DEPARTMENT OF MINERAL RESOURCES AND ENERGY

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NATIONAL ENERGY REGULATOR OF SOUTH AFRICA

REGULATORY RULES ON NETWORK CHARGES FOR THIRD-PARTY WHEELING OF ENERGY

Version 01

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DEFINITIONS

Terms not otherwise defined in the Act and/or Codes shall have the meaning given to them below.

Act	Electricity Regulation Act, 2006 (Act No. 4 of 2006), as amended.
Active energy charges	The charges associated with the electrical energy supplied and delivered by the licensee and consumed by the off-taker.
Avoided cost	The marginal costs a licensee would avoid in any given period if a distributed electrical energy resource provided electricity instead of the licensee. For Network Service Providers (NSPs) at the retail level, this would be their energy purchase costs plus potential technical losses.
Buyer	A third-party purchaser of the Wheeled Energy that concludes a Power Purchase Agreement with the Seller, which can be a: (a) NSP; (b) Trader; (c) Corporate Entity; or (d) Off-taker, as may be applicable.
Codes	The South African Grid Code, the Distribution Code, or any other code approved by NERSA, as may be applicable.
Corporate entity	A juristic person (as defined in the Companies Act, 2008 (Act No. 71 of 2008) that purchases wheeled energy but is not a trader or a licensee.
Connection and Use-of-System Agreement	The agreement between a generator and the network service provider for the connection to and/or use of the network, including for the export of the wheeled energy.

Cost of supply studies	Studies that derive and allocate the costs of supply, used for the design of tariffs (but excludes determining the connection charges).
Distributor	A legal entity that owns or operates/distributes electricity through a distribution system
Electricity supply agreement	The agreement between a load and a licensee for the connection to and/or use of the network, including any purchase of electrical energy from the licensee and capacity associated with the delivery of energy.
Electricity Pricing Policy	South African Electricity Supply Industry: Electricity Pricing Policy, dated 12 December 2008, including subsequent amendments thereto.
End-user	Users of electricity connected to the Distribution System.
Eskom	Eskom Holdings SOC Limited, registration number 2002/015527/30, a state-owned company duly incorporated in South Africa acting through its generation, distribution and/or transmission divisions, as the case may be (including its successor in title, assigns, any applicable new entity created through a restructuring of Eskom and/or any entity to whom assets belonging to Eskom or current functions of Eskom are disposed of and/or transferred to).
Generator	A facility that generates electricity for the purposes of own use, or to sell electrical energy through a power purchase agreement.
Licensee	A legal entity licensed by NERSA in terms of the Electricity Regulation Act to provide the electricity distribution and/or trading services. The holder of the licence granted or deemed to have been granted by the Regulator

National Transmission Company of South Africa	The South African legal entity licensed to execute the national transmission responsibility. It consists of a System Operator and a national transmission network service provider
Network	The transmission or distribution power system, as may be applicable.
Network charges for third-party transportation of energy	The use-of-system (UoS) charges are charges meant to recover the costs associated with the use of and making capacity available on an electricity network. These charges are the unbundled regulated tariffs, charged by the NSP for making transmission or distribution capacity available to generators and loads.
Network Service Provider or NSP	NSP is a legal entity that is licensed to provide network services through ownership and maintenance.
Off-taker	The customer that purchases and pays for the wheeled energy from a seller.
Power Purchase Agreement or PPA	An agreement between a generator and a buyer for the sale and purchase of energy.
Third-party wheeling	Third-party wheeling is a financial transaction where through bi-lateral or multi-lateral transactions, a Generator sells their generated electrical energy to another party, Wheeling through the existing distribution or transmission Network of a Licensee.
Regulator (NERSA)	The National Energy Regulator of South Africa, being a regulatory authority established in terms of section 3 of the National Energy Regulator Act, 2004 (Act No. 40 of 2004) or its successor in title.
Seller	Any person or entity authorized to sell electricity under the regulatory framework, this may include generators, distributors, or intermediaries participating in electricity trading or direct supply to consumers

Subsidy	The application of funds generated from taxes, levies, and other sources, outside of the electricity sector, to lower the charges to particular customer categories. (Note definition for cross-subsidies)
Surcharges	A charge in excess of the municipal cost of supply that a municipality may impose on fees for a municipal service provided by or on behalf of a municipality, in terms of section 229(1)(a) of the Constitution and the Municipal Finance Management Act.
Tariff	Means a charge to a customer or end user in respect of a licensed activity or registered activity, other than a surcharge, tax, levy or duty imposed by a municipality in terms of section 229 of the Constitution of the Republic of South Africa, 1996. A combination of monthly charges, each at a particular rate, that are usually escalated annually and are applied to recover the costs of measured quantities, such as consumption and capacity, and the costs of unmeasured quantities, such as customer service and administration.
Trader	A legal entity licensed or registered to engage in the buying and selling of electricity as a commercial activity
Trading	Means the wholesale or retail buying and selling of electricity, and 'trade' has a corresponding meaning.
Third-party wheeling	Third-party wheeling is a financial transaction where through bi-lateral or multi-lateral transactions, a Generator sells their generated electrical energy to another party, wheeling the energy through the existing distribution or transmission network of an NSP.
Wheeled Energy	Means the electrical energy (kWh) produced by the generator as measured

	by the meter of the generator and the NSP at one site that is sold to a Buyer at another site, and this electricity is delivered from the generator to the customer through a NSP's network.
Wheeling tariff/Credit rate	Means the rate at which wheeled energy is accounted for and is based on the NSP's avoided cost. This excludes any use-of-system charges.

