of the Board and upon such cancellation the member shall forfeit his shares.

30. LIABILITY IN RESPECT OF FORFEITED SHARES

- 30.1. A person whose shares have been forfeited, is responsible for immediate payment to the Co-operative of the entire amount unpaid on such shares.
- 30.2. All moneys paid to the Co-Operative in respect of forfeited shares must be added to the General Reserve.
- 30.3. Notice must be given to the member in whose name the shares were registered prior to the forfeiture, and an entry of the forfeiture, with the date thereof, shall forthwith be made in the register of members.
- 30.4. Interest on share capital or bonus or any other amount accruing to a member and which is payable by the Co-operative to the member, must be applied to pay calls on shares and/or amounts unpaid on forfeited shares, due but unpaid at the time such interest, bonus or other amount becomes payable to the member concerned.

MANAGEMENT OF CO-OPERATIVE

31 BOARD OF DIRECTORS

- 31.1. The affairs of the Co-operative must be managed by a Board of directors consisting of a minimum of 5 (five) and a maximum of 7 (seven) directors and must exercise the powers and perform the duties of the Co-operative.

- 31.2. The number of directors shall subject to the approval of members at the next general meeting, be determined by the Board from time to time. If, however, the members do not approve the decision of the Board and a vacancy arises as a result thereof, such vacancy shall be regarded as a casual vacancy to be filled in terms of Clause 39.
- 31.3. Only members of the Co-operative who are South African citizens may be appointed as directors of the Co-operative.
- 31.4. The Board of directors shall adopt standing orders relating to procedures during Board meetings in terms of Clause 45 hereof which shall allow for:
- 31.4.1. the format of agendas of Board meetings;
 - 31.4.2. the minuting of proceedings;
 - 31.4.3. the submission of urgent matters by a director at a meeting provided that any matter concerning the finances of the Co-operative, shall only be disposed of at the next ordinary meeting of the Board or at a special Board meeting convened for that purpose;
 - 31.4.4. at least ten meetings being held annually; and
 - 31.4.5. any such related matter that will enhance the effective operation of the Board of directors.
32. Without prejudice to the provisions of Clause 38 of this Constitution, directors shall be elected at the annual general meeting.

33. DUTIES AND OBLIGATIONS OF DIRECTORS

- 33.1. All directors shall ensure that the provisions of the Act and any regulations promulgated in terms thereof as well as this Constitution and rules adopted and resolutions taken by the Board and decisions taken at general meetings by the members of the Co-Operative are honoured, respected and diligently executed at all times.
- 33.2. Unless a director has requested that his opposition to a specific resolution be minuted against a resolution of the Board, all directors shall be collectively held accountable for resolutions which will result in mis-management, the mis-appropriation of funds or fruitless expenditure.
- 33.3. All directors shall:
- 33.3.1. Perform their functions in good faith, honestly and a transparent manner;
 - 33.3.2. At all times act in the best interest of the Co-operative and in such a way that the credibility and integrity of the co-operative are not compromised;

- 33.3.3. Accept that the board of directors as a collective, must exercise the powers and perform the duties of the Co-operative subject to the Act and the constitution of the Co-operative.
- 33.3.4. Diligently attend all meetings of the Board of directors and of a committee of which that director is a member, except when:
 - 33.3.4.1. Prior leave of absence is granted to the director in terms of the Standing Orders of the Co-operative; or
 - 33.3.4.2. That director is required in terms of the Co-operatives Act, 2005, or the Constitution of the Co-operative to withdraw from the meeting;
- 33.3.5. Ensure that the Co-operative at all times performs its functions within the ambit of the Co-operatives Act, any other legislation, the Constitution of the Co-operative.
- 33.3.6. Accept the sanctions for not attending meetings;
- 33.3.7. Disclose interests as required in terms of the Co-operatives Act and the Constitution of the Co-operative;
- 33.3.8. Not use the position or privileges of a director, or confidential information obtained as a director, for private gain or to improperly benefit another person;
- 33.3.9. Declare financial interests held within 30 days from appointment as director in writing to the Board of directors as required in terms of the Act;
- 33.3.10. Not receive any rewards, gifts and favours as detailed in the Co-operatives Act and regulations promulgated in terms of the Act;
- 33.3.11. Not disclose any information that is protected by a non-disclosure agreement or any other confidential information of the Co-operative or committee to an unauthorised person and shall sign for this purpose, a non-disclosure agreement where required;
- 33.3.12. Not intervene in the administration of the Co-operative other than by a written mandate received from the Board of directors;
- 33.3.13. Not use, take, acquire or benefit from any property or asset owned, controlled or managed by the Co-operative to which the director has no right;
- 33.3.14. Not be in arrears with any payment to the Co-operative for a period longer than 30 days;
- 33.3.15. In the event of any change of address inform the Co-operative within 30 days of such change;
- 33.3.16. Accept that the highest decision-making structure of the Co-operative is a general meeting of members;
- 33.3.17. Accept that the Board of directors is accountable to a general meeting of members;
- 33.3.18. Ensure, at the request of the auditor, that any information, explanations, and access to any documents of the Co-operative or any of its subsidiaries that are, in the opinion of the auditor, necessary for the purposes of the audit, are provided without delay;

- 33.3.19. Ensure that in the event of any error or misstatement in a financial statement being discovered, the auditor or former auditor that reported thereon, be notified without delay; and
- 33.3.20. At all times endeavour to promote the interests of the community as a collective and shall not allow that the office of director be used to advance the interests of any person or group or political party or organisation.
- 33.4. Unless specifically mandated to do so by a resolution of the Board, no director shall have the right to act in his personal capacity on behalf of the Co-operative or to give instructions to any officer in the service of the Co-operative.
- 33.5. All directors shall diligently attend orientation and training courses to give effect to the co-operative principles as contained in the Act as well as duties placed on directors in terms of the Act, this Constitution and rules which the Board may adopt in terms of Clause 45.
- 33.6. All directors shall ensure that the future business of the co-operative is conducted in terms of the resolution of the Annual General Meeting in accordance with Clause 47.2.5 hereof. In the event of a under- or overspending of more than 17% (seventeen percent) on any vote of the budget, the board of directors shall call a special general meeting in terms of Clause 48 hereof and submit proposals to the general meeting for approval to remedy the under- or overspending within 14 (fourteen) days after such spending was discovered . In the event of the alienation or acquisition of assets not provided for in terms of a resolution of the Annual General Meeting in accordance with Clause 47.2.5 hereof, the board of directors shall call a special general meeting in terms of Clause 48 hereof to obtain the prior approval of the members.

34. PERSONS NOT COMPETENT TO BE DIRECTOR

No person shall hold the office of director if:

- 34.1. A person is of unsound mind;
- 34.2. A person is an unrehabilitated insolvent;
- 34.3. A person who has at any time been convicted (whether in the Republic or elsewhere) of theft, fraud, forgery, perjury, or any offence involving dishonesty in connection with the formation or management of a Co-operative or other corporate entity;

35. TERM OF OFFICE

- 35.1. The term of office of directors shall be three years except in the case of the first directors of the Co-operative whereby at least four directors shall retire after three years and the remaining three directors shall serve an additional year. The first retirees shall be determined by the directors among themselves or otherwise be determined by ballot.
- 35.2. Retiring directors are eligible for re-election.
- 35.3 The directors to retire each year shall be those who have been longest in office since their last election at the annual general meeting, but as between members who became directors on the same day, those to retire shall, unless they otherwise agree among themselves, be determined by ballot.

Nomination of Directors and voting for Directors

- 36.1. Candidates for the position of director shall be nominated in writing and the prescribed nomination form shall be signed by the proposer, seconder and the nominated person who shall confirm qualification in terms of Clause 34 at the annual general meeting held for the purpose electing one or more directors.
- 36.2. Without prejudice to the provisions of Clause 39 a member, including a retiring director, qualifies for election as director only if he is nominated in terms of sub-clause 36.1.
- 36.3.1. If the number of candidates nominated does not exceed the number of vacancies on the Board to be filled such candidate or candidates shall be declared elected at the annual general meeting.
- 36.3.2. If the number of candidates nominated exceeds the number of vacancies on the Board, as many directors as there are vacancies shall be elected from the nominees by a show of hands or by ballot at the annual general meeting.
- 36.3.2. If insufficient or no candidates are nominated to fill the vacancies on the Board, such vacancies shall be regarded as casual vacancies to be filled in accordance with clause 38.
37. The method to be followed in nominating and electing directors shall be determined by rules adopted by the Board in terms of Clause 45.
38. At the election of directors a member shall vote for as many candidates as there are vacancies to be filled on the Board and those candidates receiving the highest number of votes shall be declared elected.

39. FILLING OF A VACANCY ON THE BOARD

Any vacancy occurring on the Board during the year shall be filled until the next annual general meeting by a member appointed, by the remaining directors, subject to the provisions of Clause 35. At the said annual general meeting a member shall, subject to the provisions of this Constitution, be elected to fill the vacancy. Any director elected at such annual general meeting shall not hold office for a period longer than the unexpired portion of the period of office of the director whose office became vacant.

40. CONDITIONS FOR VACATION OF OFFICE

A Director shall vacate his office:

- 40.1. If he becomes incompetent in terms of clauses 34 and 35 of this Constitution to hold the office of director; or
- 40.2. If he absents himself from more than three consecutive ordinary meetings of the Board without its leave; or
- 40.3. Upon the expiry of 30 (thirty) days, or such shorter period as may be approved by the Board, after he has resigned as a director of the Co-operative.
- 40.4. If a motion of no confidence was adopted by a 75% (seventy five percent) majority of members of the Co-operative at a special general meeting convened in terms of Clause 49.2.3 hereof. The notice proposing the motion of no-confidence must be signed by at least 20% (twenty percent) of members and must form part of the notice convening the meeting. In the event of a director being removed as a result of a motion of no confidence, such person may be not be appointed in terms of Clause 39 hereof for the unexpired term of his office and may thereafter be nominated in terms of Clause 36 hereof.

Conditions and Processes for the appointment of the Chairperson, Vice-Chairperson and Acting Chairperson of the Board

- 41.1. At the first meeting of the Board held after the formation meeting and thereafter at the first meeting of the Board held after every annual general meeting of members or when the necessity arises, the Directors shall elect from among themselves a Chairperson and Vice-Chairperson.
- 41.2. The Vice-Chairperson shall act as Chairperson whenever last-named is absent or unable to act as Chairperson, and if both the Chairperson and Vice-Chairperson are absent or unable to carry out the functions of the

Chairperson, the Board must elect another Director to be acting-Chairperson during such absence or incapacity.

42. The Chairperson of the Board of the Co-Operative shall vacate the office of Chairperson if he:
 - 42.1. Ceases to be a director of the Co-Operative; or
 - 42.2. Resigns as Chairperson; or
 - 42.3. Is relieved of the office of Chairperson by the Board after a special Board meeting has been convened with 72 (seventy-two) hours notice and the notice was signed by at least two directors in which a motion of no confidence has been proposed and the motion is carried by a 2/3 (two thirds) majority of all the directors.
43. The provisions of clause 42 shall be applicable mutatis mutandis to the vice-Chairperson of the Board.

44. BOARD MEETINGS AND QUORUM

- 44.1. A meeting of the Board must be convened by the Board or the Chairperson of the Board or any two Directors of the Co-operative.
- 44.2. The majority of directors shall constitute a quorum of a meeting of the Board.
- 44.3. Questions arising at a meeting of the Board shall be determined by a majority of the directors present at the meeting and in the case of an equality of votes, the Chairperson of the Board or the person acting as Chairperson shall have a casting vote in addition to his deliberative vote.

45. RULES

The Board has the power to make rules provided they are not repugnant to this Constitution which will include and not be limited to the following matters:

- 45.1. membership conditions of associate members in terms of Clause 7.3;
- 45.2. conditions of employment for employees of the Co-Operative;
- 45.3. relieve of the chairperson in terms of Clause 42.3;
- 45.4. election and nomination of directors in terms of Clause 37;

- 45.5. powers of and restrictions applicable to directors and officers in the employ of the Co-operative;
- 45.6. rights and duties of members;
- 45.7. financial management and the keeping of financial records;
- 45.8. procurement;
- 45.9. rules of order at Board and general meetings;
- 45.10. permitted loans and security to members in terms of Clause 61;
- 45.11. unsecured loans to members in terms of Clause 62;
- 45.12. attendance of Board meetings by members;
- 45.13. delegation of powers; and
- 45.14. the appointment of committees to assist the Board in performing its functions, duties and powers

46. DELEGATION OF POWERS

- 46.1. The Board may delegate one or more of its powers to a director or to a Committee appointed by the Board or Manager of the Co-operative.
- 46.2. Any director or committee or Manager so appointed must in the exercise of the powers so delegated, abide by such rules as may be made and follow such instructions as may be issued in regard thereto by the Board.

47. GENERAL MEETINGS

- 47.1. A Co-operative must hold:
 - 47.1.1. Its first annual general meeting within 18 months of registration of the Co-operative;
 - 47.1.2. Subsequently annual general meetings within 6 months after the end of the preceding financial year.
- 47.2. The annual general meeting must:
 - 47.2.1. Appoint an auditor;

- 47.2.2. Approve a report of the Board on the affairs of the Co-Operative for the previous financial year;
- 47.2.3. Approve the financial statements and auditor's report where applicable for the previous financial year;
- 47.2.4. Elect directors;
- 47.2.5. Decide on the future business of the Co-operative subject to the provisions of Clause 73. The future business of the Co-operative shall include a budget indicating operational and capital expenditure as well as the cost of human resources of the financial year of the Co-operative; and
- 47.2.6. Allow members to submit requests for matters to be considered by the Board with a majority support of votes from members in which a time frame is specified for a report back by the Board at a meeting to be convened in terms of Clause 48 hereof.

48. SPECIAL GENERAL MEETINGS

The Co-operative may from time to time in addition to its annual general meeting hold special general meetings of its members to dispose of any matter relating to its affairs specifically set out in the notice convening the meeting.

49. CONVENING OF MEETINGS

- 49.1. An annual general meeting shall be convened on authority of the Board.
- 49.2. A special general meeting shall be convened:
 - 49.2.1. by at least two directors of the Co-operative; or
 - 49.2.2. by five or more members of the Co-operative constituting in number at least 20% (twenty percent) of all the members of the Co-operative: Provided that such members shall not be entitled to convene an special general meeting unless they have beforehand in writing petitioned the directors to convene such a meeting and the meeting is not convened within 21 (twenty one) days reckoned from the date the petition was lodged, or unless for any reason there are no directors to whom such a petition can be addressed; or
 - 49.2.3. by the chairperson when a motion of no confidence was submitted in terms of Clause 40.4 and if the chairperson is the subject of the motion, by the deputy chairperson and if any of these two positions are the subject of the motion, by any director available.

49.3. Any meeting convened in terms of sub-clause 49.2.2 by the petitionists shall, as far as possible, be convened and held in the same manner as is prescribed for meetings convened and held by the Board and any reasonable expense incurred by the petitionists in securing the names and addresses of members, in sending notices of the meeting to them and hiring accommodation for the holding of the meeting if so resolved by such meeting, be refunded to the petitionists by the Co-operative.

50. NOTICE OF GENERAL MEETING

50.1. A general meeting shall be convened by at least 14 (fourteen) days notice in writing to each member of the Co-operative.

50.2. The notice convening the meeting shall in addition to the time and place of the meeting state the purpose for which it is convened.

50.3. A notice may be delivered personally, forwarded by post to the member at his registered address, emailed to registered email address of the member or faxed the registered fax number of the member.

50.4. Non-receipt by a member of a notice of a general meeting of the Co-operative does not render such meeting invalid.

50.5. If a notice of a meeting is returned to the Co-operative because the member to whom it was sent is no longer resident at the registered address, the email address or fax number does not exist or does not function, the Co-operative shall be relieved of its obligation to send further notices of meetings to the member concerned unless the member makes an appearance and requests that such notices be sent to his new address.

51. QUORUM

51. A quorum for a general meeting shall be constituted by at least 50% (fifty percent) plus 1 (one) of members.

52. No item of business shall be transacted at any general meeting unless a quorum of members is present during the time when the meeting is considering that item.

53.1. If within one hour from the time appointed for the meeting a quorum is not present, the meeting:

53.1.1. if convened by members or in consequence of a petition of members, must be cancelled;

- 53.1.2. if otherwise convened, must be adjourned to the same day in the next week at the same time and place, or if that day is a public holiday, to the next day following which is not a public holiday.
- 53.2. If the same hall or building is not available for an adjourned meeting it may be held at another venue within convenient distance if members are advised of the change of venue either by notice posted at the original venue or by some other means.
- 53.3. If a quorum is not present within one hour after the time fixed for an adjourned meeting, the members present, provided they are not less than five in number, shall be deemed to constitute a quorum: Provided that a special resolution may not be passed by such a meeting.

54. CHAIRPERSON OF GENERAL MEETINGS

- 54.1. The Chairperson of the Board or in his absence the Vice-Chairperson or in the absence of both, another director elected by the meeting shall act as Chairperson of an annual general meeting or a special general meeting convened in terms of Clauses 49.1 and 49.2.1.
- 54.2. A person elected by the meeting shall act as the Chairperson of a special general meeting convened in terms of clause 49.2.2 of this Constitution.

Voting by members

- 55.1. At all meetings of the Co-operative, each member shall have 1 (one) vote.
- 55.2. At all meetings, associate members shall have the right to participate in deliberations and shall have no vote and may not participate in any nomination process.
- 56.1. Any matter for decision by a general meeting shall be decided by means of a vote on a show of hands or by ballot.
- 56.2. A vote by ballot shall not be held unless it is demanded by at least 5 (five) members present at the meeting and entitled to vote in a vote by ballot.
- 56.3. A vote by ballot must be held in such manner as the Chairperson stipulates. Scrutineers must be nominated to determine the result of the vote that must be declared by the Chairperson of the meeting as the resolution of the meeting.

- 56.4. A declaration by the Chairperson that a resolution has, on a show of hands or by ballot, been carried, or carried unanimously or by a particular majority, or lost, and an entry to that effect in the minutes of the proceedings of the meeting, shall be conclusive, proof thereof, without evidence as to the number or proportion of votes recorded for or against such resolution.
57. If no objection is raised in terms of the provisions of this Constitution against the validity of any vote cast at the meeting, whether on a show of hands or by ballot, every vote cast at the meeting that has not been disallowed shall for all purposes be deemed to be valid.
58. In the case of an equality of votes, whether on a show of hands or in a vote by ballot, the Chairperson of the meeting shall have a casting vote in addition to his deliberative vote.
59. Every matter submitted to a general meeting for resolution, except for a matter requiring a special resolution, shall be determined by a majority of votes recorded at the meeting.

60. SPECIAL RESOLUTION

A resolution by a general meeting of the Co-operative shall, constitute a special resolution if:

- 60.1. the notice by which the general meeting was convened specified particulars of the proposed resolution and stated the intention to propose same as a special resolution; and
- 60.2. the resolution has been passed by not less than two thirds of the members present, both in a vote on the show of hands and a vote by ballot.
- 60.3. the resolution related to the winding-up of the Co-operative and was passed by at least 75 (seventy five) percent of the votes of all the members of the Co-operative, both in a vote on the show of hands and a vote by ballot.

61. PROHIBITED AND PERMITTED LOANS AND SECURITY

- 61.1. The Co-operative may give financial assistance by means of a loan or the provision of security in terms of rules adopted in terms of Clause 45 to:
 - 61.1.1. any person in the ordinary course of business if the lending of money is part of the ordinary business of the Co-operative;

- 61.1.2. any person on account of expenditures incurred or to be incurred on behalf of the Co-operative;
 - 61.1.3. employees of the Co-operative or of any of its members:
 - 61.1.3.1. to enable or assist them to purchase or erect living accommodation for their own occupation; or
 - 61.1.3.2. in accordance with a plan for shares of the Co-operative or any of its members to be held by a trustee; and
 - 61.1.4. members, if the financial assistance is available to all members on substantially the same terms.
- 61.2. The Co-operative may not give financial assistance in terms of Clause 61.1 whether directly or indirectly if there are reasonable grounds to believe that:
- 61.2.1. the Co-operative, after giving the financial assistance, will be unable to pay its liabilities as they become due; or
 - 61.2.2. the realisable value of the assets of the Co-operative, after giving the financial assistance, will be less than the aggregate of its liabilities, share capital and reserves.
- 61.3. In determining the realisable value of the assets of the Co-operative contemplated in Clause 61.2.2, the amount of any financial assistance in the form of a loan and in the form of assets pledged or encumbered to secure a guarantee must be excluded.

