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**LOCAL GOVERNMENT EQUITABLE SHARE FORMULA REVIEW**

# TOWARDS A NEW EQUITABLE SHARE FORMULA FOR LOCAL GOVERNMENT

*Proposal for a new structure for the local government equitable share formula*

DISCUSSION DOCUMENT

September 2012

**Compiled by the LGES Formula Review Technical Working Group**

## Contents

# TOWARDS A NEW EQUITABLE SHARE FORMULA FOR LOCAL GOVERNMENT

The local government equitable share (LGES) formula is being reviewed during 2012, with the aim of introducing a revised formula for use in the 2013 Budget. The review process is being undertaken by a working group comprising representatives of the National Treasury, the Department of Cooperative Governance and the South African Local Government Association, in partnership with the Financial and Fiscal Commission and Statistics South Africa. The process to review the formula is intended to be as consultative as possible to enrich the review with the ideas and insight from municipalities and other interested stakeholders.

This document outlines a proposal for the structure of the new LGES formula and puts forward options for some of the details of how the LGES components will be structured. All stakeholders are invited to make comments on these proposals and options. Comments should be sent to LGESreview@treasury.gov.za by **26 September 2012**.

## LESSONS FROM THE FIRST PHASE OF THE CONSULTATION PROCESS

The outcome of the review of the local government equitable share (LGES) formula will affect all municipalities; hence the process has been structured to be as open and transparent as possible so that all municipalities have an opportunity to be a part of the review.

During the first phase of the review, the LGES review working group circulated two discussion papers to all municipalities for their comments. These discussion papers provided analysis of the current LGES formula and proposed a set of principles and objectives to inform a new formula. In addition to circulating these discussion papers, six workshops were held in venues around the country with different types of municipalities. These workshops produced robust and in-depth discussions on municipal views of the current formula and expectations for the new formula. During this process 43 municipalities participated in the workshops and 17 submitted written inputs. Four provincial and two national departments also submitted written comments.

In the first phase of the consultation process, the LGES review team learnt a number of important lessons. Some of the most important lessons that are likely to inform the review process going forward are:

*Stakeholders generally supported the proposed principles and objectives*

- The consultation process revealed that municipalities broadly welcomed the review of the LGES formula, though some expressed the wish that it had a broader scope to look at the size of local government's share of the division of revenue. They generally supported the proposed principles and objectives, though some proposed adjustments to the way they were written. Municipalities also expressed appreciation for the consultative approach through which the review is being conducted.

- Several changes were proposed to the draft principles and objectives for the new formula. These are reflected in the revised principles and objectives presented below. The most significant of these changes is the omission of one of the objectives for the LGES formula initially proposed in the discussion document. This objective referred to "Creating incentives that promote efficient service delivery." While nobody objected to the idea of promoting good practices, it became clear that stating this as an objective, and particularly the use of the word "incentive", created an expectation that a performance incentive grant would be part of the LGES formula. This was not the intention of the LGES working group as any incentive programme would be more likely to succeed if managed through a conditional grant rather than as part of the LGES formula. This objective has therefore been dropped, but most of the content of what it was trying to promote has been incorporated into the detail of the statement of revised principles and objectives below.

- Several municipalities observed that there is a **tension between different principles** in the formula. For example there is a tension between the principle "only use high quality, credible, verifiable data" and the principle to "recognise diversity among municipalities" as it is not always possible to find credible data that measures some of the differences between municipalities (particularly differences affecting the costs of services). Finding high quality data that reflects the different circumstances and service costs in all municipalities is very difficult, as is finding credible data that can be updated for all municipalities. This means that the proposal for the new formula will have to strike the best balance it can between trying to take account of different circumstances and changes in municipalities, while not undermining the commitments to using credible data and treating all municipalities fairly and objectively in the formula.

*The LGES formula review can only make allocations based on the best available information*

- This review takes place in the context of very limited information on municipalities. While many stakeholders expressed desires for the formula to comprehensively account for various factors that impact the cost of services in their municipality, there were few proposals for how these factors could be measured. During the consultation process, the difficulties of accurately costing municipal services at both a municipal and aggregate level became apparent. These difficulties include the lack of cost reflective tariffs in most municipalities and the lack of generalisable and up to date cost information in most national sector departments (see further discussion of this in the section outlining the proposals for the basic services component). Given these difficulties, the revised LGES formula will have to be based on the best available cost estimates. Similarly, it will not be possible to measure all the topographical and other features stakeholders hoped the new formula would be able to take account of. The LGES formula review can only make allocations based on the best available information.

