NATIONAL ENERGY REGULATOR OF SOUTH AFRICA

Decision and Draft Reasons for Decision

NATIONAL ENERGY REGULATOR OF SOUTH AFRICA

Development of Net-Billing rules for Licensed Distributors.

DRAFT DECISION

Based on the available information and analysis of submissions/comments received on the development of net-billing rules for licensed Distributors, the Electricity subcommittee at its meeting held on 17 December 2024, the Energy Regulator **approved**:

a) the Net-Billing Rules for Licensed Electricity Distributors attached as Annexure A; and
b) the Decision and the Reasons for a Decision document attached as Annexure B.

TABLE OF CONTENTS

1. DEFINITIONS 3
2. EXECUTIVE SUMMARY 5
3. BACKGROUND 7
4. LEGAL MANDATE 8
5. THE NERSA DECISION-MAKING PROCESS 9
6. STAKEHOLDER COMMENTS 10
7. NERSA LEGAL ANALYSIS 18
8. ECONOMIC ANALYSIS 20
9. TECHNICAL ANALYSIS 21
10. CONCLUSIONS 22

1. DEFINITIONS

In this Reasons for Decision (RfD) document, any word or expression to which a meaning has been assigned, shall have a meaning so assigned and, unless the context otherwise indicates.

In these Rules, words and phrases shall have the same meaning as words and phrases defined in the Electricity Regulation Act, 2006 (Act No. 4 of 2006) ('the ERA' or 'the Act') unless otherwise defined herein, in which case such words will have the meanings ascribed hereunder.

Capacity means, in respect of the unit or the facility, at any time and from time to time, the output power (expressed in megawatts or MW) of such unit or the facility, as the case may be.

Code means the Distribution Code, the Transmission Grid Code, the NERSA Distribution Tariff Code, the NERSA Distribution Metering Code or any other Code approved by NERSA.

Connection agreement means an agreement detailing the conditions under which the Distributor intends to connect the Prosumer.

Cost of Supply Studies mean the standard procedure for deriving and allocating costs of supply, used for the design of tariffs. This does not include determining the connection charge.

Customer means a user of electricity (person or legal entity) that has entered into an agreement with a licensed Distributor or Transmitter of electricity.

Delivery point means the physical point, situated at the point of the facility, where the energy output is to be delivered by the generator.

Distributor means a trading licensee or its appointed representative that constructs, operates and maintains the distribution power system.

End-use customer means a user of electricity connected to the distribution system.

Embedded generator means a legal entity that operates one or more units that are connected to the distribution system. Alternatively, a legal entity that desires to connect one or more units to the distribution system.

Export tariff means the rate(s) at which energy is credited on a Prosumer's bill at the end of each billing period for every kilowatt-hour (kWh) of surplus electricity exported to the distribution power system.

Exported electricity means the energy provided by the Prosumer to the Distributor during times in which the Prosumer generates more power than it consumes.

Facility means the generation or distribution facility, as applicable, located at the plant and comprising all plants, machinery and equipment, as well as all associated buildings and structures, roads on the site that are not national, provincial or municipal roads, and other appurtenances, together with all required interfaces to be constructed for the safe, efficient and timely operation of that facility and, for the avoidance of doubt, excluding the transmission connection works or distribution connection works, as the case may be.

Import tariff means the rate(s) at which energy is charged for every kilowatt-hour (kWh) of electricity imported by a Prosumer from the distribution power system.

Imported electricity means the energy provided to the Prosumer by the Distributor during times in which the Prosumer consumes more power than it generates.

Net billing means a method of compensating customers when their generation is synchronised with the grid and some energy is exported. The compensation is calculated using an export tariff. The customer is still charged the full tariff for the amount of energy consumed and capacity provided.

Notified maximum demand (NMD) means the maximum demand of the Prosumer at the point(s) of connection, notified in writing by the Prosumer and accepted by the Distributor for the delivery of electrical energy to the Prosumer.

