

**Green Support Incentive
Program for
SME in Gauteng
Baseline report**

**Bontle Ke Tlhago Cooperative LTD
(Diepsloot Buy Bag Centre)**

Diepsloot

Date: 14/07/2022

**Prepared by: Manz Engineering
Service**

REPORT

April 2022

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I, **Edmore Manzunzu**, in my capacity as the technical consultant, hereby confirm that I have assessed **Bontle Ke Tlhago Cooperative LTD Diepsloot** and have analyzed and compiled this **Baseline and solar feasibility study**. I confirm the report findings and representative reflections of the current status of **Bontle Ke Tlhago Cooperative LTD Diepsloot**.

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Executive Summary

The report serves as a baseline and solar PV feasibility study for the Bontle Ke Tlhago Cooperative LTD (Diepsloot buy bag centre) in Diepsloot. The report addresses potential Solar PV generation from available roof space and the amount of energy saved. The report serves as a baseline against which any problem areas or gaps in Solar PV installation, process technology, and environmental authorizations are identified. Future performance goals, objectives, targets, and activities can be set based on this baseline report.

IBC, SAM software, and Google Earth were used to simulate the number of solar panels that can be installed on the rooftop and the potential solar energy that can be harvested. The Gauteng Global annual radiation is 2 042.98 kWh/m²/year.

The Bontle Ke Tlhago Cooperative is situated at Diepsloot Buy Bag Centre a facility owned by the City of Johannesburg and managed by Pikitup. The facility is shared by Pikitup and Bontle Ke Tlhago Cooperative. The electricity was disconnected by Eskom due to non-payment of bills, resorting to the use of the solar panel, a battery and an inverter to power the scale only. Bontle Ke Tlhago was not operating in 2020 and 2021 due to disputes with Pikitup. The annual energy consumption for the site is 7,442 kWh at R 27,456. The potential energy savings a year is 12,024 kWh equivalent to R 44,357/year. The project requires an investment of R 221,000 with a payback period of 5years. The CO₂ offset from the use of renewable energy (solar PV) is 12.5 tons a year.

Table 1: Summary of potential solar energy savings and cost

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Building	Capacity (kWp)	Energy Yield (MWh)	No of Modules	Energy Revenue	Capital Cost	TCO 2	Payback
Whole facility	6.4	12,024	20	R 44,257	R 221,000	12.5	5
Totals		12,024	20	R 44,357	R 221,000	12.5	5

The table below shows the equipment required for the installation of Solar PV at Bontle Ke Tlhago.

Table 2: Summary of equipment required, and costs associated

Diepsloot Buy Bag Centre Solar PV raw materials			
Description	Unit cost	Quantity	Total cost
Solar panels (canadian CS1H-320MS)	3,500	20	70,000
Inverter (SMA SB6.01AV-41) single phase	65,000	1	65,000
Lithium batteries 20kWh (Tri power storage 60)	50,000	1	50,000
SMA controller, connecting wires,fuses and other electrical accessories	15,000	1	15,000
Solar installation labour charges	21,000	1	21,000
Total			221,000
Solar energy savings (R/year)			44,357
Payback period (years)			5

1 Abbreviations

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CO _{2e}	Carbon dioxide equivalents
CP	Cleaner Production
Deg. C	Degrees Celsius
FC	Fraction Capacity
HRS	Hours
IPA	In-Plant Assessment
Kj	Kilojoules
Kl	Kiloliters
R/W	Rands per Watt
GDED	Gauteng Department of Economic Development
GHG	Greenhouse Gas
MWh	Megawatt Hour
PV	Photovoltaic
MW	Megawatt
LPM	Liters per minute
M ²	square meters
NCPC-SA	The National Cleaner Production Centre of South Africa
P	Power
QS Assessment	Quick-scan Assessment
R	Rands
SME	Small and Medium Enterprises
GSIP	Green Support Incentive Program
TE	Transfer efficiency
W	Watts

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2 Introduction

This project is an initiative of the Gauteng Provincial government to aid in the economic recovery of businesses still reeling from the devastating impact of Covid-19, which was followed by the July 2021 civil unrest leading to further economic damage in the province.

The program aims to provide financial support for renewable energy implementation in SMEs affected by the economic downturn. The interventions are evaluated for feasibility in terms of estimated investment costs and project financial metrics are applied to evaluate project feasibility.

“The Southern African region, and the whole of Africa, has sunshine all year round. The annual 24-hour global solar radiation average is about 220 W/m² for South Africa, compared with about 150 W/m² for parts of the USA and about 100 W/m² for Europe and the United Kingdom. This makes South Africa’s local resources one of the highest in the world. Most areas in South Africa average more than 2 500 hours of sunshine per year, and average solar-radiation levels range between 4.5 and 6.5 kWh/m² in one day”, www.energy.gov.za.

