

https://dspace.org/

# Non-Payment of Electricity by Border Post residents in Amahlathi Local Municipality, Eastern Cape

**Makgoga, Amanda**

**2023**

University of the Witwatersrand, Johannesburg

https://hdl.handle.net/10539/40461

Makgoga, Amanda. (2023). Non-Payment of Electricity by Border Post residents in Amahlathi Local Municipality, Eastern Cape[Master's dissertation, University of the Witwatersrand, Johannesburg]. WireDSpace.https://hdl.handle.net/10539/40461

Downloaded from a DSpace repository. https://dspace.org/

**RESEARCH:**

# Non-Payment of Electricity by Border Post residents in Amahlathi Local Municipality, Eastern Cape

**Student Name: Amanda Makgoga**
**Student Number: 2490648**

**An Applied Research Project submitted to the Faculty of Commerce, Law and Management, University of the Witwatersrand, in partial fulfilment of the requirements for the degree of Master of Business Administration**

**Johannesburg, 28 February 2023**

**Protocol number: WBS/BA2490648/545**

# Declaration of Plagiarism

I, Amanda Makgoga, declare that this applied research project is my own work except as indicated in the references and acknowledgements. It is submitted in partial fulfilment of the requirements for the degree of Master of Business Administration in the Graduate School of Business Administration, University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination in this or any other university.

**Amanda Makgoga**

---

Signed at **Pretoria East.**

On the **27** day of **February 2023.**

# Acknowledgement

First and foremost, I want to thank Almighty God for being with me every step of the way and guiding me through the completion of this treatise. He gave me strength when I wanted to give up and provided me with people to encourage and support me throughout this wonderful journey.

My supervisor, Dr. Joel Marumo Mosenogi, for his support, valuable guidance, and assistance to ensure this work is possible.

My heartfelt thanks and special appreciation go to my partner for her invaluable assistance and understanding during my research. My siblings for their continuous support, for always encouraging me when I wanted to give up, and for always reminding me why I decided to embark on this journey. Lastly, my mother, who has always had my interests at heart and whose prayers for me kept me going. Their love, understanding, and moral support have motivated and helped.

Lastly, a special word of gratitude goes to all the participants in the Border Post Location study who took time from their busy schedules to participate in the study. Without their participation, this study would not have been possible.

## Supplementary Information

| | |
|---|---|
| Supervisor: | Dr Joel Marumo Mosenogi |
| Word count: | 16 324 |
| Supplementary files: | Structured Questionnaire |
| | Response data and code |

Including Abstract and References

# Abstract

Eskom is a monopolistic electricity power supplier for South Africa as well as supplying neighbouring countries. Despite this advantage, the company is still beset by a heavy debt burden, increasing pressure from growing outstanding customer debt, and operational instability. Eskom, which is not different from other utilities globally, faces financial problems that halt the investment in capacity upgradation, Due to a lack of infrastructure investment, the country has experienced sporadic periods of loadshedding, undermining South Africa's efforts to re-ignite economic growth as the country recovers from the global COVID-19 pandemic. The non-payment of electricity was cited as one of the other reasons that negatively contributed to the financial crisis at the utility, which resulted in minimal investment in capacity upgradation. Furthermore, Eskom has indicated that there is an increase in non-payment of electricity and has continuously urged its consumers to refrain from this illegal act which results in billions of Rand of revenue loss. As a result, six factors were examined to better understand the extent and influence these factors have on non-payment of electricity, using Border Post Location as an area of study. This was accomplished by ranking the factors from most to least significant, whereby the order was as follows: poverty, high electricity prices, unemployment, poor law enforcement, poor quality of supply, and lastly, literacy. Also, the research reveals the ineffectiveness of free basic electricity that was designed to help those households in financial distress not to partake in non-payment of electricity.



*Keywords*: Non-payment, Free-basic-electricity, Electricity

# List of Figures

**Figure 1.1: Eskom's financial performance, 2002 – 2019**……2

**Figure 1.2: Eskom average tariff vs CPI inflation**……3

**Figure 4.1: Gender of participants** ..... 34

**Figure 4.2: Age of the participants** ..... 35

**Figure 4.3: Marital status of the participants** ..... 36

**Figure 4.4: Highest education qualification of the participants** ..... 38

**Figure 4.5: Type of income of the participants** ..... 39

**Figure 4.6: Number of people living in the house** ..... 40

**Figure 4.7: Participants' monthly electricity expense** ..... 42

**Figure 4.8: Participants' level of concern with electricity non-payment** ..... 44

**Figure 4.9: Participants' awareness of electricity non-payment being an illegal act** ... 45

**Figure 4.10: Participants' understanding of FBE and if they receive it** ..... 47

# List of Tables

**Table 4 1: Gender of participants**.....35

**Table 4.2: Age of participants** .....36

**Table 4.3: Marital status of the participants**.....37

**Table 4.4: Highest education qualification of the participants** .....38

**Table 4.5: Type of income of the participants**.....40

**Table 4.6: Number of people living in the house** .....41

**Table 4.7: Participants' monthly electricity expense**.....42

**Table 4.8: Participants' level of concern with electricity non-payment**.....44

**Table 4.9: Participants' awareness of electricity non-payment being an illegal act**.....46

**Table 4.10: Descriptive statics for the factors influencing non-payment** .....49

## Table of Contents

Declaration of Plagarism ..... i

Acknowledgement ..... ii

Supplementary Information ..... iii

Abstract ..... iv

List of Figures ..... v

List of Tables ..... vi

Chapter 1: Introduction and background to the study ..... 1

1.1 Introduction ..... 1

1.2 Background to the problem ..... 2

1.3 Statement of the problem ..... 5

1.4 Research Questions ..... 5

1.4.1 Primary Research Question ..... 5

1.4.2 Secondary Research Questions ..... 5

1.5 Research Objectives ..... 6

1.6 Significance of the study ..... 6

1.7 Scope of the Study ..... 7

1.8 Limitations of the Study ..... 7

1.9 Definition of terminologies ..... 8

1.9.1 Local Municipality ..... 8

1.9.2 District Municipality ..... 8

1.9.3 Village ..... 8

1.9.4 Non-payment of electricity ..... 8

1.10 Outline of the study ..... 9

Chapter 2: Literature Survey ..... 10

2.1 Introduction ..... 10

2.2 Theoretical Framework ..... 10

2.2.1 The General Strain Theory ..... 10

2.2.2 Rational Choice Theory ..... 11

2.2.3 The Economic Theory ..... 12

2.2.4 The Radical Political Economic Model ..... 12

2.2.5 The Present-oriented or Myopic Model of Crime ..... 12

2.3 Empirical Literature ..... 13

2.3.1 Nature and Severity of the Non-Payment of Electricity Problem ..... 13

2.3.2 Historical Background to the culture of non-payment of electricity ..... 15

2.3.3 Reasons for the non-payment problem ..... 16

2.4 Conclusion ..... 21

Chapter 3: Research Design and Methodology ..... 22

3.1 Introduction ..... 22

3.2 The Survey Area ..... 22

3.3 Research Approach ..... 23

3.4 Sampling ..... 24

3.4.1 Population and sample size ..... 24

3.4.2 Sampling Strategy ..... 25

3.5 Data Collection Methods ..... 26

3.5.1 Data Storage ..... 27
3.5.2 Research Instrument ..... 27
3.5.3 Pilot Study ..... 28
3.6 Data Analysis ..... 28
3.6.1 Data Quality Criteria ..... 28
3.7 Ethical Considerations ..... 30
3.8 Chapter Summary ..... 31
Chapter 4: Data analysis and interpretation of results ..... 32
4.1 Introduction ..... 32
4.2 Discussion of the results ..... 32
4.2.1 Response rate ..... 33
4.2.2 Results and discussion ..... 33
4.3 Section I: Demographics Information ..... 33
4.3.1 Biographic information of the participants ..... 34
4.3.2 General information about the participants ..... 38
4.4 Section II: Attitude and Knowledge about non-payment of electricity ..... 42
4.4.1 Participants' level of concern about non-payment of electricity ..... 43
4.4.2 Participants' awareness of non-payment of electricity being illegal act? ..... 44
4.4.3 Participants' understanding of "Free basic Electricity" and if do they receive one? ..... 46
4.4.4 Factors having an influence in non-payment and ranking them ..... 47
4.5 Chapter Summary ..... 49

Chapter 5: Conclusion and Recommendations ..... 51
5.1 Introduction ..... 51
5.2 Conclusion ..... 51
5.2.1 Examine factors motivating non-payment of electricity; ..... 51
5.2.2 Rank, the factors influencing non-payment of electricity; ..... 51
5.2.3 Determine consumers concern about non-payment of electricity; ..... 52
5.2.4 Establish consumers awareness of the illegality of electricity non-payment; and ..... 52
5.2.5 Establish consumers awareness on Free Basic Electricity ..... 52
5.3 Recommendations ..... 52
5.4 Opportunities for future research ..... 53
References ..... 54
**Appendices** ..... 58

# Chapter 1: Introduction and background to the study

## 1.1 Introduction

Eskom, South Africa's electricity public utility and Africa's largest power producer in output terms (Cullis, 2014). Not only does it boast being Africa's largest power producer, but being one of the oldest power producers, with a history spanning nearly 100 years, starting in 1923. It is the world's 11$^{th}$ largest exporter of electricity, exporting 14.482 billion kWh per year; and the world's 24$^{th}$ largest importer of electricity, importing 7.823 billion kWh per year – making it a net-exporter of electricity (Central Intelligency Agency, USA, 2022).

However, despite these impressive statistics, the power utility has not been performing well for quite some time. Despite being a net-exporter of electricity, Eskom plunged South Africa into its first loadshedding towards the end of 2007, casting a gloomy horizon over the country (Eskom, n.d.). The loadshedding, instead worsened over the time, costing South Africa 2% of its Gross Domestic Product by the second quarter of 2022 (The Institute of Risk Management South Africa, 2022), which further exacerbates the social ills of unemployment and poverty which are prevalent in South Africa. Various reasons have been cited for this rise in loadshedding, ranging from failure to invest in capital expenditure to maladministration (Eskom, n.d.).

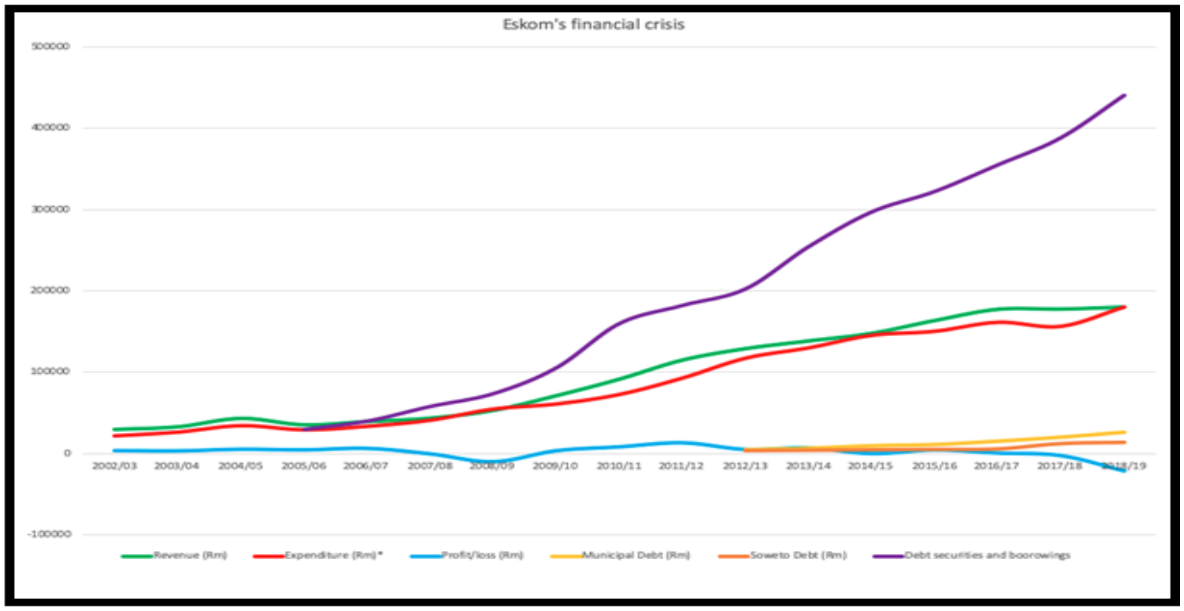
This study, therefore, becomes timely, given the damage loadshedding has subjected the South African economy to. While failure to invest in capital expenditure is one of the main reasons cited for loadshedding, one would argue that since 2007, the time has been long enough to have corrected this catastrophe. Two events seemed to have coincided with this catastrophe – the 2007/8 global financial crisis at a global stage, and a slump in Eskom's profits. Probably, Eskom was in a financial distress, making it conveniently impossible to invest in capital expenditure. A closer look into the issue may be beneficial. For instance, Eskom manifested signs of a financial crisis starting from the 2005/6 financial year (Bowman, 2020). Debt securities and borrowings has been on a spiral rise since then, with profits declining, and diving into negatives since the 2017/18 financial year (BusinessTech, 2019).

The non-payment of electricity was cited as one of the other reasons that negatively contributed to the financial crisis at Eskom, which resulted in minimal investment in capacity upgradation. Furthermore, Eskom has indicated that there is an increase in non-payment of electricity and has urged its consumers to refrain from this illegal act. Therefore, the study became important to explore factors that contributed to the non-payment of electricity. Using Border Post Location as a case study, the research will take an empirical approach to investigate the phenomenon and draw insights in order to develop the necessary measures to mitigate non-payment of electricity. The factors that were investigated and ranked in descending order in the study were exorbitant electricity prices, unemployment, illiteracy, poverty, poor quality of electricity supply, and poor law enforcement.

## 1.2 Background to the problem

As indicated in figure 1.1 below it is evident that Eskom's debt securities and borrowings paints 2012 as the point of inflexion, from then experiencing an exponential rise. Interestingly, from this point, two sets of information are incorporated into the picture: the emergence and rise of municipal debt and Soweto debt. Therefore, non-payment of electricity can be cited as one of the reasons behind loadshedding, or at best, Eskom's financial woes.

**Figure 1.1: Eskom's financial performance, 2002 - 2019**

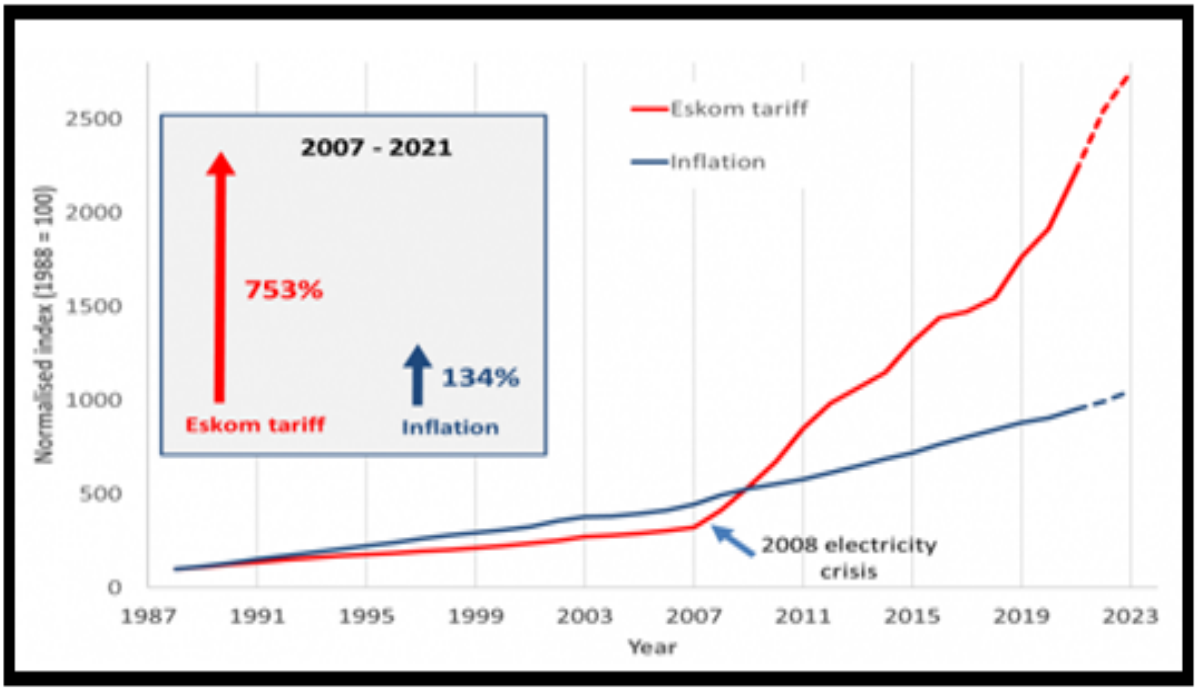



**Source: BusinessTech, 2019**

However, Eskom is not different from other utilities globally, which faces financial problems and in turn, halts the investment in capacity upgradation (Jamil and Ahmad, 2011; Kessides, 2013; Khan *et al*., 2016; Arshad and Ali, 2017). This lack of investment in the infrastructure has resulted in the country experiencing sporadic periods of loadshedding which undermine South Africa's attempts to reignite economic growth as the country emerges from the global COVID-19 pandemic.