ABBREVIATION

EPP	Electricity Pricing Policy, dated 12 December 2008
ERA	Electricity Regulation Act, 2006 (Act No. 4 of 2006), as amended or re-enacted from time to time
IPP	Independent Power Producer
kWh	Kilowatt hours
NERSA	National Energy Regulator of South Africa
NSP	Network Services Provider
NTCSA	National Transmission Company of South Africa
O&M	Operation and Maintenance
PPA	Power Purchase Agreement
UoS	Use of System

1. INTRODUCTION

1.1 The National Energy Regulator of South Africa (NERSA) is a regulatory authority established as a juristic person in terms of section 3 of the National Energy Regulator Act, 2004 (Act No. 40 of 2004). NERSA's mandate is to regulate the electricity, piped-gas and petroleum pipeline industries in terms of the Electricity Regulation Act, 2006 (Act No. 4 of 2006), Gas Act, 2001 (Act No. 48 of 2001) and Petroleum Pipelines Act, 2003 (Act No. 60 of 2003).

1.2 The Electricity Regulation Act, 2006 (Act No. 4 of 2006) ('the ERA' or 'the Act') defines trading as 'wholesale or retail buying and selling of electricity as a commercial activity'. The ERA further provides that certain commercial activities must be registered rather than licensed.

1.3 Pursuant to its obligations under section 35 of the ERA, NERSA published the Regulatory Rules on Network Charges for Third-Party Transportation of Energy ('2012 Third-Party Network Charges Rules') to regulate the pricing of network access and transportation of electricity across transmission and distribution systems.

1.4 These rules included the methodologies for developing transmission and distribution use-of-system charges. However, as NERSA has developed new transmission and distribution tariff codes, the methodologies described in the 2012 rules have become obsolete. The 2012 rules also do not describe how other parties could access the grid and the type of contracts they should sign with transmission and distribution system owners (what is usually called a Transmission/Distribution Use-of-System Agreement).

1.5 The amendment is intended to determine applicable charges for the use of the system by both generators and loads connected to the transmission and/or distribution network within the Republic of South Africa and to allow other parties to access the networks.

1.6 The use-of-system (UoS) charges are charges meant to recover the costs associated with the use of, and making capacity available on, an electricity network. These charges are the unbundled regulated tariffs, charged by the Transmission or Distribution Licensee as a network service provider for making transmission or distribution capacity available to generators and loads.

1.7 The application of UoS charges allows for the recovery of the fixed, capital, operation and maintenance (O&M) costs, recovery of distribution and transmission losses and costs for ancillary services procured by the system operator. These UoS charges do not recover connection charges, which should be charged separately before connecting to the network.

1.8 These rules stipulate the requirements that must be met for the wheeling of energy by affected parties.

2. LEGAL MANDATE

2.1 The nexus between the Electricity Regulation Act and the Electricity Pricing Policy creates an obligation on the part of NERSA to consider the applicable provisions when regulating and/or developing regulatory instruments. The obligation referred to enables rationality and efficiency, and the effective execution of the mandate and development of rules. It is proper to locate the power to develop rules within the confines of the ERA, so that the assumption of appropriating powers which NERSA does not have, is dispelled.

2.2 Section 4(a)(iv) of the ERA mandates NERSA to develop rules aimed at giving effect to national government electricity policy and this general mandate on the specific policy requires the evaluation of such policy to align with the specificity provided in the policy to avoid expanding the policy or being at variance with such a policy.

2.3 Policy position 5 of the Electricity Pricing Policy (EPP) outlines the obligation placed on the network owner to allow third-party access and links such ability with having charges approved by NERSA. This sets out a reciprocal relationship between the powers of NERSA to approve what a licensee is supposed to charge, and a licensee only having to charge that which NERSA has approved. The policy goes further to require NERSA to develop a methodology for transmission and distribution wheeling. With this identifiable obligation, section 4(a)(iv) requires that such should be done through the development of rules.

2.4 Rules once developed and gazetted are binding to all licensees, as opposed to utilising section 14 of the ERA. The latter will only be binding on such licensees for which a condition has been made applicable, while the former is a subordinate/delegated legislation generally applicable. The requirement of making the rules avoid regulatory inefficiency despite the law being clear on the prohibitions against any licensee and for NERSA not being derelict to the requirement of the law.