2.1 Site Solar Energy Resources

The Gauteng Global Irradiation will be used to determine the annual energy yields. SMA Sunny Design website estimates Pretoria’s global annual irradiation at **2,046.98 kWh/m²year**. The daily global irradiation for each month of the year is reflected in figure 1 below

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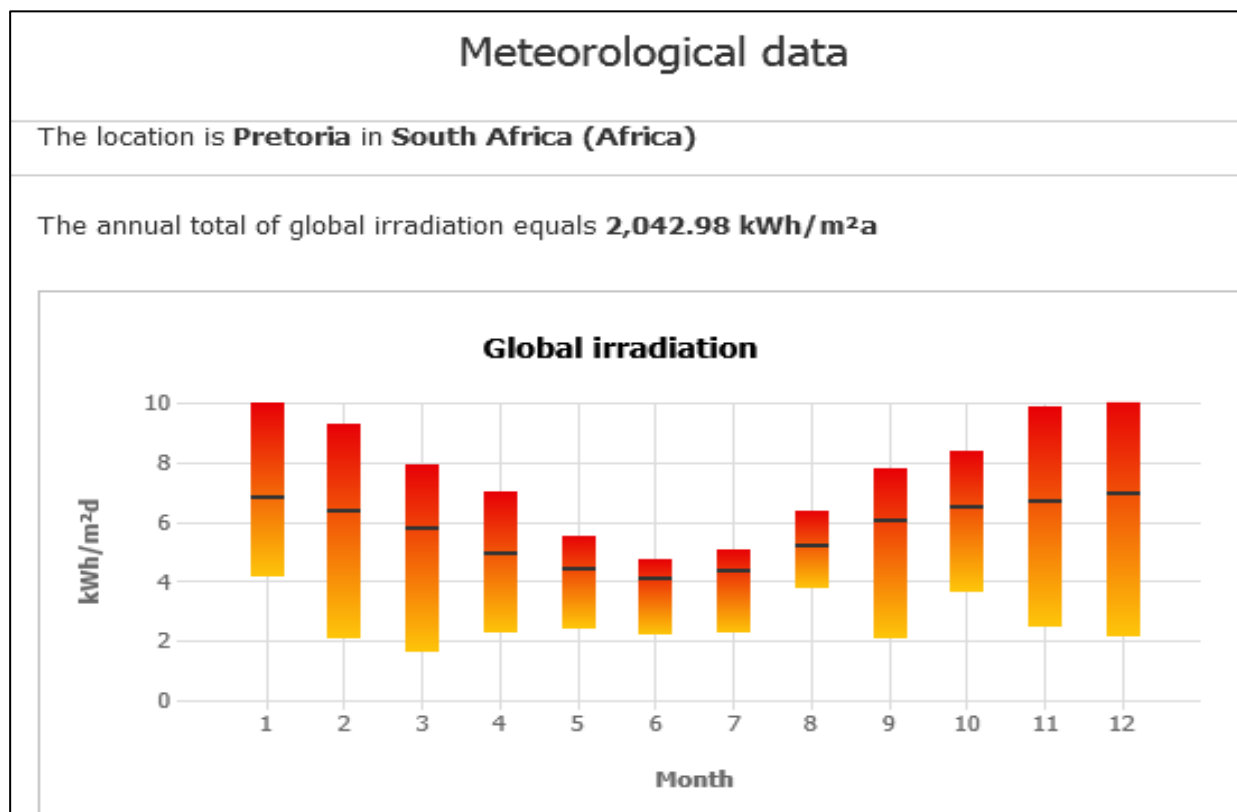


Figure 1: Global radiation data

The global irradiation data for Gauteng is shown above. The months with the lowest Irradiation data are June and July and the highest are November, December and January.

2.2 Project Methodology

Table 3: Project methodology

Step	Action Plan	Purpose and results
1	Plan and organize (walk-through audit and informal Interview)	Resource planning, Organizing instruments and time frame, Macro data collection, Familiarization of process and plant activities
2	Conduct brief meetings with stakeholders	Building up cooperation, awareness creation and issuing a questionnaire

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3	Primary data gathering, a Process flow diagram	Historical data analysis and baseline data collection.
4	Conduct detailed trials for different solar panels, inverters and batteries	Trials on new products available on the market
5	Identification and development of potential value addition products	Conceive, develop, and refine ideas. Review previously suggested ideas and contact vendors for new/efficient technologies.
6	Cost-benefit Analysis	Assess technical feasibility, economic feasibility and prioritization of the most promising projects. Prioritize short, medium and long-term measures.
7	Reporting and Presentation to top management	Documentation and report presentation to top management
8	Implementation and follow-up	Assist and implement recommendation

2.3 Design Resources Used

IBC website was used to place modules on top of the different buildings found suitable for this purpose with Google Earth's help for the buildings' location. The software determines the optimum number of modules that can be placed, hence determining the solar plant's size. Given the operating cost of energy, the software can also determine the annual yields and savings resulting from solar use.

To determine the capacities of the installation and energy yields, the following IBC Solar PV module was used: See table 3 below. A spreadsheet model was used to determine both the technical and financial viability of the project.