Point of connection is the electrical node on a distribution power system where a Prosumer's embedded generation facility is physically connected to the licensed Transmitter or Distributor's electricity network.

Prosumer means a customer that has entered into an agreement with a Distributor and generates electricity on their side of the billing meter with an embedded generation facility that is primarily intended to offset part or all of their electricity requirements, provided that, for a non-household customer, those activities do not constitute its primary commercial or professional activity.

Time of use means periods and seasons during which a time-of-use tariff has different energy rates for the same tariff components.

Time-of-use tariff means a tariff with energy rates that change during time-of-use periods and seasons.

Unit means a separate electricity generating unit or sections comprising multiple units forming part of the facility, which is or are capable of generating and delivering electricity to the Delivery Point, and 'Units' means all or a combination of them.

2. EXECUTIVE SUMMARY

2.1 The document is about the National Energy Regulator of South Africa's decision and draft reasons for approving network charges for third-party transportation of energy.

Approval and Legal Basis

2.2 NERSA has approved the Net-Billing Rules, supported by legal opinions from NECOM and NERSA's own legal analysis. NERSA has the authority to regulate the cost recovery of export credits applied by distributors.

Stakeholder Comments

2.3 Eight stakeholders, including Eskom, SALGA, and the City of Cape Town, provided comments. Key concerns included the export tariff, time-of-use pricing, and ensuring a fair system for all parties.

NERSA's Responses

2.4 NERSA supports time-of-use tariffs and fixed charges for grid use and maintenance. Export tariffs should reflect avoided bulk purchase costs to ensure revenue neutrality for distributors.

Economic Analysis

2.5 Net-billing incentivizes renewable energy adoption, particularly rooftop solar. Prosumers can offset their electricity bills, leading to significant savings. Distributors must balance fair compensation for prosumers while maintaining financial stability. Long-term benefits include reduced reliance on fossil fuels, lower greenhouse gas emissions, and enhanced energy security.

Technical Considerations

2.6 Accurate metering and billing systems are essential. Careful management is required to ensure grid stability. Distributors must comply with net-billing rules and have their tariffs approved by NERSA.

Conclusion

2.7 The approved rules aim to create a balanced and sustainable framework for both prosumers and distributors. These rules are expected to drive the adoption of renewable energy and contribute to South Africa's long-term energy goals.

3. BACKGROUND

3.1 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 includes the regulation of the electricity supply industry. According to section 35 of the Electricity Regulation Act, 2006 (Act No. 4 of 2006) ('the Act'), the Energy Regulator must develop rules, codes and standards to regulate the electricity industry.

3.2 During the 2023 State of the Nation Address, the President declared a national state of disaster to tackle the electricity crisis and its significant impact on businesses and households.

3.3 On July 25, 2022, President Cyril Ramaphosa announced a series of measures to tackle the ongoing energy crisis. A key initiative was the establishment of the National Energy Crisis Committee (NECOM), which was tasked with implementing an action plan aimed at eliminating load shedding.

3.4 The Presidency, alongside various Ministers and National Government Departments, including Mineral Resources and Energy (DMRE), Public Enterprises, Finance, Forestry, Fisheries and the Environment, Trade and Industry, and the Competition Commission, prioritized initiatives to eliminate load-shedding.

3.5 An initiative was established to review the tariff schemes for electricity exported to the grid by private generators, who primarily produced energy for their own use. Net Billing was identified as a crucial tool to drive the adoption of rooftop solar energy in South Africa. Consequently, NECOM was mandated to develop the Net Billing Framework.

3.6 On March 14, 2023, NERSA received a request from the DMRE to incorporate the net billing framework into its regulatory tools. Attached as **Annexure C**

3.7 Subsequently, on April 4, 2023, the Electricity Subcommittee (ELS) approved a Consultation Paper on the net-billing rules. This paper invited stakeholders to submit comments to assist NERSA in its regulatory review prior to final approval by the Energy Regulator.

