

LANGEBERG MUNICIPALITY WHEELING OF ENERGY POLICY



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1. INTRODUCTION

This policy describes the process and requirements for Renewable Power Producers (RPPs) to wheel electrical energy on the Langeberg Municipality (Langeberg) distribution grid (Grid). The policy sets the requirements to enable wheeling and energy trading in Langeberg. The guideline sets the parameters of capacity allowed on the network and does not limit or restrict the number of consumers. This policy will be regularly reviewed and amended, as technical capacity is built through approved applications by RPPs.

2. DEFINITIONS

Electrical Department	The Electrical Department of Langeberg.
Director	The Director: Engineering Services of Langeberg
Distribution	The conveyance of electricity through a distribution power system excluding trading. 'distribute' and 'distributing' have corresponding meanings;
Distribution power system	A power system that operates at or below 132kV;
End user	A user of electricity or a service relating to the supply of electricity
Energy regulation act (ERA)	National Energy Regulator Act, 2004 (Act 40 of 2004);
Energy credit	The monetary value of energy sold by RPPS or traders and provided to consumers via Langeberg's grid
Eskom grid	The transmission or distribution power system owned by Eskom.
Generator	A person who generates electricity.
Langeberg's grid	The distribution power system in Langeberg's licensed supply area.
Grid	An electrical power system used to transport electrical energy. Also referred to as network.
Off taker	A Langeberg electricity consumer and the purchaser of third-party electrical energy. Also referred to as end-user.
Reticulation	Trading or distribution of electricity and includes services associated therewith;
The Constitution	The Constitution of the Republic of South Africa, 1996.
RPPs	(Renewable Power Producer) A generator who generates power using renewable energy sources either in Eskom or Langeberg Grid.
Trader	A licensed entity engaged in trading.
Trading	The buying or selling of electricity as a commercial activity;
Wheeling	The transportation of electrical energy through a network not owned, controlled, or leased by such party.

3. SCOPE OF GUIDELINE

The guideline will cover the following:

- **Legal and regulatory framework**

In an uncertain and constantly changing energy regulatory environment, it is important to review and update the guideline to ensure compliance with national legislation.

- **Requirements to wheel energy on the Langeberg Grid (Annexure A)**

These requirements will be constantly reviewed, as technical capacity is built over time.

- **Wheeling scenarios.**

The different wheeling scenarios will be explained in this section.

- **Application process.**

The application process will be explained, as well as the information requirements from RPPs.

4. LEGAL AND REGULATORY FRAMEWORK

The Constitution states that a municipality has the “executive authority” with respect to electricity reticulation and “has the right to administer” electricity reticulation (S156). The Constitution further states that the public administration of service should be provided “impartially, fairly and equitably and without bias” (S229).

The municipality must, however, adhere to national legislation regarding the administration. The applicable act is the Energy regulation act (ERA). The act states that “A transmission or distribution licensee must, to the extent provided for in the licence, provide non-discriminatory access to the transmission and distribution power systems to third parties” S21(3).

Furthermore, in S21(4) the act states that access must be provided on the conditions set out in the licence of the distributor as it relates to, but is not limited to the following:

- Access being allowed or refused.
- Compliance with any rule, code or practice made by the regulator.

The licence conditions consist of financial, legal, and technical conditions. There are various technical conditions mentioned in the licence but the one specifically applicable to wheeling is NRS 048 (quality of supply).

Langeberg is thus obligated to allow RPPs access to the Grid but must still adhere to its licence conditions. According to the ERA, Langeberg may grant or refuse access on the conditions of the licence. It is therefore the stated intention of Langeberg to impose additional conditions on wheeling entities only insofar as it will ensure the quality of supply to its consumer base.

The additional requirements will be mostly technical in nature. Langeberg aims to develop the technical capacity with pilot projects and foresees the requirements being amended regularly. The municipality does not want to take unnecessary technical risks by enabling wheeling. The project will rely on standards already developed for small scale embedded generators (SSEG's). This will ensure minimal technical risk for Langeberg and compliance with all relevant technical standards.