Having experienced non-payment, and having a host of challenges, forced the utility to find ways of funding the infrastructure so that it could continue its operations. One of the options was to increase electricity prices in order to develop new generation capacity and provide adequate maintenance and rehabilitation of the network (Eberhard, 2010). But the rate at which electricity price has been increasing is highly likely that it is felt by all consumers that are legally connected to the grid. According to Moolman (2021), the average electricity price has increased by 753% from 2007 to 2021 which is far above the inflation of 134% in the same period. Figure 1.2 shows that this crisis started in 2008 which is the same period when the instability of electricity started occuring for the country.

**Figure 1.2: Eskom Average Tariff vs CPI Inflation**




**Source: Moolman, 2021**

Having observed that Eskom's tariffs increased by a five-fold exceeding inflation, there is an inclination to believe it could be one of the reasons fuelling the non-payment of electricity. This study draws its relevance in investigating factors contributing to non-payment of electricity. Several reasons have been cited in literature as the propagating conditions for non-payment of electricity.

The socioeconomic challenges that result in a lack of affordability for South African households were proactively identified by the South African government. In 2004, they introduced Free Basic Electricity (FBE) of 50 kWh per month to assist indigent households that may not be able to afford electricity as well as a way to curb non-payment of electricity (Prasad, 2021). Also, a tariff subsidy for those consumers that are supplied by Eskom. The programme is targeted at giving limited free electricity to indigent households to help those in distress to avoid resorting to crime (Prasad, 2021). The objective of the programme is that those that are under a financial strain, should not commit a crime by bypassing the system. The local government oversees the FBE to guarantee that only those who qualify can obtain the subsidy. Regretfully, Eberhard (2010) emphasises that many of the residents that qualify, do not receive both of these subsidies. At the end of March 2020, Eskom had 900 000 registered indigent customers for FBE, but only 700 000 people are collecting their FBE tokens (Prasad, 2021).

Thus, it is important to highlight that the exorbitant increase in the electricity tariff and ineffectiveness of the implementation of FBE severely impact rural consumers, who are already exposed to high levels of poverty, unemployment, and inequalities. According to the World Bank's 2020 findings, around 55.5% of the population (30.3 million people) is subjected to abject poverty at the national upper poverty line (ZAR 992), whereas 13.8 million people (25 percent) are victims of food poverty in South Africa. These poor conditions and people setting their lives to be reliant on electricity will strongly encourage households towards non-payment of electricity. Therefore, it is paramount to understand the fundamental problem that will lead one to such illegal behaviour so that sound solutions are developed to address this challenge. This will assist utilities in reducing year on year revenue losses of billions of rands. According to Eskom, approximately R20 billion in revenue is lost every year due to non-payment of electricity and distribution infrastructure failures (Van der Merwe, 2018). Non-

payment of electricity comes in various forms, including but not limited to forms of fraud (meter tampering), pilferage (illegal abstraction), billing irregularities (corruption), and unpaid bills (Smith, 2004). This all results in the non-accountability of electricity consumption, which is generated at a cost, which in turn negatively impacts the financial performance of Eskom. Given this background, coupled with the ills South Africa has been subjected to due to the ensuing and worsening loadshedding, this study becomes timely and relevant.

## 1.3 Statement of the problem

Preliminary investigations show a consistent increase in non-payment of electricity in South Africa and majority of the literature that is available is from the perspective of an electricity supplier and few from the consumer's perspective, who bear the brunt as costs are transferred to the legal connected consumers. Furthermore, the studies that were done at the perspective of a consumer reveals that the results are inconsistencies due to the geographic location at which the study was conducted which complicates policymaking. Moreover, preliminary investigation shows that there is a weakness in the Free Basic Electricity subsidy programme as there are few households that are benefiting from the subsidy (Prasad, 2021).

## 1.4 Research Questions

### 1.4.1 Primary Research Question

What are the factors contributing to the non-payment of electricity by residents of Border Post within Amahlathi Local Municipality, Eastern Cape?

### 1.4.2 Secondary Research Questions

- How much of an impact do these factors have on Border Post customers in motivating them to non-payment of electricity?
- Are the consumers of Border Post Location concern about non-payment of electricity?
- Are the consumers of Border Post Location aware of other alternatives through which they can obtain electricity legally, for example, free basic electricity?
- What measures need to be taken to mitigate the Non-Payment of Electricity in the rural community of Border Post?

## 1.5 Research Objectives

To address the defined problem, a research project with the following the research objectives are categorised as primary and secondary as indicated below.

### 1.5.1 Primary Research Objective

The primary objective of this research is to empirically examine the factors contributing to the non-payment of electricity in South Africa using Border Post residents within Amahlathi Local Municipality, Eastern Cape, as a case study.

### 1.5.2 Secondary Research Objectives

- Determine the extent to which these factors have an influence on Border Post consumers' willingness to engage in non-payment of electricity.
- Determine if consumers of Border Post Location are concerned about non-payment of electricity,
- Establish if consumers are aware of other alternatives through which they can obtain electricity legally, for example, free basic electricity.
- Determine the measures that need to be taken to mitigate the non-payment of electricity in Border Post Location.

## 1.6 Significance of the study

There is a rise in electricity non-payment in South Africa which undermines the utility's effort to invest in capacity upgradation and this challenge is not different from other utilities (Jamil and Ahmad, 2011; Kessides, 2013; Khan, *et al*., 2016; Arshad and Ali, 2017). The lack of investment in the infrastructure has resulted in the country experiencing sporadic periods of loadshedding which undermine South Africa's attempts to reignite economic growth as the country emerges from the novel Covid-19 pandemic. Given this, it is of paramount significance that the factors contributing to non-payment of electricity are ascertained, which paves way for the measures to curb this phenomenon. This will ultimately improving the financial status of the power utility and create a safe environment for employees and the public.

Given this background, this study derives its significance in enriching literature in various ways. First, the factors contributing to electricity non-payment are country

specific (Yakubu, *et al.*, 2018). Therefore, although studies on factors contributing to electricity non-payment on other countries exist, however, a blanket approach cannot be extended to South Africa based on these studies since the factors may differ. Second, according to the best of our knowledge, none of the existing literature ranks the factors contributing to non-payment in South Africa. This study pioneers in ranking these factors. Such knowledge assists policymakers on the factors to devote higher attention compared to others. Third, despite the prevalence of the socio-economic ills in rural areas, no study has been done on the rural areas of South Africa. This study covers this gap in being pioneering the study on a rural set-up.

## 1.7 Scope of the Study

According to Cant, Gerber-Nel, Nel and Kotze (2008) the scope of the study refers to the margins and boundaries which physically show the source and location of the elements in the sample frame of the research from which data is to be collected. An understanding of the scope of the study is important as it helps in the efficient allocation of resources when conducting the research.

Accordingly, this section details where the study will be conducted, what will be researched and how it will be researched. Proper demarcation of the geographical area, the population and the study units to participate in the data collection by answering the questionnaire is paramount in order to reduce the time frame, the costs and efforts needed to complete the study. Furthermore, reliable results should be obtained from a clearly defined target population from which the results can be projected to a larger population.

## 1.8 Limitations of the Study

The main limitation of the research to be undertaken is that the research will merely cover the rural residents of the Eastern Cape, particularly the Border Post households that is supplied by Eskom. This limited the study to this area only, and the results may not be generalised to the other parts of the country. Apart from this weakness, with non-payment of electricity being partly a criminal offence, in case of illegal connections; most participants were hesitant to participate, which further limited the quality of results obtained. Although anonymity of the respondents was emphasised, further assumption is given that all participants are legally connected and the

researcher stressed that the focal point is engagement on what may, in the future, necessitate them towards non-payment of electricity. It was assumed that, if more than one person is residing in a household, only that one person will represent the view of that specific household.

## 1.9 Definition of terminologies

Key terminologies used in this study are defined in this subsection. Key terminologies used in the study are:

### 1.9.1 Local Municipality

It is an area sharing its municipal executive and legislative authority in its area with a district municipality within those area it falls, and which is described in Section 155(1)(b) of the Constitution of the Republic of South Africa.

### 1.9.2 District Municipality

District Municipality is referred to in Section 155 (1) (c) of the Constitution as a municipality that has municipal legislative and executive authority in an area that includes more than one municipality. In this study district municipality refers to the Amathole District Municipality.

### 1.9.3 Village

The constitution of South Africa does not explicitly define a village; however, it is recognised in terms of the customary law. A village is a collection of different households who falls under the jurisdiction of a communal leader. In this study, a village refers to the Border Post village.

### 1.9.4 Non-payment of electricity

Non-payment of electricity refers to failure to pay for electricity due to various reasons, ranging from deliberate reasons, such as fraudulent connections and theft, among other reasons, to unintentional reasons which may be out of the situations arising, ranging from socio-economic reasons to illiteracy. Abdullateef (2012:1) defines non-payment as “the practice of using electricity from the utility company without the company’s authorisation or consent”. In this regard, non-payment of electricity can be defined as non-technical losses that are due to electricity that is consumed but not

billed. As a results, causing major concerns in the power system due to voltage imbalance and overloading of transformers that translate to the utilities incurring billions in revenue loss.

## 1.10 Outline of the study

The rest of the study is structured as follows. Chapter 2 provides the basis for a theoretical framework on the non-payment of electricity as well as literature review, with main focus being on the factors leading to non-payment of electricity. This is followed by Chapter 3 which covers the details of the research methodology. Chapter 4 will provide the research analysis, while in closing, Chapter 5 provides a summary of the findings, as well as the policy recommendations and areas for future research.

# Chapter 2: Literature Survey

## 2.1 Introduction

This chapter provides the theoretical framework for the study and discusses the theories that can be linked as the basis for non-payment of electricity in South Africa, particularly in rural areas. Moreover, review the available literature on the factors that lead to non-payment of electricity in South Africa. Therefore, it begins by laying down the theoretical frameworks that are available, followed by the empirical literature that provides an analysis of the nature and severity of the non-payment of electricity. Lastly, it then provides some historical context on the culture of non-payment of electricity, which is followed by an exploration of the factors leading to non-payment of electricity in South Africa.

## 2.2 Theoretical Framework

A theoretical framework provides the guiding blueprint for every research study. It provides the structure that defines how the study as a whole will philosophically, epistemologically, methodologically and analytically approach the research arena. It therefore helps clarify the argument of the study and provide an explanation for a particular thinking guiding the understanding and planning of the study. In the same vein, this study employs the Strains Theory, the Rational Choice Theory, and the Economic Theories in explaining the phenomenon of electricity non-payment in South Africa using the Border Post Location as a case study.

### 2.2.1 The General Strain Theory

The General Strain theory was developed by Emile Durkheim, and further advanced by Agnew (1992). The theory outlines that there are various laws and rules that exist within societies to keep individuals in check and maintain a certain conduct which is regarded as good and acceptable. However, despite the existence of these rules and laws, the society often lacks the social means of supporting the needs of the people. In turn, this leads to defiance by the societal elements to attain some level of desired life. Hence, there is a structural and individual strain within communities. Structural strain refers to the societal structures that guides the individual norms and beliefs while

the latter refers to the desires and needs of individuals, which drives them to seek for satisfaction through other means, at the expense of societal norms.

The more a society emphasises the need to stick to the rules, the more likely that one commits crime. In this regard, people desires to live a decent life, supported by electricity consumption. However, because of them being poor, especially in rural communities, they cannot afford electricity. The only avenue would be non-payment, which is often against societal values.

Agnew (1992) reasons that electricity is a commodity that costs money. As such, it becomes relatively difficult to apply for the installation of electricity should one lack funds. One would be tempted to engage in illegal connections to the grid. Even in scenarios where one installs electricity through legal means, it may becomes difficult to maintain consumption within the legal framework due to the inavailability of funds. In such scenarios, meter tempering would be the likely avenue out.

### 2.2.2 Rational Choice Theory

The rational choice theory originated from the work of Cesare Beccaria, and was further advanced by Downs (1957). It explains the human need for profit as the major driving force in decision making. The theory assumes that all people try to actively maximise their advantage in any situation and therefore consistently try to minimise their losses. In the process, they rationally (reasonanly, considering all available options) choose the most preferred choices consistently. The theory is based on the notion that all people make choices based on logical analysis, act rationally while making decisions, and want to increase either pleasure or profit. Several viewpoints, including deterrence, situational crime prevention, and routine activity theory, have been added to and extended from the original theory. According to the notion, people make rational decisions based on weighing the rewards and risks of committing a crime (Westhuisen, 2011).

In this context, one assumes that non-payment of electricity may reap more benefits that the risks of non-payment. “Clarke (2016) clarifies how electricity rates are regarded as expensive for low income communities and how bribery of electricity officials for illegal connection and avoiding paying electricity bills is more profitable for them than adhering to the legal processes.”

### 2.2.3 The Economic Theory

The Economic Theory is a framework founded by Becker in 1968 with an attempt to explain how an individual can be driven towards criminality through economic factors (Klevorick, 1985). Non-payment is therefore, made possible by a number of several external economic factors. Individuals weighs the economic outcomes of their choices, and choose those options with lower economic costs.

In this regard, people weigh that, should they opt to non-payment of electricity, the likely option would be getting prosecuted. However, in South Africa, there is no prosecution for non-payment of electricity, hence the economic cost is closer to zero. Hence, they are likely to choose non-payment.

### 2.2.4 The Radical Political Economic Model

According to Jacod (2011), “the key factors in this model are relative deprivation, poverty and inequality, unemployment, and class.” This perspective explores the reasoning behind the choice of the legal or the illegal route as a means of procurement of required services or the achievement of certain goals. Accordingly, poverty and unemployment that are rife in South Africa provides the platform for electricity non-payment, according to this theory.

### 2.2.5 The Present-oriented or Myopic Model of Crime

Jacod (2011) explains that criminal activities are in the “now” and therefore, current and have not been thought out thoroughly. Individuals who commit crime are highly impatient. They are driven by the desire to reap benefits immediately, without the norm of sowing, nurture, and reap at a later stage. Such individuals are highly irrational, and present-oriented in that they only realise at a later stage that the implications of commiting crime are greater than the benefits. One may argue that these individuals will be exposed to poverty and lack of income to achieve the basics of life; as well as the need to feed their families. However, the costs of being incarcerated would outweigh the benefit of engaging in non-payment of electricity to alleviate one from poverty temporarily. Eskom also falls short in this instance. Eskom has through television advertisement warned against illegal electricity as it poses safety hazards,

but selective individuals will ignore this and embark in the process of installing electricity illegally and face safety hazards in the future when incidences occur.

## 2.3 Empirical Literature

### 2.3.1 Nature and Severity of the Non-Payment of Electricity Problem

Eskom supplies electricity to the consumers through, transmission and distribution mechanisms. Firstly, through direct contact with the end-user of the power, and secondly, indirectly through the local authorities. Defaults of payment, and non-payments occurs from both ends. Because of the illegal dimension of non-payment of electricity, it is difficult to quantify the variance between the amount of electricity supplied directly by Eskom to its end-user consumers, and the respective payments. However, the model is different for the supply Eskom does to consumers through the municipalities. Eskom has the capacity to quantify the value of electricity they supply, and then request the respective payment from the local authority. The burden of non-payment is then borne by the local authority. The severity of non-payments therefore affects first the local authorities themselves, which may then pass it over to Eskom, further crippling its mandate.