3.8 After the state of disaster was lifted, all regulations and directives that were issued under Section 27(2) of the Act regarding severe electricity supply constraints were immediately repealed. However, the interventions and support measures that were put in place during the disaster will continue to operate under existing legislation.

3.9 Following the repeal of the disaster regulations, NERSA examined other enabling legislations that could support net billing. These included the Electricity Regulation Act (ERA) and the Energy Policy Paper (EPP).

4. LEGAL MANDATE

4.1 Net-billing is a payment mechanism under an electricity supply agreement in terms of which a distributor agrees to accept payment in cash and in kind through electricity generated by the customer and exported to the grid.

4.2 Net-billing is not a loan for the consumption of electricity because there is no obligation on Eskom to return an equivalent quantity of electricity to the customer. The customer's personal right is merely to a credit.

4.3 Net-billing is not a purchase of power because Eskom does not intend to pay cash over to the customer for electricity exported. Section 34 of the Electricity Regulation Act, 2006 (the ERA) is not applicable as the transactions are initiated by Eskom or municipalities as distributors and not by the Minister as 'new generation capacity'.

4.4 NERSA is not required to approve net-billing tariffs. The 'export credit rate' under net-billing is not a charge for electricity, and therefore it does not constitute a price or tariff which must 2 be regulated by NERSA. The export credit rate is not an electricity tariff, because a distributor's license includes conditions pertaining to the regulation of the revenues of the licensed distributor.

4.5 However, NERSA will ultimately determine whether the export tariff applied by a licensee in a net-billing arrangement is recoverable in accordance with the tariff principles in section 15 of the ERA.

4.6 Therefore, to the extent feasible, it would be useful for NERSA to regulate the basis for cost recovery of export credits applied by distributors, through the licence conditions applicable to distributors. NERSA has the authority to do so in accordance with section 4 read with sections 14 and 15 of the ERA.

4.7 In terms of section 4 of the ERA, if the Electricity Pricing Policy was finalised as national government policy then NERSA would have a duty to issue rules to give effect thereto. In the absence of an approved national government policy on net-billing, NERSA may issue guidelines, codes of conduct or rules within the parameters of its authority under section 35 of the ERA. NERSA has discretion to decide whether a framework for net-billing, if such is developed by it, is best issued as a guideline, a code, or rules, depending on the preferred status thereof (non-binding, binding through licence conditions or binding as law).

4.8 In the absence of any binding codes or rules issued by NERSA in regard to net-billing, Eskom, municipal, and other distributors have the mandate to develop a guideline, by-laws (in the case of municipalities) or contractual terms and conditions for net-billing, within their area of supply. However, there is nothing to prevent Eskom from developing a model guideline or framework that distributors can adapt to meet their specific licensing conditions.

5. THE NERSA DECISION-MAKING PROCESS

5.1 On 14 March 2023, NERSA received the request to adopt the proposed net-billing framework from NECOM, to develop national net-billing rules for standardisation amongst distribution licensees. The NECOM draft framework is attached hereto as **Annexure C**. The process followed by NERSA to reach the decision is as follows:

5.2 Subsequently, on 04 April 2023, the Energy Regulator approved a Consultation Paper on the net-billing rules. This paper invited stakeholders to submit comments to assist NERSA in its regulatory review prior to final approval by the Energy Regulator.

5.3 There were no requests from stakeholders to present at a public hearing.

6. STAKEHOLDER COMMENTS

6.1 NERSA received eight significant comments from stakeholders, which were carefully considered during the formulation of the net billing rules. These inputs are acknowledged in this Reasons for Decision (RfD) document. Attached as **Annexure D,** you will find the written comments along with NERSA's detailed analysis of each.

6.2 Comments were received from the following stakeholders: Eskom, South African Local Government Association (SALGA), City of Cape Town, South African Photovoltaic Association (SAPVIA), Minerals Council of South Africa, GIZ, Sustainable Energy Africa, and Grant Finnermore.