62. RESTRICTIONS RELATING TO UNSECURED MEMBERS LOANS

The Board may, if so authorized by members in terms of Clause 61 of this Constitution, in addition to the loans secured by some or all of the assets of the Co-operative, the issue of secured debentures and loans obtained from the commercial banks or any other financial institution, further raise loans from members subject to the following conditions:

- 62.1. No loan from any individual member shall amount to less than R1 000 (one thousand Rand) and, for the purpose of this paragraph, every successive loan from any particular member shall be regarded as a separate loan;
- 62.2. No loan shall be repaid within 12 (twelve) months after receipt;

- 62.3. Interest shall be paid on loans at a rate per annum to be determined by the Board from time to time;
- 62.4. An acknowledgement of debt shall be issued in respect of each loan;
- 62.5. The acknowledgement of debt shall be freely transferable by means of a cession duly registered by the Co-operative; and
- 62.6. Receipt of each loan shall be acknowledged by the following acknowledgment of debt attached hereto as Appendix 1, which shall incorporate either of the conditions [ii] or [iii] mentioned in the appendix.

63. BANKING ACCOUNT

- 63.1. The Co-operative must open a banking account in the name of the Co-operative in which all moneys received shall be deposited as soon as possible after receipt thereof.
- 63.2. Cheques drawn on the banking account shall be signed by one of the Directors and must be countersigned by the Secretary of the Board: Provided that a cheque shall not be signed and countersigned by the same person and that all officers who are authorized to sign or countersign cheques must furnish adequate security.

64. FINANCIAL YEAR

The financial year of the Co-operative shall end on the last day of February of each year.

65. FINANCIAL RECORDS

- 65.1. The Co-operative must keep such accounting records as are necessary fairly to reflect the state of affairs and business of the Co-operative and to explain the transactions and financial position of the business of the Co-operative.
- 65.2. The accounting records shall be kept at the registered office of the Co-operative and shall be available at all times for examination by the directors.

66. Annual financial statements

- 66.1. An audit of the affairs of the Co-operative must be conducted annually in respect of each financial year in order to:

- 66.1.1. ensure that financial statements are drawn up in conformity with generally accepted accounting practices;
 - 66.1.2. verify that the Co-operative has maintained adequate records in accordance with the requirements of this Constitution and the Act;
 - 66.1.3. report generally as to whether the assets and facilities of the co-operative are being properly managed and the operations of the co-operative are being conducted in accordance with co-operative principles; and
 - 66.1.4. report on any other matter the auditors are required to report on in terms the Constitution.
- 66.2. The provisions of Clause 65.1 are applicable to the annual financial statements of the Co-Operative and its company subsidiaries.

67. AUDIT

The members must appoint an auditor at each annual general meeting, to hold office until the close of the next annual general meeting. The duties of the auditor are outlined in Clause 66.

68. SURPLUS

The surplus resulting from the operations of the Co-operative during any financial year shall be applied by resolution of the annual general meeting for that year: Provided that:

- 68.1. at least 5% (five percent) is set aside as a reserve in the Undivisible Reserve Fund and is not divisible amongst the members;
- 68.2. the amount which is set aside as a General Reserve Fund shall not be less than the amount determined by the Board.
- 68.3. the amount which is available out of the surplus for distribution to members shall be applied in one or more of the following ways only, viz.:
 - 68.3.1. to pay interest at a rate not exceeding 15% (fifteen percent) to members on the amounts paid up by them on their shares as at the last day of the financial year; or
 - 68.3.2. to pay bonuses to members in accordance with the provisions of clause 69.

69. PAYMENT OF BONUS

- 69.1. The amount mentioned in clause 68.3.2 must, be allocated to members according to the patronage proportion and the amount allocated to a member must by resolution of members at the annual general meeting, be applied in one or more of the following ways:
- 69.1.1. by paying it out either wholly or partly in cash;
 - 69.1.2. by utilizing it for buying of fully paid-up members shares:
 - 69.1.2.1. provided that an amount accruing to a member which is insufficient to fully pay up a share may be applied, by resolution of the Board, in accordance with the provisions of sub clauses 69.1.1 or 69.1.3 of this Clause;
 - 69.1.2.2. provided that notice will be given to each member of the number of shares purchased for the member;
 - 69.1.2.3. provided that such shares will be either issued or transferred in terms of Clauses 12 and 22, by resolution of the Board; and
 - 69.1.2.4. provided that share certificates will be issued and forwarded to members.
 - 69.1.3. by setting it aside in the Deferred Bonus Payment Fund for future payment to members.
- 69.2. Interest on share capital or bonus declared payable to members, except amounts transferred to the Deferred Bonus Payment Fund, does not earn interest from the Co-operative.
- 69.3. Any interest on share capital or any bonus remaining unclaimed for a period of 3 (three) years from the date on which such interest or bonus was declared payable may, by resolution of the Board, be declared forfeit and added to the General Reserve of the Co-operative.

70. DEFERRED BONUS PAYMENT FUND

- 70.1. All amounts transferred to the "Deferred Bonus Payment Fund" in terms of Clause 69.1.3 shall be credited in the respective names of the members in the books of the Co-operative.
- 70.2. The Deferred Bonus Payment Fund may be invested separately or may be used by the Co-operative to carry out any of its objects: Provided

that the fund must not be utilised to defray any loss resulting from the operations of the Co-operative.

70.3. The interests of members and former members in the Deferred Bonus Payment Fund must be repaid to them in the following circumstances and subject to the conditions mentioned below:

70.3.1. When the fund has been functioning for five years, the interests built up by members and former members during the first years of the fund shall be repaid to those concerned and the following year the interests built up during the second year of the fund shall be refunded; or

70.3.2. on the death of a member or former member the interest of the deceased in the fund shall be paid to his estate;

70.3.3. when membership in the Co-operative is terminated in any other way, the interest of the member concerned in the fund shall be repaid to him as it becomes repayable in terms of Clauses 70.3.1 or 70.3.2 of this sub-clause: Provided that the Board may authorise payment at an earlier date if the Co-operative is in a position financially to do so: Provided further that the interest of a former member in this fund shall not be retained in the fund for more than three years after termination of membership of the former member.

70.4. The amounts payable to a member or former member in terms of this clause shall be applied in payment or part payment of any amount due to the Co-operative by such member or former member.

70.5. A member's or former member's credit in the fund may be transferred to someone else only with the approval of the Board: Provided that no such transfer shall be approved unless the transferee is a member of the Co-operative.

70.6. Any amount to the credit of a member or former member in the Deferred Bonus Payment Fund remaining unclaimed for a period of 3 (three) years from the date it becomes payable to him may by resolution of the Board be declared forfeit and transferred to the general reserve of the Co-operative: Provided that such a transfer shall not be made unless the member or former member concerned has first been warned of the proposed transfer by means of a notice sent to his last address, as entered in the register of members and he has been given an opportunity of at least six months to claim the amount.

71. AMENDMENT OF CONSTITUTION

The Constitution of the Co-operative may be amended by special resolution only.

72. LIQUIDATION

In case of liquidation the patronage proportion must be determined for either five years, which preceded the commencement of the winding-up of the Co-operative, or the period for which the Co-operative has existed, whichever period is the shorter.

73. PRE-INCORPORATION AGREEMENT

Once ratified in accordance with Section 9 of the Act, the pre-incorporation agreement entered into and between the two designated founder members and Phambili Energy (Pty) Ltd, shall form part of this CONSTITUTION for the duration of the agreement.

APPENDIX 1: ACKNOWLEDGEMENT OF DEBT: CLAUSE 62

"We, the undersigned, director and secretary of the

.....
(name of Co-operative) hereinafter called the Co-operative, hereby acknowledge having received the sum of R..... (.....Rand) from
..... (name) of

.....
(address) hereinafter called. the owner, subject to the conditions:

[I] Interest at the rate of% (..... percent) per annum or such rate as the Board may determine from time to time, shall be payable to the owner on or at the date of repayment.

[ii] The owner shall not have the right to demand repayment, but the Co-operative, after having had the loan for not less than 12 (twelve) months, may repay such loan at any time after having given not less than 30 (thirty) days notice of its intention to repay such loan.

OR

[iii] The loan shall be repayable on the day of 20..... (which may not be less than 12 (twelve) months from the date of this acknowledgement

of debt): Provided that the Board of the Co-operative may defer the repayment if the circumstances of the Co-operative at the date of repayment of the loan, render such deferment necessary: Provided further that the Board of the Co-operative shall submit for confirmation to the first succeeding general meeting of members its resolution to defer repayment of a loan and if the resolution of the Board is not confirmed by that meeting of the Co-operative, the loan shall be repaid within 7 (seven) days of the date of such meeting.
 Dated at this day of 20.....

 DIRECTOR/SECRETARY”

Thus approved and signed by the following founding members of the Co-operative on thisday of the month of.....in the year 2009.

1	NAME		
	ID		
	ADDRESS		
	TEL/CELL		
2	WITNESS		
	NAME		
	ID		
	ADDRESS		
	TEL/CELL		
	WITNESS		

3	NAME		
	ID		
	ADDRESS		
	TEL/CELL		
	WITNESS		

4	NAME		
	ID		
	ADDRESS		
	TEL/CELL		
	WITNESS		
5	NAME		
	ID		
	ADDRESS		
	TEL/CELL		
	WITNESS		
6	NAME		
	ID		
	ADDRESS		
	TEL/CELL		
	WITNESS		
7	NAME		
	ID		
	ADDRESS		
	TEL/CELL		
	WITNESS		
8	NAME		
	ID		
	ADDRESS		
	TEL/CELL		
	WITNESS		

9	NAME		
	ID		
	ADDRESS		
	TEL/CELL		
	WITNESS		

10	NAME		
	ID		
	ADDRESS		
	TEL/CELL		
	WITNESS		
11	NAME		
	ID		
	ADDRESS		
	TEL/CELL		
	WITNESS		
12	NAME		
	ID		
	ADDRESS		
	TEL/CELL		
	WITNESS		
13	NAME		
	ID		
	ADDRESS		
	TEL/CELL		
	WITNESS		
14	NAME		
	ID		
	ADDRESS		
	TEL/CELL		
	WITNESS		

12.6. ANNEXURE 6: GENERIC PRE-INCORPORATION AGREEMENT

PRE-INCORPORATION AGREEMENT BETWEEN

PHAMBILI ENERGY (PTY) LTD

AND DESIGNATED FOUNDER MEMBERS

OF THE TO-BE INCORPORATED BBR CO-OPERATIVE LIMITED

4 PARTIES

4.1 PHAMBILI ENERGY (PTY) LTD

4.2 FOUNDER MEMBERS OF BBR CO-OPERATIVE TO BE INCORPORATED

5 DEFINITIONS AND INTERPRETATIONS

5.1 The head notes to the clauses of this Agreement are inserted for reference purposes only and shall in no way govern or affect the interpretation thereof.

5.2 Unless inconsistent with the context, an expression which denotes:

- 2.2.1 Any gender includes the other genders;
- 2.2.2 A natural person includes an artificial person and vice versa;
- 2.2.3 The singular includes the plural and vice versa.

5.3 Unless inconsistent with the context:

5.3.1 AGREEMENT

means this Agreement including all Annexures thereto;

5.3.2 PE

means PHAMBILI ENERGY (PTY) LTD, Registration No 2008/009842/07, herein represented by MUSA SCHUSTER MSIMANGO

as Co- Chief Executive and he being duly authorised hereto from 96 Lindfield Road, Lynnwood Manor, City of Tshwane

5.3.3 FOUNDER MEMBERS

means the two founder members designated by the founder members and duly authorised to sign this agreement on behalf of the co-operative to-be established and incorporated in terms of the ACT being:

2.3.3.1; and

2.3.3.2

5.3.4 ACT

means the Co-Operatives Act 14 of 2005 which came into operation on 2 May 2007;

5.3.5 CO-OPERATIVE

means the to-be established and incorporated co-operative in terms of the ACT in respect of the **BBR** community of the MUNICIPALITY situated in the Mpumalanga Province with the implementation of the BUSINESS PLAN;

5.3.6 MUNICIPALITY

means the Bushbuckridge Local Municipality, a municipality established in terms of section 155 of the Constitution of South Africa, Act 108 of 1996, with municipal code MP 325.

5.3.7 **BBR COMMUNITY**

means the **BBR** Community located within the MUNICIPALITY;

5.3.8 BUSINESS PLAN

means the Service Level Agreement entered into and between PE and the MUNICIPALITY for the establishment of a biomass conversion site and the supply, delivery, installation and maintenance of Fenix Thermal Energy Units to households identified in by PE in consultation with the MUNICIPALITY

5.3.9 MANDATE

Means the mandate to Phambili to implement the PILOT PROJECT in terms of the Service Level Agreement entered into and between the

MUNICIPALITY and PE by conducting the SOCIAL ENGINEERING and by providing the PLANT AND EQUIPMENT

5.3.10 PLANT AND EQUIPMENT

Means all capital related items which will include and not be limited to the following:

- 2.3.10.1 Fenix thermal energy units, the supply, delivery, installation, commissioning, training of assemblers, training of households on the safe use of the thermal energy unit and the training of the preventative maintenance team;
- 2.3.10.2 The biomass converter and equipment, the supply, delivery, installation, commissioning, training of operators, first line maintenance and protective clothing;
- 2.3.10.3 The lease agreement pertaining to the ideal site, surveying, zoning where necessary;
- 2.3.10.4 The provision of services essential for the operation of the biomass converter;
- 2.3.10.5 The establishment of the site with ground works, buildings and required infrastructure;
- 2.3.10.6 Biomass collection equipment and protective clothing as well as the transporting of biomass from the source to the site; and
- 2.3.10.7 An environmental impact assessment undertaken by a nominated service provider.

5.3.11 PILOT PROJECT

Means the proposal that was submitted by PE and accepted by the Department of Minerals and Energy, the Departments of Local Government and Economic Development of the Mpumalanga Province as well as to the Bushbuckridge Local Municipality which will include and not be limited to the following:

- 2.3.11.1 The submission of a feasibility report containing details on the execution of the PILOT PROJECT after having identified a sustainable biomass source and a beneficiary community and after having conducted a socio-economic and bio-physical survey of the area of the beneficiary community as well as the identification of

beneficiary households that would receive the Fenix thermal energy units including recommendations for other sustainable projects that may be identified;

- 2.3.11.2 The registration of an operational co-operative, to be the holding company of at least one Small and Medium Enterprise (SME) and having an Memorandum of Understanding (MOU) and management contract in place with PE or a nominated service provider for at least three years from the date of the incorporation of the last Small and Medium Enterprise (SME) in terms of which the Small and Medium Enterprises shall pay to PE or its nominated service provider a management fee as part of its operating costs in a reasonable and business-like manner with an agreement with the co-operative to conduct the local sales of the carbon product of value;
- 2.3.11.3 The registration of a fully operational SME solely owned by the co-operative who will be the owner of the biomass converter and whose main business will be the collection and conversion of biomass into a carbon product of value, the packaging and warehousing thereof with an agreement in terms of which PE shall buy the total production of the carbon product of value at an economic price as agreed to between the PARTIES;
- 2.3.11.4 The identification of an ideal site for the location of the conversion plant and equipment including the provision of services essential for the operation of the plant, the long term lease of the land and the construction of buildings essential for the operation and maintenance of the plant as well as warehousing facilities for the carbon product of value;
- 2.3.11.5 The supply, delivery, installation and commissioning of a biomass converter with the ability to produce 200 (two-hundred) ton of carbon products per month;

- 2.3.11.6 The identification and training of a team to operate the biomass converter in according to the protocols of PE;
- 2.3.11.7 The supply, delivery, installation and commissioning of a number of Fenix thermal energy units to be agreed upon between PE, the Municipality and the Department of Minerals and Energy to identified beneficiary households;
- 2.3.11.8 The identification and training of a team that would assemble, install, commission the Fenix thermal energy units in the houses of the identified beneficiaries as well as training the families in the safe handling of the thermal energy units in accordance with protocols issued by PE;
- 2.3.11.9 The identification and training of a team that will be responsible for providing preventative maintenance on the Fenix thermal energy units in accordance with protocols issued by PE;
- 2.3.11.10 The demonstration of the biomass converter and thermal energy units to the Department of Minerals and Energy, the Departments of Local Government and Economic Affairs of the Mpumalanga Province as well as to the Bushbuckridge Local Municipality on a date to be agreed upon after commissioning of the conversion plant and the thermal energy units;
- 2.3.11.11 The rendering of managerial support and capacity building to both the co-operative and the SME incorporated to undertake the biomass conversion for a period of at least three years after incorporation at the cost of the co-operative and the SME; and
- 2.3.11.12 The appointment of at least two (2) non-executive directors on the board of directors on the SME to be incorporated in terms of the Companies Act 1973 (Act 61 of 1973) nominated by PE or a nominated service provider with a veto right on material matters to

ensure the sustainability of the enterprise for the duration of the management agreement.

5.3.12 SOCIAL ENGINEERING

Means all social engineering related items which will include and not be limited to the following:

- 2.3.12.1 Interaction with the Bushbuckridge LM LED Directorate;
- 2.3.12.2 Interaction with Traditional Leaders (where applicable), Ward Councillors and committees;
- 2.3.12.3 Identification of beneficiaries;
- 2.3.12.4 Preparation and submission of the feasibility report;
- 2.3.12.5 Conducting of the socio-economic survey;
- 2.3.12.6 Conducting of the bio-physical survey;
- 2.3.12.7 Market survey;
- 2.3.12.8 Facilitation of founder members of the co-operative;
- 2.3.12.9 Preparation of the pre-incorporation agreement;
- 2.3.12.10 Preparation of the constitution of the co-operative;
- 2.3.12.11 Establishment of the co-operative which will include an office, furniture and equipment;
- 2.3.12.12 Training of directors and personnel of the co-operative;
- 2.3.12.13 Establishment of the solid biofuel producing SME;
- 2.3.12.14 Training of directors and personnel of the solid biofuel producing SME;
- 2.3.12.15 Pilot project demonstration to the Department of Minerals and Energy, the Departments of Local Government and Economic Development of the Mpumalanga Province and the Bushbuckridge Local Municipality;

- 2.3.12.16 Local market development of the solid biofuel; and
- 2.3.12.17 Social engineering project management and social engineering project meetings.

5.3.13 PRE-INCORPORATION AGREEMENT

means a contract referred to in Section 9 of the ACT which provides as follows:

(1) A person who enters into a written contract in the name of, or on behalf of, a co-operative before it is registered is personally bound by the contract, unless that contract expressly provides otherwise.

(2) A co-operative may, within a month after its registration, ratify the contract referred to in subsection (1) by ordinary resolution at a general meeting.

(3) If a co-operative ratifies a contract under this section-

- (a) that co-operative is bound by the contract; and*
- (b) a person who originally entered into the contract ceases to be bound by it.*

(4) If a co-operative does not ratify the contract, the person who originally entered into the contract continues to be bound by the contract, unless the contract expressly provides otherwise.