2.5 The further objective necessitating the development of these rules is found in section 2(a), (b) and (f) of the ERA, which guides in terms of the regulatory achievements expected. When these rules are made universally applicable, deviations can be easily identified and enforcement speedily raised.

2.6 It is important to note that these rules will assist licensees in the exercising of their discretion in allowing third-party access, as required by section 21(2), (3) and (4). Subsection 4 requires a licensee to comply with any rule and tariff to be charged, giving effect to the contribution to the strengthening or upgrading of such a system. The restriction of a tariff to be charged is embodied in section 15(2), with such restriction placed on a licensee with regard to the absence of discretion, but only by such a tariff approved by NERSA.

2.7 For the proposed rules to have an external binding legal effect, section 35(1) of the ERA requires that a notice must be published in the Gazette. This will ensure the completeness of the process of the development of rules as a

delegated function, which forms part of the statutory framework administered by NERSA.

2.8 The outline of the legal mandate seeks to reflect on the mandate, jurisdiction and the process that must be observed in finalisation of the development of the rules. Any potential legal challenge that may be brought by any person can easily be dispelled because the fundamental aspects forming part of the development of rules are observed.

3. THE CONCEPT OF WHEELING

Wheeling is the financial transactions representing the delivery of electrical energy over a network. UoS charges are paid by consumers and generators connected to the grid and is independent of whether wheeling takes place or not. Wheeling requires retail-only costs to be recovered, and only by the NSP's at point of connection. [e.g. a municipal NSP or Eskom/the National Transmission Company of South Africa (NTCSA)].

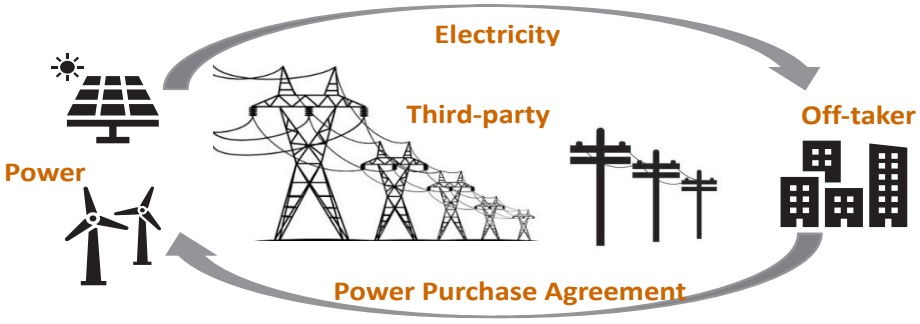

Figure 1: Schematic overview of a wheeling transaction.
Source: SALGA Wheeling Report[1], 2023

4. WHEELING SCENARIOS

The implementation of wheeling differs depending on where the generator is connected. The following are three possible scenarios are most common but there are others:

Scenario 1: Generator connected to an Eskom/NTCSA network wheeling to a customer connected to an Eskom/NTCSA network as an off-taker

Scenario 2: Generator connected to an Eskom/NTCSA network wheeling to a customer connected to a municipal network as an off-taker

Scenario 3: Generator connected to a municipal network wheeling to a customer connected to a municipal network as an off-taker

[1] SALGA 2023, Wheeling in South African Municipalities: Overview and Status of Progress July 2023 Available online: https://www.sseg.org.za/wp-content/uploads/2023/07/SALGA-Status-of-Wheeling-Report-July-2023.pdf , Last accessed 3 June 2024.

4.1 Scenario 1: Generator connected to an Eskom/NTCSA network wheeling to a customer connected to an Eskom/NTCSA network as an off-taker

In this wheeling scenario (see Figure 2), the wheeled energy travels across Eskom's network, meaning that UoS charges will be paid for Eskom's transmission and/or distribution network. This scenario requires the generator to comply with Eskom's connection requirements and the generator must apply to Eskom for the grid connection.

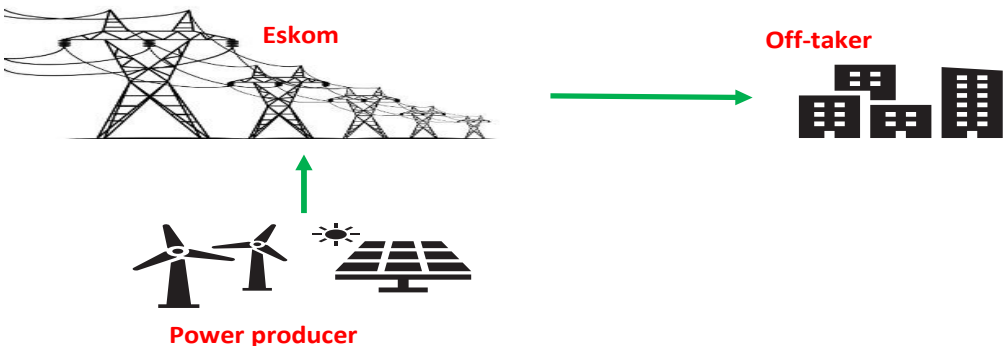

Figure 2: Illustration of Eskom-connected generator wheeling to an Eskom-connected off-taker

The following suggested agreements must be in place in this scenario:

- An Electricity Supply Agreement for the payment of NERSA-approved charges for the delivery of energy and the purchase of energy from Eskom.
- An amendment to the electricity supply agreement to reflect the wheeled energy and the wheeling charges/credits on the off-taker's bill.
- A Connection and Use-of-System Agreement between the generator and Eskom to reflect the allocation of the total energy exported to the grid to be credited to the off-taker.
- A Power Purchase Agreement (PPA) between the generator or trader and the off-taker (required by NERSA for registration).