6.3 Overall, stakeholders voiced their approval of the proposed net-billing rules. Nonetheless, they emphasized a significant concern regarding the export tariff, insisting that it is NERSA's duty to approve the tariff that determines the export credit rate.

Summary of Eskom comments

6.4 Stakeholder provided feedback on several definitions used in the rules, emphasizing the need for alignment with the net-billing framework and existing legislation. One suggestion from Eskom was to change the term "Export Credit" to "Export Tariff," as the compensation for exported electricity is calculated using an export tariff. Eskom also noted that the definition of "wheeling" should be excluded from the net-billing framework and rules, since net-billing pertains to the same point of supply and is not related to the aggregation or trading of a commodity through a wheeling scheme. Additionally, there were suggestions for enhancing the terms and definitions included in the draft net-billing rules.

6.5 Eskom has proposed that the term "generation capacity limit" be changed to "maximum export capacity limit." Additionally, Eskom suggested that generators connected to the Transmission network should also be included in the net billing scheme. Furthermore, Eskom recommended that the connection to the grid be prioritized based on readiness rather than a first-come, first-served basis, as suggested by NERSA, until the overall generation capacity limits for the network are reached.

6.6 Eskom has cautioned that NERSA should be careful not to impose requirements that are unachievable. Additionally, Eskom recommended that NERSA consider creating guidelines to assist those who may have difficulty connecting, possibly by making adjustments to the NRS 047.

6.7 Eskom supports the objectives of the Net-Billing Rules but recommends that they accommodate a broader range of generators, not just those connected to distribution. Specifically, Eskom suggests that the rules should include generators connected at both Transmission and Distribution levels, rather than focusing solely on embedded generators.

6.8 In summary, Eskom believes that the main goal of these Net-Billing Rules should be to enable Prosumers with grid-connected generation facilities to receive compensation for exported electricity from all eligible generation technologies.

6.9 Concerning tariff compensation and billing, Eskom stated that:

i. A Time-of-Use tariff should be implemented to provide accurate signals aligned with consumption times.
ii. Distributors unable to implement time-of-use export tariffs must provide a justification for this limitation.
iii. If a Prosumer is not on a time-of-use tariff structure, the export tariff should be calculated based on the average Avoided Energy Cost of the Distributor. If the Prosumer is on a time-of-use tariff structure, the export tariff must be determined by the Time-of-Use Avoided Costs of the Distributor.

6.10 Eskom firmly asserts that the export tariff must not exceed the avoided cost of energy and must guarantee revenue neutrality for the distributor. It is essential that the export tariff includes use-of-system charges (whether calculated daily, monthly, or per kilowatt), as well as loss charges, service, and administration charges.

6.11 These charges are critical to recovering the retail costs associated with billing, meter reading, and customer service for energy consumption. Furthermore, Eskom emphasizes that additional charges may be necessary in accordance with the Distribution Tariff Code of NERSA, including connection fees for prosumers and charges related to cross-subsidies and levies.

6.12 Eskom states that distributors have the authority to permit the roll-over of exported electricity when generation exceeds consumption at the end of a billing period. This roll-over must occur on a month-to-month basis, followed by a true-up at the end of the financial year. Any remaining excess energy at that point will not be credited under the net-billing scheme.

6.13 It is essential to note that roll-over transactions are complex and should not be made compulsory. The decision to allow roll-over rests solely with the distributor. Furthermore, permanent roll-over is strongly discouraged, as it poses significant liabilities to the balance sheet.

6.14 Regarding the rights and obligations of the prosumer, it is critical that prosumers do not exceed the maximum export capacity specified in their connection agreement. Eskom maintains that any exported energy exceeding this limit will be disregarded for credit purposes, and users risk having their exports curtailed by the distributor or transmission authority.