6 PREAMBLE

Whereas

3.1. The Department of Minerals and Energy is desirous to give effect to its mandate in terms on the Constitution and the National Energy Act to adopt measures that provide for the universal access to appropriate forms of energy or energy services for all the people of the Republic at affordable prices taking into account:

- 3.1.1. The safety, health and environmental suitability of such energy;
- 3.1.2. The availability of energy resources;
- 3.1.3. The optimisation of existing energy infrastructure;
- 3.1.4. The need for new infrastructure;

- 3.1.5. The provision of information and training regarding energy and its optimal utilisation;
- 3.1.6. The sustainability of the energy provision;
- 3.1.7. Affordability;
- 3.1.8. Cost-effectiveness; and
- 3.1.9. The State's commitment to provide free basic electricity to poor households

And whereas

- 3.2. The Department of Minerals and Energy has indicated its willingness to finance the cost pertaining to the provision of plant and equipment required in terms of the PILOT PROJECT

And whereas

- 3.3. The Department of Economic Development of the Mpumalanga Province has indicated its willingness to finance the cost pertaining to the provision of social engineering services required in terms of the PILOT PROJECT

And whereas

- 3.4. The Bushbuckridge Local Municipality has accepted the PILOT PROJECT subject to the necessary funding being obtained and appointed Phambili as sole supplier of the technology, as service provider to execute the PILOT PROJECT

And whereas

- 3.5. The Bushbuckridge Local Municipality is desirous to promote local economic development

And whereas

3.6. It is the intention of Phambili Energy create an energy platform to achieve the following national and Millennium Development Goals (MDG):

- 3.6.1. The eradication of Alien Invasive Plants (IAP's);
- 3.6.2. Poverty eradication;
- 3.6.3. Sustainable job creation in rural areas;
- 3.6.4. Self employment interventions in the second economy;
- 3.6.5. Fuel switching program to a no/low-smoke fuel to replace D-grade coal in domestic cooking and space heating application;
- 3.6.6. Decreasing indoor and outdoor pollution;
- 3.6.7. Promote social cohesion;
- 3.6.8. Skills transfer and development in rural areas;
- 3.6.9. Energy security;
- 3.6.10. Universal access to electricity;
- 3.6.11. Rural electrification;
- 3.6.12. Food security;
- 3.6.13. Creation of community infrastructure; and
- 3.6.14. Promotion of service delivery in rural areas

And whereas

3.7. Phambili is desirous to demonstrate the Fenix thermal energy units and the biomass converter on community level

And whereas

- 3.8. The FOUNDER MEMBERS have accepted the BUSINESS PLAN and expressed the wish for the forthwith implementation thereof in accordance with the MANDATE to PE;

And whereas

- 3.9. The FOUNDER MEMBERS are desirous to proceed with the establishment of the CO-OPERATIVE and the acceptance of the AGREEMENT by the CO-OPERATIVE and hereby undertake to submit the AGREEMENT to a general meeting of the CO-OPERATIVE within a period of one month after registration for ratification by ordinary resolution;-

Now, therefore the parties agree as follows:

7 APPOINTMENT OF SOLE MANAGEMENT RIGHT

The CO-OPERATIVE hereby:

- 7.1 Approves and accepts the BUSINESS PLAN prepared by PE as accepted by the Department of Minerals and Energy, the Mpumalanga Department of Economic Development and Planning and the MUNICIPALITY; and
- 7.2 Appoints PE to implement the BUSINESS PLAN within the MANDATE to establish the PILOT PROJECT.

8 OBJECTIVE

The objectives of this Agreement are to:

- 5.1. Demonstrate the Fenix thermal energy unit with the view of it being accredited to qualify in accordance with the Integrated National Electricity Program;
- 5.2. To demonstrate that the biomass converter can be sustainably operated and owned by a local community united in a co-operative;
- 5.3. Give effect to the mandate of the Department of Minerals and Energy in terms of the Constitution and the National Electricity Act;

- 5.4. Ensure that the PILOT PROJECT is implemented in terms of the MANDATE to PE
- 5.5. Give effect and support to the local economic initiatives of the MUNICIPALITY
- 5.6. Develop a blueprint for sustainable rural development to be replicated throughout Southern Africa whereby biomass conversion is used as catalyst for rural development and the deployment of the Fenix thermal energy unit is used to enhance the quality of life of off-grid communities.

9 MANDATE OF PE

- 9.1 The CO-OPERATIVE hereby confirms the MANDATE to PE as the sole and exclusive implementer of the BUSINESS PLAN in terms of the MANDATE in establishing the pilot project.
- 9.2 The CO-OPERATIVE hereby mandates PE to enter into negotiations with the other institutions and bodies to give effect to the MANDATE

10 MUTUAL SUPPORT

The parties undertake at all times to do all such things, to perform all such acts and to take all such steps and to procure the doing of all such things, the performance of all such actions and the taking of all such steps as may be open to them and necessary for or incidental to the putting into effect or maintenance of the terms, conditions and import of this AGREEMENT.

11 DELIVERY AND OBLIGATIONS TO PE

- 11.1 The CO-OPERATIVE hereby acknowledges that PE is obligated in terms of the service level agreement with the MUNICIPALITY to execute the MANDATE and that funding for the PILOT PROJECT is provided by the Department of Minerals and Energy as well as the Mpumalanga Department for Economic Development and that PE cannot accept any responsibility or liability should the funders decline to provide funds for the PILOT PROJECT or any part thereof.
- 11.2 The CO-OPERATIVE hereby undertakes:
 - 11.2.1 Not to cede, nor assign its obligations, rights or benefits under this AGREEMENT for the duration thereof without the written consent of PE of the MUNICIPALITY and first being had and obtained;
 - 11.2.2 To endeavour to the best of its ability to do everything reasonable necessary for the promotion and advancement of the objectives of this AGREEMENT, the implementation of the BUSINESS PLAN and the execution of the MANDATE of PE;
 - 11.2.3 To sell the solid biofuel to the local community at an economic price as agreed upon between the parties from time to time;
 - 11.2.4 To take up a 100% (hundred percent) shareholding in all enterprises incorporated in terms of the Companies Act 1973 (Act 61 of 1973) to give effect to the BUSINESS PLAN in accordance with the MANDATE to PE and further to:
 - 8.2.3.1 consent to the appointment of at least two (2) non-executive directors on the board of directors on each of the enterprises

nominated by PE with a veto right on material matters to ensure the sustainability of the enterprises for the duration of the management agreement;

- 8.2.3.2 consent to the entering into of an agreement between the solid biofuel enterprise and PE in terms of which the enterprise will own the conversion plant and equipment and that PE will be sole purchaser of the products of value produced by such enterprise at an economic price to be determined from time to time.
- 8.2.3.3 consent to the appointment of PE or its nominated service provider to manage the enterprises for the duration of the management agreement;
- 8.2.3.4 consent to an agreement to be entered into by the enterprise with PE in terms of which the enterprise shall take responsibility for the collection and conversion of biomass, the packaging of the carbon product of value in accordance with PE protocols and to sell the total production of the carbon product of value to PE at an economic price determined from time;
- 8.2.3.5 consent to the establishment of a maintenance team who will be responsible for the maintenance of the Fenix Thermal Energy Units in accordance with PE protocols;
- 8.2.3.6 consent to the payment of a management fee as determined from time-to-time to PE from the operating costs of such enterprise for the duration of the management agreement, and
- 8.2.3.7 agree not to make any statements to the media without prior consultation with PE.

12 DELIVERY AND OBLIGATIONS TO CO-OPERATIVE

PE, in executing the MANDATE as set out in the agreement between the MUNICIPALITY and PE, shall:

- 12.1 use all reasonable skill, care and diligence in the discharge of the MANDATE;
- 12.2 devote sufficient time and attention to execute the MANDATE competently, diligently, to the best of its ability and to the standards reasonably required by MUNICIPALITY and applicable to the execution of the MANDATE;
- 12.3 use its best endeavours to properly conduct, improve, extend, develop, promote, protect and preserve the business interests, reputation and

goodwill of the CO-OPERATIVE and the small medium enterprises established;

- 12.4 communicate with the CO-OPERATIVE by and through PE'S project supervisor, who shall have the authority to bind PE on all matters related to the MANDATE;
- 12.5 ensure that management services supplied to the CO-OPERATIVE and the business entities incorporated in terms of the Companies Act 1973, (Act 61 of 1973) comply with all relevant laws and statutory requirements;
- 12.6 at all times have qualified and competent persons, fit for duty, to perform the required services as determined in the MANDATE and in accordance with generally accepted standards and good practices;
- 12.7 immediately inform the executive management of the CO-OPERATIVE or its nominee, of any defect, incidents and damage to property, in particular but not limited to, those arising out of and in connection the execution of the MANDATE; and
- 12.8 furnish the executive management of the CO-OPERATIVE or its nominee with such information, returns and documentation with regard to the management of the CO-OPERATIVE and small medium enterprises by PE as may reasonably be required or required in terms of national legislation.

13 CONSIDERATION PAYABLE TO PE

The management fees payable to PE by the CO-OPERATIVE and SMEs incorporated in terms of this AGREEMENT shall be determined and agreed between the CO-OPERATIVE and PR solely.

14 VARIATIONS NOT EFFECTIVE UNLESS IN WRITING

No variation, modification, consensual cancellation or waiver of any provision of this Agreement, or consent to any departure there from, shall in any way be of any force or effect unless confirmed in writing and signed by the parties and then such variation, modification, cancellation, waiver or consent shall be effective only in the specific instance and for the purpose and to the extent for which made or given

15 PARTIES NOT AFFECTED BY WAIVER OF BREACHES

- 15.1 The waiver (whether expressed or implied) by either party of any breach of the terms or conditions of this AGREEMENT by the other party shall not prejudice any remedy of the waiving party in respect

of any continuing or other breach of the terms and conditions hereof.

15.2 No favour, delay, relaxation or indulgence on the part of either party in exercising any power or right conferred on such party in terms of this AGREEMENT shall operate as a waiver of such power or right, nor shall any single or partial exercise of any such power or right preclude any other or further exercise thereof or the exercise of any other power or right under this Agreement.

15.3 The expiry or termination of this AGREEMENT shall not prejudice the rights of either party in respect of any antecedent breach or non-performance by the other party of any of the terms and conditions hereof.

16 DOMICILIUM

16.1 The parties hereto choose *domicilium citandi et executandi* for all purposes of and in connection with this Agreement or any action to be instituted arising out of this Agreement or any breach thereof at the addresses reflected below:

16.1.1 PE:

96 Lindfield Road, Lynnwood Manor, City of Tshwane

And,

16.1.2 FOUNDER MEMBERS:

13.1.2.1. [Redacted]; and

13.1.2.2. [Redacted]

16.2 Either party hereto shall be entitled to change its domicilium from time to time provided that it is a physical address within the R.S.A. and any such change shall only be effective upon receipt of notice in writing by the other party of such change

16.3 All notices, demands, communications or payments intended for any party shall be made or given at such party’s domicilium for the time being, and, if forwarded by prepaid registered post, shall be deemed to have been made or given 7 (seven) days after the date of posting.

17 ARBITRATION AGREEMENT

17.1 Any dispute between the parties in regard to:

- 17.1.1 the interpretation of;
- 17.1.2 the effect of;
- 17.1.3 the parties' respective rights and obligations under;
- 17.1.4 a breach of;
- 17.1.5 any matter arising out of:-

this AGREEMENT shall be decided by arbitration in the manner set out in this clause.

17.2 The said arbitration shall be finally resolved in accordance with the rules of the Arbitration Foundation of Southern Africa (AFSA) by an arbitrator appointed by AFSA it being the intention that if possible it shall be held and concluded within 21 (twenty-one) working days after it has been demanded (with the exception of urgent relief claimed from a court of competent jurisdiction).

17.3 The parties irrevocably agree that the decision in these arbitration proceedings:

- 14.3.1 shall be binding on them;
- 14.3.2 shall be carried into effect; and
- 14.3.3 may be made an Order of any Court of competent jurisdiction.

17.4 Notwithstanding the aforementioned, no party shall be precluded from seeking legal assistance or approach a competent court, which it may otherwise be entitled to in terms of the Law

18 RATIFICATION OF PRE-INCORPORATION AGREEMENT

18.1 The parties hereto acknowledge that the coming into operation of the AGREEMENT is subject to the ratification thereof by the CO-OPERATIVE in terms of Section 9 of the Act;

18.2 In the event that the PRE-INCORPORATION agreement not being ratified in terms of Section 9 of the ACT:

- 18.2.1 The persons who originally entered into the AGREEMENT on behalf of the CO-OPERATIVE to be established shall not be bound by the AGREEMENT;
- 18.2.2 This AGREEMENT shall have no force or effect;

18.2.3 No party hereto shall have any claim for compensation or the acquisition of any rights and obligations in terms of the AGREEMENT; and

18.2.4 PE shall have the right to recommend to the MUNICIPALITY alternative strategies for the implementation of the BUSINESS PLAN without involving the CO-OPERATIVE

19 DURATION OF AGREEMENT

19.1 This AGREEMENT shall commence on the date of the ratification thereof by the CO-OPERATIVE in terms of Section 9 of the ACT and shall remain in force for a period of at least 10 (ten) years.

19.2 PE shall have the right of first option with the renewal of this AGREEMENT

19.3 Notwithstanding the provisions of Clause 16.1 hereof, both parties shall have the right to give the other 60 (sixty) days notice of termination of the AGREEMENT in the event of the MUNICIPALITY withdrawing the MANDATE to PE

20 GENERAL

The parties hereby place on record that the laws of the Republic of South Africa shall be applicable relating to the interpretation and construction of any of the terms of this Agreement.

THUS DONE and SIGNED at on this the day of 2009, in the presence of the undersigned witnesses:

FOR AND ON BEHALF OF
PHAMBILI ENERGY

AS WITNESSES:

1..... 2.....

THUS DONE and SIGNED at on this theday of
..... 2009, in the presence of the undersigned witnesses:

1..... 2.....
.....

FOR AND ON BEHALF OF THE FOUNDER MEMBERS OF THE TO-BE
ESTABLISHED CO-OPERATIVE FOR THE **BBR** COMMUNITY

AS WITNESSES:

1..... 2.....

12.7. ANNEXURE 7: MINUTES: HLUVUKANI MEETING: 18 MARCH 2009



BUSHBUCKRIDGE LOCAL MUNICIPALITY

Tel no :(013) 799 1851

PRIVATE BAG X9308

Fax no :(013) 799 1865

BUSHBUCKRIDGE

Cell. 079 874 3331

1280

MINUTES OF THE MEETING AND PRESENTATION OF BIOFUEL AND FENIX COMBINED DOMESTIC POWER HEATING UNIT HELD AT HLUVUKANI ON THE 18TH MARCH 2009 AT 9H00

1. Opening and welcome done by the Ward Councilor, Cllr. Mashabane D.
2. Apologies were rendered for the Regional Manager Mr. Mlambo, Cllrs. Johan Ndlovu and Lessy Nzimande as they were attending a meeting at Nelspruit.
3. Roll call was circulated and is attached.
4. **B.O.D.**
 - 4.1. **Grid capacity problem affecting BLM**

The grid capacity problem was highlighted to the community members and that it will only be solved by 2012 hence the household connection will only be done in 2013 as per the network report sent to Bushbuckridge Municipality by Eskom Network Services. It was highlighted that all stakeholders to the development of the communities within BLM, chosen this municipality as a pilot for the Biofuel and Fenix Combined Domestic Heating Unit. This came at the right time since those affected negatively by the grid capacity problem, who will only be connected after few years will be provided with the units if they want them.

4.2. **Biofuel and Fenix combined domestic power heating unit**

Phambili Energy representatives presented and showed the unit to the community members.

ITEM	DISCUSSIONS/QUESTIONS	ACTION PLAN	BY WHOM	BY WHEN
Solar vs Biofuel and fenix	The globes provided with the	The globes will be accessed	Phambili Energy will ensure	On the first day of providing

unit	solar unit are not accessible in supermarket and stores around BLM and what kind of globes will be provided with the unit and incase the members need to get more, where will they be accessed.	in stores around and will be provided any time a member will need to get more.	that they are available even to those trained individuals within the community provided with stoves for easy access. Phambili Energy will provide training to the community for maintenance.	the units.
Compatibility of TV and stove	Members of the community are consent since the unit will not be able to accommodate TV and Fridge.	The idea will be considered for future as the development of this unit was for time being.	Phambili Energy	In future
Accessibility of coal and wood	People are consent because the Traditional Authority arrest them for cutting the trees.	There will be a factory around BLM for the manufacturing of the type of coal showed to the community members . The factory will belong to individuals within BLM for sustainability of this programme and for their own benefit as entrepreneurs	Phambili Energy through trained individuals within the communities around BLM.	Within three months from April 2009 since the discussion with Department of Water Affairs and Forestry and LED both Provincial and BLM agreed on the factory.
Time frame	People wanted to know when are they getting the units	There will be a meeting for final discussion and before the end of the week ending 27 th March 2009, a response will be given to the BLM representatives.	Phambili Energy and the National Dept of Minerals and Energy	23 rd March 2009

5.Approval of the biofuel and fenix combined domestic power heating unit.

The community members are happy about the unit and a list of those who qualify to get them is attached.

12.8. ANNEXURE 8: MINUTES ISLINGTON MEETING: 18 MARCH 2009



BUSHBUCKRIDGE LOCAL MUNICIPALITY

Tel no :(013) 799 1851 PRIVATE BAG X9308
 Fax no :(013) 799 1865 **BUSHBUCKRIDGE**
 Cell. 079 874 3331 1280

MINUTES OF THE MEETING AND PRESENTATION OF BIOFUEL AND FENIX COMBINED DOMESTIC POWER HEATING UNIT HELD AT ISLINGTON A ON THE 18TH MARCH 2009 AT 11H00

- 1.Opening and welcome done by the PR Councillor, Cllr. Mavis Mathebula.
- 2.Apologies were rendered for Ward Councillor, Cllr. Kgaugelo Morale and the Regiponal Manager Mr. Mlambo
- 3.Roll call was circulated and is attached.

4.B.O.D.

4.1.Grid capacity problem affecting BLM

The grid capacity problem was highlighted to the community members and that it will only be solved by 2012 hence the household connection will only be done in 2013 as per the network report sent to Bushbuckridge Municipality by Eskom Network Services. It was highlighted that all stakeholders to the development of the communities within BLM, chosen this municipality as a pilot for the Biofuel and Fenix Combined Domestic Heating Unit. This came at the right time since those affected negatively by the grid capacity problem who will only be connected after few years will be provided the units provided they wants them.

4.2.Biofuel and Fenix combined domestic power heating unit

Phambili Energy representatives presented and showed the unit to the community members.

ITEM	DISCUSSIONS/QUESTIONS	ACTION PLAN	BY WHOM	BY WHEN
Compatibility of TV and stove	Members of the community are consent since the unit	The idea will be considered for future as the	Phambili Energy	In future

	will not be able to accommodate TV and fridge.	development of this unit was for time being.		
Accessibility of coal and wood	People are consent because the Traditional Authority arrest them for cutting trees.	There will be a factory around BLM for the manufacturing of the type of coal showed to the community members . The factory will belong to individuals within BLM for sustainability of the programme and for their own benefit as entrepreneurs	Phambili Energy through trained individuals within the communities around BLM.	Three months from April 2009 since the discussion with Department of Water Affairs and Forestry and LED both Provincial and BLM agreed on the factory.
Time frame	People wanted to know when are they getting the units	There will be a meeting for final discussion and before the end of the week ending 27 th March 2009 a response will be given to the BLM representatives.	Phambili Energy and the National Dept of Minerals and Energy	23 rd March 2009

5.Approval of the biofuel and fenix combined domestic power heating unit.

The community members are happy about the unit and a list of those who qualify to get them is attached.

12.9. ANNEXURE 9: MINUTES: BURLINGTON MEETING 18 MARCH 2009



BUSHBUCKRIDGE LOCAL MUNICIPALITY

Tel no :(013) 799 1851

PRIVATE BAG X9308

Fax no :(013) 799 1865

BUSHBUCKRIDGE

Cell. 079 874 3331

1280

MINUTES OF THE MEETING AND PRESENTATION OF BIOFUEL AND FENIX COMBINED DOMESTIC POWER HEATING UNIT HELD AT BURLINGTON ON THE 18TH MARCH 2009 AT 14H00

1. Opening and welcome done by the Mr. Mthise.
2. Apologies were rendered for the Regional Manager, Mr. Phineas Selowe.
3. Roll call was circulated and is attached.
4. **B.O.D.**
 - 4.1. **Grid capacity problem affecting BLM**

The grid capacity problem was highlighted to the community members and that it will only be solved by 2012 hence the household connection will only be done in 2013 as per the network report sent to Bushbuckridge Municipality by Eskom Network Services. It was highlighted that all stakeholders to the development of the communities within BLM, chosen this municipality as a pilot for the Biofuel and Fenix Combined Domestic Heating Unit. This came at the right time since those affected negatively by the grid capacity problem who will only be connected after few years will be provided the units provided they wants them.