For instance, as of 31 July 2022, 96 out of 278 municipalities in South Africa were indebted to Eskom to the tune of fifty billion rands. The debts, as reported by O'Regan (2022) were as follows (in descending order of the amounts in arrears):

1. Free State Province: 16 municipalities owed a total of R16 753 639 773
2. Mpumalanga Province: 10 municipalities owed a total of R14 167 394 658
3. Gauteng Province: 8 municipalities owed a total of R8 024 882 108
4. Northwest Province: 11 municipalities owed a total of R3 385 887 130
5. Northern Cape Province: 21 municipalities owed a total of R2 983 153 202
6. Eastern Cape Province: 11 municipalities owed a total of R2 364 950 301
7. Limpopo Province: 6 municipalities owed a total of R1 062 095 447
8. KwaZulu-Natal Province: 8 municipalities owed a total of R764 314 297
9. Western Cape Province: 5 municipalities owed a total of R256 094 77

From this data, further scrutiny shows that the Amathole district municipality owed R3 911 245. With a population of 3052 people, this implies an Eskom debt per head of R1281.54, which is exceeds the national upper poverty line R1268.00.

The municipalities have blamed their consumers for non-payment of power as the main reason behind them falling behind in payments (see, for example, Njilo, 2022). In turn, they threatened to cut services from non-paying consumers. However, it must also be stressed that this can be viewed in two lenses. The punishment is on those who would have failed to pay, but legally connected to the grid. On the other hand, the question is also raised on those who are not paying, and illegally connected to the grid. In the end, it is those who abide by the law in terms of connections, but lag in their payments who are punished.

The other question that may be raised is to investigate if there are any trends that may suggest the evidence of a correlation between non-payment of electricity and the ratio of urbanisation. This may paint a picture of who engages in non-payments the most between rural and urban residents.

The percentage of electrified houses climbed from 36% to 70% between 1994 and 2000. Nonetheless, just 46% of rural households were electrified in April 2001, compared to 80% of urban ones (South African Institute of Race Relations, 2002). It triggered the government to set aside R1.8 billion in January 2001 to deal with South Africa's backlog of electrification projects during the ensuing three years. More than 3.2 million houses would be able to be electrified with the help of this budget's R600 million in annual funding. For the previous six years, Eskom and municipalities around South Africa had spent R1.2 billion each year to electrify 2.5 million houses, in contrast to the sum allotted by the government (South African Institute of Race Relations, 2002). Over time, rural electrification increased over South Africa, which further strained the burden on Eskom.

Despite the government promoting rural electrification, it must be noted that the rise in income per capita did not match the rate of electrification, both in rural areas and countrywide. This, in turn, implies that the government of South Africa electrified the nation but did not provide the means through which the nation would pay for the electricity. Neither did employment figures improve over the time, also. There is also

a wide belief, especially in urban areas, that government, including municipalities, have enough funds with which to render free services, electricity included (Murwirapachena, *et al*., 2022). Given that the culture of non-payment of electricity is not new, the section that follows details the historical background to the culture of non-payment of electricity.

### 2.3.2 Historical Background to the culture of non-payment of electricity

Third world and first world realities coexist in South Africa. It is distinguished by a mixed population of "haves" and "have-nots," who are typically identifiable by the colour of their skin. Several South Africans struggle with poverty, unemployment, and a lack of suitable housing, healthcare, and educational options.

Table 2.1 below shows the prevalence of poverty per province, in line with the races.

**Table 2 1: Prevalence of poverty, in line with races**

| Province | African | Indian | Coloured | White | Total |
|---|---|---|---|---|---|
| **Eastern Cape** | 71.2% | 8.9% | 23.2% | 3.4% | **64.0%** |
| **Limpopo** | 65.3% | 6.4% | 24.2% | 3.9% | **63.8%** |
| **KwaZulu-Natal** | 63.5% | 7.4% | 13.8% | 2.5% | **53.6%** |
| **Mpumalanga** | 58.5% | 5.7% | 19.2% | 4.4% | **53.2%** |
| **Northwest** | 57.1% | 9.2% | 29.1% | 5.5% | **53.2%** |
| **Free State** | 56.6% | 3.1% | 24.3% | 4.4% | **49.3%** |
| **Northern Cape** | 63.9% | 8.3% | 36.2% | 4.0% | **41.1%** |
| **Gauteng** | 37.7% | 7.0% | 13.9% | 2.9% | **28.1%** |
| **Western Cape** | 44.9% | 9.7% | 16.6% | 3.0% | **19.9%** |
| **South Africa (Average)** | **58.7%** | **7.4%** | **19.9%** | **3.3%** | **47.8%** |

Source: South African Institute of Race Relations (2021)

As can be seen from the table, the exposure to poverty is systematically in line with the racial divides across the different provinces of South Africa. The same also applies to the trends and burdens of unemployment as well as housing, health and educational facilities.

The culture of non-payment was established in the 1980s, at the height of the apartheid era when towns and cities were segregated according to races (Van Schalkwyk, 2012). In line with this system, the Black African communities were then underresourced and underserviced, thereby subjecting the communities to power failures, poor sewerage systems and running water, and the emergence of various diseases. However, despite these areas being impoverished, they were expected to pay for electricity and other public services. Any funds paid by these communities was then channeled to the affluent white areas (Development Bank of South Africa, 2005).

The repressive system did not continue unchallenged for long. Infact, it bred a culture of non-payment and resistance rather. The system was challenged and resisted in various ways such as demonstrations, riots, stay-aways, strikes and collective crowd actions, and non-payment of public services.

However, this culture has continued until the present day even though the propagating conditions has disappeared and hence it is no longer politically justifiable. In fact, the culture has created a trap where consumers do not pay for electricity; in turn, government diverts its budgets to cover for the Eskom's shortfall at the expense of other public goods. In the process, as the government fails to fully provide other public services, the consumers protest further by non-payment, which instead exacerbates the problem even further. However, it seems though, from another perspective that non-payment by these individuals may be now related to a financial cause or the personal inabilities to pay.

### 2.3.3 Reasons for the non-payment problem

The main reasons, as identified in literature, for non-payment of electricity are poverty, unemployment, poor quality of electricity supply, cultural habits of non-payment, opportunism as a cause of non-payment, exorbitant electricity prices, and poor law enforcement. The selected reasons are explored further in this subsection.

#### 2.3.3.1 Poverty and Unemployment

South Africa is riddled with the economic evil of unemployment, which has exacerbated the problem of poverty even further. For instance, South Africa recorded its all-time high unemployment rate of 34.5% in the first quarter of 2022, which was

also the world's highest (StatsSA, 2022). This is against the background of high poverty, with 66.6% (or roughly 31.6 million people) living below the upper bound poverty line (StatsSA, 2022). StatsSA (2022) confirmed that poverty statistics were not improving nor stalling, but unfortunately, on a rise. This creates a stark picture of the financial capabilities of the South African population at large.

Furthermore, there is also evidence that poverty and unemployment are mainly prevalent in rural areas (StatsSA, 2022). This is likely to result in rural population not paying electricity. However, higher than urban areas' poverty and unemployment in rural areas force many rural populations to emigrate to urban areas: a common phenomenon the world (Todaro and Smith, 2020). This put urban municipalities under ever-increasing pressure as poor people emigrate from rural areas to urban areas in search of greener pastures. These poor people, despite consuming electricity, have a higher propensity to default on their payments.

Literature also backs these claims. That non-payment of electricity is more a matter of the inability to pay than the want to pay, state Botes and Pelser (2001). According to a 2001 survey by the City Development Strategy (CDS) at 32 locations across all nine provinces, many households in low-paying areas were unable to pay for energy rather than unwilling. In reality, the poll found that nine out of ten low-paying households cited unemployment, a lack of income, or an excessively low income as the primary cause of their non-payment.

A study by Murwirapachena, *et al*., (2022) also concurred that poverty is a crucial factor in the non-payment problem as many people are then forced to devote the little money they have on basic necessities. In this vein, it is argued that poverty is directly related to the ability to pay, but not the willingness to pay.

However, some scholars disputes the view of poverty as a motivation for electricity non-payment (see Yakubu, *et al.,* 2018). For instance, in China, although poverty is very high, electricity non-payment is very low (Yurtseven, 2015).

#### 2.3.3.2 Poor quality of electricity supply or dissatisfaction with electricity supply

Satisfaction with electricity supply is two-fold, being the provision of electricity first at the level required by the consumers, and second, at the level they can afford to pay

for. Apart from this, quality of electricity supply is also maintained by the operation and maintenance of the electricity supply during the downtimes. It also goes to the extremes of effective collection methods when it is due.

With this in consideration, electricity may be supplied at the level required by the consumers given that they have access to it, however, it is certainly not at the level they can afford. Therefore, they consider it a poor service. Second, due to the loadshedding being rolled out, consumers consider it poorly maintained, further making it a poor service. With regards to collection methods, unless otherwise illegally connected, Eskom has introduced meters for collection of their dues, which makes it efficient.

The culture of non-payment of electricity persists in many places. This may be a sign of the frustration felt by locals in traditionally underprivileged areas with the lack of change in their living conditions overall. About In this regard, The Sunday Independent (2021) reported that residents of Tembisa claimed to regularly suffer power outages, which the municipality blamed on people snooping on one another's power sources. However, the locals blamed these blackouts on a power network that had not been sufficiently built to handle the demand for power. This is attributed due to communication breakdown between key plays in the matter, in this case residents and locals. The communication breakdown seems to be common when it comes to the supply and demand for electricity.

The perception that the right to service is a constitutional right, however, may also be the driving force behind this dissatisfaction. In the past, local or regional authorities accepted responsibility for maintaining the provision of services to communities with the aid of government subsidies and grants, which are now less easily accessible (Hagg, 1998). The fact that communities are being charged for non-existent or extremely subpar services is a regular issue raised by many communities. Moreover, several localities are still subject to outdated rates that were set by defunct local councils (Kroukamp, 1995). Also, communities assert that their monthly accounts contain discrepancies as well. The fact that their bills are frequently completely incomprehensible exacerbated the situation. Furthermore, many South African communities lack the necessary infrastructure for levy collection, which prevents individuals from receiving their monthly bills on time.

#### 2.3.3.3 Cultural habit of non-payment

Murwirapachena, *et al*., (2022) posed that civil disengagement has become an increasingly serious problem in South Africa. In turn, there is a host of unresponsive officials, disconnected politicians and ineffective public programmes, combination of which has bred a culture of public inparticipation and lack of cooperation in South Africa. South Africans more and more got disconnected to their local authorities such that the majority of them fails to identify with their own town councils. In turn, they grew a cultural habit of non-payment, in some instances as a protest of being abandoned in public programmes, as well as claiming the victim card of being exposed to poverty, unemployment or any other viable reasons justifying non-payment.

#### 2.3.3.4 Opportunism

The problem of electricity non-payment is not only exercised by individuals, but also at a business and corporate level. Some businesses claim that government has in numerous cases called for the writing off of historical debts, from mainly historically disadvantaged communities (see, Omarjee, 2022). In some instances, for example, Gauteng government wanted Soweto's R5 billion Eskom debt written off (Omarjee, 2022). In turn, businesses took the opportunity and argued that if such debts can be written off, a blanket approach should also be extended to them. The opportunism culture is further bred to these businesses' employees, who goes on and default.

The ripple effect gets extended to other private consumers as well. When they see others ignoring electricity payment with impunity, they take advantage of the opportunity to also reject the notion of electricity payment, and non-payment bandwagon grows stronger and stronger (Fjeldstad, 2004).

There is also a belief among the residents, like in the case of Soweto residents, that the billing systems are designed in a way that discriminates the poorer residents (of Soweto) in favour of their richer counterparts (in Sandton), as noted by the The Soweto Electricity Crisis Committee (2004). This is exacerbated by the notion that some consumers receive their bills regularly while others often gets them. In turn, dissatisfaction grew among the poorer communities, and they stopped paying for electricity. In turn, they accumulated huge debts that are too huge to service. This

discouraged them from servicing the debts, or even paying their current bills. The bandwagon spread further and further.

#### 2.3.3.5 Exorbitant electricity prices

The lack of affordability is the common factor that is found in most electricity non-payment studies undertaken in various countries (Yakubu, *et al.,* 2018). The price as a contributory factor towards electricity non-payment was studied by multiple researchers around the world. For instance, the study conducted by Jamil and Ahmad (2014) in Pakistan discovered that consumer income and electricity price are factors that influence electricity non-payment. A similar finding was obtained in a study that was conducted in Ghana where high electricity prices were ranked as the main driver of consumers engaging in electricity non-payment (Yakubu, *et al.,* 2018). Furthermore, Depuru, *et al.* (2011) stress that when electricity prices are so high, even the most literate and higher-income earners may be motivated to avoid paying higher electricity bills. The reason for the literate and higher income earner to engage in electricity theft may be due to the burden being too much as the cost is transferred to them.

The study that was conducted by Jamil (2018) on electricity theft among resident consumers in Rawalpindi and Islamabad supports that high electricity price is the main contributory cause of electricity non-payment but further introduces a different factor which is detection. The study found that being detected and monthly expenses are significant in explaining electricity non-payment. This is in contrast to the study conducted in Brazil as significant monthly expenses were found to have a negative relationship with electricity non-payment (Mimmi and Ecer, 2010). Jamil (2018) further highlights that electricity non-payment is difficult to detect because dishonest consumers can either take electricity directly from distribution lines or conspire with a utility employee to avoid detection and prosecution. This may be caused by poorly constructed legislation and weak utility governance, which may lead to certain consumers receiving illegal benefits. This can be closely linked to "opportunism," as stated above in Section 2.3.3.4, from both the utility employee and the consumer for their self-interests.

#### 2.3.3.6 Poor Law Enforcement

One of the reasons why the public also finds its non-payment of electricity as a viable option is poor law enforcement. For instance, while most studies, as cited in the subsection 2.4.1 cites poverty as the backbone of their argument for non-payment, evidence from countries with tight law enforcement but high poverty, like China proves otherwise (see Yurtseven, 2015; Yakubu, *et al.,* 2018). Non-payment, either as fraud, that is, meter tempering and conniving with utility employees; or as theft, that is, illegal connections, is made possible ultimately by poor law enforcement.

Smith (2004) found that non-payment of electricity is closely related and high in instances where there is low effective accountability, political instability, low government effectiveness and high levels of corruption. All these factors breed poor law enforcement ultimately.

In the case of South Africa, this is even made worse by the fact that electricity theft, or non-payment at best, does not constitute a statutory offence (Mujuzi, 2020), which is in contrast with other economies such as China, Canada, India, Australia and New Zealand. This renders the authority with no power to prosecute non-payment of electricity. In fact, there is no provision for law enforcement on non-payment of electricity in South Africa. It is not recognised in courts, and in law.

## 2.4 Conclusion

The chapter laid down the theoretical framework for the study. The theories discussed in the chapter are the General Strains Theory, the Rational Choice Theory, the Economic Theory, the Radical Political economic theory and The Present-oriented or Myopic Model of Crime. All these theories can be linked as the basis for non-payment of electricity in South Africa. Furthermore, explored the literature available linking and explaining non-payment of electricity, in South Africa and beyond. It was noted that non-payment of electricity stems from a number of factors. The chapter paves way for Chapter 3, which then details the research design and methodology for the study.

# Chapter 3: Research Design and Methodology

## 3.1 Introduction

This study employs the quantitative methods in addressing the research problem, and the objectives. The methodology offers a number of advantages over other methodologies in that in eliminates the researcher's bias in the basis, since the conclusions will be derived from the data gathered. This chapter explains the research design and methodologies adopted in the study.

The study seeks to determine the factors that leads to non-payment of electricity in South Africa using the Border Post residents as the case study. The factors that will be investigated in the study are exorbitant electricity prices, unemployment, illiteracy, poverty, poor quality of electricity supply and poor law enforcement. The main objective of the study is to investigate the factors causing non-payment of electricity in South Africa. Accordingly, the sub-objectives are, to:

(i) examine factors motivating non-payment of electricity,
(ii) rank, in descending order, factors influencing non-payment of electricity in South Africa,
(iii) determine if consumers are concerned about non-payment of electricity,
(iv) establish if consumers are aware of the illegality of electricity non-payment,
(v) establish if consumers are aware of other alternatives through which they can obtain electricity legally, for example, free basic electricity.
(vi) determine the measures that need to be taken to mitigate the non-payment of electricity in Border Post Location.