6.15 Eskom suggests that a potential compromise rule could allow the energy charge component to be offset only with Rand credits for any excess energy contributed to the grid. The debit and credit system should not be limited by a rule connecting exported energy to imported energy.

6.16 All transactions within this system should be conducted in Rand terms. While the system may also address fixed network charges, it is essential that the credits do not enable consumers to achieve a net credit position in Rand terms. Additionally, any surplus credits should be allowed to offset the monthly network charges that the premises must pay.

NERSA Analysis of Eskom Comments

6.17 NERSA supports Eskom's proposal to distinguish between "wheeling" and net billing. By defining wheeling as the process of transferring excess energy from an embedded generation facility into the distributor's network for the benefit of all connected loads, we can establish a more effective framework. This approach emphasizes the collaborative use of resources without requiring cash payment compensation, ultimately enhancing the efficiency of our energy distribution system.

6.18 NERSA recognizes that utilizing the Maximum Export Capacity Limit is a valuable approach, as it effectively captures the maximum total active power that an installation can export to the network at the connection point. This capacity can be defined by the generator's rating or by a limit established in the power conversion equipment, aligning with the standards set forth in NRS097-2-3:2023. This clarity in parameters will help ensure efficient integration and operation within the network.

6.19 NERSA recognizes the importance of fairness and equity in the Net-billing system, which involves all parties connected to the network, including both generators and consumers, contributing to the infrastructure costs. This encompasses expenses related to essential components like wires, substations, transformers, and overall operations necessary for delivering electricity.

6.20 To promote a fair system, all prosumers, in the same way as other customers without generation facilities, are encouraged to participate in covering certain charges. These include use-of-system fees (which can be structured as daily, monthly, or based on kilowatt usage), loss charges, and service and administration fees. These contributions help recover the necessary retail costs associated with billing, meter reading, and customer service linked to energy consumption, ultimately fostering a more balanced and sustainable electricity network for everyone involved.

6.21 NERSA recognizes the valuable input from stakeholders regarding the export tariff for energy. To promote the financial sustainability of distributors, it is important that this tariff does not exceed the avoided energy cost of the distributor. Many distributors face challenges related to their financial status and infrastructure, so maintaining a balanced approach is essential. By keeping compensation at appropriate levels, we can help protect consumers without embedded generators from unnecessary tariff increases, ultimately fostering a more stable and equitable energy market for everyone.

Summary of SALGA comments

6.22 SALGA does not support the idea of aligning export rates with a Time-of-Use (TOU) structure. They emphasize the need to integrate as much additional energy into the system as possible. Selling surplus energy at a rate slightly lower than the avoided Eskom cost allows for a better markup while also reducing distribution losses, which range from 3 to 7 percent.

6.23 SALGA states that system and retail charges will always be included in the bill. However, any credits issued will be limited to the total amount of the bill. Additionally, no credits will be permitted within a single billing cycle. If this arrangement is unacceptable, it should be explicitly stated that any credits will correspond to the consumption measured in kilowatt-hours (kWh).

6.24 SALGA states that all accounts accepting exports should have a two-part tariff, consisting of a fixed network charge and a variable energy charge. If the network voltage exceeds a limit due to excess photovoltaic (PV) power, the inverter must stop exporting until the voltage drops. This requirement should be part of the DUOS agreement between the municipality and the customer.

6.25 Integrating this energy source is beneficial as long as it doesn't cause overvoltage. Customers should be allowed to offset their network and consumption charges without harming the municipality.

NERSA Analysis of SALGA comments

6.26 NERSA disagrees with SALGA's position advocating against the Time-of-Use (TOU) pricing structure in the net-billing scheme.

6.27 TOU is not just beneficial; it is critical for providing accurate pricing signals that ensure prosumers are compensated fairly based on the true value of energy throughout the day and across different seasons. Failing to implement this structure risks eroding the revenue of municipalities, as the generation of excess energy is likely to occur outside peak demand periods.