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Table 4 Solar PV module specification

Module Name	<i>Canadian solar CS1H-320MS HiDM</i>	
Type of Module	<i>Mono-Crystalline</i>	
Power (STC)	<i>320</i>	<i>W_p</i>
Efficiency	<i>20.9</i>	<i>%</i>
Open circuit voltage (Voc)		<i>V</i>
Open circuit current (Isc/A)	<i>9.5</i>	<i>Amps</i>
Module Orientation	<i>N (6°)</i>	
Module Inclination	<i>20</i>	<i>°</i>

The design's main aim was to determine the maximum energy that could be harvested from the roof of the buildings and operate the buildings with a hybrid system of solar and grid electricity.

Currently, both the Municipality and Eskom are not obliged to buy green energy from IPP (Independent Power Producers). Eskom only buys from grid-scale suppliers as per declared rounds as announced by the Department of Energy and this is an auction process where energy is bought first from the least cost suppliers until the amount of energy required is fulfilled.

Power X is South Africa's first energy exchange (they have the license to buy and sell green energy and trade). The following are the stipulated in terms of the Power-X purchase contracts:

- Any term can be signed 1 - 20 years
- No minimum supply commitments are required (Power-X will buy whatever the generator produces)
- The generator can be located anywhere in the country in an Eskom or municipal area where Power-X has a System agreement.

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- The generator will be paid directly.

The following parameters were used for the economic analysis of the Solar PV plants:

Table 5 Solar PV Economic Analysis Input Variables

<u>Input Variables</u>	<u>Amount</u>
Panel Degradation (%)	0.50%
Discount Rate (%)	10.00%
Maintenance (%)	2.00%
Tariff Increase	15.00%

2.4 Design Criteria

The design concept to be used here is a hybrid solar PV system. It is important to note that during load shedding, when the grid is not available, the hybrid connected PV system will be available to supply the premises until the battery power stored is 20%.

Considering the above points, a distributed design approach was adopted as it offers more benefits from a security point of view (i.e., backup configuration). It also takes advantage of the electrical infrastructure already available (i.e., low voltage electrical panels and smart meters).

It is also important to note that a generator greater than 100 MW requires a license to operate.

3 Company information

Bontle Ke Tlhago Co-operated Limited is a community-based business initiative that wants to address the issue of youth unemployment. The project begins to call on the community to take care of their environment by cleaning it so that they can be proud of where they are from. It is a recycling project that has seen value, in the refuse that is littering our area. The project wants

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to bring something positive out of the garbage that is polluting our land. It is a youth project initiated by youths themselves in Diepsloot. Diepsloot is a township situated in the north of Johannesburg. The co-operative begins to want to address issues of unemployment, poverty and lack of capacity in the community. It aims to see progress and development in the community.

Bontle Ke Tlhago Cooperative LTD specializes in sorting and bailing waste plastics and cardboard. The company buys waste from local people collecting materials around Diepsloot. The main products are plastics (HDP and LDP), cardboard and metals (iron, steel and aluminium). The sorting and bailing operations are done during the day from 7 am to 5 pm. The cooperative employs 10 people. Sorting and bailing are done manually and are labour-intensive operations. Bailing is done into one-ton bags, as the facility does not have electricity



Figure 2: Google map site location

The site area is circled in red. The facility has 2 buildings and 2 office containers. Solar panels can be installed on the Buy bag Centre rooftop.

3.1 Contact details

Table 5: Company information

Company name	Bontle Ke Tlhago Cooperative Ltd Diepsloot
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Address	5969 Solomon Plaatje Street Diepsloot
Phone, Fax	082 646 4214
e-mail	themba.nxumalo1@gmail.com
Website	
Trading since (year)	2007
No. of Employees	10
Contact person:	
Name	<i>Themba Nxumalo</i>
Position	<i>Manager</i>
Phone & mobile numbers	082 646 4214

4 Initial environmental assessment

Bontle Ke Tlhago Cooperative LTD Diepsloot uses an integrated waste management system that encourages waste segregation at the source. The factory-installed energy-efficient lights and Solar PV with battery backup to power the scale only, therefore the need to upgrade it.

Table 6: Rating table

	GOOD	FAIR	POOR
Storm-water			X
Waste separation		X	
Wastewater			X
Solid waste	X		
Air quality		X	
Noise	X		

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	GOOD	FAIR	POOR
Hazardous materials (including intermediates and by-products)		X	
Energy			
Environmental policy			X

Environmental Questionnaire

This section summarizes the plant's current state in terms of wastewater quality, raw materials, air quality, hazardous waste, noise management, and general management of the premises.