This chapter aims to detail how these objectives will be addressed empirically.

## 3.2 The Survey Area

The study was carried out on Border Post residents in the Amathole District Municipality in the Eastern Cape Province. The basis for choosing this area is the proximity of the researcher to the area, and the association given that the researcher originates from the area. This assists in willingness of the respondents to provide

honest responses given the social contract between the researcher and the respondents.

## 3.3 Research Approach

The study followed an empirical research approach whereby quantitative research methodology was used to collect quantitative data from a small subset of a population and draw inferences that were not only objective but also systematic. The quantitative methodology was used to analyse, interpret, and compare the collected data in order to answer the research questions. This allowed the researcher to compare data by creating simple tables and graphs that show the frequency of occurrence and using statistics such as indices (Saunders et al., 2016). Therefore, the quantitative methodology in this study aids in obtaining deep insights into factors that may motivate Border Post consumers to not pay for electricity. A survey that is in the form of structured questions was used to collect data from a sizeable population in an economic way and to allow easy assessment of the factors that lead to non-payment of electricity in the area. This was accomplished through face-to-face interaction to ensure a true response from the participants. A random sampling strategy was used to generalize the Border Post community and assist in ensuring simplicity and to eliminate bias in the study. This was important due to the fact that non-payment of electricity is sensitive and not socially acceptable. Hence, only residents who were willing to participate were involved in the study. Sufficient data is vital, which makes sample size critical as the purpose of a study eventually becomes the driving component of the project (Charmaz, 2006). The sample size was chosen by utilizing Krejcie and Morgan's formula (1970).

The secondary data that is used for the research were journals, previous studies, and organisational records relating to the level of non-technical loss experienced annually, average electricity prices, and economic data. This data was used as a supplementary resource for this study. Both the primary and secondary data was analysed for the purpose of the study.

Both the primary data and secondary data helped to empirically examine the extent to which these actors (high electricity prices, unemployment, illiteracy, poverty, poor quality of electricity supply, and poor law enforcement) have an influence on a

household's non-payment of electricity in Border Post Location within Amahlathi Local Municipality, Eastern Cape.

## 3.4 Sampling

### 3.4.1 Population and sample size

Population refers to the total number of units of observation in the study. Given that the population at large is the South African population, it is virtually impossible to distribute the questionnaire to everyone or every rural household in South Africa given the time and cost constraints. Given these hurdles, the study was devoted to using the Border Post Location as a sample and a random strategy to obtain the research data, as this is feasible in terms of time and costs. The sample size, which is the representation of the Border Post household population, was obtained using the sampling formula developed by Krejcie and Morgan, as shown below, to estimate the required size and ensure the correct sample size is obtained. This sampling method has been widely used to estimate the sample size by researchers (Yakubu *et al*., 2018). As per the councillor, "there are 1757 households in Border Post Location, and most have electricity." Thus, using the formula, it was revealed that 90 households would be a sufficient size to effectively represent the Border Post community in the study. Krejcie and Morgan's sample size calculation was based on a p-value of 0.05, where the probability of committing a type 1 error is less than 5%, or 0.05. The values that were used to calculate the sample size are:

Population (N) = 1757
Margin Error (e) = 10%
Confidence level = 95%
$X^2$-score= 1.96
P=0.5

**Equation 1: Sample size**

$$n = \frac{X^2 \times NP(1-P)}{[e^2 \times (N-1)] + [X^2 P^2 (1-P)]}$$

*Where,*

$n$ = required sample size;

$X^2$ = the table value of chi-square for 1 degree of freedom at the desired confidence level;

$N$ = the population size;

$e$ = the degree of accuracy expressed as a proportion; and

$P$ = the population proportion (assumed to be 0.5 as this would provide the maximum sample size.)

This became the guiding principle in the number of participants that were needed to determine the factors that encourage the Border Post households to not pay for electricity. Regrettably, due to the fact that non-payment of electricity is sensitive and not socially acceptable, there was some resistance in some households to participating in the study; hence, 63 respondents were obtained. Based on the time constraint, the 63 households were large enough to infer the findings for a population. As Bryman and Bell (2011) argue, the correct sample size is dependent upon the nature of the population, time and budgetary constraints, nature of research, and variables involved. Furthermore, the margin of error and confidence level are usually balanced by the sample size.

### 3.4.2 Sampling Strategy

A random sampling strategy was used in the study. It offers various advantages, mainly that each element in the population has a known and equal chance of being selected (Saunders *et al.,* 2016). Further, the technique is chosen given that every element was independently selected and that it is also cheap and easy to conduct. In addition to the elimination of bias, the technique also allows for an estimation of the magnitude of the sampling error, from which the researcher can determine the statistical significance of changes. The sample size for this research was 63 households, which is large enough to infer the findings from the population as a whole as the sample size is usually balanced by margin of error and confidence level (Bryman and Bell, 2011).

Margin of error - The margin of error is a statistic expressing the amount of random sampling error in a survey`s results (Bryman and Bell, 2011). It states the acceptable

deviation from the target, an allowance for a slight error or miscalculation, or an allowance for changing circumstances. The margin of error in business generally ranges from 3% to 7% and is closely related to sample size.

Confidence level – “Confidence interval refers to the estimated probability that a population lies within a given margin of error. It is the amount of uncertainty that a researcher can tolerate (Marczyk *et al*., 2005)”. If the statistical model is accurate, then given all possible data obtained, the procedure for constructing the interval would result in a confidence interval that included the true value of the parameter the proportion of the time set by the confidence level. This is what a confidence interval with a specific confidence level is intended to do. The confidence level in business ranges from 90% to 100% (Chimucheka, 2015 and Marczyk et al., 2005).

Estimated percentage - The percentage or proportion of the sample that will choose a given answer to a survey question is unknown. It is therefore necessary to estimate the number since it is required for calculating the sample size.

## 3.5 Data Collection Methods

The study utilized primary data derived from the respondents through the use of a self-administered questionnaire. This is in the form of structured interview questions, as this approach places the method in the positivist tradition of inquiry and provides more precise measures (Oluwatayo, 20212). The questions that were asked of the participant were precisely defined prior to data collection. This was critical since a questionnaire only provides one opportunity to gather data because it is often difficult to identify respondents or return to collect more information, especially since non-payment of electricity is a sensitive matter. Thus, the questionnaire was designed to focus on investigating the contributing factors and the extent to which they influence a household's non-payment of electricity. The aim is to be as objective as possible and obtain in-depth insights to these factors. Given that the respondents are from a rural background, the questionnaire was not distributed via electronic means. Electronic means would have been a better option since it offers anonymity to respondents. Be that as it may, the questionnaire was hand-delivered to the respondents. The questionnaire was designed in such a way that the respondents would not spend more than 10 minutes completing it. This encourages the completion of the questionnaire.

Before responding to the questions, the participants were given the opportunity to be informed about the purpose of the study and to indicate their willingness to participate. Furthermore, the consent form was signed by the participants before the commencement of the structured interview.

### 3.5.1 Data Storage

The responses from the questionnaires were then collated on a Microsoft Excel spreadsheet to allow for analysis using SPSS software. All the study data is safely stored on three devices: a laptop, an external hard drive, and the cloud using Microsoft OneDrive. These various storage spaces ensure that data is not lost as they contain relevant information about the study. Furthermore, storage spaces allow for easy access and retrieval of the study data anywhere using any device, such as a computer, smartphone, or tablet, through Microsoft OneDrive.

### 3.5.2 Research Instrument

The research instrument used in the study is a self-administered questionnaire. It contains a set of carefully laid out questions with the aim of gathering information. The questionnaire was made up of closed-ended questions, which are easy to fill and objective. The questionnaire was designed according to the qualities advanced by Bhattacherjee (2012), which are:

(i) the ability of the questionnaire design to provide required data;

(ii) designed to encourage respondents to become involved in the research;

(iii) designed to minimise response errors;

(iv) proper question content and sequencing; and

(v) avoid sensitive or provoking questions.

To prevent respondents from being inconvenienced from their daily activities, the questionnaire was designed in such a way that it was brief but encompassing all the aspects under study. The design of the questions is in line with the study objectives, no deviation from the objectives were allowed. To achieve this, closed-ended

questions were used in the study, which allowed the derivation of specific information meant for the study.

The questions were structured in a way that the respondents will clearly and easily understand. As such, the researcher did not employ the use of leading and complex questions, as well as the use of vague words.

### 3.5.3 Pilot Study

A pilot study was conducted as a pre-testing measure of the questionnaire. It was done on a small group of respondents. All the problems or issues identified were ironed out before engaging in a large-scale deployment of the research instrument. This assisted in improving the questionnaire content, layout and intuitiveness.

## 3.6 Data Analysis

After the information from the respondents was collected. The next step was data analysis. Data analysis involved the data preparation process which refers to the process of checking the quality of data gathered during the fieldwork and converting it into an electronic format so that it can be read and manipulated by a computer software (Cant, *et al*., 2008).

The data was analysed using the SPSS software package. Whereby, it generated graphs and tables for easy of interpretation. Also, descriptive statistics as well as inferential statistics were derived for the sake of addressing the study objectives empirically.

### 3.6.1 Data Quality Criteria

The research methodology is important as it provides for data collection, interpretation and comparison in order to make sense of the subjective and socially constructed meaning expressed about the phenomenon being studied. The validity refers to the extent to which it measures what it is assumed to measure and the degree of its appropriateness, quality, meaningfulness, and approximation to the truth (Drost, 2011; Oluwatayo, 2012). This was addressed by ensuring the trustworthiness of the study. Pilot and Beck (2014) described the trustworthiness or rigor of a study as a degree of confidence in data, interpretation, and methods used to ensure the quality of a study.

Trustworthiness has been further divided into credibility, which corresponds roughly with the positivist concept of internal validity; dependability, which relates more to reliability; transferability, is a form of external validity and confirmability, which is largely an issue of presentation (Gunawan, 2015).

Thus, in this research, the internal validity was the participant's inability to finish the interview questions. This was mitigated by the fact that the interview questions were designed in a way that respondents were made to feel they were interviewed to determine what would motivate them to engage in non-payment of electricity, assuming that all were connected legally. Furthermore, a face-to-face interaction was used to assist in completing the survey and to ensure a true response from the participants. A random sampling approach aids in ensuring that all the participants are afforded an equal chance to partake in the survey and for the study to be unbiased. Furthermore, static analysis was used to analyse the data in conjunction with the triangulation method and persistent observation to show the findings of the study are credible.

The term "reliability" relates to the dependability of the study's outcomes and is defined as an indicator of the stability of the measured values obtained in repeated measurements under the same circumstances using the measuring instrument (Surucu & Maslakci, 2020). The reliability of the study was achieved by explaining the question throughout the interview to ensure that the participant understands what is being asked. This assisted in ensuring a true response from the participant is obtained. Also, a reliability test was used to evaluate the consistency by checking if the same condition gives the same finding in order to prevail the true propensity of contributory factors to non-payment of electricity among the Border Post residents. Reliability is deemed important in quantitative research because it is the basis of validity as it measures whether or not the study will obtain the same results.

The risk associated with the study was the question of the external validity of the results due to the issue of non-payment of electricity being sensitive and not socially acceptable in nature. This could have had a negative impact on obtaining sufficient samples to perform an effective analysis and interpretation of this study. As a result, when constructing the questionnaire, the approach was to formulate questions in such a way that respondents would give their honest reply. Furthermore, the purpose of the

study was thoroughly explained to the participants, and complete confidentiality was ensured. The respondents were not asked to provide their personal details such as names, home addresses, cell phone numbers, or any identification, as part of the questions. This allowed participants to react with a comprehensive description, enabling the researcher to gain in-depth insights into the study. This improved the study's transferability, and the study's findings can be valuable to people in various situations.

Confirmability, which is a form of objectivity, can be described as the potential for congruence between two or more independent people about the data's accuracy, relevance, or meaning (Elo et al., 2014). The objectivity of the study was achieved by ensuring that all the participants got equal opportunities to respond to the same set of interview questions. Hence, a simple random sampling approach was preferred for the study, as this helped in reducing biases or personal motivations from the researcher. Furthermore, the researcher crafted an interim summary after a set of related interviews and a reflective diary to reflect on the experience gained from undertaking the research, which aided in data analysis and provided the rationale for the findings.

## 3.7 Ethical Considerations

Saunders *et al*. (2016) define ethics as "norms or standards of behaviour that guide choices about behaviour and relationships among others." This means that researchers carry an obligation to the parties involved in the research (Saunders *et al.,* 2016). The participants should not be harmed or deceived, and they should be comfortable and willing to provide the required information, as it was done in this study by the researcher.

To guarantee that this research meets the highest ethical standards, the researcher acquired the ethical clearance form from the Wits Business School`s Research Ethics Committee which gave ethical approval in the project and research instruments for conducting the research. This was to ensure that the research will be conducted ethically and in accordance with the norms of the University of the Witwatersrand. These are the documents that were presented for approval to the ethics committee.

- Completed ethics Application form;
- Project Proposal;

- Research panel report;
- Copy of the proposed research instruments; and
- Consents forms.

The approval was obtained before any data was collected for this study.

## 3.8 Chapter Summary

This chapter gave a prognosis of how the research was conducted by outlining the study's methodological choice and the design process. More specifically, it explains why the quantitative research method is deemed appropriate for the study. In addition, it determined the required sample size, which was a representation of the Border Post household population. Finally, the chapter laid out the procedures to collect, analyse, report, and store the data as well as the criteria to ensure its quality. This provides a roadmap as well as guidelines on how the research was conducted. After these steps are followed, a detailed data analysis and interpretation of the results are provided in the next chapter.

# Chapter 4: Data analysis and interpretation of results

## 4.1 Introduction

The presentation, analysis, and discussion of the survey data from the Border Post Location are the main topics of this chapter. Tables formulated were used to describe and explain the outcomes that address the research questions that cover the study objectives. In addressing the objectives, data was collected by means of questionnaires that entailed closed-ended questions in order to draw insights to factors influencing non-payment of electricity. To make sure that participants were attentive and were addressing the research objectives, the study was carried out as described in Chapter 3. As a result, the questionnaire was created in a way that would be succinct but cover every component of the research; this design was further informed by the literature review described in Chapter 2. Sixty-three (63) respondents were obtained and analysed using the SPSS software package to generate graphs and tablets to better interpret the findings. Additionally, descriptive statistics as well as inferential statistics was derived to address the study objectives empirically. The chapter's goal was to obtain understanding of the elements that contribute to non-payment of electricity in South Africa, using Border Post as a case study. Therefore, the supporting sub-objectives were to:

(i) examine factors motivating non-payment of electricity,
(ii) rank, in descending order, factors influencing non-payment of electricity in South Africa,
(iii) determine if consumers are concerned about non-payment of electricity,
(iv) establish if consumers are aware of the illegality of electricity non-payment,
(v) establish if consumers are aware of other alternatives through which they can obtain electricity legally, for example, free basic electricity.

## 4.2 Discussion of the results

The researcher was responsible for all parts of data processing, including data recording, coding, and verification. To analyse and draw conclusions for the study, Microsoft Excel, and SPSS (version 26) were used. The findings that are established

in the study are without any amendments or alterations from the collected data. Therefore, it reflects the results that were used to address the research objectives.

### 4.2.1 Response rate

The researcher used a sample of sixty-three (63) participants to gather data in order to examine the factors contributing to the non-payment of electricity in South Africa, using the Border Post residents in the Amathole District Municipality as a case study. All the questions provided a percentage response of 100%, and this was accomplished through a face-to-face approach that enabled participants to fully complete the survey and assisting in obtaining a true response. Thus, the 100% response rate allowed the researcher to proceed with the data analysis, and the outcomes were conceded as valid.

### 4.2.2 Results and discussion

This section deals with the analysis and interpretation of data collected by means of questionnaires, which consist of closed-ended questions. The closed-ended questions were justified by the lower levels of literacy of the participants and the research being sensitive. The questionnaire is divided into two components that are reviewed separately: (i) demographic information; and (ii) knowledge (including attitude) about non-payment of electricity. Each section's questions are listed along with the justifications for including them into the research. The responses obtained from the participants are supported by tables, graphs, and/or statistics for better analysis and interpretation. The aim was to characterize the data based on its richness and completeness in order to better understand the study objectives.