4.2. **Biofuel and Fenix combined domestic power heating unit**

Phambili Energy representatives presented and showed the unit to the community members.

ITEM	DISCUSSIONS/QUESTIONS	ACTION PLAN	BY WHOM	BY WHEN
Provision of the unit to those connected to grid	People are willing to be provided with the unit	The idea will be taken to the municipality authority for	Johanna Malebana	In a report to be written after the community visits

	because even if they are connected to grid, they still use wood and paraffin for cooking. The unit will be easy for them as they will only use wood as opposed to buying electricity unit for lighting let alone cooking.	consideration under Free Basic Alternative Energy and that to reduce the load shedding.		for presentation of the Biofuel unit.
Accessibility of coal and wood	People are consent because the Traditional Authority arrest them for cutting trees.	There will be a factory around BLM for the manufacturing of the type of coal showed to the community members . The factory will belong to individuals within BLM for sustainability of the programme and for their own benefit as entrepreneurs	Phambili Energy through trained individuals within the communities around BLM.	Three months from April 2009 since the discussion with Department of Water Affairs and Forestry and LED both Provincial and BLM agreed on the factory.
Time frame	People wanted to know when are they getting the units	There will be a meeting for final discussion and before the end of the week ending 27 th March 2009 a response will be given to the BLM representatives.	Phambili Energy and the National Dept of Minerals and Energy	23 rd March 2009

5. **Approval of the biofuel and fenix combined domestic power heating unit.**

The community members are happy about the unit and a list of those who qualify to get them is attached.

12.10. ANNEXURE 10: MINUTES: HUTTINGTON MEETING: 19 MARCH 2009



BUSHBUCKRIDGE LOCAL MUNICIPALITY

Tel no :(013) 799 1851 PRIVATE BAG X9308
 Fax no :(013) 799 1865 **BUSHBUCKRIDGE**
 Cell. 079 874 3331 1280

MINUTES OF THE MEETING AND PRESENTATION OF BIOFUEL AND FENIX COMBINED DOMESTIC POWER HEATING UNIT HELD AT HUTTINGTON ON THE 19TH MARCH 2009 AT 12H00

1. Opening and welcome done by the Ward Committee Chairperson
2. Apologies was rendered for Regional Manager Mr. Ellen Mkhonto as he is on leave .
3. Roll call was circulated and is attached.
4. **B.O.D.**

4.1. **Grid capacity problem affecting BLM**

The grid capacity problem was highlighted to the community members and that it will only be solved by 2012 hence the household connection will only be done in 2013 as per the network report sent to Bushbuckridge Municipality by Eskom Network Services. It was highlighted that all stakeholders to the development of the communities within BLM, chosen this municipality as a pilot for the Biofuel and Fenix Combined Domestic Heating Unit. This came at the right time since those affected negatively by the grid capacity problem who will only be connected after few years will be provided the units provided they wants them.

4.2. **Biofuel and Fenix combined domestic power heating unit**

Phambili Energy representatives presented and showed the unit to the community members.

ITEM	DISCUSSIONS/QUESTIONS	ACTION PLAN	BY WHOM	BY WHEN
Solar vs Biofuel and fenix unit	The globes provided with the solar unit are not accessible	The globes will be accessed in stores around and will be	Phambili Energy will ensure that they are available even	On the first day of providing the units.

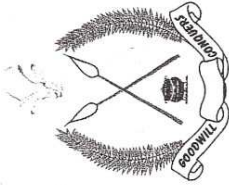
	in supermarket and stores around BLM and what kind of globes will be provided with the unit and incase the members need to get more, where will they be accessed.	provided every time a member will need to get more.	to those trained individuals within the community provided with stoves for easy access and the person will be able to maintain the stoves while paid by Phambili Energy.	
Holes to be done on the community corrugated iron.	People were concerned about the holes to be made on the roof for the provision of chimney installation as they do not want water to enter their houses during rainy days.	The holes will be water proofed and comply with National Building Waterproofing standard.	Phambili Energy	The day they provide the unit
Compatibility of TV and stove	Members of the community are consent since the unit will not be able to accommodate TV and Fridge.	The idea will be considered for future as the development of this unit was for time being.	Phambili Energy	In future
Provision of the unit to those connected to grid	Community members connected with grid wish that they be given the unit also. Of consent is the issue of the orphan who even connected to grid are unable to buy electricity hence it will assist if they be given the unit as they will devise means to get wood.	The idea will be taken to the municipality authority for consideration under Free Basic Alternative Energy and that to reduce the load shedding.	Johanna Malebana	In a report to be written after the community visits for presentation of the Biofuel unit.
Accessibility of coal and	People are consent because	There will be a factory	Phambili Energy through	As soon as possible since the

wood	the Traditional Authority arrest them for cutting trees.	around BLM for the manufacturing of the type of coal showed to the community members . The factory will belong to individuals within BLM for sustainability of the programme and for their own benefit and as entrepreneurs	trained individuals within the communities around BLM.	discussion with Department of Water Affairs and Forestry and LED both Provincial and BLM agreed on the factory.
Time frame	People wanted to know when are they getting the units	There will be a meeting for final discussion and before the end of the week ending 27 th March 2009 a response will be given to the BLM representatives.	Phambili Energy and the National Dept of Minerals and Energy	23 rd March 2009
Unavailability of tap water vs the unit usage	The community members are consent about the availability of the water to operate the unit	The provision of water is the responsibility of the municipality	Clr. Mboweni Douglas and Regional Manager, Mr. Mkhonto Ellen	Daily
The provision of grid energy to those who were relocated	People were supposed to have been connected with grid energy but were advised by Eskom to be relocated with the view that they will be next to each other. This was done before the municipality could have capacity problem.	The communities will have to wait until the capacity problem is solved and in the meantime they will be using the unit to generate energy.	Eskom and BLM	Until 2013

5.Approval of the biofuel and fenix combined domestic power heating unit.

The community members are happy about the unit and a list of those who qualify to get them is attached.

12.11. ANNEXURE 11: BENEFICIARY LIST: HLUVUKANI



BUSHBUCKRIDGE LOCAL MUNICIPALITY

Regional Office **HLUYUKAST** Village **HLUYUKAST PMP & EXT**

Biofuel and tenix unit

FULL NAME	IDENTITY NUMBER	STAND NO	ADDRESS	CONTACT NO.
PHANUEL MKHONTO	7302045574087		P.O BOX 227, HLUYUKANI, 1363	0769857378
MARGARET MULOVI	7007250907087		P.O BOX 752 HLUYUKANI, 1363	0720167325
DOLY SIFT KAZZA	8705180271080		P.O BOX 1415 HLUYUKANI, 1363	0827249202
EUNICE KHEKHEANI MULOVI	7810040849084		P.O BOX 725 HLUYUKANI, 1363	071387240
SELMA MULOVI	7266010488084		P.O BOX 1415 HLUYUKANI, 1363	
ESTHER MATHOMSI	5005050361082		P.O BOX 1415 HLUYUKANI, 1363	
BETTY MULOVI	6907060691086		P.O BOX 436 HLUYUKANI, 1363	0790128276
MIKHLE MULOVI	8807290503085		P.O BOX 387 HLUYUKANI, 1363	
LINDIE JEANETH MULOVI	8412030884083		P.O BOX 307 HLUYUKANI, 1363	0797271964
TESTONS MATHOMSI	9109046369088		P.O BOX 307 HLUYUKANI, 1363	0797271964
MAMLA STHEBISO SIMELE	8502125843083		P.O BOX 307 HLUYUKANI, 1363	0727178991
MUNNE FRETH NIKE	8509121490082		P.O BOX 1415 HLUYUKANI, 1363	0780786763
MUNNULA FATIMA SIBUNI	7606081650083		P.O BOX 1415 HLUYUKANI, 1363	0713646578
ELITRE TIBANE	8206121505080		P.O BOX 1415 HLUYUKANI, 1363	0719667237
CONSTANCE BUSI MULOVI	7803130432081		P.O BOX 227 HLUYUKANI, 1363	0825486562
JOSEPHINA NZIMANE	7311050487085	34	P.O BOX 1787 HLUYUKANI, 1363	0732970556
FARA ELMONI KAZZA	4410208247080		P.O BOX 1415 HLUYUKANI, 1363	0793127779
NOMBI ZOBWA NZIMBA	6004200732081		P.O BOX 1787 HLUYUKANI, 1363	0782796655
SINDRA MANSILE MATHOMSI	440705215089		P.O BOX 1415 HLUYUKANI, 1363	0793127779
ISHAMEL VEE KHISA	8702135958083		P.O BOX 500 HLUYUKANI, 1363	0796715642

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BUSHBUCKRIDGE LOCAL MUNICIPALITY

Regional Office HLUVUKANI REG Village HLUVUKANI PHD & EXT

FULL NAME	IDENTITY NUMBER	STAND NO	ADDRESS	CONTACT NO.
NERVILLE MATHEBULA	8306195601086		P.O BOX 227 HLUVUKANI 1363	0737116178
HARRY MBOU	8007135653084		P.O BOX 227 HLUVUKANI 1363	0840821619
FORSTER MBOKODO	7306016195087		P.O BOX 118 HLUVUKANI 1363	0715714741
MARIA R. ICHOZA	7006210928081		P.O BOX HLUVUKANI 1363	0796715627
JUSTICE T. MHLONGO	6703116010082		P.O BOX HLUVUKANI 1363	0797279863
PATRICK K. MANYIKE	7304185608089		P.O BOX HLUVUKANI 1363	0792165563
LUCY MATHEBULA	7405020513085		P. O BOX HLUVUKANI 1363	0768582103
LUCKY MBOKODO	7003075640083		P.O BOX 118 HLUVUKANI 1363	0837543813
MAYLINA N. NHLONGO	5211300526082		P. O BOX HLUVUKANI 1363	0716364194
MARGRETH HLUKUNA	5612160278088		P. O BOX 227 HLUVUKANI 1363	0799126543
EMMAS M. MASHALE	4110175243081		P. O BOX HLUVUKANI 1363	0786180809
ISAKILE MBOUANE	7306090408083		P. O BOX 118 HLUVUKANI 1363	0761059185
LYBIA MALALE	6709150720084		P. O BOX 227 HLUVUKANI 1363	0760725755
WINNIE MASHALE	7609190931080		P. O BOX 118 HLUVUKANI 1363	0786180809
BETTY MBOU	7201041272086		P.O BOX 118 HLUVUKANI 1363	0790322153
MINDIE MABOKOLE	3205200263081		P.O BOX HLUVUKANI 1363	0736062660
LEYINAH MASHALE	7111170559080		HluVukani 1363	
Nomsa Chaul	8304070993082		HluVukani 1363	0763559329
manda mathabini	78060905747080		P.O Box 273 HluVukani 1363	0728148475

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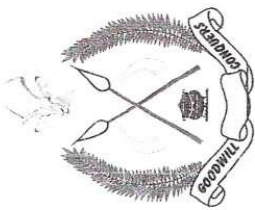


BUSHBUCKRIDGE LOCAL MUNICIPALITY

Regional Office HLUVUKANI REG Village HLUVUKANI PHD & EXT

FULL NAME	IDENTITY NUMBER	STAND NO	ADDRESS	CONTACT NO.
LUCERT ZIMANDE	6812080465083	78	HLUVUKANI	0720480835
PATRICK GUMEDE	6612195276080		HLUVUKANI	0762108981
CLETT MASHI	8807276315082		HLUVUKANI	0789838647
LUSY SIBIYA	8009031278081		HLUVUKANI	0734863347
EUNICE MABOKO	7206190271080		HLUVUKANI	0838785656
ROBERT MGENGWAYO	6005305414081	502	HLUVUKANI	082365142
LILIAN MATHEBULA	7009010404089		HLUVUKANI	0848177886
Peterus Ndlovu	7508293396084		HLUVUKANI	0739550203
Gilene Mlcanzi	7806045814087		HLUVUKANI	0760222408
Prudence Mushi	7304110488086		HLUVUKANI	0836831970
Emmehani Xiboyeni Mh	7707185466086		HLUVUKANI	0725872827
Bongani Mathabini	7111090299080		HLUVUKANI	0834957946
FEMIAS MQUENSHA	2005025174084		HLUVUKANI	0761379495
FRETTY MKHINTO	8201050672084		HLUVUKANI	0826774083
Constance Mkhango	7507120828089		HLUVUKANI	0724743500
BETTY MACHABE	8206150918089		HLUVUKANI	0768954627
Nomsa Chaul	6501013624089		HLUVUKANI	0761379495
Mduli Gernina	750115064087		HLUVUKANI	0722408372
Rebecca Nyotli	7511230526088		HLUVUKANI	0724038694
Queen Chaulke	7908150726083		HLUVUKANI	0722326814

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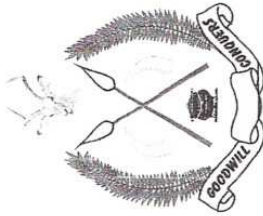


BUSHBUCKRIDGE LOCAL MUNICIPALITY

Regional Office Village P.H.P.

FULL NAME	IDENTITY NUMBER	STAND NO	ADDRESS	CONTACT NO.
Douglas Mabaso	7505255437080	126	Box 309 Hlumkani 128	0725004330
Phyllis Mthethwa	7806101313081	88	Box 45 FPLW	0766198639
Buti Buti Shani Matheya	8706206261087	200	P.O. Box 547 Hlumkani 1363	099952453
Neliso Solomon	091042520081		P.O. Box 141 Hlumkani 1383	0834807981
Khosa Sibengile	7603280468087	128	P.O. Box 45	
Methabela Iris	7410150461089		P.O. Box 248 Hlumkani	0724934606
Melani Thoko	7306160640086		P.O. Box 248 Hlumkani	0781478172
Mabunda Gony	78091030530080			0722298882
Messhile Sentele	0002090543080	110	P.O. Box 196 Hlumkani 1363	0784035894
Mkhamsisa Sentele	0785572489		P.O. Box 196 Hlumkani	71202539089
Ale Nash Mhabe	920902382082		P.O. Box 146 Hlumkani	0746685845
Alexis Sazad	7403040371086	100	P.O. Box 541 Hlumkani	0736493451
Piromi Mthembu	5505120083084		P.O. Box 407 Hlumkani	0733511640
Mashumba Buthi	821125525084		P.O. Box 163 Hlumkani	0723038400
Sweet Mandumani Zimile	7010230317085		P.O. Box 874 Hlumkani 133	0738456066
Sibusiso Eugene	7700208480054	101	P.O. Box 575 Hlumkani 1363	0782870660
MESHILE OUMA	7910220565082			
Benzile Githia Mthembu				
NDHLOVU Berneth	7801055764082		P.O. Box 10 Hlumkani	
Sazman Zithen				

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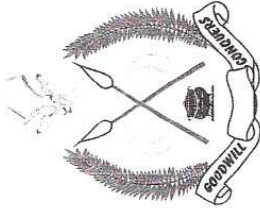


BUSHBUCKRIDGE LOCAL MUNICIPALITY

Regional Office Village **PHP**

FULL NAME	IDENTITY NUMBER	STAND NO	ADDRESS	CONTACT NO.
Mthabeni Madla	7101245344088	96	P.O. Box 996 Hlumbani	0782372525
Noel Ngomane	741108 0358 030	155	P.O. Box 344 Hlumbani	0737409313
Mathhebula Fikile	7906036180082	111	P.O. Box 827 Hlumbani	0724640973
Mkhabela Absalom	2304180855080		P.O. Box 27 Hlumbani	0721856600
Theolaphy Mboweni				
Mdlovu Priscilla	7412265388082		P.O. Box 1164 Hlumbani	0732846230
Mathhebula Godfrey	7606040320085		P.O. Box 191 Hlumbani	
Butu Chavuka	7803010419083	118	P.O. Box 611 Hlumbani	073356811
Mdinyi Thabou	7908150716083		P.O. Box 191 Hlumbani	073356814
Queen Chavuka	7103096007081		P.O. Box 116 Hlumbani	0894349012
Mdinyi Gumelo	8504230721089	146	P.O. Box 185 Hlumbani	0897438012
Mathhebula Alpha	450610 0470 089		P.O. Box 407 Hlumbani	0848519618
Aseina Mathhebula	6512120946080		P.O. Box 118 Hlumbani	0763141350
Charlotte Mbulota	8303300739083		P.O. Box 356 Hlumbani	0785857332
Critis Mathhebula	7612100296081		P.O. Box 273 Hlumbani	079051269
Agree Mowaba			P.O. Box 244	
Winnie Mathhebula	8312265704081		P.O. Box 8 Hlumbani	0713774414
Shiphu Zimandzi				

0714222173



BUSHBUCKRIDGE LOCAL MUNICIPALITY

Regional Office Village HLUVUKANI PHIP EXT.
 HLUVUKANI REG..... Village HLUVUKANI PHIP EXT.