In summary, Langeberg will allow non-discriminatory access to the municipal grid by RPPS in full compliance with national legislation and the rules or codes published by the regulator. In addition, it will create requirements for RPPS to ensure the municipal compliance to its licence conditions.

5. WHEELING SCENARIOS

The tariff applicable and the technical requirements depend on the location at which the **generator** and the **off taker** are connected. The options are:

1. Generator connected to another grid than the Langeberg grid.
2. Generator connected to the Langeberg grid.
3. Off taker connected to another grid than the Langeberg grid.
4. Off taker connected to the Langeberg grid.

“Another grid” as mentioned above could be either Eskom, another Municipality or possibly any other licensed distributor of electricity.

Both traders and generator will be allowed to wheel electricity. Both must adhere to NERSA’s rules and regulations in terms of licensing and registration as well as national legislation.

For the initial period a generator alone cannot wheel to more than one consumer. A trading licence issued by NERSA would be required to wheel to more than one consumer.

The following figures shows the wheeling scenarios.

Eskom connected generator wheeling to a Municipal off taker

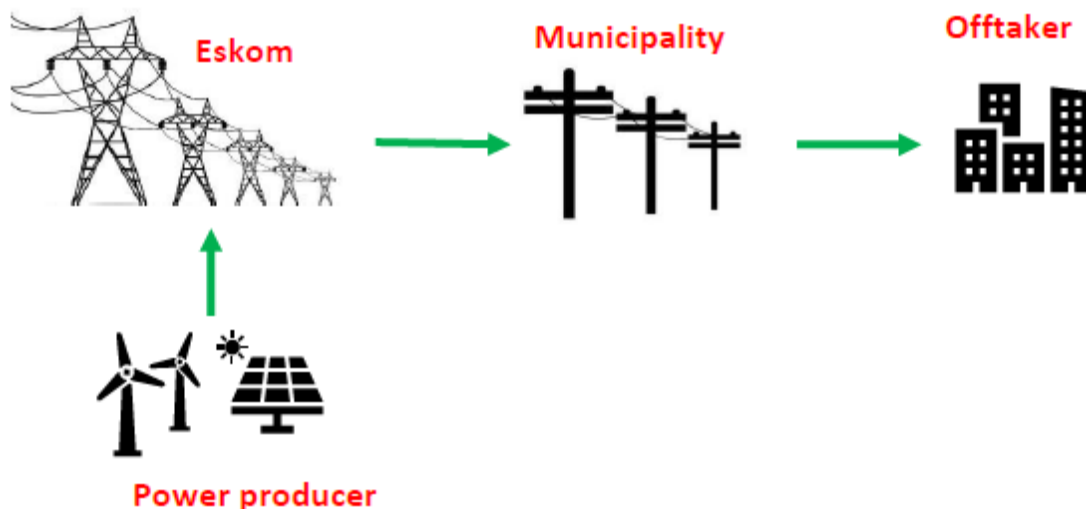


Figure 1: Eskom connected generator wheeling to a Municipal off taker

Municipal-connected generator wheeling to a Municipal off taker

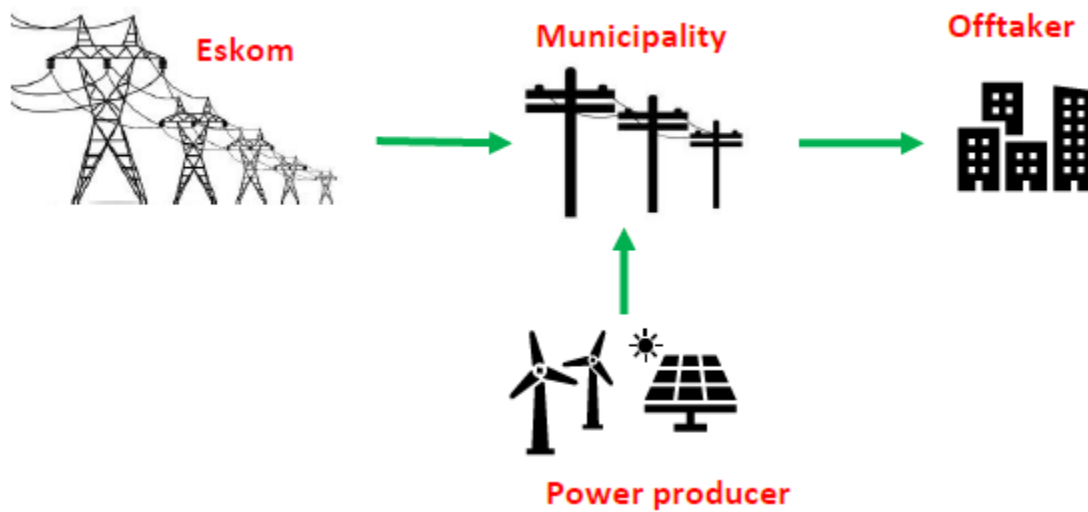


Figure 2: Municipal-connected generator wheeling to a Municipal off taker

Municipal-connected generator wheeling to Eskom-connected off taker or a municipal off taker in another municipality.

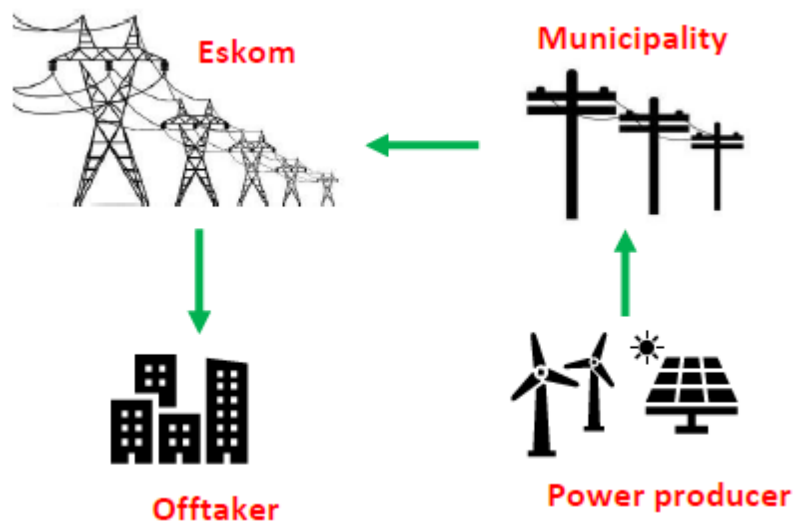


Figure 3: Municipal-connected generator wheeling to Eskom-connected off taker or a municipal off taker in another municipality.

6. APPLICATION PROCESS

The application process will be handled on a case-by-case basis. The applicant is to inform the Electrical Department as soon as possible, when considering entering a wheeling arrangement. All the requirements in **Annexure A** should be met.