## 4.3 Section I: Demographics Information

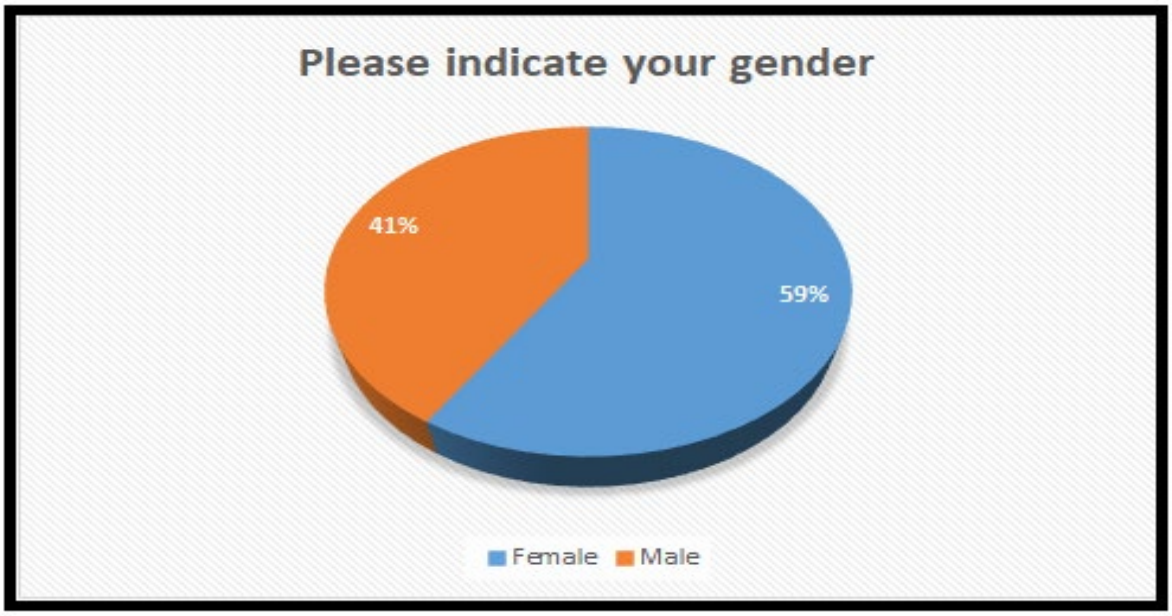
Proctor (2000:157) contends that demographic information is required to understand the respondent's fundamental characteristics. As the information provides data regarding research participants, it is necessary to determine whether the individuals in a particular study are a representative sample of the target population for generalization purposes. Furthermore, it offers information that can be used to identify the respondent, such as gender, age, marital status, race, and level of education. The next section discusses each question's responses.

### 4.3.1 Biographic information of the participants

#### 4.3.1.1 Gender of the participants

The first question focuses on the respondents' biographies, with gender being the first sub-question. This information enables the researcher to know the gender ratio of the participants. Figure 4.1 and table 4.1 below report on the gender category of the respondents. In this category, of the 63 respondents who participated in the research, 37 were females, representing 58.7% of the sample, whereas there were 26 males, representing 41.3% of the population. From this information, one can deduce that a large number of households are headed by females, and this is consistent with existing literature that points out that large portions of rural areas, such as the Eastern Cape, share a large number of female-headed households, at 50.6% (Galal, 2022). Traditionally, a woman`s role has been that of mother and wife. Furthermore, the literature reveals that in South Africa, female headship is positively associated with complete household non-employment, while the latter is positively associated with poverty (Nwou and Ndinda, 2018).

**Figure 4.1: Gender of participants**




**Source: Compiled by author**

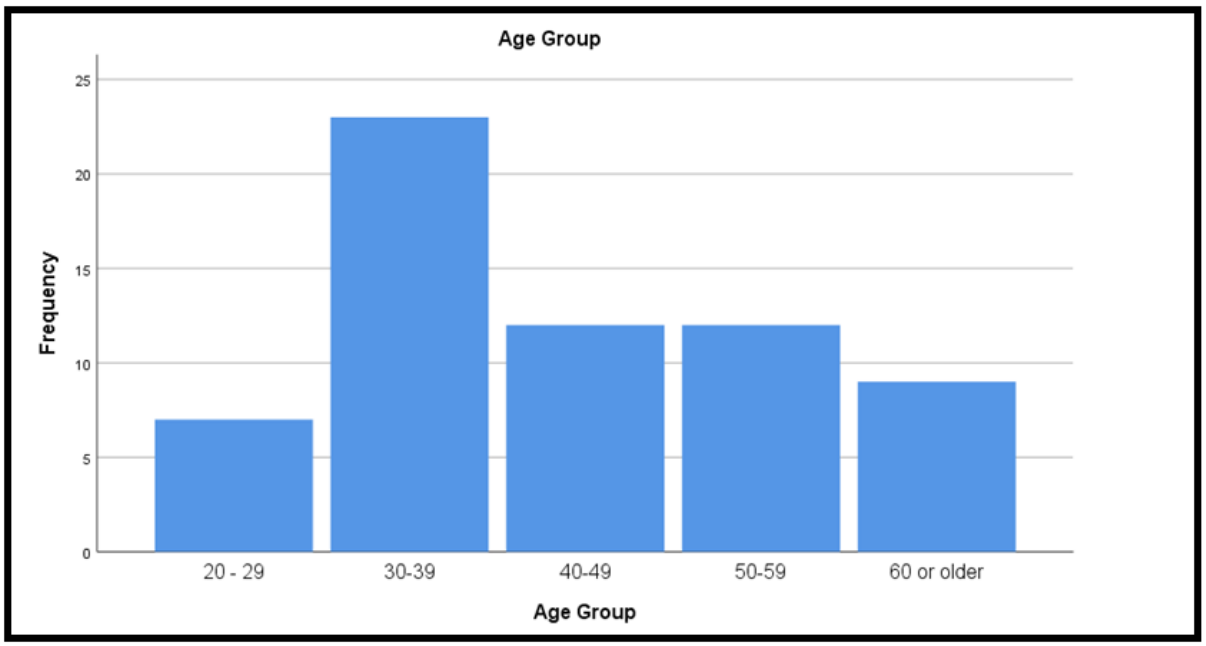
**Table 4 1: Gender of participants**

| Gender of Participants | | | | | |
|---|---|---|---|---|---|
| | | Frequency | Percent | Valid Percent | Cumulative |
| Valid | Female | 37 | 58.7 | 58.7 | 58.7 |
| | Male | 26 | 41.3 | 41.3 | 100 |
| | Total | 63 | 100 | 100 | |

### 5.3.1.2 Age of the participants

The second sub-question of the biographical information focuses on the age of the respondents. This information enabled the researcher to establish the age group that is motivated to partake in non-payment of electricity. Figure 4.2 below shows information about the age of the respondents.

**Figure 4.2: Age of the participants**




**Source: Compiled by author**

In addition, table 4.2 shows that most of the respondents were in the 30-39 age group, representing 36.5% of the sample. Almost one in every three respondents belongs to this age group. This finding is consistent with the South African statistic findings of the year 2022 which obtained the same findings for South Africa population. After this age group, at the same percentage of 12.0%, are the 40-49 and 50-59 age groups. Lastly, 60 or older and 20-29 age groups recorded the lowest results of 14.3% and 5%, respectively.

As a result, it can be concluded that the majority of people who will be motivated by the factors to engage in non-payment of electricity are between the ages of 30 and 39 years old.

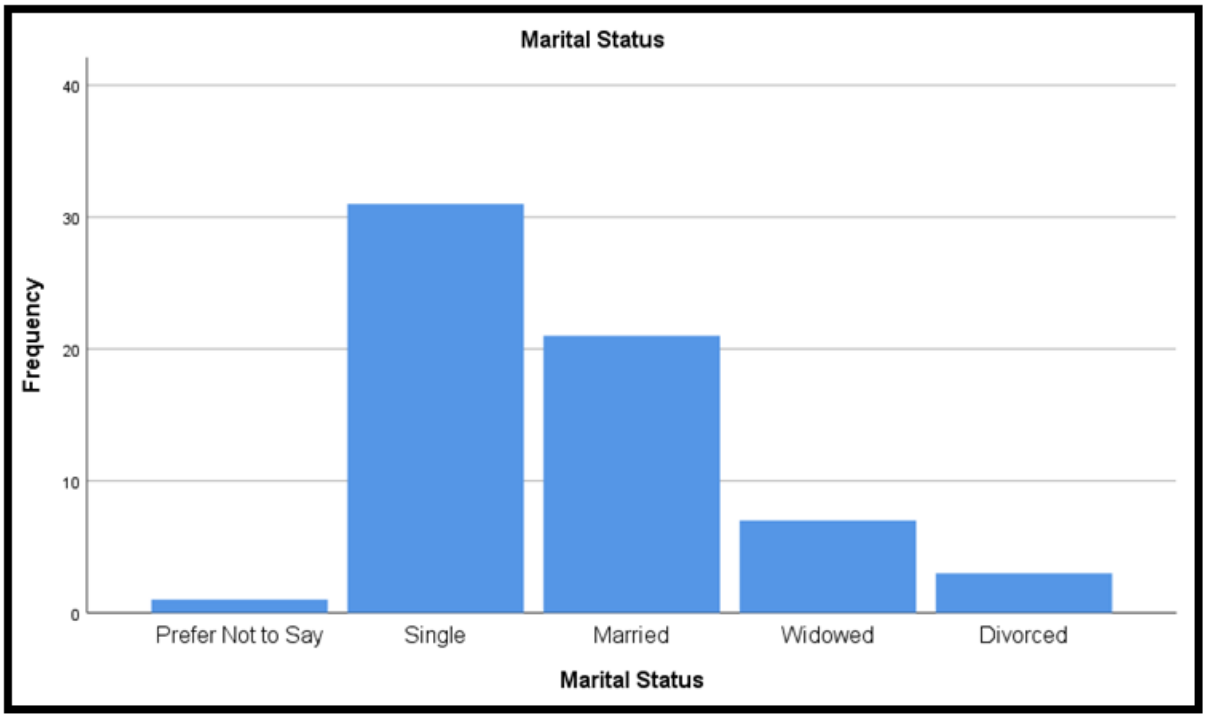
**Table 4.2: Age of participants**

| Age group of the Participants | | | | | |
|---|---|---|---|---|---|
| | | Frequency | Percent | Valid Percent | Cumulative |
| Valid | 20 - 29 | 7 | 11.1 | 11.1 | 11.1 |
| | 30 - 39 | 23 | 36.5 | 36.5 | 47.6 |
| | 40 - 49 | 12 | 19.0 | 19.0 | 66.7 |
| | 50 - 59 | 12 | 19.0 | 19.0 | 85.7 |
| | 60 or older | 9 | 14.3 | 14.3 | 100 |
| | Total | 63 | 100 | 100 | |

### 4.3.1.3 Marital status of the participants

The participants' marital status is the focus of the third sub-question of the biographical data. The researcher used this data to be able to determine the marital status of those who were more inclined to engage in electricity theft. Information regarding the participants' marital status is displayed in figure 4.3 below.

**Figure 4.3: Marital status of the participants**




**Source: Compiled by author**

Table 4.3 show that 49.2% of the sample's responses, or the majority, were single. This indicates that almost one in every two participants are single. The married marital

status comes next (33.3%), followed by the widowed (11.1%). Finally, divorced people and those who preferred not to disclose their marital status had the lowest results, coming in at 4.8% and 1.6%, respectively.

According to Statistics South Africa's research on the distribution of the population in South Africa in 2021 based on marital status, the majority of people are classified as single. This is consistent with the sample's responses.

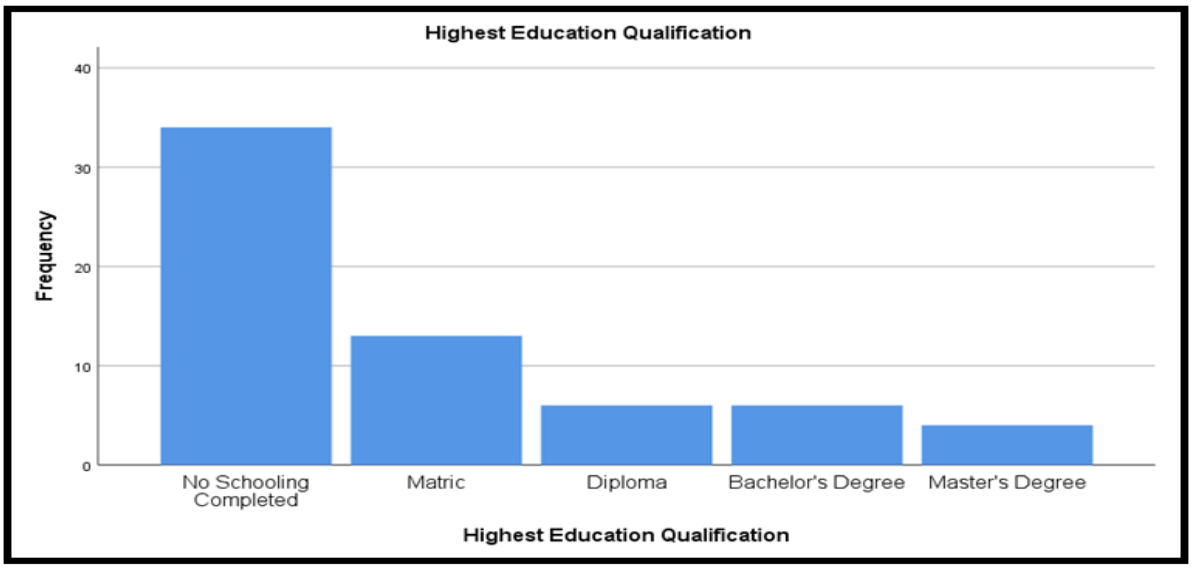
**Table 4.3: Marital status of the participants**

| Marital Status of the Participants | | | | | |
|---|---|---|---|---|---|
| | | **Frequency** | **Percent** | **Valid Percent** | **Cumulative** |
| Valid | Prefer Not to Say | 1 | 1.6 | 1.6 | 1.6 |
| | Single | 31 | 49.2 | 49.2 | 50.8 |
| | Married | 21 | 33.3 | 33.3 | 84.1 |
| | Windowed | 7 | 11.1 | 11.1 | 95.2 |
| | Divorced | 3 | 4.8 | 4.8 | 100.0 |
| | Total | 63 | 100 | 100 | |

#### 4.3.1.4 Highest Education Qualification of the Participants

The last sub-question of the biographical information focuses on the highest education qualification of the participants. This information allowed the researcher to establish the samples' highest qualification, and the results are shown below in figure 4.4. Thus, table 4.4 shows a quantitative representation of this information. From both of these representations, one can deduce that more than half of the respondents have not completed schooling, representing 54.0% of the sample. This indicates that one in every two respondents did not matriculate. Unsurprisingly, the second group of participants (20.6%) has received their matriculation. The lowest group had a diploma, bachelor's degree, and master's degree, representing the sample with 9.5%, 9.5%, and 6.3%, respectively.