Biotrad and fernix unit

FULL NAME	IDENTITY NUMBER	STAND NO	ADDRESS	CONTACT NO.
Mzimba Justice	7405125682081	6	P.O. Box 714 Hluvukani 1265	0837281225
Mzimba Christian	7702015864086		P.O. Box 811 Hluvukani 1265	0835517551
ABRAHAM MNISI	8009105687080	105	P.O. Box 26 Hluvukani, 1363	0702827669
Yosi Thibets	8003035795083	27	P.O. Box 02 Hluvukani, 1363	0702596257
Whiskey Mavoko	7704155827082	104	P.O. Box 103 Hluvukani, 1363	0704951715
Respect Theledi	8101012413082	143	P.O. Box 309 Hluvukani	0725069285
Jacqueline Mavoko	5109220361087	125	P.O. Box 550 Hluvukani	0726655247
Lizbeth Mthato	7206023379088	149	P.O. Box 133 Hluvukani	07265997110
Zanne Mthala	7106240321081		P.O. Box 433 Hluvukani	07235333121
MNISI ASSAN SILENI	7312220368080	85	P.O. Box 55 Hluvukani	0733999987
Meloy Mavis Lourenco	7503160513082	407	P.O. Box 407 Hluvukani	0739799831
Kassa Mafipiso Shal	7704051186088		P.O. Box 121 Hluvukani	0846223956
Mqwenyama Isakani	7901160282085		P.O. Box 407 Hluvukani	0765810219
Mathebula Virginia	7411040641088		P.O. Box 183 Hluvukani	0736208300
Nqwenya Nosizi			P.O. Box 309 Hluvukani	0729755527
Mathebula Velly			P.O. Box 1163 Hluvukani	0792275467
Uiso. Kweneni	7504080349081			
Shisane Surprisa	8409156059086			
METHU PEQINAH	8208290087087		P.O. Box 420 Hluvukani	0820188155
PAMOLISA EDITH	9110121000085		P.O. Box 420 Hluvukani	0735119989

Roll Call

18-03-2009

Hluhluwe
BIOFUEL AND FERTILISERS PRESENTATION

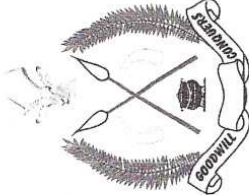
79.	NAME	CONTACT	SIGNATURE
1.	THEHE REGINAH	0820188133	R. THEHE
2.	Jacqueline Mabaso	073 126 6689	J. Mabaso
3.	Linda Mkhawo	012 82 78384	L. Mkhawo
4.	Lizbeth Mkhonto	0726655247	L. Mkhonto
5.	Vusi Thibela	072 7596297	V. Thibela
6.	Vusi Mkhongo		
7.	Respect Theledi	0796034296	R. Theledi
8.	Suzan Nyathi	073 6493451	S. Nyathi
9.	Solly Ndlovu	072 9767509	T.M. Madloane
10.	Cherise Mkhawo	074 8684845	S. Mkhawo
11.	Filike Mathibane	0737409313	S. Mathibane
12.	Gwenes Mashiepo	083 4207921	
13.	Tolerance Sibuyi	071 5932226	78
14.	Winnie Manyike	082 07 92435	W. manyike
15.	Fatima Sibuyi	071 3646578	F. Sibuyi
16.	Pamela Mkhawo	0766198639	P. Mkhawo
17.	Happiness Mabone	073 9799831	H. Mabone
18.	Cherry Mabinda	072 227 9882	C. Mabinda
19.	Iris Mathibane	0724934606	I. Mathibane
20.	Sericey Mashile	078 4035 894	S. Mashile
21.	Nelson Mashile	076 6959396	H. Mashile
22.	PRAISEPOD Mkhantshwa	074552489	P. Mkhantshwa
23.	Thoko Madluli	0781478172	T. Madluli
24.	Berneth Ndlovu		B. Ndlovu
25.	Army Mkhonto	0766382836	A. Mkhonto
26.	Irene Mkhawo	072 1856600	I. Mkhawo
27.	Sophy Ubisi		Sophy Ubisi
28.	Y.J. Chauke	0728277648	Y.J. Chauke
29.	Christopher Ubisi	0760128687	C. Ubisi

NAME	CONTACT	SIGNATURE
30. Thengwayo Robert	082 369 6142	R. Thengwayo
31. Khosa Dumisani	076 739 4145	D. Khosa
32. Mucase Nikiwe	0732 000004	Mucase
33. Betty Ndlouu	079 012 8276	BN
34. Suzen Zimande	0738456066	Suzen
35. Maureen Tchiloane	07968 21240	M. Tchiloane
36. Josephina Nziyane	0732970556	J. Nziyane
37. Fanne NHALA	076 899 7110	F. NHALA
38. Phaniel Mkhonto	0769857378	Phaniel
39. NEEY Mkhanga	073	N. Mkhanga
40. Vinolia Ndlouu	073 511 4161	P. Ndlouu
41. Winnie Mathebula	079 646 2901	W. Mathebula
42. ABRAHAM MNISI	072 8827 669	A. Mnsi
43. Lucy Ndlouu	072 185 3134	L. Ndlouu
44. ABSALOM Mkhabela	0724640973	A. Mkhabela
45. Justice Mzimba	083 7281 225	J. Mzimba
46. LUSI Sibiyi	073 48 63347	L. Sibiyi
47. Amanda Nyathi	071 356 7240	A. Nyathi
48. EUNICE MUDACA	083 878 5656	E. Mudaca
49. MARGARETH NDLouU	072 016 7325	M. Ndlouu
50. SELDAH NDLouU	083 878 5656	S. Ndlouu
51. ESTHER MATHONSI	083 878 5656	E. Mathonsi
52. NDLouU HEMBI	072 9335 408	T. Ndlouu
53. Khoza Gift DOLLY	082 7249 202	D. G. Khoza
54. Mkhabela Linhle	079 721 964	M. Mkhabela
55. Manyike Geshong	079 727 1964	Manyike G.
56. YVONNE Nkope	0780 75 6963	P. N.
57. ZODWA Mzimba	0782 79 6655	Z. Mzimba
58. Gwen Khosa	073 81 03 578	G. Khosa
59. Valley Mathebula	072 97 55527	V. Mathebula

Roll Call

Name	Contact	Signature
60. Khumalo Ivy	0798153503	IVY
61. THERON MATHIBELA	0736069052	T. MATHIBELA
62 Beteg B. Ndlovu		
63 Bushi Chauke	N/A	B. Chauke
64 Tsekani Ngwenyama	0846322956	T. Ngwenyama
65 Lucky Mbovoto	0837543813	L. Mbovoto
66 Tsekani le Mbowane	N/A	T. Mbowane
67 Nelson Maswila	0766959396	Nelson
68 Chris Mthabini	0728148475	C. Mthabini
69 Lukas Ngwenyama		L. Ngwenyama
70 Rodgers Mamba	01202699729	Rodgers
71. Fort Star Mbovoto	011 5714741	F. Mbovoto
72 Constance Mbovoto	0825486562	C. Mbovoto
73. ISRAEL Ndlovu	0936862984	I. Ndlovu
74 Khosa Ishmael	0796715642	Ishmael
75. Ndlovu Gloria	0165492244	N. Gloria
76 Vusi Mthlanga	0837238220	V. Mthlanga
77. Alice Mkhosi	0733083342	A. Mkhosi
78 Critis Mkhobu	0785857322	C. Mkhobu
76. Charlotte	0763141350	Charlotte
77. EUNICE	0713567240	E. Ndlovu
78 Gumede Manda	0127178991	Gumede M.
79 Johanna Malebana	0798743331	J. Malebana

12.12. ANNEXURE 12: BENEFICIARY LIST: ISLINGTON



BUSHBUCKRIDGE LOCAL MUNICIPALITY

Regional Office Village Trust

Biofuel and fenix unit

FULL NAME	IDENTITY NUMBER	STAND NO	ADDRESS	CONTACT NO.
Nyathi Beliecent M.	870820 0883 0888		Box 26 Mholhoholela 1367	0797333956
Mlungo M. Willem	870201 5263 080	346	Box 118 Mholhoholela 1367	N/A
Rubayi Simon	870602 5261 188		Box 119 Mholhoholela 1367	0167243699
Sibuyi Maria	860806 0731 080		Box 26 Mholhoholela 1367	
Mlungo Sylvan	850101 2313 087		Box 26 Mholhoholela 1367	0737846161
Mlungo Mandla	880109 6638 081		Box 26 Mholhoholela 1367	0737846161
Namanda Zulu	780817 0801 084		Box 255 Acornhoek 1365	0720363643
Mathubela Memory	860316 1138 089		Box 516 Mholhoholela 1367	0796100056
Sibuyi Emily	790901 1186 082		Box 255 Mholhoholela 1367	0764091973
Mabwengas Florida	761230 0887 184		Box 430 Acornhoek 1365	0720497631
Mathebula Argentina	860401 1090 082		Box 430 Acornhoek 1365	0825091198
Mbeleli Freshmina	470828 0231 188		Box 430 Acornhoek 1365	0720497631
Sistole Arweys	631111 5230 088		Box 111 Mholhoholela 1367	0798143388
Mwambi Alfred	70503 6723 080		Box 45 Mholhoholela 1367	0728811405
Melani Moses	821229 5985 082		Box 153 Acornhoek 1365	0786108329
Melani Nelson	791001 8026 080		Box 496 Mholhoholela 1367	076977506
Melani M. Elson	700406 5356 086		Box 153 Mholhoholela 1367	0797972601
Melani Eric	841021 0880 087		Box 153 Mholhoholela 1367	0793670820
Melani Willy	740111 0308 083		Box 153 Mholhoholela 1367	0781516355
Melani Sibongile	780615 0296 086		Box 608 Mholhoholela 1367	07286091686

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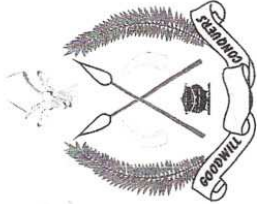


BUSHBUCKRIDGE LOCAL MUNICIPALITY

Regional Office Hluhluwane Region Village Balintjan Trust

FULL NAME	IDENTITY NUMBER	STAND NO	ADDRESS	CONTACT NO.
STANFORD MHLISI	811022 5642 080	—	P O Box 453 KITOKHOUENA	083 540 1085
FELANI QUMBE	280906 0132 083	—	P O Box 453 KITOKHOUENA	073 978 6597
TINTSWAZO SIBUYI	770420 0410 082	—	P o Box 155 KITOKHOUENA	072 8767 131
ZELDA SIBUYI	750215 1203 088	49	P o Box 417 KITOKHOUENA	072 0779 499
NORAH MASWANGANYI	600102 0274 082	—	P O Box 409 KITOKHOUENA	084 2929 054
PONTIHO MASITILE	830109 1127 087	—	P O Box 56 KITOKHOUENA	072 2033 879
ERAFIE MOYANE	751204 0380 087	—	P O Box 409 KITOKHOUENA	072 6946 908
RUTH MICHENTS	831104 1061 089	—	P.O Box 2083 KITOKHOUENA 1367	072 7851 968
ROSLINA NYATHI	480410 0273 185	—	N/A	N/A
ANDRIES MONGOE	760202 7981 188	—	P O Box 422 KITOKHOUENA 1367	072 8033 787
LINDINE NYATHI	790615 1097 087	—	P o Box 422 KITOKHOUENA 1367	079 4068 438
ESTHER MHLISI	660306 0412 082	—	P o Box 233 KITOKHOUENA 1367	N/A
LOUISE NYATHI	590213 0253 182	—	P o Box 422 KITOKHOUENA 1367	082 3943 809
SONIA MHLONYI	801203 0992 081	—	P o Box 210 KITOKHOUENA 1367	072 1422 535
JEANETH MADINDA	630307 0433 182	—	P O Box N/A	N/A
PANEL NYATHI	811023 5399 085	—	P O Box 210 KITOKHOUENA	079 1993 180
PRESCILLA NYATHI	840522 0609 083	—	P O Box 210 KITOKHOUENA	072 1575 548
JULY RIKATSO	790214 5871 089	—	P O Box 422 KITOKHOUENA	079 2255 687
UTILE NOLWU	850804 0898 086	—	P O Box 422 KITOKHOUENA	072 7895 479
NOMISA NACMANE	830507 1166 086	—	P O Box 422 KITOKHOUENA	079 8971 989

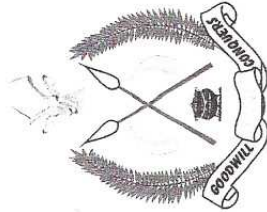
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BUSHBUCKRIDGE LOCAL MUNICIPALITY

Regional Office Village *Bushbuckridge*

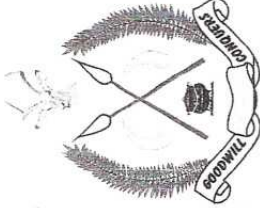
FULL NAME	IDENTITY NUMBER	STAND NO	ADDRESS	CONTACT NO.
ADOLPH Nkomo	780405 5749 084	—	P O Box 458 Kitokitovela	072 9650 121
Carl Phonia Mamebula	780507 0751 089	—	P O Box N/A	076 980 4918
Sami Njorhi	780219 0331 094	—	P Box 458 Kitokitovela	073 0790 399
Daphne Zita	861216 6353 089	—	P O Box 458 Kitokitovela	072 7735 709
Raymond Mbituli	790202 7500 081	—	P O Box 527 Kitokitovela	082 2211 823
Rhuan Mamebula	850403 0699 080	—	P O Box 170 Kitokitovela	078 617 2760
Sandra Kwebi	550227 0530 082	—	P O Box N/A	076 980 4918
Selina Madakula	810603 1235 085	—	N/A	073 2824 089
Marysani Hertzog	930922 0554 083	—	Box 109 Chobovela 1367	072 94166 048
Molomozi Nicolas	760527 5858 086	—	Box 227 Acedvobe 1360	014 2969708
Helelwelo P. P. Pretorius	742111 0498 082	—	Box 399 Acedvobe 1360	078 6815518
Makhelela N. Ezelele	810406 5683 082	—	Box 399 Chobovela 1367	071 1648 487
Riesha N. Raniya	400526 0192 088	—	Box 399 Chobovela 1367	076 17697 82
Nobosi Nomvula	811228 1442 088	—	Box 364 Chobovela 1367	072 4669 741
Mathonsi Mandeshe	270327 0231 083	—	Box 458 Chobovela 1367	071 1113 72
Phoga Amos P.	551011 5722 087	—	Box 382 Chobovela 1367	076 532 8671
Nqobeni Ventana	600402 0385 189	—	Box 118 Chobovela 1367	073 1064 869
Mhosi Costance	800802 0387 088	—	Box 148 Chobovela 1367	073 2931028
Sixhale Antonia	600222 0388 183	—	Box 109 Chobovela 1367	072 9466048
Mabillane Hope T.	810920 0446 087	—	Box 109 Chobovela 1367	072 9466048



BUSHBUCKRIDGE LOCAL MUNICIPALITY

Regional Office Village Trust

FULL NAME	IDENTITY NUMBER	STAND NO	ADDRESS	CONTACT NO.
MNISI ANNEETH	7604210155089	—	Box 37 Krokovela 1367	072 098 6267
LUBISI ARON	7702205993086	—	Box 37 Krokovela 1367	071 392685
MATHI SIBONGILE	8108281351083	58	Box 485 Krokovela 1367	0837403495
SIBUYI MORAH	8111050656086	—	Box 2082 Krokovela 1367	0731071070
MASHABA JOSEPH	6510175839085	107	Box 2008 Acorhoek 1360	0721126817
KUBATI EKSON	8508056076080	—	Box 2083 Krokovela 1367	0761979374
MATHEBULA GIBATI	8502161022089	—	Box 417 Krokovela 1367	0723468275
MHLONGA LINDA	5703190821086	—	Private Bag 422 Acorhoek	N/A
SIBUYI GRACIOUS	8206190637087	—	Box 564 Krokovela 1367	0799212104
KHOSA NOMISA	7704020875084	—	Box 4010 Acorhoek 1360	0762881634
SELEPE KGANAMA	7401280604086	—	Box 4010 Acorhoek 1360	0785782445
MKANSI CHRISTAND	6804041521088	108	Box 20 Hlubutani 1363	08285873489
MASIMKA SALQINA	5811020241188	—	Private Bag 1420 Acorhoek	0784487730
MHLUNGE FIELETA	7806170596186	—	Private Bag 1430 Acorhoek	0781445729
ZITHA SALIA	4010102013187	—	Private Bag 1430 Acorhoek	0737520918
MHLONGA ARGENTINA	7302280822084	—	Private Bag 1420 Acorhoek	0737520918
MHLONGA SUZAN	7905201061085	—	Box 3568 Acorhoek 1360	0785911756
Mqobeni MAFIA	4508080396086	—	Box 3568 Acorhoek 1360	0785911756
Mqobeni LINA	6804031278186	—	Box 3568 Acorhoek 1360	0715015241
MZIMBA PAETHA	8407101267085	—	Box 3568 Acorhoek 1360	0742968708



BUSHBUCKRIDGE LOCAL MUNICIPALITY

Regional Office Village Trust

FULL NAME	IDENTITY NUMBER	STAND NO	ADDRESS	CONTACT NO.
Mogoni M. Moses	750302566083		Box 200 Hlatukani 1365	0784107608
Makula Quadras	251106 0505 086		Box 113 Dholloene 1367	0135662087
Nyathi Chigonia	8702022105 089			020848610
Mathebela Kephale	820501510 158			0727498292
Mtoto Norman	720325 5713 086		Box 37 Kholweneka 1367	0777135580
Dabeni Shadrach	6812115644 181			0169479602
Mathebela Serry	770104 5473 085		Box 705 Acornhoek 1366	0131087654
Mathebela Nontsoani	771017 1289 083			0131087654
Mathebela Velly	830204 5710 086		Box 322 Kholweneka 1367	083 9973804



BUSHBUCKRIDGE LOCAL MUNICIPALITY

Tel no :(013) 799 1851
Fax no :(013) 799 1865

PRIVATE BAG X9308
BUSHBUCKRIDGE
1280

ATTENDANCE REGISTER

SUBJECT : *Budget and finance unit presentation*
DATE : *18 MARCH 2009*
VENUE : *JELINGON*

NAME	INSTITUTION	TEL. NO.	FAX NO.	CELL NO.	EMAIL ADDRESS	
Amelia Misi	TRIPAK MISI MISI MISI MISI MISI MISI MISI MISI MISI			072 0986267		
CHRISTINA Mkas				033 48 98 626		
ESUEA Misi						
EMPHINA Masinga						
Flelela Malune						
Hlenasi Mathebula						
Linah THEHE						
Rosina Nyathi						
ICARETH Mabantja						
ZINA SALIA						
PRETTI Mumbaq						
CARLIFORNIA MYATHI						
Lilly Malele						
Eunice malele						

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Vhellen Mkhongo
Clx *Mau's Mathebula* BLM 079 874 3358
Jelana Malele BLM 013 799 1851 013 799 1865 079 874 3331



BUSHBUCKRIDGE LOCAL MUNICIPALITY

Tel no :(013) 799 1851
Fax no :(013) 799 1865

PRIVATE BAG X9308
BUSHBUCKRIDGE
1280

ATTENDANCE REGISTER

SUBJECT : *Budget and finance unit presentation*
DATE : *18 MARCH 2009*
VENUE : *JELINGON*

NAME	INSTITUTION	TEL. NO.	FAX NO.	CELL NO.	EMAIL ADDRESS	
MADIA Mkhongo	TRIPAK TRIPAK TRIPAK TRIPAK TRIPAK TRIPAK TRIPAK TRIPAK TRIPAK TRIPAK					
MARIA Sibuyi						
MEMORAH Makhutse						
LEHATO MASILE						
MORAH Maswanganq						
GRATIE Moyane						
ANADYS SELEPE						
Florida Makhutse						
Linda Mdlovu						
Loise Nyathi						
PRESCILLA MYATHI						
Nobon ngweni						
ADRIES Mlamco						
PATIE Mkhongo						

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BUSHBUCKRIDGE LOCAL MUNICIPALITY

Tel no : (013) 799 1851
 Fax no : (013) 799 1865

PRIVATE BAG X9308
 BUSHBUCKRIDGE
 1280

ATTENDANCE REGISTER

SUBJECT : BiFuel and forix unit presentation
DATE : 18 MARCH 2009
VENUE : SELING TOWN

NAME	INSTITUTION	TEL. NO.	FAX NO.	CELL NO.	EMAIL ADDRESS
Cynthia Makhado	MUNICIPALITY AUTHORITY				
Deligent Nyathi					
Enly Sibuye					
Etsot Ndlovu					
Nicolas Molano					
Norman Mloto					0827135580
Flestinina Mkhali					
Argentina Makhobane					
Gracious Sibuyi					
Aron Lusisi					0713492685
Tolerance Khosa					
Amangess Sibuyi					
ZALDA SHAI					
Alort Makhobane					

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BUSHBUCKRIDGE LOCAL MUNICIPALITY

Tel no : (013) 799 1851
 Fax no : (013) 799 1865

PRIVATE BAG X9308
 BUSHBUCKRIDGE
 1280

ATTENDANCE REGISTER

SUBJECT : BiFuel and forix unit presentation
DATE : 18 MARCH 2009
VENUE : SELING TOWN

NAME	INSTITUTION	TEL. NO.	FAX NO.	CELL NO.	EMAIL ADDRESS
STANFORD Mkhosi	MUNICIPALITY AUTHORITY	0739700399		083 540 1085	
KHULANI MATHEBUSA		0785911756		078 617 2760	
BONGI MATHEBUSA		0785911756		012 466 9741	
NOPIWKA NKOSI		0715015341		072 2609 686	
SIBONGILE NDLOVU				073 2924 089	
EELINA MARGA				072 466 9741	
SARAH KWENI				072 466 9741	
DUONDIANI MATHEBUSA				078 109 7654	
PRESEN7 HLOTHWAYE				078 6815515	
EZEKIEL Makhobane				0833441538	
CUPH Makhobane				079 5916 805	
ALFRED Ndlovu				0728811405	
KAYUMAL Mkhobane				0822211825	
ADDIPH Mkhobane				072 2650 121	

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BUSHBUCKRIDGE LOCAL MUNICIPALITY

Tel no : (013) 799 1851

PRIVATE BAG X9308

BUSHBUCKRIDGE

1280

Fax no : (013) 799 1865

ATTENDANCE REGISTER

SUBJECT : *Biofuel and tennis unit presentation*
 DATE : *18/3/2009*
 VENUE : *Islington*