6.28 This misalignment could jeopardize the financial stability of these municipalities, making it imperative that we prioritize the integration of TOU pricing in the net-billing framework.to over-compensation, thereby leading to unintended consequences.

Summary of City of Cape Town comments

6.29 The stakeholder expressed that the rules should not hinder or limit important policy objectives that a distributor aims to achieve. They noted that the Rules/Framework are based on the principle that municipalities will credit prosumers for the energy they contribute to the municipal grid, up to the point where their consumption matches their generation over a specified period. In their opinion, restricting benefits to net-zero consumption could further discourage the public from supporting energy security through embedded generation.

6.30 The stakeholder also suggested that NERSA should collaborate with the National Treasury to facilitate an exemption from formal procurement processes for purchasing energy from prosumers.

6.31 Concerning the avoided costs of purchases, the City of Cape Town believes that avoided costs should not be the only factor in determining an export tariff, as the overall benefits of all Small-Scale Embedded Generation capacity exceed the avoided costs associated with paying Eskom for that power.

NERSA Analysis of City of Cape Town comments

6.32 NERSA agrees with the City of Cape Town that new rules should not lead to unintended consequences that could obstruct important policy objectives or harm distributors' revenues. Local and national government priorities must align, so the compensation method should be based on an export credit system tied to kilowatt-hour (kWh) units exported.

The credit compensation for excess electricity exported to the grid needs review, and a threshold should be established to prevent significant revenue losses for distributors.

6.33 NERSA will engage with the National Treasury on energy procurement only if it directly affects distributors' revenues and involves Independent Power Producers (IPPs).

6.34 Additionally, while the avoided cost of purchases is important, it should not be the sole factor in setting the export tariff. A detailed cost of supply study for Small-Scale Embedded Generation (SSEGs) is necessary to analyze the costs of supplying and procuring energy from these sources.

Summary of GIZ comments

6.35 The stakeholder commented that the rules are well drafted and, if implemented, will significantly contribute to establishing a common approach to Embedded Generation within the distribution industry. These rules will also provide the necessary clarity for both prosumers and distributors. GIZ provided additional comments focusing on enhancing the definitions within the rules, which the stakeholder believes would further improve the overall framework.

6.36 The stakeholder also noted that the calculation of the average Avoided Energy Cost for the distributor is specific to technology, site, and operations. They indicated that distributors may require guidance on how to perform this calculation and inquired whether NERSA would provide such guidance. Additionally, the stakeholder suggested that there should be no limit on the rolling period for export credits or that export credits should lapse at the end of the specified period.

NERSA Analysis of GIZ comments

6.37 The export tariff is outlined in the definitions of the net-billing rules. The tariff for exported electricity will be valued based on the avoided cost of energy purchases and will be calculated on a time-of-use basis.

6.38 Additionally, the rules allow distributors to permit the rollover ("banking") of any excess energy that is consumed beyond the amount used within a financial year (or a rolling 12-month period). However, after this 12-month period, any excess credits will be forfeited.

Summary of SAPVIA comments

6.39 The stakeholder supports aligning the export tariff with the avoided cost but requests clearer tariff calculation sections. They seek clarification on whether the export tariff and export credit are treated similarly in net billing. SAPVIA recommends standardizing the export energy rate at less than 15-25% of the distributor's avoided cost to ensure revenue neutrality and attract generators. Additionally, the stakeholder asked if the restriction on prosumers transferring electricity without a connection agreement applies to Wheeling schemes.

NERSA Analysis of SAPVIA comments

6.40 NERSA recognizes SAPVIA's comments and supports the proposed rules. An export tariff, approved by NERSA, will establish the credit rate for excess energy returned to the grid.

6.41 To ensure cost-reflective tariffs, the export energy credit cannot rely on arbitrary percentages. It must be based on actual costs determined by a cost of supply study. Generators benefit by offsetting their bills, and excess energy that would otherwise go unused can be utilized by the Distributor at an avoided cost to supply other customers.