Table 7: Environmental questionnaire

Water Quality Management Stormwater Do you know where the stormwater drains on your premises are located? X Yes ☐ No ☐ N/A Do you have any features or procedures in place to prevent stormwater pollution? X Yes ☐ No ☐ N/A Are the stormwater drains around your business free of pollution? (Litter, Sand, metal shavings etc.) X Yes ☐ No ☐ N/A Do you store all equipment, materials and liquids so that spills or leaks could not enter the stormwater system? X Yes ☐ No ☐ N/A	Raw Material Do you know the composition of your materials? X Yes ☐ No ☐ N/A If a supplier was willing to take your waste for reuse, can you guarantee a regular supply? X Yes ☐ No ☐ N/A Do you have a licensed waste transporter to transport: General production waste? X Yes ☐ No ☐ N/A waste chemicals? X Yes ☐ No ☐ N/A liquid wastes? X Yes ☐ No ☐ N/A Air Quality Management
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Do you regularly clean up the surface areas around your premises? X Yes ☐ No ☐ N/A Do you use a broom instead of a hose to sweep and clean up the surface areas around your premises? X Yes ☐ No ☐ N/A Wastewater Do you have a permit from the local water authority (if needed)? X Yes ☐ No ☐ N/A Do floor drains in the work area drain to either a storage tank or directly to the sewer? X Yes ☐ No ☐ N/A Do you use a vacuum cleaner (appropriate to the process) to clean up dust and Sand? X Yes ☐ No ☐ N/A Groundwater Do you know if your site has groundwater under it? ☐ Yes x No ☐ N/A If groundwater is under your site, do you take precautions to prevent pollutants from entering the groundwater? X Yes ☐ No ☐ N/A Noise Management	Do you take measures to prevent dust from leaving your premises? X Yes ☐ No ☐ N/A Do you take measures to prevent fumes and vapour (including odorous emissions) from leaving your premises? X Yes ☐ No ☐ N/A Hazardous Materials Do you store all hazardous materials (such as resins, and catalysts) in a bunded, covered area that will not allow any spilt or leaked materials to enter the stormwater system? X Yes ☐ No ☐ N/A Do you have a Dangerous Goods Licence, if needed? X Yes ☐ No ☐ N/A Do you have all the relevant material safety data sheets (MSDS) and keep them in an accessible place? X Yes ☐ No ☐ N/A Do you have spill-fighting equipment and written procedures? X Yes ☐ No ☐ N/A Management of Premises Have you made any changes to your business for environmental reasons? X Yes ☐ No ☐ N/A
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Do you regularly check and carry out maintenance on noisy equipment? X Yes ☐ No ☐ N/A Have you identified the noise source and taken steps to reduce its effects if you have had noise complaints? X Yes ☐ No ☐ N/A	Do you have an environmental policy or plan? X Yes ☐ No ☐ N/A If you answered no of the questions in this checklist, you could use the information in this package to develop an environmental improvement program that will be good for you, your staff and your customers. Now that you have completed this checklist and identified the areas where you can make improvements: • Read through the environmental information sheets. • Get started on an environmental improvement program that will be good for you, your staff and your customers.
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Note: N/A stands for “not applicable”.

5 In-Plant Assessment Phase

5.1 Pre-assessment Phase (preparation phase)

It is imperative to use the correct rate when performing the economic analysis of the solar PV feasibility study. Since solar energy is only available between 7 am and 5 pm during the day, the effective rate should be determined for this period. This rate was used to calculate an effective electricity rate applicable to the consumption of solar energy. The effective rate was calculated to be **R3.689**, and this is the rate that will be used to perform the Solar PV system's economic feasibility.

5.2 Energy Consumption Trends

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The facility's electricity was disconnected by Eskom, due to non-payment of bills and the facility is shared with Pikitup.

5.2.1 Baseline data

The energy driver for the facility is production tons (number of dispatched bins and tons of bailed products). Due to the unavailability of data (electricity and production) a baseline could not be developed.

6 CARBON INVENTORY

6.1 Scope and Boundaries

Activities taking place within a specific area can generate greenhouse gas (GHG) emissions that occur inside the area's boundary and outside the area's boundary. To distinguish between them, the Global Protocol for Community-scale Greenhouse Gas Emission Inventories (GPC) groups emissions into three categories based on where they occur, as summarised in the following table.

Table 9: Scope definitions for GHG inventories

Scope	Definition
Scope 1	GHG emissions from sources located within an area's boundary.
Scope 2	GHG emissions are occurring because of grid-supplied electricity, heat, steam and cooling within a city boundary.
Scope 3	All other GHG emissions that occur outside a boundary result from activities taking place within the limit, e.g. transmission and distribution losses from grid-supplied energy consumption for stationary energy, emissions from transboundary journeys, and waste streams generated within the city boundary but landfilled or treated outside the city boundary.

Source: GPC

The scope and boundaries of the carbon inventory are defined for the entire facility. As a minimum, the Carbon emissions from on-site electricity consumption will be considered. Electricity consumption data according to the 2019 bills the annual projected energy is 7.4 MWh, and the only resource for which data is available is electricity. Thereafter, estimates are made for the plant's common area, based on its estimated contribution to these emissions.

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Based on available activity data, the emissions included in the inventory are as follows:

- Scope 2 emissions from grid-supplied electricity.