NAME	INSTITUTION	TEL. NO.	FAX NO.	CELL NO.	EMAIL ADDRESS
NOBISANGOMANE	<i>Isington</i>			0799719894	
FELANI D. GUMBE				073 978 6597	
LINDILE MASA NYALI				0794 068438	
MKHANI NOKES				078 6108309	
RANDI RUTLEY				0791993180	
LILLY RIKHISO				0727395479	
SWOETHE MATHIBI				0727395479	
SONIA MHLAUKU				0721622535	
NICOLA SMOGANO				076947976	
SHADRACK NGOVENI				0727395479	
FRANCIS ZIYA				0727198999	
RAPHAEL MATHEBULA					
FRANSINA ZIYA				0727125709	
AGRETHA MHLAUKU				076947976	
Ventana ngobeni					

12.13. ANNEXURE 13: BENEFICIARY LIST: BURLINGTON



BUSHBUCKRIDGE LOCAL MUNICIPALITY

Regional Office ACORNHOEK Village Burlington

Biofuel and fenix unit

FULL NAME	IDENTITY NUMBER	STAND NO	ADDRESS	CONTACT NO.
SHADRACK				
Mathabula Shadrack	740671 5376080	←	Private bag X430 Sesete	0766571607
Mandlalu Dina	730815 1151 081	←	Private bag X430 Sesete	0711658407
Mathabula Dina	570202 0299 182	←	Private bag X430 Sesete	
Maria Regina	7203120618050	←	Private bag X430 Sesete	078 8106771
Mammane Julia	7606090312 080	←	Private bag X430 Sesete	0837602788
Mathabula Christina	521219 0337 083	←	Private bag X480 Sesete	0735951798
Maretha Selina	820403 0268087	←	Private bag X430 Sesete	083 5385234
Malingana Silueta	800314 0374 180	←	Private bag X430 Sesete	0764563373
Marylise Victor	790609 5973 187	←	Private bag X430 Sesete	0764563373
Malajie Gladness	7830780824084	←	Private bag X430 Sesete	072 0662328
Monaeng Mari's	860714 1182 083	←	Private bag X430 Sesete	0765251820
Mahlala Leisy	670305 0506 085	←	Private bag X430 Sesete	083 99446085
Mdubane Lini	5709255868086	←	Private bag X430 Sesete	0829867949
Church of Nazarene			Private bag X430 Sesete	
Eastern District	6104010812083		P.O. BOX 15 Thula	0829586692
Mgwenya Zanile	8205070503082		P.O. BOX 427 Khotlhabela	0788554648
Meyweny Eunice	820113 0847086		Private bag X430 Sesete	0730466621
Sethwane Esau	741117 5409 087		Private bag X430 Sesete	0765007296
Khumalo Manalla	720302 5876 080		Private Bag X 410 Maphela	0739609794

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BUSHBUCKRIDGE LOCAL MUNICIPALITY

Regional Office ACORNHOEK Village BURLINGTON TRUST

FULL NAME	IDENTITY NUMBER	STAND NO	ADDRESS	CONTACT NO.
NJATHI SIMON	7906067112 087		BURLINGTON	0726900143
RAMSON MASELO	6110225368084		BURLINGTON	0720114935
MINISI MONICAH	7501011559085	2	BURLINGTON	072 4128401
MATHEBULA EXCELLENT	870822 8523083		BURLINGTON	072 3417081
MASEKO HAYISEFA	8712085840082		BURLINGTON	072 7984104
BERICK MHLONGO	6701035692 0823		BURLINGTON	082 6953343
LUY MASEKO	6501020490083		BURLINGTON	0720114935
MANZINI PAT	8507175866082		BURLINGTON	0736755892
MGIBA BORDITH T	560601 0321 080	←	BURLINGTON	0724918675
MANZINI VICENT J. B.	790316 5387 087		BURLINGTON	0760735562
MALAMU	5611075382 084		BURLINGTON	
CHILDANE EVANCE	830127 5605 081		BURLINGTON	0747285521
DIBALDANE WILLIAM K.	441207 5382 088		BURLINGTON	0849170834
MOCODANE LALEAH	280403 0168 085		BURLINGTON	0849170834
KHOZA ARON	6909305406 080		BURLINGTON	071150347734
MATJIE MATSI ELSIE	540506 0710 080		BURLINGTON	0724609764
MATJIE RESIE M.	2711230139 083		BURLINGTON	0763429839
THELO JESTHER	4603020374 085		BURLINGTON	082 5390319
NBLOU FLOJIB F.	860305 6866 083		BURLINGTON	0724481145
NBLOU LUCAS	8809225828082		BURLINGTON	0839438585

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BUSHBUCKRIDGE LOCAL MUNICIPALITY

Regional Office ACORNHILL Village BURLINGTON TRUST

FULL NAME	IDENTITY NUMBER	STAND NO	ADDRESS	CONTACT NO.
MPAZIMA COLLEN	71090459523080		BURLINGTON TRUST	0729502252
NTHANE SINDILE BOY	7504056855088		BURLINGTON TRUST	0843852006
LOWRENCE SELEPE	7111175424082		BURLINGTON TRUST	
MAABANE SIDWELL	7512135517081		BURLINGTON TRUST	
MBUBANE NOMSA S.	7302020710086		BURLINGTON TRUST	0825970453
MTIOMBENI CABBIA	7802026574089		BURLINGTON TRUST	0789003466
MAHLAKE STANFORD	7706195267088		BURLINGTON TRUST	0723130197
FAKUNE EDDY	840707677090		BURLINGTON TRUST	0723907027
MATHEBULA CALVIN	7809065729086		BURLINGTON TRUST	0834971866
MIKANSI MIBONDSI	3402105148089		BURLINGTON TRUST	
CHILOANE ECKSON	5604165248083		BURLINGTON TRUST	0725970313
MADDAH RECKSON KHISA	7508275554082		BURLINGTON TRUST	079115199
NUKERI MANSY S.	7306020374082		BURLINGTON TRUST	0766650625
MNISI MASOME	6703145611086		BURLINGTON TRUST	0725189050
KUBAJI MNYENYIMA LILY	6102100728086		BURLINGTON TRUST	0765798019
SECKE BEUTY	6302250684085		BURLINGTON TRUST	0795953244
SECKE JABU MANDLA	8408045991088		BURLINGTON TRUST	0744250846
MOKHOLE DIFFERENCE	7907025855080		BURLINGTON TRUST	0744250846
MOJANE GLENDA	8202110652082		BURLINGTON TRUST	079593244
MPAZIMA WILBERT M.	6102015519083		BURLINGTON TRUST	

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BUSHBUCKRIDGE LOCAL MUNICIPALITY

Regional Office ALCONYHOEK Village BURLINGTON TRUST

FULL NAME	IDENTITY NUMBER	STAND NO	ADDRESS	CONTACT NO.
ISELA FORTUNATE	7903100373081		BURLINGTON TRUST	0765525895
NGOBENI GRACE M.	6312030922085		BURLINGTON TRUST	
NITHANE CONFIDENCE A.	7509160432087		BURLINGTON TRUST	0727690275
NITHUMBENI SHADRACK	7504195356088		BURLINGTON TRUST	083315923
MASHIGO LINEY C	770715 0394081		BURLINGTON TRUST	0836154180
SINELANE LOSINAH	800302 0884082		BURLINGTON TRUST	0836658796
MOKOENA UJINAH C.	7801190490080		BURLINGTON TRUST	0729931675
MHLABA THULI	8610250817085		BURLINGTON TRUST	0760669607
NGOBENI CIMDY	8502180752088		BURLINGTON TRUST	0729675480
KHOZA M. EPHRAIM	420522 5222083		BURLINGTON TRUST	0822210219
MZUKULA REMEMBER	8009165528087		BURLINGTON TRUST	0826903011
MOTHEBULA SILORENCE	7603030443083		BURLINGTON TRUST	0731691795
MDLULI VIOLET P.	710113 0851081		BURLINGTON TRUST	0767689203
Kubayi Hicett Amah	811175699085		Burlington Trust	0726694546
Kubayi busiswe	8609231061086		Burlington Trust	0846403976
Kubayi Iruia	7469035680086		Burlington Trust	
Chibane Mofhelela	780607364081		Burlington Trust	0735076324
Zwane Irene	6801100916084		Burlington Trust	

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BUSHBUCKRIDGE LOCAL MUNICIPALITY

Tel no : (013) 799 1851

Fax no : (013) 799 1865

PRIVATE BAG X9308

BUSHBUCKRIDGE

1280

ATTENDANCE REGISTER

SUBJECT : Biofuel e-demonstration
 DATE : 18/03/2003
 VENUE : Burlington White G.

NAME	INSTITUTION	TEL. NO.	FAX NO.	CELL NO.	EMAIL ADDRESS
Khenshi Ngweni	0780360605 ✓	0780360605			
Julius ndabukuba					
Sindile ngweni		0738436672			
Salfinah ndabukuba		0721999610			
Precious ngweni		0148729214			
Mikias habeni		0737179489			
Linh ndabukuba		0835137146			
Pravinah moya		0720227686			
Lulu Gumede		072473711			
Jerry maphosa		0737012325			
Dineo motlake		0718603400			
Judith mabokela		0735622530			
Mevis ndabukuba		0723417872			
Ailinh moeng					

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 498
 505



BUSHBUCKRIDGE LOCAL MUNICIPALITY

Tel no : (013) 799 1851

Fax no : (013) 799 1865

PRIVATE BAG X9308

BUSHBUCKRIDGE

1280

ATTENDANCE REGISTER

SUBJECT : bioguel and tenix unit presentation
 DATE : 18/3/2009
 VENUE : Burlington

NAME	INSTITUTION	TEL. NO.	FAX NO.	CELL NO.	EMAIL ADDRESS
Sylvia maise	BURLINGTON			073 6321 808	
Rene Setuare				073 9902865	
Christina marini				073 595 7799	
Betty makwaga				083 2064977	
Gibril manzin					
Daina Sibuyane				082 621 9953	
Sibuyane maise				082 6101352	
Etume maise				079 631 8762	
Pages mjiba				079 630 4668	
Joyce Matheku					
Lizzi Matheku					
Alphabel mabisa					
Sophie mabu					073 9911102
Vijini maseko					
Cathrine Gumede				072 9779701	
Gift Gumede				072 4707094	
Proce Sibuyane				082 621 9953	
Lindwe mawumele				082 25 70366	
Suniso mawumele				078 78 56 825	

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BUSHBUCKRIDGE LOCAL MUNICIPALITY

PRIVATE BAG X9308
BUSHBUCKRIDGE
 1280

Tel no : (013) 799 1851

Fax no : (013) 799 1865

ATTENDANCE REGISTER

SUBJECT : *biopyel and femur unit presentation*
DATE : *18/3/2009*
VENUE : *Burlington*

NAME	INSTITUTION	TEL. NO.	FAX NO.	CELL NO.	EMAIL ADDRESS
Sibongile Gibi		073 45 17157			
Elliott Mashobane					
Agnes Ngobeni					
Megaquele Juore					
Mathebula Ikalele					
Mathebe Kapetso					
Hakutula Tembher		082 69 03011			
Hakutula Adolf		073 59 48 296			
Mtshinga Golisie					
Sibiyah Eveh		072 46 94 215			
Mathegome Eunice					
Matheke Mthunzi		083 952 1769			
Matheke Nossie					
Matheke Sibuyi					
Matheke Hlabane		084 666 3414			
Matheke Hlabane		079 8107 678			
Matheke Selepe		076 16 54 8910			
Matheke Mvedya					
Matheke Lindi		013 2939 406			

Helton	Metallic	0724 617 8793
Gloria	Nobara	079 6028 905
Nicolee	Fuotele	071 4659 920
Loey	Washara	076 7577 952
B.bergo	Neeraga	076 5858 220
Seeboss	Minisi	077 5445 147
Predios	Shakama	083 610 7256
Roseley	Methobala	
Sophling	Ntselaka	
Lilly	Kubayi	
Lilise	Mchatsvwa	
Antonette	Mutuli	079 8030 717
Rhena	Makumb	074 6664 309
Bouty	Sedee	074 625 0846
Diana	Molala	072 4277 584
Mallicord	Shakama	078 9196 902
Joyce	Ndlovu	072 7260 816
Elgie	Molale	082 6726 514
Cynthia	Hlabakhego	052 6552 840
Deline	Melwanda	076 7300 875
Loisi	Muriele	084 615 8100
Winstel	Mabelene	072 50 3 5507
Emmanuel	Sumbro	077 4257 504
Glen	Mphahla	076 7871 262
Fosling	Mabaso	

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BUSHBUCKRIDGE LOCAL MUNICIPALITY

PRIVATE BAG X9308
BUSHBUCKRIDGE
 1280

Tel no : (013) 799 1851
 Fax no : (013) 799 1865

ATTENDANCE REGISTER

SUBJECT : *brochure and tenix unit presentation*

DATE : *18/03/09*

VENUE : *Bushbuckridge*

NAME	INSTITUTION	TEL. NO.	FAX NO.	CELL NO.	EMAIL ADDRESS
ESTEE THE KO				074 451 567	
Abilade NTHALI				076 6226588	
Grace MNUU				073 3372353	
Marnes Chipwene				071 2302052	
Jane Mkeni				073 7787274	
Agnes Nqobeni				072 3177288	
Godinas Malibou				073 6290870	
Eric Sibuyi				073 8358934	
Sidney Makhubele				076 9825954	
Sam Mkhomeni				073 5679421	
ESTEE Belayi				079 9356590	
Lineliwe Ngqothi				078 4610302	
Lupher mntsi				079 2159222	
Nlegret Makhelaba					



BUSHBUCKRIDGE LOCAL MUNICIPALITY

Tel no :(013) 799 1851
Fax no :(013) 799 1865

PRIVATE BAG X9308
BUSHBUCKRIDGE
1280

ATTENDANCE REGISTER

SUBJECT : Bio fuel and farm unit presentation
DATE : 18 March 2009
VENUE : BLM - Bushbuckridge

NAME	INSTITUTION	TEL. NO.	FAX NO.	CELL NO.	EMAIL ADDRESS
Beatrice Mtshali					076 21471298
Lucy Mtshali					-
Arment Mtshali					082 2675228
Florence Mtshali					076 1402323
Jolanda Klose					-
Leah Ngweni					078 7367408
Spandau Mtshali					076 6971039
Mendo Moxuku					079 6072182
Debra Siwaga					083 9284950
Lizzi Ngweni					-
Alex Mtshali					072 4609764
Aqes Klose					076 9755341
Natasha Mtshali					-
Addey Mtshali					072 290707

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BUSHBUCKRIDGE LOCAL MUNICIPALITY

Tel no :(013) 799 1851
Fax no :(013) 799 1865

PRIVATE BAG X9308
BUSHBUCKRIDGE
1280

ATTENDANCE REGISTER

SUBJECT : Bio fuel and farm unit presentation
DATE : 18 March 2009
VENUE : Bushbuckridge

NAME	INSTITUTION	TEL. NO.	FAX NO.	CELL NO.	EMAIL ADDRESS
Noniso Mtshali					076 6335690
Marta Mtshali					-
Pratty Chilane					072 1628698
Margret Chilane					079 1463534
Pedro Mtshali					073 5038998
Petunia Ngweni					072 21471298
Poliso Mtshali					074 7449981
Judith Chilane					-
Regretta Siwaga					-
Elhan Mtshali					-
Sulia Moxuku					0713855027
Clenny Mtshali					-
Tebogo Moxuku					071 2602788
Patricia Moxuku					-

Johanna Malebana BLM 0137991851 0137991865 0798743331 komamo@webmail.co.za

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BUSHBUCKRIDGE LOCAL MUNICIPALITY

PRIVATE BAG X9308
BUSHBUCKRIDGE
 1280

Tel no : (013) 799 1851

Fax no : (013) 799 1865

ATTENDANCE REGISTER

SUBJECT : *Biofuel and family unit presentation*
DATE : *18/03/09*
VENUE : *Bushbuckridge*

NAME	INSTITUTION	TEL. NO.	FAX NO.	CELL NO.	EMAIL ADDRESS
<i>Anna Mashile</i>					-
<i>Nelisiwe Sifunde</i>					<i>078 3236262</i>
<i>Zethesi Monareng</i>					<i>072 5659009</i>
<i>Pepiso Suke</i>					<i>079 9799827</i>
<i>Lindiwe Mankubela</i>					<i>072 5180197</i>
<i>Merle Mabane</i>					-
<i>Makhen Makhulu</i>					-
<i>Firah Thabane</i>					-
<i>Firah Suke</i>					-
<i>Nqaphu Nketeke</i>					<i>078 8309251</i>
<i>Shadrine Mavule</i>					<i>079 32648256</i>
<i>Keelbome dibekwane</i>					<i>072 1991073</i>
<i>Keelbome Chibane</i>					-
<i>Iris Mabane</i>					-



BUSHBUCKRIDGE LOCAL MUNICIPALITY

Tel no :(013) 799 1851

PRIVATE BAG X9308

Fax no :(013) 799 1865

BUSHBUCKRIDGE
1280

ATTENDANCE REGISTER

SUBJECT : Bio-fuel and tennis unit presentation
DATE : 18/02/09
VENUE : Bushbuckridge

NAME	INSTITUTION	TEL. NO.	FAX NO.	CELL NO.	EMAIL ADDRESS
Costance Manguke	BUSHBUCKRIDGE				072 4490818
Marcia Chitanga					076 3853364
Kubie Chitanga					076 31013494
Iraniia Malumabe					073 4504828
Eva Manguke					-
Spudness Manguke					-
Kaister Manguke					-
Lejole Manguke					079 9097351
Ngah Malule					073 0783519
Kiley Manguke					-
Bellwisa Manguke					079 0846888
Lucas Kloze					078 1790621
Eneth Matjie					-
Peter Matjie					-
Ina Sembo					071 5169542

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BUSHBUCKRIDGE LOCAL MUNICIPALITY

Tel no :(013) 799 1851

PRIVATE BAG X9308

Fax no :(013) 799 1865

BUSHBUCKRIDGE
1280

ATTENDANCE REGISTER

SUBJECT : Bio-fuel and tennis unit presentation
DATE : 18/02/09
VENUE : Bushbuckridge

NAME	INSTITUTION	TEL. NO.	FAX NO.	CELL NO.	EMAIL ADDRESS
Grenny Malimo	BUSHBUCKRIDGE	0765492043			
Mono Matheba		0738908865			
Enny Malupi		0732341906			
ELPES Sibuyi		0732855217			
Oscar Mashike		0833151829			
Grace dibakwane		0949571342			
Attentio Mthale		0729329130			
Dubry Ndlovu		0787579821			
Polina Sibuyi		0786591194			
Clifford Sibuyi					
Busisiwe Ndlovu		0840508802			
Nidah Manguke		0720477723			
Dumakule Manguke		0730216178			
Malope Tumbel		0786754470			

Felto Malcedo
 Letta Ngoben
 Agnes Ngoben
 Leidy Mhala
 Kaizer Moropara

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BUSHBUCKRIDGE LOCAL MUNICIPALITY

Tel no :(013) 799 1851
Fax no :(013) 799 1865

PRIVATE BAG X9308
BUSHBUCKRIDGE
1280

ATTENDANCE REGISTER

SUBJECT : biofuel and ferix unit presentation
DATE : 18/03/09
VENUE : Burlington

NAME	INSTITUTION	TEL. NO.	FAX NO.	CELL NO.	EMAIL ADDRESS
Sarah Mhema	BURLINGTON				-
Sibongile Mhlale					073 4705118
Furica Mlawanya					073 04060621
Estence Maki					079 0811703
gledys mkeni					072 6912899
Thembi Mhweni					076 7675333
Sizeloh, Mathebula					073 8422728
Auphelia Matjie					072 1398781
Busisiwe Mathebula					0792420280
Sani Mathebula					-
Asenati Ndlovu					-
Festine Mkeni					072 727281
Ishmael Thabane					078 7367468
Julia Malimane					078 7602788

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Busisiwe Mhusi
Gnest Mashigo
golden Masepane