4.2 Scenario 2: Generator connected to an Eskom/NTCSA network wheeling to a customer connected to a municipal network as an off-taker

In this wheeling scenario (see Figure 3), the wheeled energy travels across Eskom's and the municipality's networks, meaning that UoS charges will be paid for Eskom's transmission and/or distribution network and the municipality's distribution network. This scenario requires the generator to comply with Eskom's connection requirements, and the generator must apply to Eskom for the grid connection.

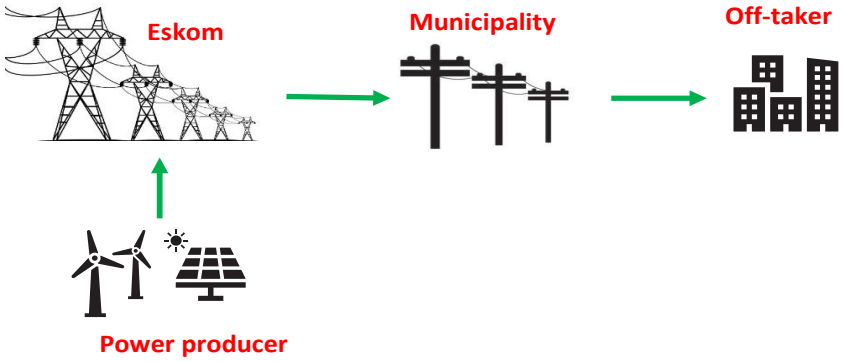

Figure 3: Illustration of Eskom-connected generator wheeling to a municipal-connected off-taker
Source: SALGA Wheeling Report[2], 2023

The following suggested agreements must be in place in this scenario:

- An Electricity Supply Agreement between Eskom and the Municipal Licensee for the payment of NERSA-approved charges for the delivery of energy and the purchase of energy from Eskom.
- An amendment to the electricity supply agreement to reflect the wheeled energy and the wheeling charges/credits on the municipal Licensee's bill.
- An amended Electricity Supply Agreement between the municipal Licensee and the off-taker within the municipality to reflect the wheeling charges/credit on the off-takers' bill.
- A Connection and Use-of-System Agreement between the generator and Eskom to reflect the allocation of the total energy exported to the grid to be credited to the municipal Licensee and in turn the off-taker.
- A Power PPA between the generator or trader and the off-taker (required by NERSA for registration).

4.3 Scenario 3: Generator connected to a municipal network wheeling to a customer connected to the same municipal network as an off-taker

In this wheeling scenario (see Figure 4), the wheeled energy does not travel across Eskom's network, meaning that only the municipality's distribution UoS charges must be paid. This scenario requires the municipality to process the generator's connection application, as it will be connected to the municipality's grid.

[2] **SALGA 2023, Wheeling in South African Municipalities: Overview and Status of Progress July 2023 Available online:** https://www.sseg.org.za/wp-content/uploads/2023/07/SALGA-Status-of-Wheeling-Report-July-2023.pdf **, Last accessed 3 June 2024.**

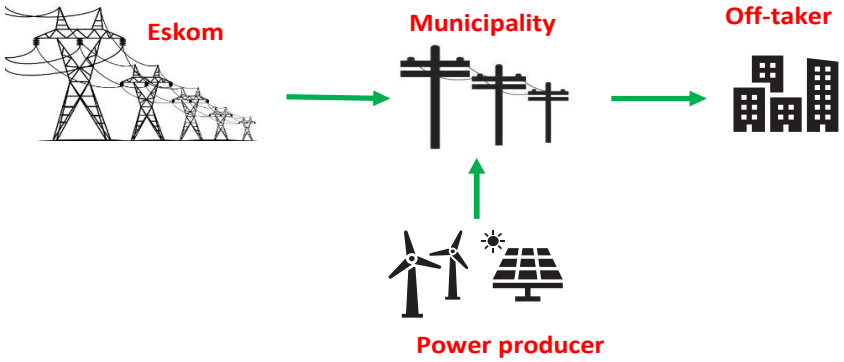

Figure 4: Municipal-connected generator wheeling to a municipal-connected off-taker Source: SALGA Wheeling Report[3], 2023

Suggested agreements in this scenario include:

- The generator has a Connection and Use-of-System Agreement with the municipality.
- A new Electricity Supply Agreement must be in place, or the off-taker must sign an amended Electricity Supply Agreement with the municipality to reflect the wheelied energy on the bill.
- A PPA between the generator or trader and the off-taker (required by NERSA for registration).

