

CITY OF TSHWANE PERSPECTIVE ON THE INCREASE OF THE THRESHOLD FOR EMBEDDED GENERATION FROM 1MW TO 10MW

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Introduction



The City of Tshwane (CoT) is a Category A Municipality with exclusive municipal executive and legislative authority in its area as provided in the Constitution of the Republic of South Africa, section 155 (1) (a). The City of Tshwane is a licensed electricity distributor in terms of the Electricity Regulation Act, Act no. 4 of 2006.

The City acknowledges the effort by the National Department of Mineral Resources and Energy to lift the limit of embedded generations from 1 to 10 MW. Consumers were restricted to construct and operate systems with sizes up to 999 kVA without the need for a National Energy Regulator of South Africa license based on certain conditions.

Legislative Framework



- 1) Constitution of South Africa: refer to section 155 (1) (a).
- 2) Municipal Finance Management Act, Act 56 of 2003.
- 3) Electricity Regulation Act, Act 4 of 2006.
- 4) Occupational Health and Safety Act, Act 85 of 1993
- 5) Supply Chain Management Regulations: regulation 19 (a) requires that services or goods of a certain value be procured through a competitive bidding process.
- 6) NRS 047 and NRS048: electricity distribution licensees are required to also comply with the regulatory standards and report as may be required by National Energy Regulator of South Africa.

Potential Risks



- Loss of revenue:
 - commercial and industrial consumers contribute more than 59% of City's electricity revenues.
 - Therefore, their migration towards sustainability is having a negative impact on the City's revenue.
- Excess energy capacity that the municipality won't be able to utilize'. It is also a fact that most of the applicants for embedded generation technologies are from the commercial and industrial categories rather than the negligible quantity from the residential consumers.
- Unavailability of the required customers load demand when their plant are down. Although most of the applicants for embedded generation remain connected to the grid during the day, the grid is used as a backup or virtual battery for a portion of their load(s).
- Furthermore, consumers could fall victims of the long term expensive electricity charges that are not sustainable.

Potential Risks cont...



- There is also the potential for municipalities to begin dealing with energy trading while deriving revenue from renting the grid to the energy wheelers:
 - This concept removes the burden of generating revenue only from end user electricity consumption, however, will put a burden on municipalities to adequately maintain and refurbish their infrastructure on time to ensure viability of wheeling transactions.
 - Regulations of the off-take tariffs are also an important factor to be considered.
- Poor quality of energy being back fed into the network when the customers are not using it.
- The municipality will be unable to recover the investment on the network provided to consumers who go off-grid. The medium to high voltage infrastructure equipment and control systems will be under-utilized.
- Utilities may neglect to maintain, refurbish and upgrade existing infrastructure such to allow for the future growth.

Benefits

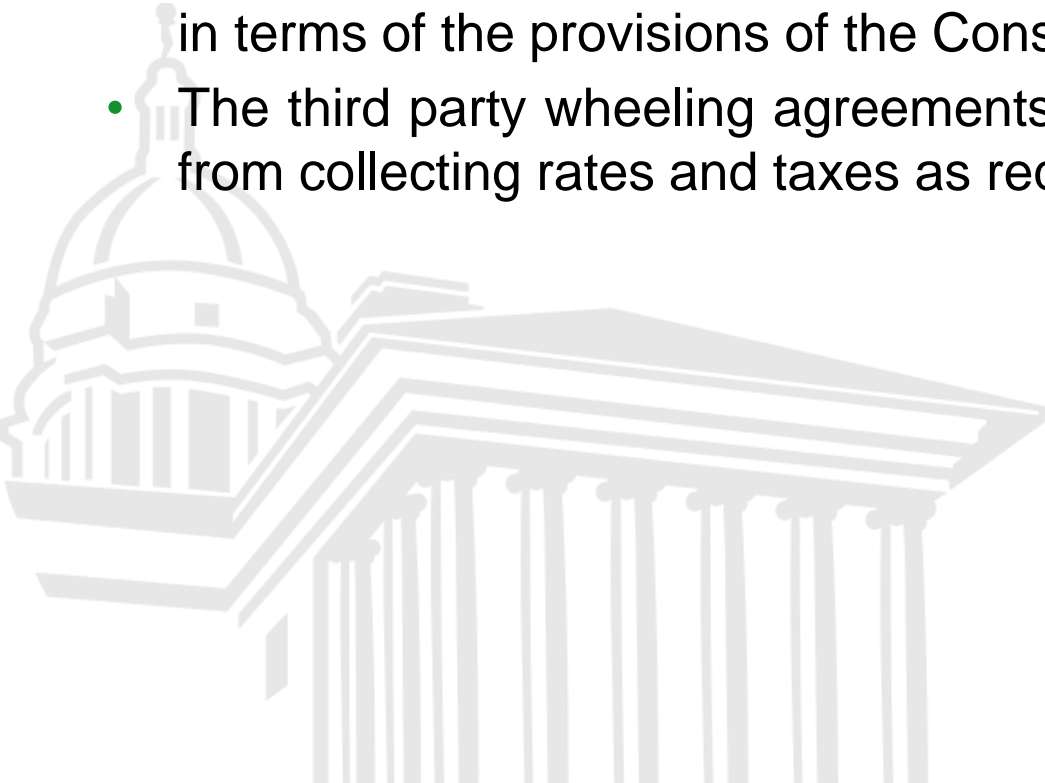


- The role of the private sector will assist many of the municipalities to reduce their carbon emissions through the implementation of renewable energy resources.
- Municipalities will have the opportunity of be the off-takers or play a role as a third party to the energy wheeling agreements. National Treasury support is required.
- South Africa is a signatory to the Paris Accord, as such the City is expected to implement greening resources in order to achieve carbon reductions.
- The electricity reseller's market could receive a stimulation. Developers that installed renewable resources could begin to resell their output to their consumers.
- The Cities could also install their own resources for both own use and reselling to the consumers.

Benefits cont...



- Municipalities could become partially self-sustainable and move non-revenue loads onto renewable sources.
- The implementation of the renewable energy resources must be considered within the context of the Municipality having the authority in terms of the provisions of the Constitution.
- The third party wheeling agreements must not disadvantage the City from collecting rates and taxes as required by Law.



Required Support



- Many Cities will have appetite to move into to the new electricity generation and resell space but the long term contractual agreements of the funders could become a challenge.
- Tariffs in the new industry (renewables) must be closely regulated to avoid long term losses of revenue by municipalities.
- National Treasury must consider issuing annual grant that will be meant for infrastructure maintenance.
 - Despite the growing need of licensees and consumers to become sustainable, major revenue source in the South African Municipalities remain the sale of electricity to the consumers.



THANK YOU !!!!!