Emissions excluded from this inventory (due to a lack of activity data) are as follows:

- Scope 1 fugitive emissions from air conditioning and refrigeration leaks.
- Scope 1 emissions from fuels used by employees' vehicles.
- Scope 1 and 3 emissions from fuels used by suppliers and distributors entering the site.
- Scope 3 emissions from business travel of employees and plant trips.
- Scope 3 emissions from waste produced on-site but landfilled elsewhere.

The carbon emissions can be direct or indirect emissions, direct emissions for the Sidingulwazi Environmental Holdings Centre Diepsloot plant come from diesel used by trucks, and indirect emissions are from electricity consumption that is generated using coal. The greenhouse gas emissions factors for South Africa are summarized in the table below.

Table 11: Greenhouse gas emissions factors

SA IEEP Phase II GHG Emission Factors		
Fuel	tCO ₂ /GJ	tCO ₂ /MWh
Grid Electricity	0.2896	1.0425
Natural Gas	0.0561	0.2020
LPG	0.0631	0.2272
Diesel	0.0741	0.2668
Residual Oil	0.0774	0.2786
Motor Gasoline	0.0693	0.2495
Kerosene	0.0719	0.2588
Coal Bituminous	0.0946	0.3406
Coal Sub-bituminous	0.0961	0.3460
Coal Anthracite	0.0983	0.3539
Coal Lignite	0.1010	0.3636
Charcoal	0.1120	0.4032

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Metallurgical Coke	0.1070	0.3852
Wood fuel	0.1120	0.4032

Bontle Ke Tlhago Cooperative LTD Diepsloot plant's carbon footprint will be based on electricity data only. Bontle Ke Tlhago Cooperative LTD Diepsloot consumed 7.4 MWh, and the equivalent carbon produced is 7.76 tCO₂/year.

6.2 Development of inventory

Bontle Ke Tlhago Cooperative LTD Diepsloot consumed 7.4 MWh, as shown above, and the equivalent carbon produced is 7.76 tCO₂/year.

6.3 Carbon management

The setting of IEE objectives, goals, and targets will give the company direction on how to manage the utilities, reduce emissions from the use of energy-efficient technologies, and develop purchasing policies that consider lifecycle costs and efficient use of resources.

Bontle Ke Tlhago Cooperative LTD Diepsloot can improve the way they operate by being proactive through gathering information on resource usage and consumption patterns. The company has an online metering system to manage electricity consumption. Bontle Ke Tlhago Cooperative LTD Diepsloot should record data, as shown in the table below.

Table 12: Sample carbon reporting format

Scopes and categories	Metric tons CO ₂ e
Scope 1: Direct emissions from owned/controlled operations	
Scope 2: Indirect emissions from the use of purchased electricity, steam, heating, and cooling	
Upstream scope three emissions	

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Category 1: Purchased goods and services	
Category 2: Capital goods	
Category 3: Fuel- and energy-related activities (not included in scope 1 or scope 2)	
Category 4: Upstream transportation and distribution	
Category 5: Waste generated in operations	
Category 6: Business travel	
Category 7: Employee commuting	
Category 8: Upstream leased assets	
Downstream scope 3 emissions	
Category 9: Downstream transportation and distribution	
Category 10: Processing of sold products	
Category 12: End-of-life treatment of sold products	
Category 13: Downstream leased assets	
Category 14: Franchises	
Category 15: Investments ¹	

A sample of the objectives the company can set are

- Promotion of organisational behavioural change
- Conservation of energy and improving energy efficiency
- Maximise the use of renewable energy sources
- Reducing the carbon footprint of the bailing machines, trucks and lighting.

7 Detailed design

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7.1 Whole facility

The main constraint in the design is the available budget, therefore, the solar system should supply the scale, lights, and a bailing machine. The facility has plenty of roof space that can be installed with solar panels as shown below.