079 0831234
074 8842421



BUSHBUCKRIDGE LOCAL MUNICIPALITY

Tel no :(013) 799 1851
Fax no :(013) 799 1865

PRIVATE BAG X9308
BUSHBUCKRIDGE
1280

ATTENDANCE REGISTER

SUBJECT : biofuel and ferix unit presentation
DATE : 18/03/09
VENUE : Burlington

NAME	INSTITUTION	TEL. NO.	FAX NO.	CELL NO.	EMAIL ADDRESS
Happiness Lakeri	BURLINGTON				079 422131
Irini Mabane					-
Rambon Masere					-
peppy Nzimabeni					-
Mhlamandiso Mathebula					073 7716181
Lizzy Mathebula					-
Phulani Mathebula					072 4151728
pretty Mkhatho					-
Albertina Mkhongo					078 0875381
Osie Tsetse					-
Linet Kloze					084 3059129
Gertrude Mathebula					072 5894957
Learn Kloze					079 1919120
Muprista Maryka					076 9816755

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BUSHBUCKRIDGE LOCAL MUNICIPALITY

Tel no : (013) 799 1851

Fax no : (013) 799 1865

PRIVATE BAG X9308

BUSHBUCKRIDGE

1280

ATTENDANCE REGISTER

SUBJECT : bisfuel and fenix unit presentation
 DATE : 18/3/2015
 VENUE : Burlington

NAME	INSTITUTION	TEL. NO.	FAX NO.	CELL NO.	EMAIL ADDRESS
Enisa Chosa					
Ayi Nankh Mabin					
Emelina Mabin		072911169			
Agnes Ntshane		0829995900			
Judith Mabusela		0835248109			
Virginia Ntshane					
Joyce Ntshane		082 603 1000			
Mummsy Mabin		072 672 5663			
Geina Sibuyani					
Agne Ntshane					
Pinky Chibane					
Sandra Mabusela		074 8910501			
Sekoy Sekoye					
Muri Culumkwa					
Flora Malatjie		076 8304869			
Nomative Sedice		079 6348402			
Marian Mpangano		072 3859504			

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BUSHBUCKRIDGE LOCAL MUNICIPALITY

Tel no : (013) 799 1851
 Fax no : (013) 799 1865

PRIVATE BAG X9308
BUSHBUCKRIDGE
 1280

ATTENDANCE REGISTER

SUBJECT : biofuel and ferix unit presentation
DATE : 18-03-2009
VENUE : Burlington

NAME	INSTITUTION	TEL. NO.	FAX NO.	CELL NO.	EMAIL ADDRESS
Alfred Malinge	Burlington			07626976726	
Aleta Gumede				-	
Chris Gumede				0715015312	
Sibongile Chilongo				0720789787	
Mathabula Nkomo				0730223429	
Ephraim Gumede				-	
Selma Gumede				0783172802	
Lizzy Dibakwane				0785055585	
Ukone Mhlangane				079759030	
Mathabula Tsakani				0762633388	
Fikwe Maphosa				0799569013	
Lizzy Mathe				0726112863	
Eme Khosa				-	
Francina Mathabula				0784632998	
Francine Sibani		0770356351			
Beth Hlatshwayo		0820465060			
Petunia Dibilone		0839569400			
Ruth Mkhabela		0720360130			
Dusy Nthane					

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BUSHBUCKRIDGE LOCAL MUNICIPALITY

Tel no : (013) 799 1851
 Fax no : (013) 799 1865

PRIVATE BAG X9308
BUSHBUCKRIDGE
 1280

ATTENDANCE REGISTER

SUBJECT : biofuel and ferix unit presentation
DATE : 18/3/2009
VENUE : Burlington

NAME	INSTITUTION	TEL. NO.	FAX NO.	CELL NO.	EMAIL ADDRESS
Sharonee Gumede	Burlington			0731476196	
Sibongile Mole				0838007225	
Melanie Gumede				0734306150	
Silence Mole					
Benny Mkhoni					
Melanie Segare			0735801522		
Luzie Clarke					0799812156
Hlath Mkhali					0722655777
Flomena Mkhali					0763855027
Vinay Ndlovu					0833551135
Pleasure Chwan					0824895248
Ana Khosa					
Olive Mkhali					
Margie Gumede					0729888081
Shelley Mavume		0793584891			
Rose Kgwele		0799753784			
Ella Kgwele		0720396925			
Gladys Mkhali					

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BUSHBUCKRIDGE LOCAL MUNICIPALITY

Tel no : (013) 799 1851

PRIVATE BAG X9308

Fax no : (013) 799 1865

BUSHBUCKRIDGE

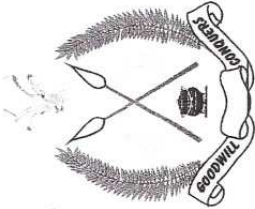
1280

ATTENDANCE REGISTER

SUBJECT : Budget and finance unit presentation
DATE : 18/2/2019
VENUE : Bushbuckridge

NAME	INSTITUTION	TEL. NO.	FAX NO.	CELL NO.	EMAIL ADDRESS
Patricia Senela		079 8145 300			
Nolly Mkonane		073 792 9870			
Zulek Njorhi		079 975 3767			
Lillian Mankhale		073 1269 331			
Constance Mabele		011 3921 572			
Lindine Mabele		073 169 1795			
Evelyn Lubisi		082 2675 226			
Elek Tshoko		076 649 2159			
Jane Mdluli		072 677 1561			
Lucy Sibuyi		072 011 95 091			
Dina Makhatho		073 036 5532			
Jualith Sekotha		078 2560 120			
Noisi Mabhaga		072 0789 787			
Masekela Chulane		082 0478 574			
Pinky Dikokoane		084 917 0834			
Eric Mabele		076 221 0078			
18 Mkatelco Mafhe bula					

12.14. ANNEXURE 14: BENEFICIARY LIST: HUTTINGTON



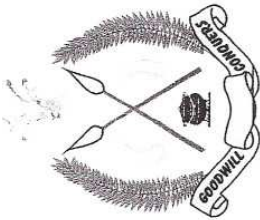
BUSHBUCKRIDGE LOCAL MUNICIPALITY

Regional Office **WILLIAMS** Village **HUNTINGTON**

BID-FUEL AND FERTILISER UNIT.

FULL NAME	IDENTITY NUMBER	STAND NO	ADDRESS	CONTACT NO.
Sizwe Khosa			Huntington	
Siphomkhona				
Buduaile Khosa		307	Huntington	0762655449
Samaleda Khosa		306	Huntington	
Sentay indlu				
Kareki indlu				
Adelf Mkhulu	625507 6123089	363	Huntington	0728926282
Thembindlovu	8002130917087	308	Huntington	0768185081
Peter indlu	800103 5532084	3006	Huntington	079 611 1192
Abel. Pesape, Masi	7916035535000	3181	Huntington	
Kheinda Vuma	710305 1320083	318	Huntington	
LONETONIE KHOSI	740609 5327066	331	Huntington	0786065545
LINDWE SIBUYI	730325 0614 088	348	HUNTINGTON	0833664381
DERACE MSIMANGA	750605 579 087	347	HUNTINGTON	
GREYTON SIBUYI	811108 2702 089	343	HUNTINGTON	0726490807
Sibongile Sibuyi	7307250450089		Huntington	0839462788
WILSON KHOSI	0821225618109	309		
Sophy Mavis Khosik	076629066	305	Huntington	076 4529066
	7809160562085			
Sibongile dlamini	620526066 5087	319	Huntington	

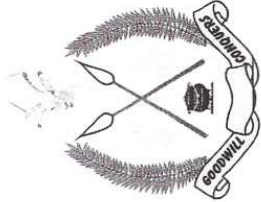
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114.



BUSHBUCKRIDGE LOCAL MUNICIPALITY

Regional Office LLIDALE Village HUNTINGTON

FULL NAME	IDENTITY NUMBER	STAND NO	ADDRESS	CONTACT NO.
dan ngobeni	6803145450087	385 385	P.O. Box 518, Huntington	0795682610
Milton Mduli	811025866088	380	Huntington	0791601709
Anneh ubisi	8105140927086	58	Huntington	0782309705
Honhlanhla Adibuyi	8203041483082	57	Huntington	0782309705
Iyxon Hlatshwayo	5201016445085	346	Huntington	0161975292
Lumothu Zweine	740606907718	313	Huntington	0714219739
Caroline Mthukuzi	7108010357007	31	Huntington	0727767926
Baina Hletwango	6501310828083	52	Huntington	0792363811
Rabi XABA	8503010297183	152	Huntington	0792363811
Lindiwe Mduli	6504051147089	153	Huntington	0728906082
Ubisi Respect	9103146008088	355	Huntington	0713307022
Mambo Nomso	7102210702087	339	Huntington	0113307022
Masabela Richard	671175293089	312	Huntington	0736292379
Masabela Mymsh	6903120653083	35	Huntington	0761064119
Mahlawule Phumle	7501185820088	331	Huntington	0794744597
Mthubulu Innize	7408081634089	330	Huntington	0727767926
Mkhabela Siphic	8310175957086	306	Huntington	0728952451



BUSHBUCKRIDGE LOCAL MUNICIPALITY

Regional Office *7721144LE* Village *HUNTINGTON*

FULL NAME	IDENTITY NUMBER	STAND NO	ADDRESS	CONTACT NO.
Sibuyi Thembu	610707 0130 084	N/A	HUNTINGTON	073 073608
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SIBUYI MARIA	8502 0841 081	169-381	HUNTINGTON	0715196793
GOBANE RATUMA LINDI	660214 0011 088	N/A	11	N/A
NYATHAMBENI AGREEMENT	780726 0510 087	N/A	11	N/A
SENYI ZEMALE BONISILE	770314 0314 085	304	11	078 204440145
SENYI NTOMBIFATHI	8003030 632 083	314	11	078 2086 009
PELEMAE ROMYON	770722 1031 081	352	11	072 8544906
SALAS MBI	N/A	400	11	N/A
SENYI ELIZA	511010 0476 185	392	11	072 6549459
JUBA SI ISAACK	820202 5785 089	394	11	11
KHOZO LISBETH NORTHIKA	880913 0590 082	144	11	078 8145656
MINKI RONA#	980219 0800 088	398	11	076 3363144
NIKONTO KOFFA	850810 6034 089	335	11	N/A
EMMANUEL NAKHISELA	7612 1994 082	384	11	072 2924900 072 9181549
TOMAS VUBSI	N/A	544	11	076 9181582
MATHONYI ALGENTIMAH	720102 1971186	409	11	N/A
TOSHILAN SHIBANIGU	72	214	HUNTINGTON	0764861 444

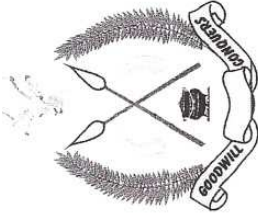


BUSHBUCKRIDGE LOCAL MUNICIPALITY

Regional Office LILLIDALE Village HUNTINGTON

FULL NAME	IDENTITY NUMBER	STAND NO	ADDRESS	CONTACT NO.
1. KHOZA TSHEPO	8406066701088	No.1	P/BAG 518 XIMHUNGWE	0760285669
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3. KHOZA SEBENZILE	7706150380082	320	HUNTINGTON	0824214056
4. PHEMBE ZEPHANIA	7606016116086	390	HUNTINGTON	0824222800
5. MADAKA SOLUJ		397	HUNTINGTON	0761881768
6. GIBANE PHINEAS		340	HUNTINGTON	0785577670
7. MHLONGO MOSES	3704245105083	212	HUNTINGTON	0798219382
8. MHLONGO MARIA	7311260379080	320	HUNTINGTON	0834821840
10. MAMHUBELE MARIA	7710031189084	393	HUNTINGTON	0729957899
11. URSI CARLINA	3801190163186	412	HUNTINGTON	
12. MADAKA NOMSA		413	HUNTINGTON	0796335152
12. CHAUKE JEFFRE			HUNTINGTON	
14. MHLONGO PAUL	4212025133187	236	HUNTINGTON	
15. MADAKA KENNETH	7307156029086	395	HUNTINGTON	0723449449
ZAMILE ISIBUYI	8808261187080	382	HUNTINGTON	0723556130
KESHALE HLATIBATO	7503065406088		HUNTINGTON	0722127669
VENETH FOKOENA		394	HUNTINGTON	
NORMAN GOWI		370	HUNTINGTON	
ELLIANA MADONELA	3602030132087	356	HUNTINGTON	0731997841

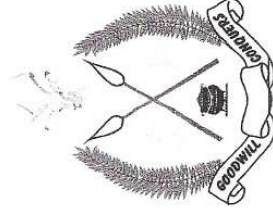
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BUSHBUCKRIDGE LOCAL MUNICIPALITY

Regional Office *LIBELALE* Village *HUNTINGTON*

FULL NAME	IDENTITY NUMBER	STAND NO	ADDRESS	CONTACT NO.
ALBERT LUBISI	840215 5917 080	408	HUNTINGTON	
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ELIAS RUKHOTO	600101 6938 089	407	HUNTINGTON	076 453 0304
EGNEL LUBISI	731010 0815 084	357	HUNTINGTON	07
MAMSI MATHEBULA	600125 0344 080	406	HUNTINGTON	
FLORENCE MALOUHU	59830 0853 081	351	HUNTINGTON	073 44784
DANIEL MATHEWULE	820813 5170 088	314	HUNTINGTON	077 357 6690
ILILI KHOZA	551224 0179 181	353	HUNTINGTON	
PETRUS MATHEWULE	800202 5900 013	350	HUNTINGTON	
SIZANTANA SIIBUYI	700707 1540 183	399	HUNTINGTON	
MINGA MASULUKE	430316 0266 184	401	HUNTINGTON	
ERIC LUBISI	881010 6372 081	404	HUNTINGTON	
PHILIPA LUBISI	800402 6007 082		HUNTINGTON	
JOYCE MOEDENA	6906190 4920 84	340	HUNTINGTON	070 359 9114
NJANIGALUMU SIIBUYI	170220 0258 081	339	HUNTINGTON	072 4159 008
ANNIE MLOLU	791125 0413 016		HUNTINGTON	
ADOLIAN MATHEBULE	440203 1256 182	410	HUNTINGTON	076 953 9906
JOHN MALOUHU	791111 5896 087	406	HUNTINGTON	079 333 3394



BUSHBUCKRIDGE LOCAL MUNICIPALITY

Regional Office *h.7.11.1 DALY* Village *Huntington*

FULL NAME	IDENTITY NUMBER	STAND NO	ADDRESS	CONTACT NO.
Mathabele Elias	4607075249183	334	Huntington	0726507748
Mathabele Steven.H	3401026691084	552	Huntington	0838797314
Moses Mhlongo		337	Huntington	0730749823
Elijah.S.Mhlongo	7406067396087	338	Huntington	0723160936
Mhlongo Ernest	4806045292188		Huntington	0763249896
Mhlongo George	8001036247088	366	Huntington	0767664148
Magagula Lackson	6903056400087	332	Huntington	0714073404
Sibayi Florence.V.	650425079084		Huntington	
Ms Chabangu Kenneth	7407205915085	324	Huntington	
Alednego Motona		323	Huntington	
Nkuna Trass	841130928089	367	Huntington	
Sitole Aaron.M.	6407165322083	368	Huntington	
MOSES Nkuna	2703265170081	365	Huntington	082 240 6229
Khoza Laina.N.	6801080898088	364	Huntington	
Khoza Richard.J.	5A07085543081	333	Huntington	0722368159
Wilson Mashala		322	Huntington	0766576683
Mike Mhlaule			Huntington	0730733899
Amy Nkuna	7604046787083	367	Huntington	072 921 6673

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12.15. ANNEXURE 15: CIRCLE GARDENS

Circle Gardens: a discovery par excellence!

by Pat Featherstone

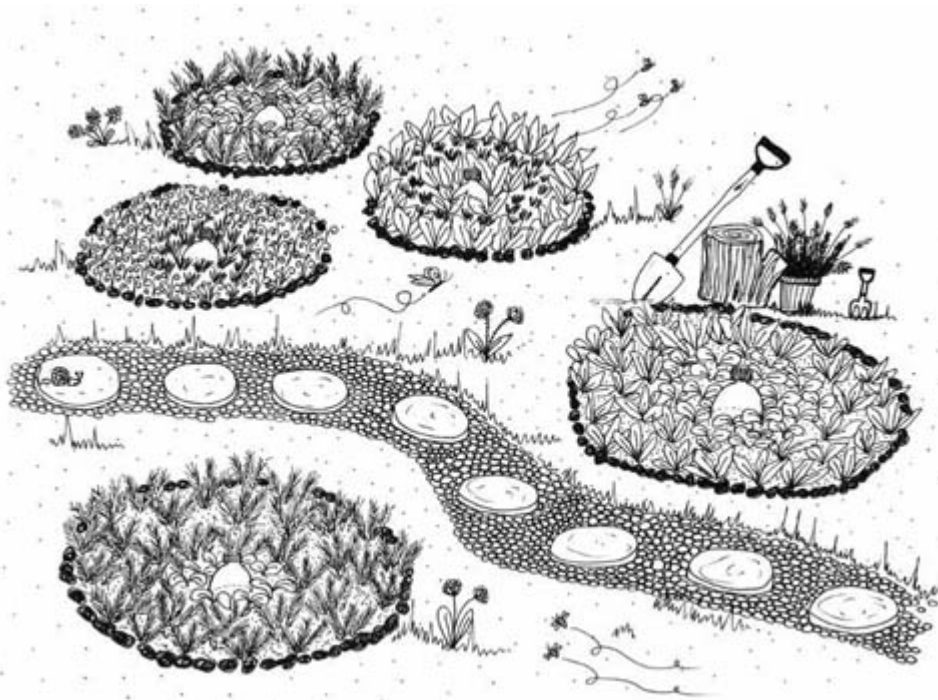
FILED IN: [Green Gardening](#) · [Issue 15](#) · [Soil For Life](#)

Save water and increase production with a new way of gardening. I first read about 'ecocircles' ('circles of cultivation') in a *Land* magazine dating back to 1998. The article was written by Anthony Trowbridge of Applied Natural Sciences at Technikon SA.

In a recent telephone conversation with him he enthusiastically endorsed this way of growing as a means not only to save on labour, but also to provide a unique and simple way of growing large amounts of food in small spaces using very little water.

Not only can the method be effectively used by the home gardener, but it can also be used on a commercial scale, where its low-tech requirements reduce capital costs.

Professor Donald Langham, working in Venezuela, developed the idea of planting in circles instead of growing in straight lines in angular beds as a means of overcoming the difficulties faced by South American farmers; the same difficulties experienced in this country with an ever-increasing prospect of drought and, in some regions, floods, and the loss of precious topsoil.



It affords the home-gardener an opportunity to create interesting garden designs with circular veggie patches arranged along pathways, interspersed with herbs and flowers which serve the multiple purposes of attracting beneficial animal life, providing colour and diversity, acting as companion plants to the vegetable crops, stimulating their growth, acting as natural pest deterrents and creating a feeling of abundance.

There are many benefits of growing in this way:

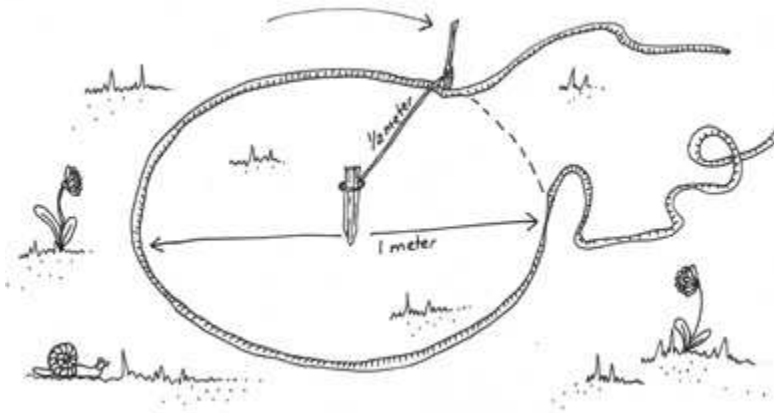
- You can grow lots of food in small spaces. Each circle has a diameter of one metre (or one spade).