**Figure 4.4: Highest education qualification of the participants**




**Source: Compiled by author**

**Table 4.4: Highest education qualification of the participants**

| Highest Education Qualification | | | | | |
|---|---|---|---|---|---|
| | | Frequency | Percent | Valid Percent | Cumulative |
| Valid | No Schooling Completed | 34 | 54.0 | 54.0 | 54.0 |
| | Matric | 13 | 20.6 | 20.6 | 74.6 |
| | Diploma | 6 | 9.5 | 9.5 | 84.1 |
| | Bachelor's Degree | 6 | 9.5 | 9.5 | 93.7 |
| | Master's Degree | 4 | 6.3 | 6.3 | 100.0 |
| | Total | 63 | 100.0 | 100.0 | |

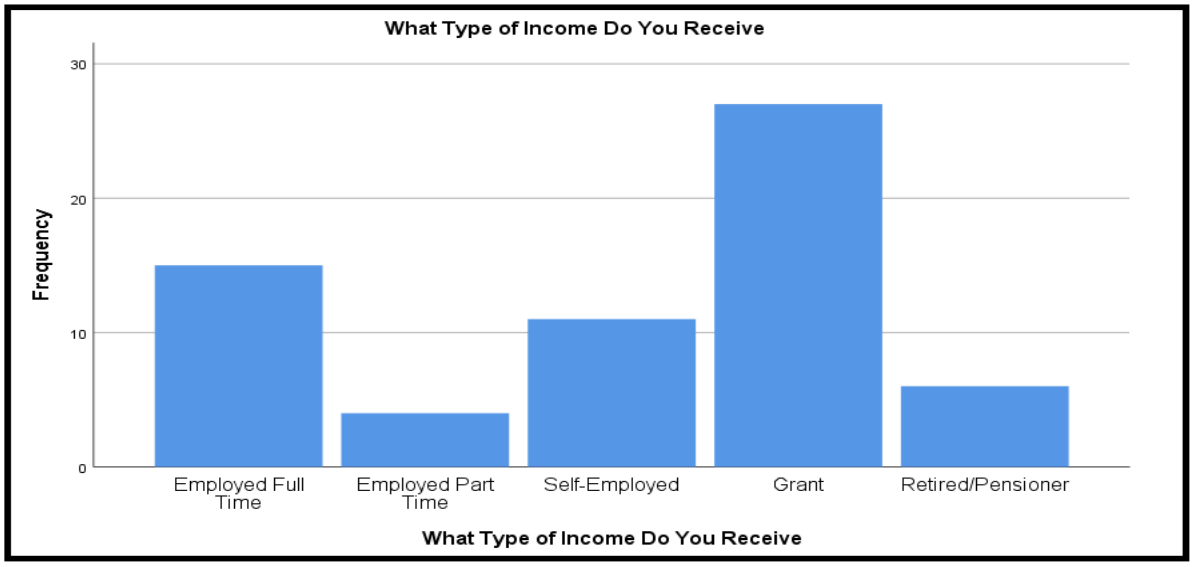
## 4.3.2 General information about the participants

The following questions are structured to obtain general information about the Border Post residents in the Amathole District Municipality who took part in the study.

### 4.3.2.1 Type of income received by participants

Section 4.3.2.1 observes the type of income that is received by the participants. The question is necessary as it enables the researcher to obtain information on the source of income of the participants. Figure 4.5 indicates the samples' type of income.

**Figure 4.5: Type of income of the participants**




**Source: Compiled by author**

Table 4.5 shows that most of the participants' source of income is grants, representing 42.9% of the sample. This demonstrates that nearly one in every two participants is supported by a social grant. The fully employed group comes next (23.8%), followed by the self-employed group (17.5%). Lastly, retired or pensioners and those employed part-time had the lowest results, coming in at 9.5% and 6.3%, respectively. From this information, one can infer that most of households are subjected to poverty as social grants, self-employment, and part-time employment, which represent 66.7%, can be closely linked to poverty. This is consistent with the literature review, which shows that the majority of people living in South Africa, especially in rural areas, are in poverty and that these conditions have not been improving. The Eastern Cape province, which comprises mostly of rural areas, has the highest exposure to poverty (64.0%) as per South African Institute of Race Relations (2021).

These findings are supported by StatsSA (2022), which confirmed that poverty statistics were neither improving nor stalling but, unfortunately, on the rise. Furthermore, evidence exists to demonstrate that poverty and unemployment are primarily prevalent in rural areas (StatsSA, 2022). As a result, the rural population is more likely to not pay for electricity, as a lack of affordability due to poverty and unemployment are common factors that have been found to be positively linked to non-payment (Yakubu et al., 2018). Multiple studies that were carried out in diverse

geographic places back up the assertion (Steadman, 2009; Gumusdere, 2004; Murwirapachena et al., 2022; and Botes & Pelser, 2001).

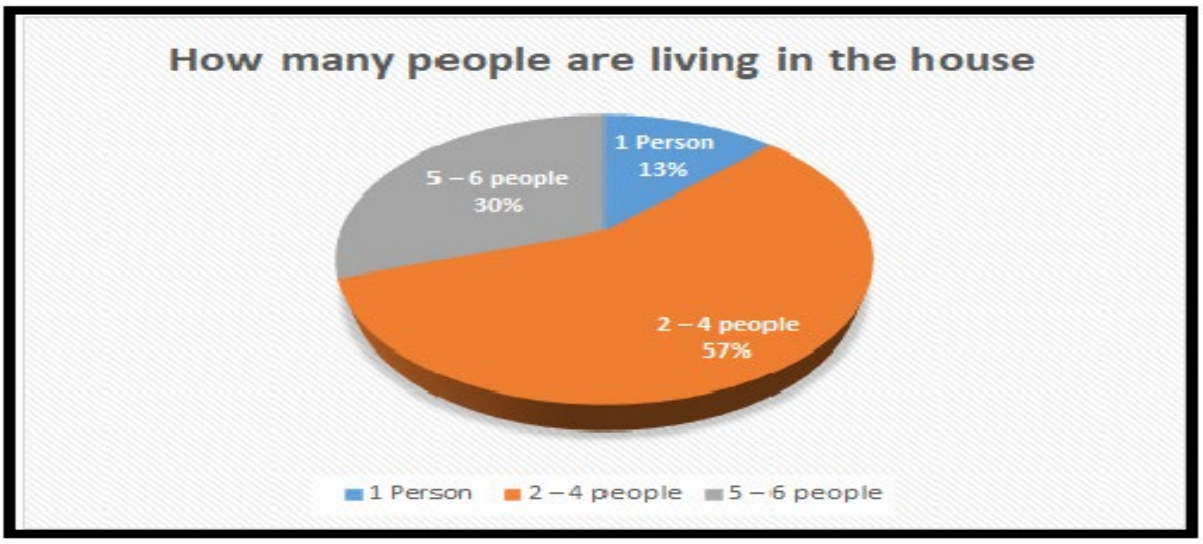
**Table 4.5: Type of income of the participants**

| What type of Income do you receive | | | | | |
|---|---|---|---|---|---|
| | | Frequency | Percent | Valid Percent | Cumulative |
| Valid | Employed full time | 15 | 23.8 | 23.8 | 23.8 |
| | Employed part time | 4 | 6.3 | 6.3 | 30.2 |
| | Self-Employed | 11 | 17.5 | 17.5 | 47.6 |
| | Grant | 27 | 42.9 | 42.9 | 90.5 |
| | Retired/Pensioner | 6 | 9.5 | 9.5 | 100.0 |
| | Total | 63 | 100.0 | 100.0 | |

### 4.3.2.2 Number of people living in a house

The emphasis was on determining the number of people living in the participant's home. This information is deemed important as it enables the researcher to discover the influence of the number of people living in the house's motivation into non-payment of electricity. Figure 4.6 and Table 4.6 below show the sample's representation of the number of people living in the house. In this category, of the sixty-three (63) respondents who participated in the research, more than half (57.1%) of the households have people 2-4 in the house, and 5-6 people in the house are represented by 30.2%. Finally, only 12.7 percent of the sample lived alone at home.

**Figure 4.6: Number of people living in the house.**




**Source: Compiled by author**

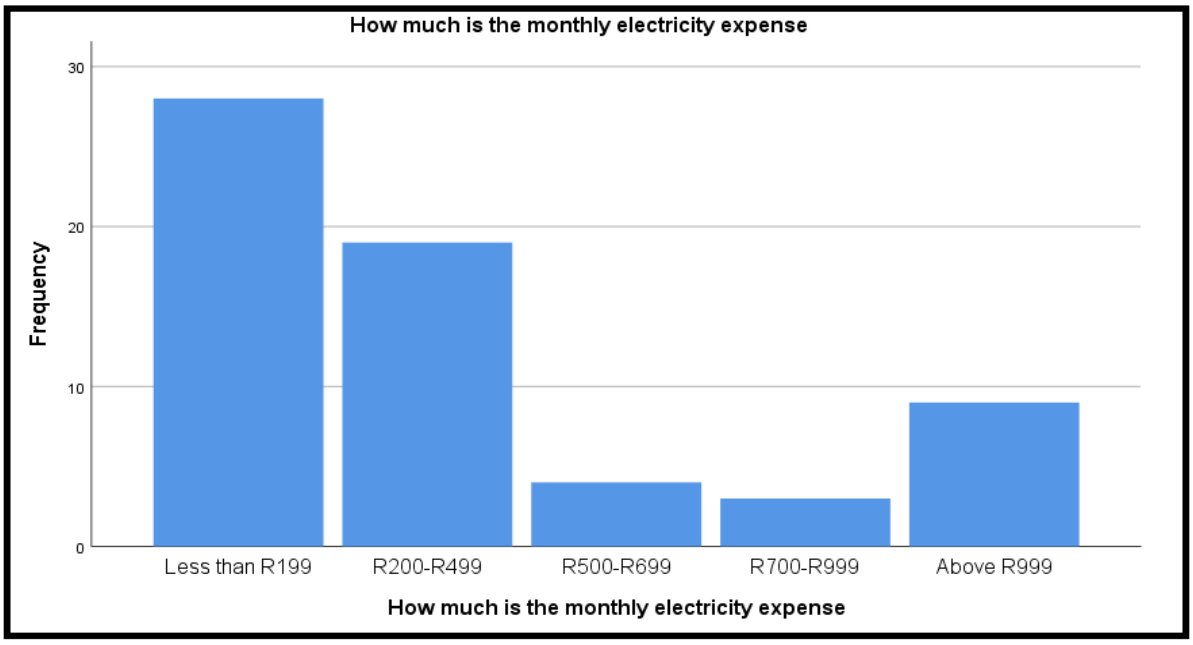
**Table 4.6: Number of people living in the house.**

| How many people are living in the house? | | | | | |
|---|---|---|---|---|---|
| | | Frequency | Percent | Valid Percent | Cumulative |
| Valid | 1 Person | 8 | 12.7 | 12.7 | 12.7 |
| | 2 – 4 people | 36 | 57.1 | 57.1 | 69.8 |
| | 5 – 6 people | 19 | 30.2 | 30.2 | 100.0 |
| | Total | 63 | 100.0 | 100.0 | |

### 4.3.2.3 Respondents' monthly electricity expense

Section 4.3.2.3 observes the monthly electricity expenditure of the participants at Border Post Location. The question is necessary because it allowed the researcher to obtain information about the participants' electricity expenses. The information was important as high electricity expenditure can result in a lack of affordability, especially for the sample whose main source of income is social grants. In addition, in some studies, a lack of affordability was identified as a common factor in non-payment of electricity (Yakubu et al., 2018). Figure 4.7 and Table 4.7 indicate the samples' monthly expenditure on electricity. Interestingly, almost half (44.4%) of the participants' monthly electricity expenditure is less than R199. This can be urged to be low, particularly given the sample size having majority of people leaving in the house being between 2-4. Also, with Eskom's average price of electricity increasing at a rapid rate, the price has increased by 753% from 2007 to 2021, which is far above the inflation rate of 134% in the same period (Moolman, 2021). On the other hand, the low expenditure can be justified by outdoor cooking still being prevalent, and some of the participants stated that this is one of many steps that they have taken to limit their monthly electricity bills due to the social ills of unemployment and poverty. Unsurprisingly, they were followed by the participants that spent a range of R200–R499 (30.2%) on monthly electricity. Lastly, the following monthly electricity expense groups obtained the lowest results: above R999 (14.3%), R500-R699 (6.3%), and R700-R999 (4.8%).

**Figure 4.7: Participants' monthly electricity expense**




**Source: Compiled by author**

**Table 4.7: Participants' monthly electricity expense**

| How much is the monthly electricity expense? | | | | | |
|---|---|---|---|---|---|
| | | Frequency | Percent | Valid Percent | Cumulative |
| Valid | Less than R199 | 28 | 44.4 | 44.4 | 44.4 |
| | R200 – R499 | 19 | 30.2 | 30.2 | 74.6 |
| | R500 – R699 | 4 | 6.3 | 6.3 | 84.1 |
| | R700 – R999 | 3 | 4.8 | 4.8 | 93.7 |
| | Above R999 | 9 | 14.3 | 14.3 | 100.0 |
| | Total | 63 | 100.0 | 100.0 | |

## 4.4 Section II: Attitude and Knowledge about non-payment of electricity

This section follows questions that sought to gather information of Border Post Location's attitude and knowledge about non-payment of electricity. The information is required to understand the respondents' fundamental factors that will influence them to engage in non-payment of electricity. The following critical points were examined to reflect the sample's attitude and knowledge about non-payment of electricity.

(i) determine if consumers are concerned about non-payment of electricity,

(ii) establish if consumers are aware of the illegality of electricity non-payment,

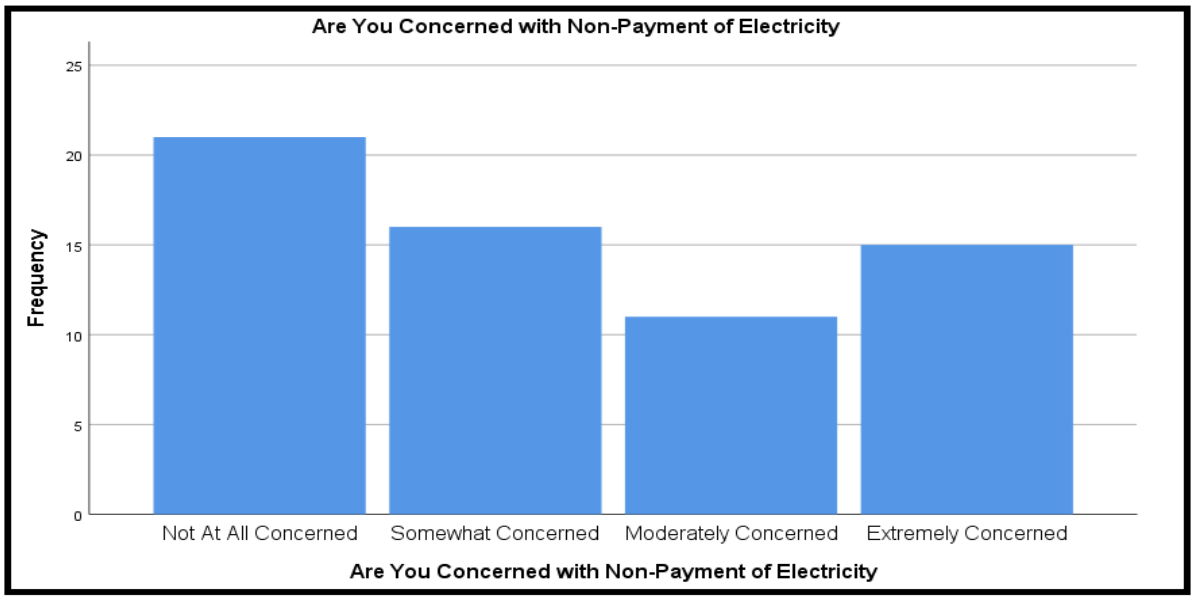
(iii) establish if consumers are aware of other alternatives through which they can obtain electricity legally, for example, free basic electricity.
(iv) examine factors motivating non-payment of electricity,
(v) rank, in descending order, factors influencing non-payment of electricity in Border Post Location.

### 4.4.1 Participants' level of concern about non-payment of electricity

The participants' level of concern for non-payment of electricity is reflected in Figure 4.8. The information helped the researcher better understand the participants' level of concern over non-payment of electricity. As previously stated, being extremely concerned can reduce the likelihood of being influenced by non-payment of electricity. The data show that one third of the participants (33.3%) were not bothered by the non-payment of electricity. Some of these participants highlighted that, even if they knew of a household that was connected illegally, they would not report it because they had more to lose. These participants stated two reasons for this: (1) holding too long on the telephone, which costs them money that they do not have, and (ii) the breakup of a long-term relationship. Traditionally, village people work collectively in most of the activities, living by the "brother-sister-keeper" cultural model; hence, the relationship is important to them. This observation is consistent with a literature review that urges that an individual's perception is critical in determining a person's behavior (Xin and Rudel, 2014). Berker (1998) emphasizes that, in general, an individual may engage in activities where the risk outweighs the benefit, which in this case is the disruption of relationships and lack of affordability.