5. OBJECTIVES OF THE RULES

These rules seek to achieve the following objectives:

5.1 **Non-discriminatory access:** Promoting non-discriminatory access to and use of the networks by all existing and potential customers.

5.2 **Cost reflectivity of charges:** Emphasising that tariffs must reflect the cost of providing a service as far as possible, based on the relative utilisation of the networks.

5.3 **Fairness and equity:** Balancing the needs of all customers and licensees (the NTCSA and NSPs) on a fair and equitable basis through tariffs that are non-discriminatory (unless otherwise determined by NERSA).

5.4 **Transparency:** Supporting that tariff structures should be unbundled to reflect the true cost and cost drivers of the licensed activity, including any approved subsidies and levies.

[3] SALGA 2023, Wheeling in South African Municipalities: Overview and Status of Progress July 2023 Available online: https://www.sseg.org.za/wp-content/uploads/2023/07/SALGA-Status-of-Wheeling-Report-July-2023.pdf , Last accessed 3 June 2024.

5.5 **Network reliability and security:** Ensuring that third-party wheeling does not compromise the overall reliability and security of the network.

5.6 **Incentivising a just energy transition:** Enabling customers to achieve their green energy targets by purchasing renewable energy through a wheeling transaction.

5.7 **Standardisation:** Supporting standard approaches across NSPs enhances ease of doing business.

5.8 **Regulatory certainty**: Ensuring that all electricity-related activities are duly regulated by NERSA for non-discriminatory access to the network by all generators and loads.

6. QUALIFYING CRITERIA

6.1 NSP shall allow generators at low, medium and high-voltage level to participate in wheeling transactions.

6.2 The NSP shall consider the generator connection with due consideration of the characteristics of the existing electricity network.

7. GENERAL PRINCIPLES OF THIRD-PARTY WHEELING

The following principles shall apply to third-party wheeling transactions:

7.1 Rights of access to the network (being the connection to and use of) granted by NSPs to customers (both loads and generators) are subject to the licensee's ability to connect customers in compliance with the Act, the licensee's licence, the Electricity Supply Agreement and the Connection and Use-of-System Agreement.

7.2 Use-of-system charges shall not be avoided by a third-party wheeling transaction, and such use-of-system charges shall not discriminate between customers supplied by the licensee and those supplied through bi-lateral or multi-lateral transactions.

7.3 An NSP licensee may raise incremental administration charges for a third-party wheeling transaction or incremental connection charges if additional capacity is being required.

7.4 The NSP may be the buyer of the wheeled energy if the NSP has entered into a PPA with a seller for the purchase of wheeled energy from a generation facility that is not connected to the network owned by the NSP.

7.5 An NSP may be an intermediary to account for the wheeled energy between a generator that is not connected to its network and an off-taker connected within its network.

8. CONDITIONS TO ALLOW THIRD-PARTY WHEELING

The following conditions shall apply to third-party wheeling of energy:

8.1 All parties to the third-party wheeling transaction shall comply with all relevant laws and agreements, including the Connection and Use-of-System Agreement, the Electricity Supply Agreement and/or the amendment agreements dealing with wheeling required to be entered into to facilitate the third-party wheeling transaction.

8.2 The generator shall, as applicable, be licensed by NERSA or shall register the generation activity with NERSA.

8.3 The off-taker shall sign an amendment/addendum to the Electricity Supply Agreement entered with the NSP where the off-taker is connected.

8.4 The following activities require a licence prior to engaging in such activities:

8.4.1 Regulated entities involved in transmitting or distributing power in the Republic of South Africa through the relevant networks are required to have a licence issued by NERSA in accordance with section 7 of the Act.
8.4.2 Entities involved in trading within the Republic of South Africa shall obtain a NERSA-approved trading licence that enables buying and selling of electricity.
8.4.3 Entities involved in international export and import shall obtain a NERSA-approved import and export trading licence that enables buying and selling of electricity.

8.5 The following activities are listed under Schedule 2 of the Act as activities exempt from licensing, but require registration with NERSA:

8.5.1 Resellers are permitted to engage in reselling activities and wheeling, subject to compliance with Schedule 2 of the Act and the NERSA Resellers' Guidelines.
8.5.2 Independent Power Producer (IPP) generators that are involved in wheeling transactions, provided that such transactions do not include the sale of energy to an organ of state.

8.6 Use-of-system charges raised by the NTCSA and Distributor (referred to in section 6) shall be approved by NERSA.

8.7 As may be applicable, the generator and the buyer shall pay all charges associated with the third-party wheeling transaction.

8.8 NSPs may impose additional conditions, as they may deem necessary, provided these conditions do not contradict these Rules, the Act, the Codes, or the EPP.