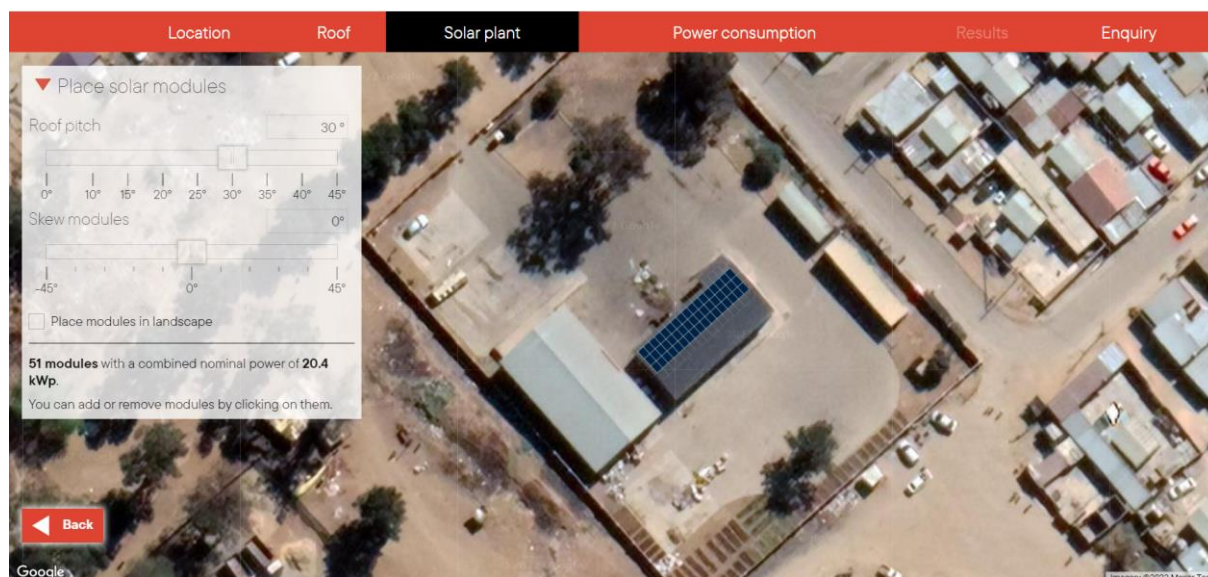


Figure 3: Roof space available

The facility has roof space to install 51 solar PV panels and generate 20.4 kWp without any interference from the surrounding trees. The suggested design according to the financial constraints the facility can install is shown below.

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Project number: ---

Grid voltage: 230V (230V / 400V)

System overview

20 x Canadian Solar Inc. CS1H-320MS HiDM (1000V) (11/2018) (PV array 1)
Azimuth angle: 180 °, Tilt angle: 20 °, Mounting type: Roof, Peak power: 6.40 kWp

1 x SMA SB6.0-1AV-41

Battery system

1 x SMA Sunny Tripower Storage 60 1 x Lithium (20 kWh)

PV design data

Total number of PV modules:	20	Line losses (in % of PV energy):	---
Peak power:	6.40 kWp	Unbalanced load:	6.00 kVA
Number of PV inverters:	1	Annual energy consumption:	44,931 kWh
Nominal AC power of the PV inverters:	6.00 kW	Self-consumption:	10,503 kWh
AC active power:	6.00 kW	Self-consumption quota:	87.4 %
Active power ratio:	93.8 %	Self-sufficiency quota:	22.6 %
Annual energy yield*:	12,024 kWh	Total nominal capacity:	20.00 kWh
Energy usability factor:	99.7 %	Annual nominal energy throughputs of the battery:	52
Performance ratio*:	85.8 %	CO ₂ reduction after 20 years:	239 t
Spec. energy yield*:	1879 kWh/kWp		

Signature _____

Figure 4: Annual energy generated from solar summary

The projected annual energy produced is 12,024 kWh/year. The system size is summarised below.

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Energy system		
PV system	PV inverter 1 x SMA SB6.0-1AV-41	PV arrays 20 x Canadian Solar Inc. CS1H-320MS HiDM (1000V)
Battery system	Battery inverter 1 x SMA Sunny Tripower Storage 60	Battery 1 x Lithium (20 kWh)
Additional components	Energy management 1 x Sunny Portal	
System size	PV system 6.40 kWp	Battery system 20.00 kWh

Figure 5: Solar system specifications

The solar system will have a battery backup of 20kWh lithium battery and 20 Canadian solar panels that will generate 6.4kWp. The figure below shows the projected monthly energy production.



Figure 6: Monthly energy production trend

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The project cost R221,000 including labour and accessories with a payback period of 5 years as shown in the figure below.

Project costs		
PV system		Unit price
20	Canadian Solar Inc. CS1H-320MS HiDM (1000V)	3,500.00 ZAR
1	SMA SB6.0-1AV-41	65,000.00 ZAR
1	labour	21,000.00 ZAR
1	racks, fuses and accessories	15,000.00 ZAR
Battery system		
1	SMA Sunny Tripower Storage 60	50,000.00 ZAR
Subtotal (net sum)		221,000.00 ZAR
Discount		---
Total (net)		221,000.00 ZAR
Value-added tax		---
Total amount (gross)		221,000.00 ZAR
Fixed cost		
Annual fixed costs (as percentage of capital expenditure)		1.50 % of investment costs
		3,315.00 ZAR

Figure 7: Solar system specifications

The solar system will have a battery backup of 60 kWh lithium battery (3 x 20 kWh) and 10 Canadian solar panels that will generate 3.2 kWp. The figure below shows the projected monthly energy production.

The table below summarises all the equipment required and the labour cost for the project.

Diepsloot Buy Bag Centre Solar PV raw materials			
Description	Unit cost	Quantity	Total cost
Solar panels (canadian CS1H-320MS)	3,500	20	70,000
Inverter (SMA SB6.01AV-41)	65,000	1	65,000
Lithium batteries 20kWh (Tri power storage)	50,000	1	50,000
SMA controller, connecting wires, fuses and other electrical accessories	15,000	1	15,000
Solar installation labour charges	21,000	1	21,000

Baseline report for Green Support Incentive Program at Bontle Ke Tlhago Cooperative

July 2022

Total	221,000
Solar energy savings (R/year)	44,357
Payback period (years)	4.98

8 Solar PV feasibility study summary

The table below tabulates the results of the solar PV feasibility assessment. This table indicates both the technical and economic feasibility.