The contracts mentioned below must be signed before wheeling can take place.

1. Generator registration at municipality. The proposed generator/ current generator will need to register as an SSEG or adhere to the relevant generator criteria with Langeberg and comply with the connection requirements. This requirement is in addition to registration or licensing requirements as imposed by NERSA (by the generator) in terms of the Electricity Regulation Act.
2. Amended supply contract with the off taker. The consumer will need to amend its supply agreement with the municipality.
3. Use of systems agreement between the trader/generator and the municipality.

7. ANNEXURE A: REQUIREMENTS OF THIRD-PARTY ENERGY PROVIDER

The requirements are listed in two sections. The first section is only applicable if the generator is connected to the Langeberg Grid. The second section is applicable to all applicants.

Langeberg connected Generator:

1. Generator tariff

The generator must be on the applicable time of use tariff for consumption.

2. Generator connection agreements

The generator must adhere to the generation connection requirements for the connection of the generation facility.

3. Generator connection Voltage.

Generators are preferred to be connected at 11kV or higher to the Langeberg Grid. Low Voltage (400V) connected generators can be approved by the Director.

Applicable to all:

1. NERSA licenced / registered

Only generators that comply with NERSA's generator licensing requirements will be allowed to wheel.

2. Limit on total capacity.

The allocation of Langeberg's wheeling capacity will be done on a basis to ensure that competitive market will prevail, and lowest possible prices can be achieved. This value will be determined by the Director. The Municipality will review this allocation when required.

3. Limit on capacity per applicant

3 MVA maximum export capacity allocation will be allowed per applicant per site. The Director can approve higher export capacity.