9. TARIFF UNBUNDLING

9.1 Tariff unbundling is a key step towards developing and implementing a wheeling methodology that is fair and that will ensure revenue recovery of services provided.

9.2 Tariff unbundling at distribution level is needed to ensure that customers pay for the services they use [e.g. network charges (R/kVA), energy charges (c/kWh) and administration charges (R/customer)] and that they contribute appropriately to approved levies and surcharges.

9.3 Use-of-system charges are payable by generators and loads for the use of the transmission and distribution systems, respectively, as set out below:

9.3.1 **Use-of-system charges for loads and generators**

(a) Load and generator customers, who are network users, are subject to use-of-system charges, which are applicable regardless of whether the energy is sold by the NSP or purchased through third-party wheeling transactions.

(b) Use-of-system charges enable the licensee to recover the costs associated with the use of the network and other unavoidable charges.

(c) The tariffs for loads and generators shall comply with the principles in the EPP and the Codes, and be approved by NERSA in accordance with the Act.

9.3.2 **Use-of-system charges for loads**

(a) Use-of-system charges for loads include network charges, contribution to subsidies and surcharges (where applicable), losses charges, ancillary service charges and service and administration charges.

(b) The Tariff Codes and the EPP provide guidelines on how these charges can be raised and should be appropriately structured to recover capacity-related and any other costs. The charges shall be raised using the unbundled tariff charges, reflecting the different services provided with a separate credit/offset transaction for wheeled energy. Such charges are payable for all energy delivered.

(c) These charges should be explicit and transparent, and not hidden in other charges. Where they are hidden, the method described in

paragraph 13 shall apply. These charges cannot be doubly raised, that is, hidden in the tariff charges and in addition explicitly raised as a separate charge.

9.3.3 **Use-of-system charges for generators**

(a) Generator use-of-system charges shall be NERSA-approved tariffs payable by a generator. Charges shall include network charges, surcharges, losses, ancillary services and service and administration charges.

(b) All network service providers shall calculate these charges based on a justifiable methodology in compliance with the Codes.

10. SERVICE AND ADMINISTRATION CHARGE

The NSP shall be entitled to recover any additional service and administration costs for the third-party wheeling transaction in accordance with the principles set out below.

10.1 The justification of the fair allocated costs and the tariff charges shall be done through a cost-of-supply study considering metering, billing, reconciliation, data management and other related costs.

10.2 Fair charges shall be justified by the NSP based on the above costs and approved by NERSA to cover further administrative costs.

11. CONTRIBUTION TO SUBSIDIES AND SURCHARGES

A non-discriminatory third-party wheeling transaction shall require:

11.1 that all network users should contribute to NERSA-approved subsidy-related charges based on a cost of supply study and in compliance with any policy framework, a clearly defined subsidy framework developed by the NSP; or

11.2 municipal council-approved surcharges irrespective of the source of the electrical energy.

12. CONNECTION CHARGES

12.1 Connection charges shall be payable by generators and loads.

12.2 These charges shall contribute to the upfront cost of the connection of the generation facility and other electrical infrastructure, including any network strengthening, and shall be raised in compliance with the Grid Codes.

13. COMPENSATION MECHANISM FOR THIRD-PARTY WHEELING

13.1 As all energy is delivered over the network and this energy will comprise a mix of energy sold by the NSP and the wheeled energy, there must be mechanism to be able to charge for and credit/refund this wheeled energy that has been delivered to the grid.

13.2 There are two ways of accounting for wheeled energy. One method is where a credit or refund is applied on the account at a wheeling credit rate tariff based on the NSP's avoided cost. This is a tariff charge based on negative kWh for wheeled energy that has been supplied to the grid and that must be 'given back' to the buyer of the energy. The other method is where the wheeled energy is charged separately, but both methods should give the same results.

13.3 These methods are discussed further below. The following options can be used to determine the how wheeling can be treated on the bill:

(a) Option 1: Wholesale energy credits for wheeled energy

(i) Full tariff charges are raised for all the energy supplied through the meter, for both the NSP-sold energy and the wheeled energy. These tariffs include all approved fixed charges, and contributions to surpluses and subsidies.

(ii) The amount of wheeled energy is then credited as a separate transaction on the customer bill using the wheeled energy kWh allocated to the off-taker's electricity bill, multiplied by a Wheeling Credit Rate Tariff.

(iii) The amount of wheeled energy is then credited (or refunded) as a separate transaction on the customer bill using the kWh allocated to the off-taker's account, multiplied by the wheeling credit rate. It is a refund because the full energy delivered was charged for, but the wheeled energy did not belong to the NSP.

(iv) Before implementing the wheeling credit rate tariff, it must be justified by the NSP for approval by NERSA. This is not a commercial arrangement for a payment of energy by the NSP, but a refund to the customer for energy exported at one point of the grid and used by the NSP and, therefore, it must be refunded to the buyer.

(v) NERSA's approval ensures that the credit rate is not discriminatory, is based on fair and equitable principles, promotes regulatory compliance and provides confidence in the tariff to be applied.