6.42 The net billing scheme is distinct from wheeling. In net billing, excess energy goes to the Network Service Provider. Customers looking to export energy for use by others must enter into a wheeling agreement with the NSP and the off-taker.

Summary of comments from Sustainable Energy Africa

6.43 The stakeholder has praised the recently published NERSA draft net-billing rules, stating that they clearly outline how a municipality can establish Small Scale Embedded Generation (SSEG) export tariffs and define NERSA's regulatory responsibilities in their implementation.

6.44 The stakeholder had no objections to the rules. They also expressed that the level of detail provided in these rules is highly encouraging for the electricity industry.

Summary of Comments from Minerals Council of South Africa (MCSA)

6.45 The MCSA argues that tariffs should not be too low, as this could discourage prosumers from selling excess electricity to the grid. They also emphasize that surplus power from small-scale embedded generators (SSEG) can help mitigate load-shedding in South Africa. Additionally, they support the month-to-month rollover of export credits in line with this policy

NERSA analysis of comments from Minerals Council of South Africa

6.46 The stakeholder's concerns are noted. According to the amended Schedule 2 of the Electricity Regulation Act (ERA), NERSA will approve export tariffs. Distributors will need to gather deployment data and conduct studies to establish a consistent methodology. However, the differing tariff structures among distributors may complicate this process initially.

6.47 NERSA proposes that export tariffs should include a fixed charge for grid use and maintenance, which could be phased in over several years. Distributors must avoid double recovering these fixed costs. The energy charge and fixed charge are linked; if the energy charge stays the same, a lower fixed charge could be possible. Additionally, the tariff for exported electricity should reflect the avoided bulk purchase costs.

7. NERSA LEGAL ANALYSIS

7.1 The design and intent of net-billing has been deliberated and settled, the legal input seeks to enhance the statutory account of the submission and properly locate the jurisdictional fact against the powers of the Energy Regulator to develop regulatory instruments.

7.2 It is settled that our statutory outline clothes the Energy Regulator with regulatory powers that are linked to licensed or registered person. Any exercise of powers outside of the defined statutory outline becomes unlawful and incapable of being enforced.

7.3 By way of locating the legal posture of the statutory framework, Schedule 2 of the Electricity Regulation Act excludes the Energy Regulator from licensing or registering generators below 100 kW. The law entrusts a Distributor to register such a person and also to set the terms and conditions that will be applicable to the usage of a point of connection.

7.4 The premise of the above provision from Schedule 2 differs from the primary relationship established between a licensed Distributor and end user, which Is required in terms of section 20(5) of ERA. The end-user is a recipient of electricity supplied by a licensed distributor, and the tariff charged is approved by the Energy Regulator.

7.5 Schedule 2 defines the residence of power to register the under 100 kW generator, who, by virtue of already being connected to the grid, the Distributor determines the terms and conditions on the usage of the point of connection. The point of connection enables the end-user to export excess power to the grid under the terms and conditions so determined by a Distributor. The obligation to enable the usage of the connection may be looked at through the eye of section 21(2) or (3) read with (4).

7.6 The space defined by Schedule 2 as far as it relates to the embedded generator creates a regulatory lacuna enabling self-help regulation by a licensed Distributor, and that may not necessarily accord with ERA. ERA embodies regulatory oversight only on licensees, and as such, it will be a missed opportunity on the side of NERSA not to cover the space through regulatory instruments on the side of licensed distributors (what should be the contents of the terms and conditions given to an embedded generator).

7.7 Section 14(1)(a) of ERA enables the Energy Regulator to make a licence subject to “establishment of and compliance with directives to govern relationship between a licensee and its end-users…”. It is important to note that the section remains an empowering section without a framework on the content or format of such a condition.