In our Resource Centre garden we have been in awe of how much food comes out of one circle. For example, we harvested 3 bunches of spring onions, a bunch of beetroot, 4 lettuces and a whole stack of beans. Total sale value - R60!

Out of another circle - five massive cabbages, interplanted with faster growing radishes and spring onions. We have planted tomatoes, spinach, radishes, lettuces - all sorts of combinations - together, and all have given incredible yields. Nobody could believe the size of our Swiss Chard leaves! Try it for an instant mood lifter.

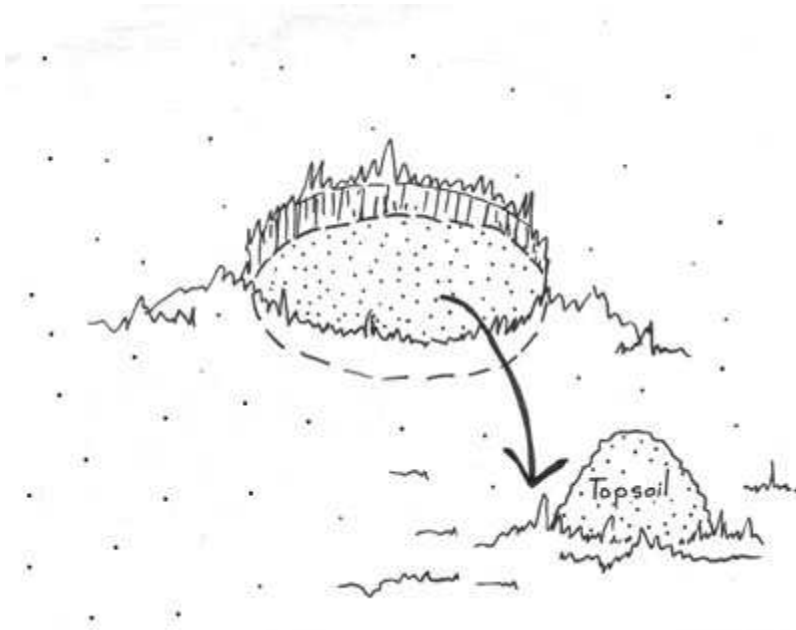
- Raised beds give an increased depth for establishing healthy root systems.
- There is a saving of up to 70% in water usage. Compost (or other organic material) added to the soil as the bed is constructed creates a sponge which retains the water. Mulching prevents evaporation, and the method of irrigating ensures that minimum water is used.
- ‘Ecocircles’ build soil fertility and help to prevent the unnecessary loss of soil to the erosive forces of wind and rain.
- The basin shape of the completed bed funnels water into the centre where it sinks into the soil; it doesn’t run off, carrying precious topsoil with it. In other words, the bed acts as a mini-water- harvester.
- Deep watering encourages good root growth. A strong, well-developed root system will ensure a healthy plant.
- Because it is such simple technology, it costs nothing to implement. Very important in this day and age of prohibitive costs.
- It requires almost nil land preparation. You don’t even need to weed before you start. This means less work for those of us who are not up to wielding a spade.

If you’re ready to give it a go, this is how you go about creating your first ecocircle:

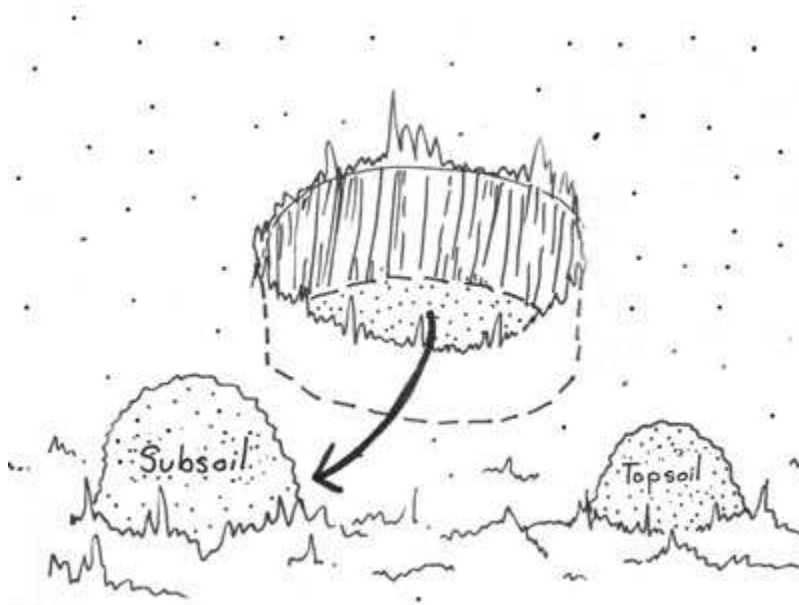


Mark out a circle (1 metre in diameter) on the ground using two sticks and a piece of string. Alternatively, if you are the secret possessor of a hoola hoop, that will suffice to mark out the circle.

Remove the first 20 - 30 cm of topsoil and place in a neat pile next to the circle.



Remove 20 to 30 cm of subsoil and place it in a separate pile next to the circle. The depth of the hole should be 50cm (knee deep).

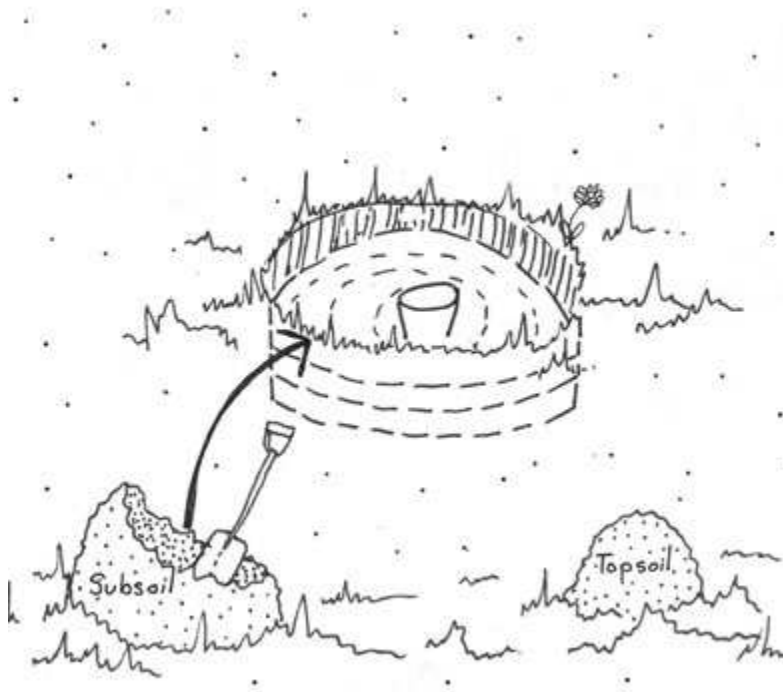


Using a candle and a needle (stick it in a cork to prevent burning your fingers) burn 16 holes in the side of a 2 litre plastic bottle which has a lid. The holes should be arranged in 4 vertical rows as shown above.



Place the bottle at the bottom of the hole, in the centre of the circle. Add a 2 cm layer (one finger) of compost (or well-rotted kraal manure, kitchen waste or dry grass) in the

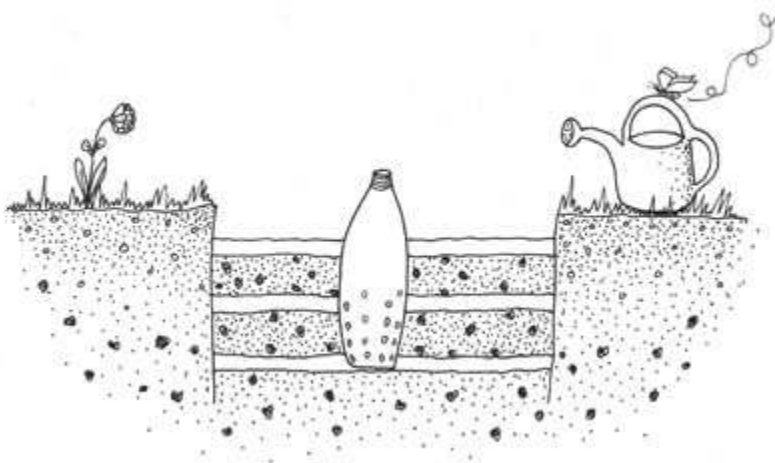
base of the hole and cover this with an 8 cm layer (four fingers) of subsoil. Water these two layers well.



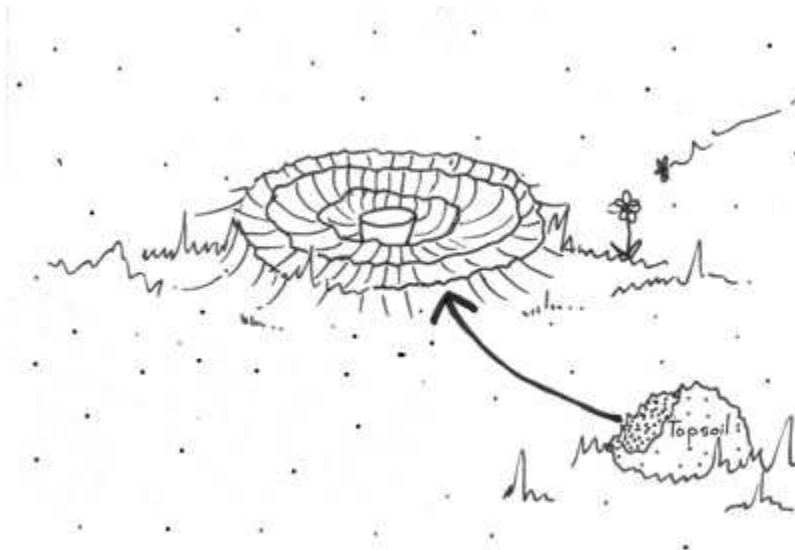
Continue replacing the subsoil, layering it with compost (or the other materials mentioned above) and watering each layer as you go until all the subsoil has been replaced.

By adding organic matter and watering each level in turn a sponge effect is created which will retain water below the surface so that plant roots are encouraged to grow downwards, giving them greater strength. Surface watering tends to make plant roots stay near the surface.

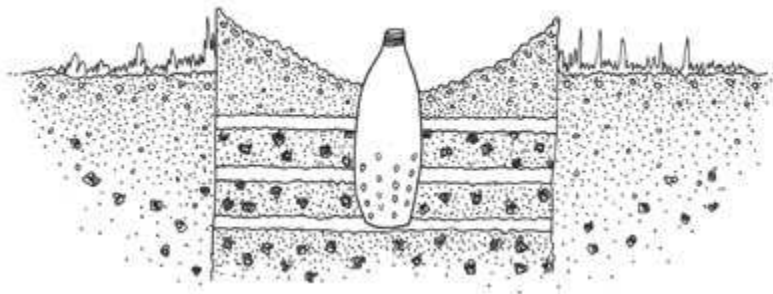
The sponge effect is maintained by the burying of the bottle (or alternatively a tin can with holes in the bottom) into which water can be poured so that all the plants in the ecocircle can be reached with one watering session.



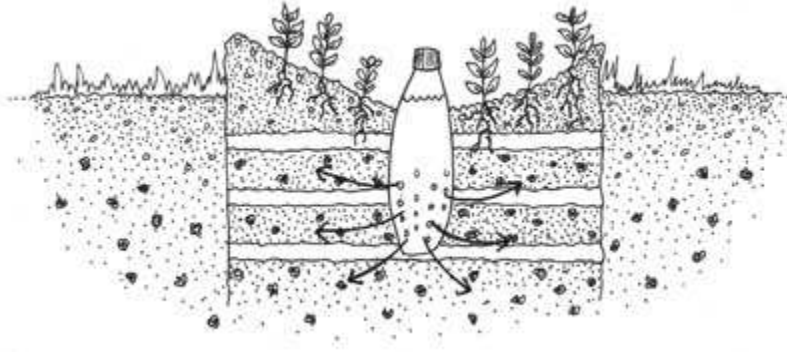
Having added all the subsoil, replace the topsoil. The surface of the bed will be higher than the surrounding ground. This creates a raised circular bed.



Scoop the soil from the centre of the circle to the outside to create a basin with the top of the bottle in the centre.



Mulch the surface of the basin and plant seeds or seedlings on the inside of the ridge, in circles. It is extremely important to keep the beds well mulched as this prevents water loss by evaporation. One bed can accommodate 10 lettuces or 5 to 8 cabbages, or 4 rows of beans or a variety of different crops.



To look after your ‘ecocircle’ there are a few things you need to remember:

- Fill the bottle with water (it is only necessary to do this once a week if the bed is well mulched. This means that you are using only 2 litres of water per bed per week. Tighten the cap and then loosen a little but so that no vacuum is created once the water drips out into the soil.
- In areas of high rainfall, the surface of the bed should be flat to prevent water-logging. In dry areas the basin shape promotes the sinking of water.
- Records on planting and crop rotation can be kept easily and accurately to ensure good soil, and therefore, good plant health.
- Very young seedlings planted in the centre of the circle are protected from wind.

Let us know how you get on with this exciting way of growing. Share your ideas on creating an interesting garden design with these circular beds.

In the next edition of *Biophile* we are starting a series on trees. Wangari Maathai’s work in Kenya - her passion for returning the devastated landscape of her country to its former glory - is inspirational to say the least.

Thom Hartman, in his thought-provoking, life-changing book, *The Last Hours of Ancient Sunlight*, speaks of the death of the trees and the consequences to planetary health and well-being.

I quote - ‘They are the lungs of the planet.’ Yet, ‘forests are imperiled worldwide.’

There is always hope. Start planting trees. Create your own forest - your own lungs, and food, shade, security, dust traps, wind breaks, habitats and much more. Invite life back into your landscape.

It's easy to plant a tree. Modify your 'eco-circle' a little. Make a square hole - 1 metre x 1 metre x ½ metre (1 metre, if you're up to it) deep. Fill it in exactly the same way, burying a ½ metre length of plastic piping instead of the bottle (although a bottle will do).

Create a basin and plant the tree of your choice. Remember, before planting a tree, make sure that you know what size it will be when it's mature so that you can choose the right position. Nurture it, remembering that it will support you in the most unexpected ways. What goes round, comes round.

Go on.

Do it today.

Plan where to put your first. Prepare the hole. Purchase the tree, remembering that each tree should fulfill more than one task in your garden; a multi-purpose plant. Get reading. Go planting. It's the right thing to do.

[Soil for Life](#) is a Cape Town-based NGO which teaches people to grow their own food. For more information about Soil for Life membership, and organic methods for growing vegetables, herbs and fruit, please phone Pat on (021) 794 4982

[Soil for Life](#) runs monthly workshops in Cape Town on all aspects of organic gardening. Book early to avoid disappointment!

SIMILAR ARTICLES

- [Starting a vegetable garden](#) Statistics published in recent editions of community newspapers make the mind balk at the incredible volumes of waste generated by Capetonians – enough, it was...
- [Sheet Mulch Gardening: build your soil the 'no work' way](#) Sheet mulching (or composting) is the simplest, and least labour intensive, method of building the fertility of most soil types and affords the gardener an...
- [Water-wise gardening tips](#) Because gardens are often so water-intensive, it is important to look at the principles of water-wise gardening. Water-wise gardens are also lower maintenance than normal...

5 Comments »

1. HI there

I am a grade 11 student at Carleton High in Carletonville, I have used some of the information of your issue 15 and it has had a great impact (I hope long term) on all the people who read my presentation.

Thank You very much
Natasha Aoun

Comment by Natasha

2. That's fantastic, Natasha — thanks for sharing with us.

Comment by [Steve](#)

3. Biocircles.

I have been growing vegetables in biocircles since 1998 first in Moorreesburg in the Western Cape and then in Walkerville in Gauteng. Mr Anthony Throwbridge gave me some very competent assistance at the time and my unit was very much based on the research done by Dr. Langham in Venezuela.

An article which I wrote on the system was published in the Gauteng Smallholder Magazine way back in 2002 and I am surprised that you have not come across any of my writings on the topic.

I acquired a Bsc in Agriculture at the University of Copenhagen and worked for several years at Zebediela Estates who hired me from overseas as I was fortunate enough to be able to speak Afrikaans, which I learnt in Kenya in the late 40's and early 50's.

Your description of the system is good but I based my research on biocircles that were exactly 1 square meter which meant that my biocircles had a diameter of 1.2 meters. I think your illustrations are very good - could I perhaps use them for my article?

I will gladly e-mail you a copy of my article.

Kind Regards, Anders Reginald Arkner.

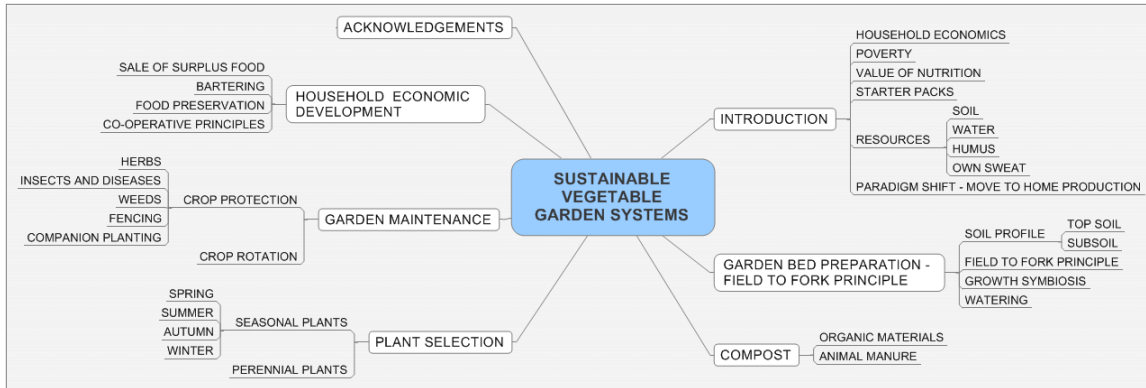
Comment by Reginald Arkner

4. @Reginald: Thank you for sharing. You're most welcome to use the illustrations for your article. If you require high-res versions, it might be best if you contact Pat Featherstone (pat@soilforlife.co.za) as it is her talented daughter who illustrates all the Soil For Life articles.

Comment by admin

12.16. ANNEXURE 16: OUTLINE: SUSTAINABLE HOME GARDENS

SUSTAINABLE VEGETABLE GARDEN SYSTEMS



21 INTRODUCTION

21.1 HOUSEHOLD ECONOMICS

21.2 POVERTY

21.3 VALUE OF NUTRITION

21.4 STARTER PACKS

21.5 RESOURCES

21.5.1 SOIL

21.5.2 WATER

21.5.3 HUMUS

21.5.4 OWN SWEAT

21.6 PARADIGM SHIFT - MOVE TO HOME PRODUCTION

22 GARDEN BED PREPARATION - FIELD TO FORK PRINCIPLE

22.1 SOIL PROFILE

22.1.1 TOP SOIL

22.1.2 SUBSOIL

22.2 FIELD TO FORK PRINCIPLE

22.3 GROWTH SYMBIOSIS

22.4 WATERING

23 COMPOST

23.1 ORGANIC MATERIALS

23.2 ANIMAL MANURE

24 PLANT SELECTION

24.1 SEASONAL PLANTS

24.1.1 SPRING

24.1.2 SUMMER

24.1.3 AUTUMN

24.1.4 WINTER

24.2 PERENNIAL PLANTS

25 GARDEN MAINTENANCE

25.1 CROP PROTECTION

25.1.1 HERBS

25.1.2 INSECTS AND DISEASES

25.1.3 WEEDS

25.1.4 FENCING

25.1.5 COMPANION PLANTING

25.2 CROP ROTATION

26 HOUSEHOLD ECONOMIC DEVELOPMENT

26.1 SALE OF SURPLUS FOOD

26.2 BARTERING

26.3 FOOD PRESERVATION

26.4 CO-OPERATIVE PRINCIPLES

27 ACKNOWLEDGEMENTS