(vi) Using an approved wheeling credit rate tariff provides clarity and transparency regarding the financial aspects of the wheeling arrangement.

(vii) It serves as a benchmark for calculating the value of the wheeled energy and ensures that the off-taker receives proper compensation for the wheeled energy.

(viii) The amount of wheeled energy may not be greater than the consumed energy per time-of-use period. Excess energy may be sold to another party by the consumer/off-taker or generator, subject to the required approvals and/or agreements being in place.

(ix) The effective UoS charge for wheeled energy is therefore the full tariff charges (i.e. normal non-wheeling retail tariffs) minus the wheeling credit rate.

Option 1: Crediting of Wheeled Energy on the bill
Wheeling Credit Rate Tariff = Time-of-Use Energy Purchase Price excluding technical losses

(x) The energy purchase price is based on the approved NSP's avoided costs.

(xi) The technical line losses shall be based on the cost-of-supply study results.

(xii) The energy purchase price to be used is based on active energy charges payable at the wholesale level.

(xiii) The licensee will have the choice to do half-hourly, hourly, or monthly time-of-use reconciliation. Over time this should, however, evolve to be at least hourly.

(b) Option 2: Netting of consumption

(i) This option subtracts the wheeled energy from the Licensee-supplied energy, but other charges may need to be raised separately on the total energy delivered. Other charges (use of system including allowable subsidies) not associated with the wheeled energy will have to be raised separately on the total energy.

(ii) This requires fully unbundled tariffs, including loss factors.

Option 2: Separating Wheeled Energy on the bill
Use-of-system charges for the total energy = Total kWh x Use-of-system kWh + Demand charges (kVA or kW) x demand + service and administration charges + contribution to subsidies/surcharges + ancillary services + technical losses
Energy charge for Licensee supplied energy = (Total energy – Wheeled Energy) x unbundled energy charge

(c) Calculating avoided energy cost

The following shall be considered when determining avoided cost:

(i) What the NSP pays for, including dispatchable energy per hour from their supplier(s), for every kWh that is avoided from being purchased (includes dispatchable and non-dispatchable) from such supplier(s) – this would be the avoided cost.

(ii) Avoided cost shall consider the cost or saving of technical line losses, such as the avoidance of paying upstream technical losses due to generation within a distribution Network.

14. CONTRACTUAL ARRANGEMENTS

The following contracts should be in place:

14.1 Connection and Use-of-System Agreement with the generator

(a) The Generator shall enter into an agreement with the NSP that outlines the terms and conditions for the connection to and the use of the network by the generator.

(b) The Connection and Use-of-System Agreement[4] between the generator and the NSP should include details of the buyer(s) of the wheeled energy.

(c) The Connection and Use-of-System Agreement shall address the technical and operational aspects (code compliance, metering requirements, maintenance responsibilities and safety protocols) of connecting the generator's facility to the network and using the network for wheeling the wheeled energy to the off-taker.

[4] The purpose of these requirements is to ensure that the generator meets the necessary legal and technical standards, operates within the regulatory framework, and maintains the integrity and reliability of the network. By having a legal connection, the generator demonstrates its commitment to adhering to all relevant established rules and regulations.

14.2 The agreement with the off-taker

(a) An agreement with the off-taker of the wheeled energy to account for the wheeled energy that flows onto the licensee's network, but is not owned by the licensee, is required. This can be through the Electricity Supply Agreement or an amendment, via an addendum, to the existing Electricity Supply Agreement.

(b) The Electricity Supply Agreement outlines the responsibilities and obligations of both parties involved in the third-party wheeling transaction. It specifies, among others, the quantity of total electrical energy and demand to be supplied by the licensee, the duration of the agreement, pricing mechanisms, payment terms, and any other relevant provisions related to the arrangement.

(c) The addendum shall establish the terms and conditions under which the wheeled energy will be accounted for and supplied to the off-taker.

(d) By signing the amendment/addendum to the Electricity Supply Agreement, the off-taker acknowledges its commitment to receive the wheeled energy delivered by the licensee and the mechanism and tariff used to account for the wheeled energy. This agreement ensures transparency and proper tracking of the wheeling transaction, allowing for accurate billing and reconciliation processes.

14.3 The agreement with a trader or corporate entity

(a) Where the buyer is a trader or a corporate entity and is not the off-taker, the NSP may contract with the trader or corporate entity by concluding an agreement that deals specifically with the reconciliation of the wheeled energy.

(b) The off-takers will continue to have their required contractual agreements with the licensee, as applicable.

14.4 The agreement between the NSPs (NTCSA and Distributor)

(a) Where a third-party wheeling transaction is across the transmission and distribution networks, the agreement between the respective NSPs will have to recognise the wheeling from a generator connected to a transmission network and a customer connected to a distribution network.