4. Minimum connection size of the off taker.

The off taker must be on a Time of Use (TOU) tariff.

5. Contractual agreements

The use of systems agreement will be developed on a case-by-case basis and must adhere to the current requirements set in the Policy.

6. Revenue neutrality

The tariffs must be at least surplus (lost revenue – cost savings) neutral for the municipality. Any additional charges for wheeling added by Eskom to the municipality's account will be for the off takers' account.

7. Off taker requirements.

The off taker must be approved by Langeberg and the off takers' supply agreements must be amended.

8. Billing reconciliation period.

The billing will be reconciled monthly for corresponding TOU periods until the billing system can reconcile for hourly or half-hourly periods. No banking will be allowed.

9. Any off taker may not receive any electrical energy from more than one RPP or one energy trader, other than the municipality, as applicable.**10. No energy banking**

Any electrical energy not consumed by the off taker will not be credited i.e., no banking of energy will be allowed. This means that Langeberg will receive this energy free of charge.

11. Load shedding or outages

No wheeling will be allowed or possible during a network outage or load shedding. All wheeling generators shall have dead grid safety lock equipment installed to disconnect the generator from the grid in case of an outage.

8. ANNEXURE B: ACCOUNTING

Accounting for wheeling will be done as follows:

Municipal Grid connected Generator:

Eskom bill to the Municipality:

- Eskom's bill will automatically reduce because less energy will flow from Eskom to the municipality as the energy will be generated by the Generator connected after the Eskom meter.
- The amount of energy reduction in the Eskom bill will include the reduction in the losses as the flow of energy through the networks closest to the Eskom supply will reduce.
- There will however not be a clear adjustment in the Eskom bill, the consumption quantities will simply be lower.

Generator Bill:

- The generator will be billed for the standard Langeberg applicable TOU tariff charges including:
 - Standard Basic charge
 - Demand and Access charges in respect of:
 - the maximum capacity it wants to take from the Grid and based on the actual demand used
 - or in cases where the network capacity is exceeded based on the wheeling demand.
- The generator will pay for any energy used at the standard energy charges but will not be credited for any energy wheeled.

The Off taker:

- The bill at the standard tariff applicable to the off taker will be the same as before the wheeling and thus firstly reflect all the energy going through the off-taker meter.
- An additional Basic charge will be levied to cover the additional costs relating to the implementation of the wheeled energy approach of the off taker.
- An energy credit will be applied for the wheeled energy at the Eskom Megaflex energy charges (all kwh charges) as applied to Langeberg by Eskom to the network where the consumer is connected.
- The energy credit will reflect:
 - the total kWh wheeled
 - Minus the amount of kWh wheeled which exceed the amount consumed during every half hour period. (over wheeled energy)
- No credit is applied in respect of demand and access charges.

Municipal Grid connected Generator wheeling to Eskom consumer:

- This will not be allowed. The main reason is because such generator will be using the capacity available on the Langeberg Grid to install generators to benefit Langeberg consumers.

Eskom connected Generator:

Eskom bill to the Municipality:

- Eskom will charge an additional basic charge for wheeling to the generator.
- Eskom will credit the account by the amount of wheeled energy as provided by the generator at the TOU energy charges of the Eskom WEPS tariff but not in respect of:
 - The losses factor.
 - Ancillary service charge and electrification and rural subsidy charge.
 - No adjustments in Maximum Demand or Access charges.

Generator Bill:

- Eskom will charge the Generator.

The Off taker:

- The bill at the standard tariff applicable to the off-taker (in future on TOU) will be the same of before the wheeling and thus firstly reflect all the energy going through the off-taker meter.
- Two additional Basic charges will be levied to cover the additional costs relating to the wheeling:
 - The municipal wheeling Basic charge.
 - The Eskom wheeling basic charge.
- An energy credit for the wheeled energy will be the same as that by which Eskom credits the account to Langeberg. (WEPS TOU energy rate excluding losses) These amounts will be per TOU period and will not be reconciled per half hour period but per month.
- In cases where there is over wheeling in any TOU period, the benefit will be for Langeberg. No banking will also be allowed between the different TOU periods.