It is followed by the group that was somewhat and extremely concerned, representing almost a quarter of the sample with 25.4% and 23.8%, respectively. Lastly, the lowest were those that were moderately concerned (17.5%) with non-payment of electricity. Table 4.8 below shows these results. From this information, one can deduce that the majority of the Border Post residents are somewhat concerned about the non-payment of electricity. It can be urged that their concern may be due to the exorbitant electricity hikes that are above inflation, for which non-payment is one of the many causes. Unfortunately, these costs are transferred to the legally connected customer, who will bear the brunt of them.

**Figure 4.8: Participants' level of concern with electricity non-payment**




**Source: Compiled by author**

**Table 4.8: Participants' level of concern with electricity non-payment**

| Are you concerned with non-payment of electricity? | | | | | |
|---|---|---|---|---|---|
| | | Frequency | Percent | Valid Percent | Cumulative |
| Valid | Not at all concerned | 21 | 33.3 | 33.3 | 33.3 |
| | Somewhat concerned | 16 | 25.4 | 25.4 | 58.7 |
| | Moderately concerned | 11 | 17.5 | 17.5 | 76.2 |
| | Extremely concerned | 15 | 23.8 | 23.8 | 100.0 |
| | Total | 63 | 100.0 | 100.0 | |

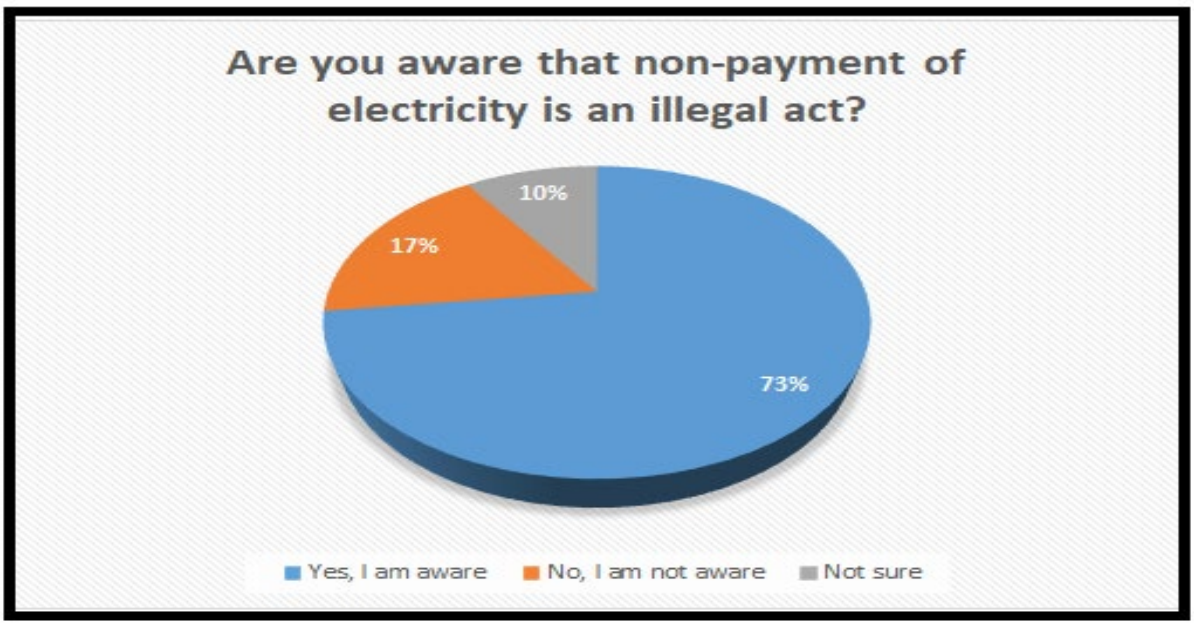
### 4.4.2 Participants' awareness of non-payment of electricity being illegal act.

The participants' understanding of the notion that failure to pay for electricity is a crime is examined in Section 4.4.2. The researcher was able to identify whether individuals who choose not to pay do so because of inadequate law enforcement and lack of awareness, which was essential for this study. According to a litersture review, failure to pay for electricity is positively correlated with instances of poor accountability, political unpredictability, ineffective governance, and high levels of corruption (Smith, 2004). For example, while the majority of research, as noted in subsection 2.4.1, poverty as the foundation of their case for non-payment, evidence from nations like China, which have strict law enforcement but high poverty, shows the opposite (see Yurtseven, 2015; Yakubu *et al.,* 2018).

Thus, this study reveals that 73% of the Border Post Location are aware that non-payment is an illegal act. However, evidence demonstrates a rise in electricity non-payment, with the Amathole district municipality owing R3 911 245 (O'Regan, 2022). With a population of 3 052 people, this implies an Eskom debt per head of R1281.54, which exceeds the national upper poverty line R1268.00. It can be argued that this is the result of poor enforcement because, unlike other developed nations like China, Canada, India, Australia, and New Zealand, energy theft in South Africa, or at best non-payment, is not a criminal offense (Mujuzi, 2020).

The second group, representing 17.5% of the sample, indicated that they were not aware that non-payment constitutes a crime. While a very small number of the sample, representing 9.5%, were unsure about whether the action was unlawful. Figure 4.9 and Table 4.9 below reports the data in a quantifiable format.

**Figure 4.9: Participants' awareness of electricity non-payment being an illegal act.**




**Source: Compiled by author**

**Table 4.9: Participants' awareness of electricity non-payment being an illegal act.**

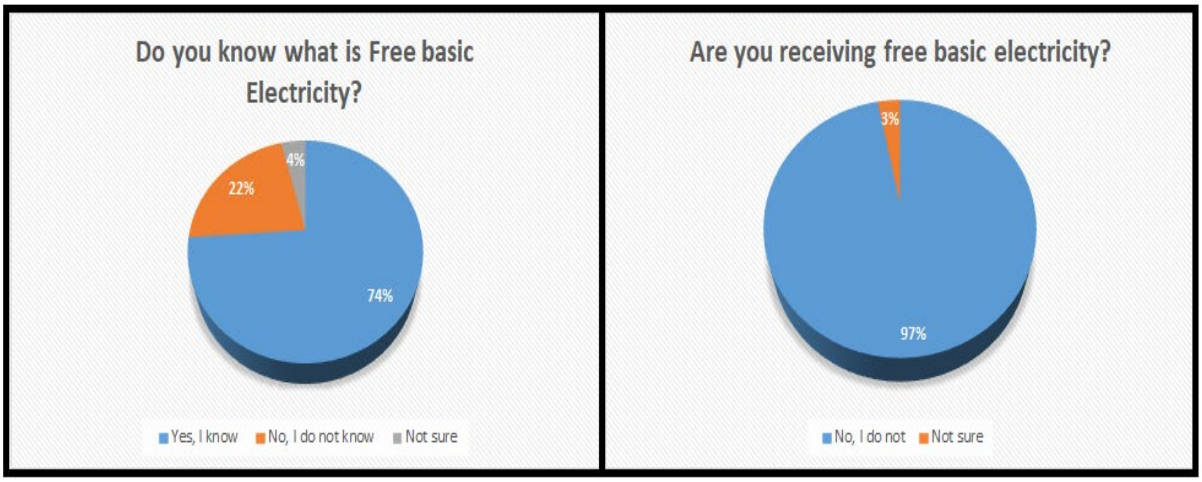
| Are you aware that non-payment of electricity is an illegal act? | | | | | |
|---|---|---|---|---|---|
| | | Frequency | Percent | Valid Percent | Cumulative |
| Valid | Yes, I am aware | 46 | 73.0 | 73.0 | 73.0 |
| | No, I am not aware | 11 | 17.5 | 17.5 | 90.5 |
| | Not sure | 6 | 9.5 | 9.5 | 100 |
| | Total | 63 | 100.0 | 100.0 | |

### 4.4.3 Participants' understanding of "Free basic Electricity" and if they receive one.

Section 4.4.3 examines the participants' knowledge of free basic electricity and whether they receive it. The question was necessary as this study was conducted in the rural village of Border Post, where poverty and unemployment are mainly prevalent (StatsSA, 2022). The poor conditions that result in a lack of affordability were proactively identified by the South African government, and Free Basic Electricity (FBE) of 50 kWh per month was introduced as a way to mitigate non-payment of electricity by indigent households (Prasad, 2021). The objective of the program was that those who were under financial strain should not commit a crime by bypassing the system.

Table 4.10 below demonstrates that the majority of Border Post residents are familiar with FBE, representing almost three-quarters of the sample. Unfortunately, 97% of residents do not receive this subsidy. This finding is consistent with the literature review, which highlights that many of the residents who qualify do not receive this subsidy. Eskom is alluding to the fact that, at the end of March 2020, only 700,000 households will have collected their FBE tokens (Prasad, 2021). Lastly, 26% of the sample did not know or were not sure what FBE was, recording the lowest results of 22% and 4%, respectively. Furthermore, only 3% were uncertain whether they were receiving this subsidy.

**Figure 4.10: Participants' understanding of FBE and if they receive it.**




**Source: Compiled by author**

### 4.4.4 Factors having an influence on non-payment and ranking them.

This section is directly aimed at examining the consumers' perceptions of the extent to which the factors have an influence on non-payment of electricity and ranking them from most to least significant. This was necessary for the researcher to be able to understand the degree to which these factors have an influence on a household's inability to pay for electricity.

#### 4.4.4.1 Descriptive statistics for non-payment of electricity.

This study examined the relationships between six variables, including high electricity prices, unemployment, literacy, poverty, poor supply, and poor law enforcement. The perceptions of respondents regarding the factors were then investigated using descriptive statistics. To determine the extent to which respondents approve (strongly agree) or disapprove (strongly disagree) of the items on the measuring scales, it is critical to understand how they perceive these factors. For each factor, statistics including the minimum and maximum values, mean scores, and standard deviation (SD) were considered for each factor as depicted in Table 4.10.

Poverty was ranked number one with a mean of 4.84 and the lowest standard deviation (0.410), as most of the participants strongly agree that poverty amongst the citizenry is the dominant reason that accounts for non-payment of electricity. Most consumers

also strongly agreed with the notion that high electricity prices and unemployment are the main driving factors that cause consumers to engage in non-payment of electricity, with a mean of 4.63 (SD=0. 576) and 4.62 (SD=0.551) respectively. Conversely, electricity prices are in their record highest levels in South Africa at the moment as shown in figure 1.2. The sharp rise in electricity tariffs has been criticized by South Africa. The respondents in this study agree it could be a motivating factor to non-payment of electricity.

Poor law enforcement, with a mean of 3.78 (SD = 1.023), is ranked fourth, as most of the participants agree that this factor has an influence on a consumer's decision to engage in non-payment of electricity. Smith (2004) emphasizes that non-payment of electricity is prevalent in instances where there is poor law enforcement that is induced by low accountability, political instability, low government effectiveness, and high levels of corruption. For instance, while most studies, as cited in subsection 2.4.1, cite poverty as the backbone of their argument for non-payment, evidence from countries with tight law enforcement but high poverty, like China, proves otherwise (see Yurtseven, 2015; Yakubu *et al*., 2018). In the case of South Africa, this is even made worse by the fact that electricity theft, or non-payment at best, does not constitute a statutory offense (Mujuzi, 2020), which is in contrast with other economies such as China, Canada, India, Australia, and New Zealand. This renders the authority without the power to prosecute non-payment of electricity e.g., Eskom fines households that are connected illegal. In fact, there is no provision for law enforcement on non-payment of electricity in South Africa. It is not recognized in courts or by law.

The factor of poor supply quality was ranked fifth, with a mean of 3.54 and a standard deviation of 1.090. This factor had the highest standard deviation compared to the other factors that are being studied. This demonstrates that the data is polarized. The mode (3.00) further illustrates that most of the participants confirmed their position when it came to this factor having an influence on non-payment of electricity. A similar finding is established for the literacy factor, which has a mean of 3.19 (SD = 0.965) and a mode of 3.00. This factor was ranked last in terms of having a degree of influence on the non-payment of electricity. This could be attributed to Eskom's recent illegal connection audits that were conducted at the Border Post Location. Those who were discovered were fined.

**Table 4.10: Descriptive statics for the factors influencing non-payment.**

| | N | Minimum | Maximum | Mean | Std. Deviation | Median | Mode |
|---|---|---|---|---|---|---|---|
| | Statistic | Statistic | Statistic | Statistic | Statistic | Statistic | Statistic |
| Increase in electricity price | 63 | 3 | 5 | 4.63 | .576 | 5.00 | 5 |
| Unemployment | 63 | 3 | 5 | 4.62 | .551 | 5.00 | 5 |
| Literacy | 63 | 2 | 5 | 3.19 | .965 | 3.00 | 3 |
| Poverty | 63 | 3 | 5 | 4.84 | .410 | 5.00 | 5 |
| Poor quality of supply | 63 | 2 | 5 | 3.54 | 1.090 | 3.00 | 3 |
| Poor Law Enforcement | 63 | 2 | 5 | 3.78 | 1.023 | 4.00 | 4 |
| Scale: 1=Strongly Disagree 2=Disagree 3=Neutral 4=Agree 5=Strongly Agree | | | | | | | |

## 4.5 Chapter Summary

This chapter discussed the interpretation and analysis of the research results of this study, whereby the collected data was synthesized using Microsoft Excel and successfully executed by the application of the SPSS software (version 26.0) to effectively analyse data. This enabled the researcher to use graphs and tables to show the results that addressed the study's objectives. The data revealed that females in an age group of 30-39 with no schooling who survive on a social grant, spend less than R199 on their monthly electricity expense, and are leaving in a household of about 2 to 4 are more likely to be motivated into non-payment of electricity. To understand the driving factors behind this behaviour, six factors were extensively reported, showing the mean, standard deviation, mode, and median of the factors through the use of descriptive statistics. The statistics show that the main drivers for Border Post households to be inclined in this behaviour is due to poverty, unemployment, and the high electricity price. Also, agreeing that poor law enforcement and poor supply of electricity have a level of influence to non-payment of electricity. Finally, they were neither in favour of nor against literacy having any influence on not paying for electricity. To better comprehend the extent and the influence these factors have on the Border Post residents, they were ranked from most significant to least significant as follows: poverty, high electricity prices, unemployment, poor law enforcement, poor

quality of supply, and, finally, literacy. Furthermore, from the data, it was deduced that the majority of the residents are aware that non-payment of electricity is illegal, despite the literature showing an increase year over year in illegal connections. The FBE subsidy that is available to assist indigent households is not received by almost any house in Border Post Location, as much as the residents are aware that it exists. The following chapter provides a comprehensive conclusion as per the study's objectives and recommendations. Lastly, it highlights opportunities that exist for future studies.

# Chapter 5: Conclusion and Recommendations

## 5.1 Introduction

This chapter of the study is concentrated on the affirmation of the study objectives, as it provides conclusion and recommendations based on this research. The results are summarised, and then some recommendations for further study are provided. These recommendations are based on the study's findings. On the basis of the analysis, results, and study's conclusion, recommendations are also made to curb non-payment of electricity.

## 5.2 Conclusion

The conclusions were deduced from the research after an intensive synthesis of the data in order to draw insights that were able to address the study objectives. The conclusion is in accordance with the study's objectives, which are as follows:

### 5.2.1 Examine factors motivating non-payment of electricity;

The research tested six factors that can have an influence on non-payment of electricity, which are: high electricity prices; high unemployment; low literacy; poverty; poor quality of supply; and poor law enforcement. According to the study, poverty, unemployment, and high electricity prices have a high level of affirmation (strongly agree) in terms of consumer non-payment of electricity. As participants agree, poor law enforcement has some extent of influence on non-payment. The last two factors, literacy and poor quality of supply, illustrate that most of the Border Post consumers neither agree nor disagree that these two factors have any influence on non-payment of electricity.

### 5.2.2 Rank, the factors influencing non-payment of electricity;

According to the study, poverty is the primary motivator for Border Post customers not to pay for electricity. Second to follow were high electricity prices and, thirdly, unemployment. The study concluded that these three factors have a significant impact on electricity nonpayment. Poor law enforcement was ranked fourth, with poor quality of supply coming in at number five. Lastly, the literacy factor was ranked sixth, being last in the rankings of the degree of influence on non-payment of electricity.