Table 8: Summary of recommendations

Building	Capacity (kWp)	Energy Yield (MWh)	No of Modules	Energy Revenue	Capital Cost	TCO 2	Payback
Whole facility	6.4	12,024	20	R 44,257	R 221,000	12.5	5
Totals		12,024	20	R 44,357	R 221,000	12.5	5

9 Conclusion

Bontle Ke Tlhago Cooperative LTD Diepsloot can install rooftop solar panels on most buildings and generate much-needed energy from solar PV. Due to financial constraints, the project can fund a 6.4 kWp solar system, with 20 kWh battery storage. The system can be extended in the future to supply the whole facility and the production plant because the roof space can accommodate more panels.

Baseline report for Green Support Incentive Program at Bontle Ke Tlhago Cooperative

July 2022

10 Annexures

10.1 Eskom bill

		CENTRAL REGION PO BOX 8610 JHB 2000																			
ESKOM HOLDINGS SOC LTD REG NO 2002/015527/30 VAT REG NO 4740101508		CONTACT CENTRE: (0860) 037566 FAX NO: 0862 437 566 E-MAIL: customerservices@eskom.co.za WEB: WWW.ESKOM.CO.ZA		TEL: 08600 37566 SMS: 35328																	
BONTLE KE TLHAGO COOPERATIVE LTD 5969 SOLOMON PLAATJE STR DIEPSLOOT 2189		<table border="1"> <tr><td>YOUR ACCOUNT NO</td><td>6378572848</td></tr> <tr><td>SECURITY HELD</td><td>9985.13</td></tr> <tr><td>BILLING DATE</td><td>2018-11-09</td></tr> <tr><td>TAX INVOICE NO</td><td>637080030005</td></tr> <tr><td>ACCOUNT MONTH</td><td>NOVEMBER 2018</td></tr> <tr><td>CURRENT DUE DATE</td><td>2018-12-04</td></tr> <tr><td>VAT REG NO</td><td>NOT SUPPLIED</td></tr> <tr><td>NOTIFIED MAX DEMAND</td><td>50.00</td></tr> </table>		YOUR ACCOUNT NO	6378572848	SECURITY HELD	9985.13	BILLING DATE	2018-11-09	TAX INVOICE NO	637080030005	ACCOUNT MONTH	NOVEMBER 2018	CURRENT DUE DATE	2018-12-04	VAT REG NO	NOT SUPPLIED	NOTIFIED MAX DEMAND	50.00	CUSTOMER SELF SERVICE WEBSITE: https://csonline.eskom.co.za	
YOUR ACCOUNT NO	6378572848																				
SECURITY HELD	9985.13																				
BILLING DATE	2018-11-09																				
TAX INVOICE NO	637080030005																				
ACCOUNT MONTH	NOVEMBER 2018																				
CURRENT DUE DATE	2018-12-04																				
VAT REG NO	NOT SUPPLIED																				
NOTIFIED MAX DEMAND	50.00																				
		CENTRAL REGION PO BOX 8610 JHB 2000		DIRECT DEPOSIT DETAIL BANK: First National Bank BRANCH CODE: 255005 BANK ACC NO: 62006191077																	
TAX INVOICE																					
E-MAIL: bontlekethagocoop@gmail.com																					
READING TYPE: ESTIMATE		READING DATES: 2018/10/05 - 2018/11/07		NO OF DAYS: 33																	
SEASON:																					
Your next estimated reading will be on 07/12/2018																					
CONSUMPTION SUMMARY FOR BILLING PERIOD																					
METER NUMBER	PREV. READING	CURR. READING	DIFFERENCE	CONSTANT	CONSUMPTION																
221117693	62662.0000	63335.0000	673.0000	1.0000	673.0000																
TOTAL ENERGY CONSUMED FOR BILLING PERIOD (kWh)					673.00																
PREMISE ID NUMBER		TARIFF NAME: Businessrate 1,2,3																			
2881633861																					
PORTON 1 FARM 388 JR, PORTON 1 FARM 388 JR																					
Service and Administration Charge @ R17.56 per day for 33 days				R	579.48																
Network Capacity Charge @ R34.25 per day for 33 days				R	1,130.25																
Network Demand Charge 673 kWh @ R0.1416 /kWh				R	95.30																
Ancillary service charge 673 kWh @ R0.0039 /kWh				R	2.62																
Energy Charge 673 kWh @ R1.0028 /kWh				R	674.88																
TOTAL CHARGES FOR BILLING PERIOD					R 2,482.53																
ACCOUNT SUMMARY FOR NOVEMBER 2018																					
BALANCE BROUGHT FORWARD (Due Date 2018-11-03)				R	7,704.35																
PAYMENT(S) RECEIVED Direct Deposit - 2018-10-13				R	-3,000.00																
TOTAL CHARGES FOR BILLING PERIOD				R	2,482.53																
ADJUSTMENT Interest on overdue account				R	56.40																
VAT RAISED ON ITEMS AT 14%				R	0.00																
VAT RAISED ON ITEMS AT 15%				R	372.38																

