

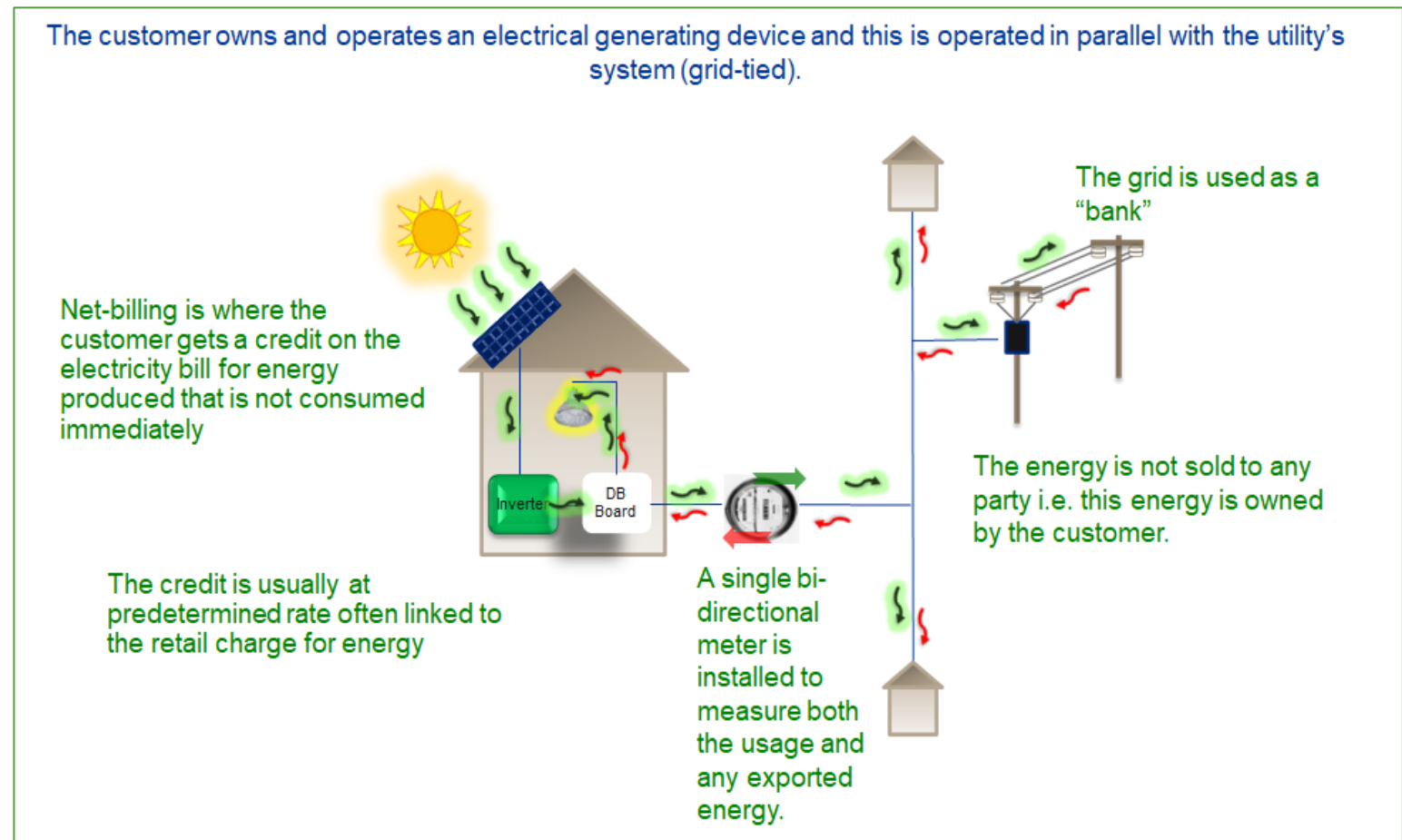


Net-billing framework NEDLAC

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What is net-billing?