### 5.2.3 Determine consumers concern about non-payment of electricity;

The research revealed that most of the consumers had some level of concern about non-payment of electricity. Some participants indicated that the non-payment cost is being transferred to them, citing the exorbitant electricity prices they experienced recently. However, there are still quite a few who are not at all concerned about non-payment of electricity.

### 5.2.4 Establish consumers awareness of the illegality of electricity non-payment; and

The research reveals that the majority of the consumers of Border Post are aware that non-payment is an illegal act. Despite the fact that electricity theft in South Africa has increased, according to the literature. This may show that even though they are aware, they are still under the influence of the temptation to use energy without paying for it, which may be because of lack of affordability. The still exist a few of those Border Post customers that are still uninformed of and uncertain about the fact that non-payment constitutes a crime.

### 5.2.5 Establish consumers awareness on Free Basic Electricity

The study found that most Border Post consumers are aware of alternate legal options, like FBE. However, almost everyone in Border Post does not receive this electricity subsidy of 50 kWh per month, which was instituted as a means of reducing the non-payment of electricity by indigent households. Though some consumers are unaware of or are unsure of what FBE subsidy is or how to obtain one.

## 5.3 Recommendations

This section contains Border Post Location recommendations that are based on the research investigation and may help to reduce electricity non-payment in the area and similar areas. This was paramount due to the significant negative impact that non-payment causes in the country, for example, on Eskom’s operations, finances, and safety of employees as well as the public. Below is a list of recommendations that need to be implemented in the Border Post community.

i) Eskom and the government should intensify their work on electricity awareness programs that cover the dangers of electricity, the effects of non-payment of electricity, subsidies that are available, and ways to report non-payment of electricity. This can be achieved by using the opportunity of community meetings to share this information. Also, in school, where children are the best to capture and instil good behaviour and create champions.
ii) On a frequent basis, Eskom and the government, with the assistance of the councillor, visit the village to assist those households that qualify for the FBE by ensuring they receive it;
iii) Explore the use of alternative electricity solutions, i.e., solar energy and/or microgrids, to supply rural areas including Border Post;
iv) Eskom should step up its efforts to conduct an electricity audit and implement consequence management in order to help drive the ethical behaviour of paying for the service rendered, like electricity;
v) Intensify its smart technology implementation, as this will help to effectively detect any illegal electricity act that may occur in a household;
vi) Government to address socioeconomic challenges by eradicate poverty and unemployment throughout South Africa, not just in rural areas like Border Post;
vii) As well as formulate policies to combat non-payment of electricity that take into account the high electricity prices and poor law enforcement; and
viii) The South Africa Police Services, Eskom, the municipality, and the community must work together to help fight against non-payment of electricity. This means these stakeholders need to be consulted on the decisions that need to be made so that they can own the decisions in order for the fight to be effective.

## 5.4 Opportunities for future research

Future work involves conducting a similar study to investigate if there are any trends that may suggest evidence of a correlation between non-payment of electricity and the rate of urbanization. Also, between residential and business as this could provide a clearer picture of who engages in non-payments the most among these groups. Examine the extent of "political rivalry" as a factor in influencing non-payment of electricity, as it was raised by some of the participants that they were promised free electricity by the governing party.

# References


Abdullateef, A.I., Slami, M.J.E., Musse, M.A., Aibinu, A.M. & Onusanya, M.A. 2012, Electricity theft prediction on low voltage distribution system using autoregressive technique. International Journal of Research in Engineering and Technology vol 1 no. 5 pp2277 - 4378

Botes, L.J.S. & Pelser, A.J. 2001. Non-payment of Municipal Services: Base-line Survey Report. Bloemfontein: Centre for Development Support, University of the Free State.

Hagg, G. 1998. Needed: Human Resource Development to Sustain Community Water Supply Service.

Kroukamp, H. 1995. The Culture of Non-payment of Services as a Constraint in Financial Policy Management for Local Authorities in South Africa. SAIPA.

Agnew, R. and Brezina, T., 2010. *Strain theories*. 2010. The SAGE Handbook of Criminological Theory, pp.96-113.

Klevorick, A.K. 1985. On the economic theory of crime. *Nomos*, *27*, pp.289-309.

Jacod, B. 2011. Content and thematic analysis. *Research methods for clinical and health psychology*, *56*, p.68.

Cant, M. Gerber-Nel, D. Nel, C and Kotze, T. 2008. Marketing Research. Pretoria: Van Schaik Publishers.

Saunders, M., Lewis. P and Thornhill, A. 2016. *Research Methods for Business Students, 7th edition.* Published by Pearson Education Limited. Edinburgh Gate Harlow Essex CM20 2JE England.

Bryman, A. and Bell, E. 2011. Business Research Methods, 3rd edition. Published by Oxford University Press Incorporated. University of Oxford, New York United States of America

Marczyk, G., DeMatteo, D., & Festinger, D. 2005. *Essentials of Research Design and Methodology,* 1st ed. John Wiley & Sons, Inc: New Jersey.

Chimucheka, T. 2015. The Contribution of Entrepreneurship Education in Improving Entrepreneurial Skills and Knowledge of SMME Owners and Managers. *Journal of Economics 6(2):149-155* (Online) https://www.researchgate.net/publication/282817044_The_Contribution_of_Entrepreneurship_Education_in_Improving_Entrepreneurial_Skills_and_Knowledge_of_SMME_Owners_and_Managers. J [Accessed 16 December, 2022]

Bhattacherjee, A. 2012. *Social Science Research: Principles, Methods, and Practices 2nd edition*, published under Creative Commons Attribution-Non-Commercial, University of South Florida, USA.

Black, P., Calitz, E. & Steenekamp, T., 2013. Public Economics. 5th ed. Cape Town: Oxford University Press.

Bowman, A., 2020. Parastatals and economic transformation in South Africa: The political economy of the Eskom crisis. African Affairs, 119(476), pp. 395-431.

BusinessTech, 2019. Eskom's 20-year road to financial crisis in a nutshell. [Online] Available at: https://businesstech.co.za/news/finance/332227/eskoms-20-year-road-to-financial-crisis-in-a-nutshell/ [Accessed 10 December 2022].

Galal, S., 2022. Distribution of households headed by women in South Africa in 2021, by province. [Online] Available at: https://www.statista.com/statistics/1114301/distribution-of-female-headed-households-in-south-africa-by-province/ [Accessed 06 February 2023].

Central Intelligence Agency, USA, 2022. South Africa - Energy. [Online] Available at: https://www.cia.gov/the-world-factbook/countries/south-africa/#energy

Cullis, C., 2014. Despite producing 45% of the electricity in Africa, Eskom couldn't keep the lights on - the simplified story of how it happened. [Online] Available at: https://www.702.co.za/articles/811/how-eskom-africa-s-biggest-electricity-producer-ran-out-of-power

Development Bank of South Africa, 2005. Development Report: Infrastructure, a Foundation for Development, Midrand: Development Bank of South Africa.

Eskom, n.d. Our Recent Past -“Shift performance and grow sustainably”. [Online] Available at: https://www.eskom.co.za/heritage/history-in-decades/eskom-2003-2012/[Accessed 10 December 2022].

Fjeldstad, O., 2004. What's trust got to do with it? Non-payment of service charges in local authorities in South Africa. The Journal of Modern African Studies, 42(4), pp. 539-562.

Frith, A., 2011. Border Post. [Online] Available at: https://census2011.adrianfrith.com/place/273090 [Accessed 15 December 2022].

Mujuzi, J. D., 2020. Electricity theft in South Africa: examining the need to clarify the offence and pursue private prosecution. Obiter, 41(1).

Murwirapachena, G., Kabange, M. M. & Ifeacho, C. I., 2022. Non-payment culture and the financial performance of urban electricity utilities in South Africa. Development Southern Africa, 17(1).

Omarjee, L., 2022. Gauteng premier wants Soweto's Eskom debt of close to R5bn written off. [Online] Available at: https://www.news24.com/fin24/economy/gauteng-premier-wants-sowetos-eskom-debt-of-close-to-r5bn-written-off-20221030 [Accessed 15 December 2022].

O'Regan, V., 2022. Eskom is owed R50bn by municipalities – This infographic shows which council owes what. [Online] Available at: https://www.dailymaverick.co.za/article/2022-09-13-culture-of-non-payment-leaves-eskom-with-a-r50bn-debt-headache/ [Accessed 15 December 2022].

Savela, T., 2018. The advantages and disadvantages of quantitative methods in schoolscape research. Linguistics and Education, Volume 44, pp. 31-44.

Smith, T. B., 2004. Electricity theft: a comparative analysis. Energy Policy, Volume 32, pp. 2067-2076.

South African Institute of Race Relations, 2002. South African Survey 2001/2, Johannesburg: South African Institute of Race Relations.

StatsSA, 2022. South Africa’s youth continues to bear the burden of unemployment, Pretoria: Statistics South Africa.

The Institute of Risk Management South Africa, 2022. Accelerated Load Shedding will lead to Catastrophic Economic Consequences says IRMSA. [Online] Available at: https://www.irmsa.org.za/news/611115/Accelerated-Load-Shedding-will-lead-to-Catastrophic-Economic-Consequences-says-IRMSA.htm#:~:text=It%20states%20that%20%E2%80%9Cload%20shedding,2%25%20per%20year).%E2%80%9D [Accessed 10 December 2022].

The Soweto Electricity Crisis Committee, 2004. A case study for the UKZN project entitled: Globalisation, Marginalisation and New Social Movements in post-Apartheid South Africa, Durban: Centre for Civil Society and the School of Development Studies, UKZN.

Todaro, M. & Smith, S. C., 2020. Economic Development. 13th ed. New York: Pearson Intl.

Van Schalkwyk, A., 2012. A Case Study of Non-Payment for Municipal Services In the Vembe District Municipality. Mediterranean Journal of Social Sciences, 3(12), pp. 90-105.

Yakubu, O., Narendra, B. C. & Adjei, O., 2018. Electricity theft: Analysis of the underlying contributory factors in Ghana. Energy Policy, Volume 123, pp. 611-618.

Yurtseven, C., 2015. The causes of electricity theft: An econometric analysis of the case of Turkey. Utilities Policy, Volume 37, pp. 70-78.

*The Sunday Independent*, 18 July 2021. 13-year-old Thembisa Power Boycott is Still Deadlocked.

Njilo, N., 2022. City of Tshwane commits to paying R1.6bn debt after Eskom threat to cut power. [Online] Available at: https://www.dailymaverick.co.za/article/2022-08-23-city-of-tshwane-commits-to-paying-r1-6bn-debt-after-eskom-threat-to-cut-power/ [Accessed 15 December 2022].

# Appendices

Appendix A: Questionnaire

This is the survey was used to obtain the information for this study.

## Non-Payment of Electricity by Border Post residents in Amahlathi Local Municipality, Eastern Cape

### SECTION I: DEMOGRAPHIC INFORMATION

**1. BIOGRAPHICAL** (Please indicate by making an **X** in the relevant column)

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1.1 | **Gender** | *Prefer not to say* | | *Female:* | | *Male:* | |
| 1.2 | **Age Group** | *Prefer not to say* | | *Younger than 20* | | *20 – 29* | |
| | | *30 – 39* | | *40 – 49* | | *50 - 59* | |
| | | *60 or older* | | | | | |
| 1.3 | **Marital status** | *Prefer not to say* | | *Single:* | | *Married:* | |
| | | *Widowed* | | *Divorced* | | *Separated* | |
| 1.4 | **Ethnicity origin** | *Prefer not to say* | | *African* | | *White* | |
| | | *Coloured* | | *Indian* | | *Other* | |

**2. WHAT IS YOUR HIGHEST EDUCATION QUALIFICATION OR LEVEL OF SCHOOL COMPLETED** (Please indicate by making an **X** in the relevant column)

| | | |
|---|---|---|
| 2.1 | No schooling completed | |
| 2.2 | Matric | |
| 2.3 | Diploma or the equivalent | |
| 2.4 | Some college credit, no degree | |
| 2.5 | Bachelor's degree | |
| 2.6 | Master's degree | |
| 2.7 | Doctorate degree | |

**3. WHAT TYPE OF INCOME DO YOU RECEIVE?** (Please indicate by making an **X** in the relevant column)

| | | |
|---|---|---|
| 3.1 | Employed full-time | |
| 3.2 | Employed part-time | |
| 3.3 | Unemployed and currently looking for work | |
| 3.4 | Grant | |
| 3.5 | Retired | |
| 3.6 | Self-employed | |
| 3.7 | Unable to work | |
| 3.8 | Other | |

**4. HOW MANY PEOPLE ARE LEAVING IN THE HOUSE** (Please indicate by making an **X** in the relevant column)

| | | |
|---|---|---|
| 4.1 | 1 person | |
| 4.2 | 2 - 4 people | |
| 4.3 | 5 – 6 people | |
| 4.4 | Above 6 people | |

**5. HOW MUCH IS THE MONTHLY ELECTRICITY EXPENSE** (Please indicate by making an **X** in the relevant column)

| | | |
|---|---|---|
| 5.1 | Less than R199 | |
| 5.2 | R200 – R499 | |
| 5.3 | R500 – R699 | |
| 5.4 | R700 – R999 | |
| 5.5 | Above R1000 | |

## SECTION II: ATTITUDE AND KNOWLEDGE ABOUT NON-PAYMENT OF ELECTRICITY

Preliminary investigation shows an increase in electricity theft in South Africa and various factors may be the contributory cause to this phenomenon. Furthermore, those consumers that are legally connected bear the brunt as costs are transferred to them and the heavy impact is evident in the burgeoning electricity prices in South Africa. The price of electricity has climbed by 753 percent over the last fourteen years, whereas inflation has only increased by 134 percent (Moolman, 2021). This increase may be too expensive for the rural community that is already suffering from poverty, inequality, and unemployment, as a result, they are encouraged to electricity theft as electricity is a basic need. Moreover, preliminary investigation shows that there is a weakness in the Free Basic Electricity subsidy programme as there are few households that are benefiting from the initiative (Prasad, 2021).

**6. ARE YOU CONRENED ABOUT NON-PAYMENT OF ELECTRICITY** (Please indicate by making an **X** in the relevant column)

| | | |
|---|---|---|
| 6.1 | Not at all concerned | |
| 6.2 | Slightly concerned | |
| 6.3 | Somewhat concerned | |
| 6.4 | Moderately concerned | |
| 6.5 | Extremely concerned | |

**7. ARE YOU AWARE THAT NON-PAYMENT OF ELECTRICITY IS AN ILLEGAL ACT?** (Please indicate by making an **X** in the relevant column)

| | | |
|---|---|---|
| 7.1 | Yes, I am aware | |
| 7.2 | No, I am not aware | |
| 7.3 | Not sure | |

**8. DO YOU KNOW WHAT IS FREE BASIC ELECTRICITY?** (Please indicate by making an **X** in the relevant column)

**Note:** If the below answer is NO, skip question 9 and continue with question 10.

| | | |
|---|---|---|
| 8.1 | Yes, I know | |
| 8.2 | No, I do not know | |
| 8.3 | Not sure | |

**9. ARE YOU RECEIVING FREE BASIC ELECTRICITY?** (Please indicate by making an **X** in the relevant column)

| | | |
|---|---|---|
| 9.1 | Yes, I do | |
| 9.2 | No, I do not | |
| 9.3 | Not sure | |

**10. HOW ARE THE FOLLOWING FACTORS INFLUENCING ELECTRICITY THEFT AND CAN YOU RANK THEM FROM THE HIGHEST TO LOWEST IN TERMS OF INFLUENCE ON ELECTRICITY THEFT?**

| | | |
|---|---|---|
| 10.1 | Increase in electricity price | |
| 10.2 | unemployment | |
| 10.3 | literacy | |
| 10.4 | poverty | |
| 10.5 | Poor quality of supply | |
| 10.6 | Poor law enforcement | |

**11. INDICATE THE EXTENT TO WHICH YOU WILL AGREE THAT THE UNDER LISTED FACTORS WILL MOTIVATE SOMEONE TO ENGAGE IN NON-PAYMENT OF ELECTRCITY?**

.

| Factor | Strongly agree | Agree | Neutral | Disagree | Strongly disagree |
|---|---|---|---|---|---|
| Increase in electricity price | | | | | |
| unemployment | | | | | |
| literacy | | | | | |
| poverty | | | | | |
| Poor quality of supply | | | | | |
| Poor law enforcement | | | | | |