15. NETWORK SERVICES PROVIDER (NSP) RESPONSIBILITIES

15.1 Third-party wheeling policy

(a) NSP shall develop third-party wheeling policies or wheeling by-laws (as approved by Eskom Distribution, NTCSA, Council and gazetted) that must be published by each licensee.

(b) Such policies or by-laws shall not contradict these Rules and must facilitate fair access, wheeling and the competitive trading of electricity.

15.2 Metering

(a) The NSP and third parties shall establish reliable metering arrangements to transparently measure the wheeled energy and determine how it is credited on the off-taker's account.

(b) Metering and measurement shall comply with the latest approved version of NRS 049-5-2.

15.3 Streamlining wheeling agreement conclusion

The Distribution Licensee shall:

(a) develop and publish clear guidelines and timelines for the conclusion of facilitating wheeling arrangement and all required agreements;

(b) implement a standardised application process, including the requisite documentation and forms;

(c) provide training and support to licensees' resources to ensure their understanding of the wheeling application process and of their responsibilities;

(d) implement an automated tracking system to monitor the progress of each wheeling application and ensure timely completion; and

(e) implement an automated wheeling application process, where possible.

15.4 Ensuring correct contracts and approval

The NSP shall:

(a) create a checklist or template for contract population to ensure all required information is accurately included;

(b) establish a review process to verify the completeness and accuracy of populated contracts before submission for approval;

(c) clearly define the approval hierarchy and governance processes for contract approval; and

(d) implement a document management system to track the flow of contracts through the approval process and ensure all stakeholders are informed of the status.

15.5 Tracking and monitoring

The NSP shall:

(a) utilise a centralised tracking system or project management software to monitor the status and progress of wheeling agreements, contracts and associated tasks;

(b) establish key milestones and deadlines to ensure tasks are completed within the set time frames;

(c) assign responsible individuals or teams to each task and regularly communicate and follow up on their progress; and

(d) implement regular reporting mechanisms to provide visibility on the overall status of and any bottlenecks in the process.

15.6 Estimating and quantifying utility impacts

The NSP shall:

(a) develop a standardised process for estimating and quantifying the impact of wheeling on customers and the generator/off-taker/trader.

(b) define clear parameters and methodologies for conducting impact assessments, considering factors such as energy consumption, load profiles and tariff structures;

(c) establish a dedicated team or department responsible for conducting impact assessments and providing accurate calculations;

(d) communicate the estimated impacts to customers and the generator/off-taker/trader in a clear and transparent manner, highlighting any potential changes to cost or service;

(e) establish guidelines for maintaining neutrality or minimising the impact on the generator/off-taker/trader during the wheeling process;

(f) develop mechanisms to identify and address any negative impact on the generator/off-taker/trader promptly;

(g) promote collaboration between IPPs, off-takers and traders to assist the generator/off-taker/trader in revising its cost of supply through resource contributions or cooperative data collection; and

(h) facilitate the engagement of all parties in NERSA processes related to tariff approvals, ensuring their active participation and support.

16. RIGHTS OF ACCESS

16.1 All generators and loads shall have rights of access to the network and to wheel through a third-party transaction.

16.2 Such rights will be subject to the network capacity required to accommodate such access and the availability of funding to upgrade networks, where necessary. The conditions under which access is allowed will be prescribed by the NSP, and if access is refused, reasons must be provided within a reasonable time frame and possible remedies to fast-track such access.

16.3 The technical aspects to connect to the grid must comply with the Codes and standards.

16.4 The NSP should clearly outline the capacity constraints in writing and provide an indicative timeline for when capacity may become available.

16.5 Affected parties should be informed of options to fund network upgrades under approaches like deep connection charges (per the Tariff Codes) to expedite access.

16.6 NSP should clearly outline the capacity constraints in writing and provide an indicative timeline for when capacity may become available.

16.7 Affected parties should be informed of options to fund network upgrades under approaches like deep connection charges (per the Tariff Codes) to expedite access.

16.8 The NSP should share the process and timelines for developing and approving the necessary policies or by-laws, including specific milestones and expected completion.

16.9 Any identified violations should be communicated in writing to the non-compliant party.

16.10 The NSP shall provide clear steps or guidelines for resolving the issue, including timelines for compliance.

16.11 The NSP shall document the specific risks and their potential impact through a formal assessment process or alternative measures shall be provided whenever feasible to address the risks.

16.12 The NSP shall notify the affected parties in writing of the non-compliance issues and recommend steps to achieve compliance.

17. DISPUTES

Disputes will be dealt with as contracted for, and/or referred to NERSA for resolution by means of mediation and/or arbitration.

18. TITLE OF THESE RULES AND COMMENCEMENT

These Rules:

18.1 are called the 'Regulatory Rules on Network Charges for Third-Party Wheeling of Energy, 2024';

18.2 replace the Regulatory Rules on Network Charges for Transportation of Energy of March 2012;

18.3 shall come into effect on the date of approval by the Energy Regulator and on publication; and

18.4 will be revised from time to time and will be updated accordingly to accommodate any lessons learnt.