



energy

---

Department:  
Energy  
REPUBLIC OF SOUTH AFRICA

**BULK INFRASTRUCTURE  
POLICY GUIDELINES  
FOR  
INTEGRATED NATIONAL  
ELECTRIFICATION PROGRAMME (INEP)**

## Table of Contents

1. BACKGROUND .....	1
2. INTRODUCTION .....	2
3. OBJECTIVES .....	3
4. SCOPE OF APPLICATION .....	3
5. BULK INFRASTRUCTURE .....	3
5.1 NEW BULK INFRASTRUCTURE .....	4
5.2 REFURBISHMENT .....	4
5.3 UPGRADING OF BULK INFRASTRUCTURE .....	4
6. CRITERIA FOR FUNDING .....	5
7. SUBSIDY LEVELS .....	6

## 1. BACKGROUND

In line with the energy White Paper and the Electricity Pricing Policy (EPP), cognizance is taken of the fact that many people in South Africa are living below the poverty line and have limited ability to pay for goods and services. This fact guides the application of subsidies to lower the barriers of entry and reduce the price to low usage customers.

Supply to residential customers must meet the customers' basic essential electricity needs. This should be done at the lowest possible cost using a combination of suitable appropriate technologies, supply sizes, and customer service options.

The Department has been mandated to ensure universal access to energy by households. Some of the challenges to achieving universal access include insufficient programme funding; the building of new bulk infrastructure in urban and rural areas; and inadequate refurbishment and rehabilitation of electrical infrastructure.

NERSA requires that all electricity distributors monitor and maintain their networks to ensure the provision of good quality electricity supply.

The electrification programme has a goal of reaching universal access to energy by the year 2025. The rate of electrification needs to be accelerated to catch up with the rate of housing growth, if universal access to energy is to be reached.

A lot has been achieved over the past two decades since the programme started however, the rate of electrification over the years has slowed down, due

Title	Bulk Infrastructure Policy Guidelines
Responsibility	Department of Energy
Date Last Updated	26 November 2018
Status	Released

to the bulk infrastructure cost as a result of little or no spare capacity available in most substations and high/medium voltage lines.

The mass electrification through INEP has brought power to the rural areas, which means increased demand for electricity and an overburdened electricity infrastructure.

This policy must be read in conjunction with other policies.

## 2. INTRODUCTION

The Department of Energy had previously funded electrification connections, this leading to the electrical infrastructure being overloaded and has subsequently undertaken to fund bulk infrastructure for electrification purposes.

The Department of Energy (DoE) has a mandate to ensure provision of secure, sustainable and affordable energy for socioeconomic development.

Without adequately performing assets and sound electricity infrastructure, South Africa would not be able to support its targets, inspire investor confidence, or meet customer expectations. Government must expand access to basic services to all citizens through building new assets or extending them, while local licensed utilities also have to maintain, rehabilitate or replace existing infrastructure assets so that their value is protected over time.

This policy document will outline the funding process of bulk infrastructure which includes new, maintenance, refurbishment and the upgrading outlining the criteria for funding.

Title	Bulk Infrastructure Policy Guidelines
Responsibility	Department of Energy
Date Last Updated	26 November 2018
Status	Released

### **3. OBJECTIVES**

The objective of this document is to provide policy guidelines for the provision of electrification bulk infrastructure as part of the Integrated National Electrification Programme (INEP). Alignment of the bulk infrastructure policy with other related government policies is critical, given the complimentary nature of the activities of various departments. In this regard, the INEP programme supports the Department of Human Settlements in the provision of electricity to new settlements (housing), to maximize the impact of the subsidies provided by government.

### **4. SCOPE OF APPLICATION**

This policy is applicable to all licensed electricity distributors providing bulk infrastructure as part of the electrification programme of the Department of Energy.

### **5. BULK INFRASTRUCTURE**

In this document bulk infrastructure refers to the backbone infrastructure required to fulfil the Department's mandate of reaching universal access to electricity. This includes distribution substations, High and Medium Voltage (MV) lines ranging between 1kV - 132kV.

Whilst the INEP programme has been very successful in increasing access to electricity not enough attention has been given to improving the state of the distribution assets and their ability to guarantee reliable service in future. The distribution industry is in a dilapidated state, posing a very real threat to the security of electricity supply to the end-user.

<b>Title</b>	<b>Bulk Infrastructure Policy Guidelines</b>
Responsibility	Department of Energy
Date Last Updated	26 November 2018
Status	Released

## 5.1 NEW BULK INFRASTRUCTURE

Bulk infrastructure is required to electrify an area that has never had grid electricity; or to create new capacity of infrastructure to facilitate the connection of more households; this will include substations, and/or distribution lines.

## 5.2 REFURBISHMENT

Assets continue to deteriorate and are perceived as unable to cope with the electricity demand.

Many of the assets are older than 40 years with at least 50% requiring immediate attention and major refurbishment/replacement.

The need for refurbishment of infrastructure varies and depends on the initial quality of infrastructure that was installed. A balance is required between construction of new bulk infrastructure and the refurbishment of existing infrastructure to avoid adversely impacting the INEP programme.

Refurbishment of bulk infrastructure will be funded through INEP, only if it will support new electrification projects.

## 5.3 UPGRADING OF BULK INFRASTRUCTURE

To ensure sustainability and quality of supply, it is crucial that the existing electricity infrastructure be upgraded and strengthened when necessary.

The rapid rate of urbanization is increasing the overloading of the networks. An increased number of households that need to be connected warrant bulk

Title	Bulk Infrastructure Policy Guidelines
Responsibility	Department of Energy
Date Last Updated	26 November 2018
Status	Released

infrastructure upgrade, should the current network not be able to cater for the increased number of connections.

Bulk infrastructure upgrading will be funded through INEP, only if it will support new electrification projects.

## 6. CRITERIA FOR FUNDING

The bulk electricity infrastructure projects must meet the following criteria to qualify for INEP funding:

Bulk infrastructure (substations, high and medium voltage lines) projects will be prioritized for funding provided they:-

- Will result in the reduction of the national electrification backlog, or
- Are aligned with the Department of Human Settlements plans for integrating fully subsidized houses, Communal Rental Units (CRUs),
- Are proven to be critical by the municipality for unblocking housing delivery programmes which are stranded due to the lack of bulk electricity infrastructure; and
- Feeder line to the boundary of the electrification area should be classified as a bulk line irrespective of the distance
- HV bulk infrastructure lines are funded 100% irrespective of the distance.

The bulk project must support the electrification projects that are in the municipal Integrated Development Plan/Provincial Annual Plan before it can be approved.

The following considerations will form a major role in deciding the allocation

Title	Bulk Infrastructure Policy Guidelines
Responsibility	Department of Energy
Date Last Updated	26 November 2018
Status	Released

of funding to licensed distributors.

- Past performance
- Licensed authority support and capacity
- Network capacity availability
- Viability and cost effectiveness

## 7. SUBSIDY LEVELS

- The Department will fund all qualifying and approved bulk infrastructure projects.
- The funds shall be administered by the DoE as prescribed by existing national legislative framework (such as the PFMA and DoRA).
- Bulk infrastructure projects will be proportionally funded to qualifying categories as outlined in the mixed development policy and funded fully where low cost electrification projects will account for 70% percent of the capacity.
- Only non-firm substation is funded
- Ring feed networks will not be catered for (HV & MV)

<b>Title</b>	<b>Bulk Infrastructure Policy Guidelines</b>
Responsibility	Department of Energy
Date Last Updated	26 November 2018
Status	Released