- Net-billing is a mechanism used to compensate customers when the customer's generation is synchronised with the grid (grid-tied) and some energy is exported.
- This compensation is based on an export tariff for energy exported. The customer still gets charged a full tariff for energy consumed and capacity provided.
- Net-billing can be implemented provided a bi-directional metering is installed, billing systems are configured to deal with export and import, ideally tariffs are unbundled, and there is an approved export rate. .
- A number of Distributors and Eskom have net-billing tariffs in place using various terms such as SSEG tariffs or offset tariffs, but there is no national standard on how these tariffs are designed.
- Net-billing is different from a FIT (FIT is a procurement programme)



The proposed principles and objective for net-billing tariffs

The following are the principles and objectives that to be met by Distributors for a net-billing tariff:

- That there is fair recovery of costs for grid usage through properly structured tariffs for both consumption and demand.
- To provide non-discriminatory access to customers that apply grid-tied generation, and such access will be subject to funding, technical capabilities of the grid and reinforcement and strengthening programmes of the Distributor
- The application of bi-directional metering, separately measuring import and export. This is the basis for the application of specific consumption tariffs for imports and export tariffs for excess electricity.
- Compensation of excess electricity to support additional capacity to be added to the grid through a reasonable export rate.
- Allow, where possible, the banking of excess electricity over a financial year (or a rolling 12 months).

Proposed rules

Consumption tariffs

- The tariffs must be correctly structured, non-discriminatory, cost-reflective and not be prejudicial to customers that have EG installations or to those that do not.
- Net-billing will be allowed, subject to any licensing or registration required by law and in compliance with any NERSA rules.
- The net-billing customer should be preferably on a standard time-of-use tariff aligned to the purchase structure.
- The net-billing customer should pay the relevant use-of-system charges associated with consumption and demand.
- Where there are approved generator use of system charges, the net-billing customer will be required to pay any such charges associated with export of electricity.
- Use-of-system and retail charges will not be credited against the value of electricity exported into the Distribution grid (no netting)
- Where applicable, a retail charge may be raised to cover the incremental cost associated with the additional billing transaction.
- The current consumption tariffs may be used. This ideally should only be an interim solution as it is a now legal requirement that electricity tariffs should be based on updated cost-of-supply studies.

Export rate

- An export rate should not be higher than the avoided purchase cost for the utility so as to minimise the tariffs for all users, unless there is decision to incentivise
- The export rates should ideally reflect the time of the export and therefore aligned with a TOU structure.
- For the export credit rate, a premium above the avoided purchase cost may be paid

General

Tariff structures

The framework provides suggestions for tariff structures, formula's to be used to determine the export rate and allows for an interim approach to be used to enable such tariffs to be in place quickly

Metering

Net-billing would require bi-directional smart meters that measure both import and export of electricity and funding to be in place

Billing system

A billing system must be able to account for both for electrical energy consumed as well as exported.

Revenue impact and sales forecasting

If the export rate or a premium is above a Distributor's avoided cost, the funding for this premium must be determined.

In addition, forecasting of electricity flows for both imports and exports will become increasingly important for Distributors

Grid connection

While this framework does not deal with technical aspects, net-billing could only work if the grid is able to accommodate the exported electricity

Other considerations and assumptions

A contract will be needed between the Distributor and the customer

Net-billing tariffs to be applicable to all generation irrespective of generation export capacity or generation type

Tax implications will be dealt through a SARS opinion/ruling.

Summary

- Separate export and import measurement – no netting of consumption or reversal of meters
- Fair recovery of costs of grid usage and consumption through cost-reflective tariff structures
- Ideally different export and import tariffs and fixed charges based on the connection capacity (kVA or circuit breaker size) for covering use of system costs.
- The export tariff to provide sufficient incentive to avoid illegal connection of EG.
- In order to expedite new generation, a premium may be applied over and above avoided cost.
- Where possible the tariff for consumption and export should provide an incentive for timely generation and consumption of electricity.
- Low overhead costs for additional equipment, such as meters etc. through a national integrated programme.
- Implementation challenges will have to be defined and resources allocated to resolve such challenges

The proposed framework leaves a number of parameters open (e.g. actual tariffs rates and structures for consumption and export) and the appropriate definition of these parameters will be within the responsibility of the municipalities and Eskom and may be subject to NERSA approval