7.8 With reference to Kubushi J judgement in the Nelson Mandela Bay Chamber of Business and Another v NERSA and Others, the judge pronounced that in the regulatory space wherein NERSA is empowered to issue licence condition, it is important to note that, for a licence condition to be binding and applicable, NERSA must issue a condition to such licence which will be binding only to such licensee or issue a condition in terms of section 35 which will be binding to all Distributors.

7.9 Section 16(1)(d) enables the Energy Regulator to include additional condition “if it necessary for purposes of this Act”. The advent of activities borne from Schedule 2 development and their potential effect, necessitate that the Energy Regulator covers the lacuna through an appropriate regulatory instrument which will deal with how a licensed distributor will deal with embedded generators.

7.10 Having ascertained the nature of mandate that the Energy Regulator has, it is our submission that the draft regulatory instrument be issued in terms of section 35(2)(a) for general application to all distributors with specific reference to the applicable tenets between a licensee and embedded generator.

8. ECONOMIC ANALYSIS

8.1 This economic analysis highlights the key economic considerations and implications of NERSA's decision on net-billing rules for licensed distributors. For more detailed information, please refer to the full document.

Economic Rationale for Net-Billing

8.2 Net-billing is designed to incentivize the adoption of renewable energy, particularly rooftop solar, by allowing prosumers to receive compensation for surplus electricity exported to the grid.

8.3 This mechanism aims to reduce the overall demand on the national grid, potentially alleviating load-shedding and enhancing energy security.

Impact on Prosumers

8.4 Prosumers benefit economically by offsetting their electricity bills with the energy they generate and export. This can lead to significant savings, especially for those with high energy consumption.

8.5 The export tariff, which is based on the avoided cost of energy purchases, ensures that prosumers are fairly compensated for their contributions to the grid.

Impact on Distributors

8.6 Distributors must balance the need to compensate prosumers fairly while maintaining financial stability. The export tariff should therefore not exceed the avoided cost of energy to ensure revenue neutrality.

8.7 Fixed charges for grid use and maintenance are proposed to ensure that all users, including prosumers, contribute to the infrastructure costs. This helps avoid cross-subsidization and ensures a sustainable revenue model for distributors.

Long-Term Economic Benefits

8.8 Encouraging the adoption of renewable energy through net-billing can lead to long-term economic benefits, including reduced reliance on fossil fuels, lower greenhouse gas emissions, and enhanced energy security.

8.9 The development of a robust renewable energy sector can create jobs, stimulate economic growth, and attract investment.

9. TECHNICAL ANALYSIS

9.1 This technical analysis highlights the key technical considerations and implications of NERSA's decision on net-billing rules for licensed distributors. The document provides detailed definitions essential for understanding the net-billing system, including terms like capacity, connection agreement, customer, distributor, export tariff, imported electricity, and prosumer.

9.2 The document provides detailed definitions essential for understanding the net-billing system, including terms like capacity, connection agreement, customer, distributor, export tariff, imported electricity, and prosumer.

9.3 Net billing is defined as a method of compensating customers when their generation is synchronized with the grid, using an export tariff for surplus energy exported. This ensures that customers are charged the full tariff for the energy they consume while being credited for the energy they export.

Metering and Billing

9.4 Accurate metering and billing systems are essential for implementing net-billing. These systems must be capable of measuring both imported and exported electricity and applying the appropriate tariffs.

Grid Stability and Integration

9.5 The integration of embedded generation into the grid requires careful management to ensure grid stability. This includes setting maximum export capacity limits and ensuring that prosumers do not exceed these limits.

Regulatory Compliance

9.6 Distributors must comply with the net-billing rules and ensure that their tariffs and charges are approved by NERSA. This includes conducting cost of supply studies to determine the appropriate tariffs and charges.

10. CONCLUSIONS

10.1 Considering the stakeholder comments that were generally in support of the rules and the legal, economic and technical analysis of the facts presented before the Energy Regulator and the deliberations of the subcommittee, the Energy Regulator decided to approve the Net-Billing rules for licensed distributors.