ACCOUNT NO / REFERENCE NO
6378572848
NAME
 BONTLE KE TLHAGO COOPERATIVE
FAX NUMBER


0934 6378572848

11341
6378572848



9207 2637 8572 8481


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Baseline report for Green Support Incentive Program at Bontle Ke Tlhago Cooperative

July 2022

10.2 Eskom bill for February 2019

		CENTRAL REGION PO BOX 8610 JHB 2000																			
ESKOM HOLDINGS SOC LTD REG NO 2002/015527/30 VAT REG NO 4740101508		CONTACT CENTRE: (0860) 037566 FAX NO: 0862 437 566 E-MAIL: customerservices@eskom.co.za WEB: WWW.ESKOM.CO.ZA		TEL: 08600 37566 SMS: 35328																	
BONTLE KE TLHAGO COOPERATIVE LTD 5969 SOLOMON PLAATJE STR DIEPSLOOT 2189		<table border="1"> <tr><td>YOUR ACCOUNT NO</td><td>6378572848</td></tr> <tr><td>SECURITY HELD</td><td>9985.13</td></tr> <tr><td>BILLING DATE</td><td>2019-02-13</td></tr> <tr><td>TAX INVOICE NO</td><td>637826088989</td></tr> <tr><td>ACCOUNT MONTH</td><td>FEBRUARY 2019</td></tr> <tr><td>CURRENT DUE DATE</td><td>2019-03-11</td></tr> <tr><td>VAT REG NO</td><td>NOT SUPPLIED</td></tr> <tr><td>NOTIFIED MAX DEMAND</td><td>50.00</td></tr> </table>		YOUR ACCOUNT NO	6378572848	SECURITY HELD	9985.13	BILLING DATE	2019-02-13	TAX INVOICE NO	637826088989	ACCOUNT MONTH	FEBRUARY 2019	CURRENT DUE DATE	2019-03-11	VAT REG NO	NOT SUPPLIED	NOTIFIED MAX DEMAND	50.00	CUSTOMER SELF SERVICE WEBSITE: https://csonline.eskom.co.za	
YOUR ACCOUNT NO	6378572848																				
SECURITY HELD	9985.13																				
BILLING DATE	2019-02-13																				
TAX INVOICE NO	637826088989																				
ACCOUNT MONTH	FEBRUARY 2019																				
CURRENT DUE DATE	2019-03-11																				
VAT REG NO	NOT SUPPLIED																				
NOTIFIED MAX DEMAND	50.00																				
				CENTRAL REGION PO BOX 8610 JHB 2000																	
				DIRECT DEPOSIT DETAIL BANK: First National Bank BRANCH CODE: 255005 BANK ACC NO: 62006191077																	

TAX INVOICE

E-MAIL: bontleketlhagocoop@gmail.com

READING TYPE: ESTIMATE	READING DATES: 2018/11/07 - 2019/02/08	NO OF DAYS: 93	SEASON:
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Your next estimated reading will be on 08/03/2019

CONSUMPTION SUMMARY FOR BILLING PERIOD

METER NUMBER	PREV. READING	CURR. READING	DIFFERENCE	CONSTANT	CONSUMPTION
221117693	63335.0000	65231.0000	1896.0000	1.0000	1,896.0000
TOTAL ENERGY CONSUMED FOR BILLING PERIOD (kWh)					1,896.00

PREMISE ID NUMBER: 2881633861 **TARIFF NAME:** Businessrate 1,2,3

PORTON 1 FARM 388 JR, DIEPSLOOT

Service and Administration Charge @ R17.56 per day for 93 days	R	1,633.08
Network Capacity Charge @ R34.25 per day for 93 days	R	3,185.25
Network Demand Charge 1,896 kWh @ R0.1416 /kWh	R	268.47
Ancillary service charge 1,896 kWh @ R0.0039 /kWh	R	7.39
Energy Charge 1,896 kWh @ R1.0028 /kWh	R	1,901.31
REBILLED ADJUSTMENTS (Summary - See attachment for details)	R	-4,814.37
TOTAL CHARGES FOR BILLING PERIOD	R	2,181.13

ACCOUNT SUMMARY FOR FEBRUARY 2019

BALANCE BROUGHT FORWARD (Due Date 2019-02-05)	R	7,210.94
PAYMENT(S) RECEIVED Direct Deposit - 2019-01-12	R	-4,000.00
TOTAL CHARGES FOR BILLING PERIOD	R	2,181.13
ADJUSTMENT Interest on overdue account	R	0.70
VAT RAISED ON ITEMS AT 14%	R	0.00
VAT RAISED ON ITEMS AT 15%	R	327.17

ACCOUNT NO / REFERENCE NO
6378572848

NAME
BONTLE KE TLHAGO COOPERATIVE

FAX NUMBER

Post Office **0934 6378572848**

11341 6378572848

9207 2637 8572 8481

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