*A municipality that faces higher than average costs in one area it is very likely to face lower than average costs in another area*

- Municipalities made it very clear during the consultations that they face different cost pressures from one another. However, it also became clear that while the costs of some services will be higher in one municipality, not all services will be more expensive in that area, and some may even be cheaper. For example, some municipalities cited their hilly terrain as raising the cost of delivering water reticulation services while another municipality pointed to their flat terrain as causing flooding and raising the cost of storm water systems. Flat and hilly terrain, dense and sparsely populated areas and urban and rural areas each have their own challenges and cost pressures, but also their own advantages. As a result, while a municipality may face higher than average costs in one area it is very likely they will face lower than average costs in another area that will compensate for this. In other words, *what you lose on the swings you gain on the roundabouts*. The use of average cost estimates in the revised LGES formula is therefore the fairest way to account for such complex effects.

In addition during the same period the Financial and Fiscal Commission (FFC) hosted their second public hearings on the review of the local government fiscal framework. The local government equitable share was discussed during these hearings and the FFC summarized the views emerging from the hearings as follows:

> *"Stakeholders were of the view that the LGES needs to be more transparent, fund a minimum efficient municipal structure (not a bloated bureaucracy), and be biased towards small municipalities and those unable to raise their own revenue. The institutional (I) component is inadequately funded, which means many municipalities use the basic service component (BS) to fund their administration. The institutional (I) component should be used for building systems and, even if the development (D) component is not active, government needs to ensure that other grants are meeting the objectives of the D component i.e. supporting the developmental role of municipalities."*

*No formula can fulfil the hopes of all stakeholders*

The LGES formula review working group is very aware that the proposal made below for the structure of the new formula will not meet the hopes of every stakeholder - no formula ever could. What we hope this proposal does is give a credible formula that balances the needs of different stakeholders in as fair a manner as possible within the constraints of the information and funds available for use in the formula.

**Recap of constraints on the scope of the LGES formula review process**

- This is a review of the local government equitable share *formula* used to allocate funds among municipalities and will not examine the vertical division of revenue between the local, provincial and national spheres of government.
- While the review may result in recommendations to strengthen existing systems and processes, it should not require the establishment of new national capacity in order to implement the revised formula.
- This review will not include a review of the RSC/JSB levies replacement grant.
- The LGES formula review will work within the existing system of functional assignments of municipalities (e.g. the division of powers and functions between local and district municipalities and between municipalities and provinces).

# PRINCIPLES AND OBJECTIVES FOR THE NEW EQUITABLE SHARE FORMULA

## Principles

The LGES Formula must:

1. Be objective and fair
2. Be dynamic and able to respond to changes
3. Recognise diversity among municipalities
4. Only use high quality, verifiable and credible data
5. Be transparent and simple
6. Provide for predictability and stability

## Objectives

1. Enable municipalities to provide basic services to poor households
2. Enable municipalities with limited own resources to afford basic administrative and governance capacity and perform core municipal functions

## DETAILS

**Principle 1 - Be objective and fair**

- Municipalities with similar characteristics must be treated in the same way by the formula
- Formula design must be immune to subjective adjustments to favour a particular municipality

**Principle 2 - Be dynamic and able to respond to changes**

- Formula must be capable of taking account of significant changes in the objective circumstances of municipalities
- Formula structure should enable smooth updating of data
- Formula should be able to respond to policy adjustments such as function shifts

**Principle 3 - Recognise diversity among municipalities**

- Formula should be capable of taking account of the different characteristics of municipalities
- Funds allocated for a particular function must go to the municipality officially authorised to perform that function (but the LGES will not fund municipalities for services that are the competency of other spheres)

**Principle 4 - Only use high quality, verifiable and credible data**

- Official data should be used wherever possible
- The most recent and up-to-date data available should be used
- Data must not be manipulated (this does not preclude the use of credible estimates and projections)
- Fair average cost estimates for basic services should be used (including maintenance costs)

**Principle 5 - Be transparent and simple**

- The formula and information about how allocations are derived must be transparent and available to municipalities and the general public
- The simpler and easier to understand the formula is, the more people will be able to engage with it

- Local municipalities must remain accountable to their residents for resources they use, including transfers received – transparency can enable such accountability

**Principle 6 - Provide for predictability and stability**

- Municipalities should be provided with a degree of certainty about their future allocations in order to enable them to plan and budget effectively

**Objective 1 - Enable municipalities to provide basic services to poor households**

- Supplement municipal budgets so that an efficient municipality will be able to progressively achieve the provision of free basic services to its poor households in line with national policy norms and standards
- The LGES is intended to assist with the operational costs (including maintenance costs) of basic services for poor households, capital costs should be funded through conditional grants, own revenues and borrowing
- LGES should support municipalities to create the foundation necessary for economic growth through the sustainable provision of municipal functions
- The structure of LGES allocations should reflect that maintenance should be budgeted for as part of the operational costs of service delivery
- The LGES should promote the efficient delivery of services and should not penalise alternative modes of service delivery if these are efficient
- The LGES should create positive incentives for municipalities that roll out services to reach more households

**Objective 2 - Enable municipalities with limited own resources to afford basic administrative and governance capacity and perform core municipal functions**

- Provide funding to enable the most resource-poor municipalities to afford a basic level of administrative and governance capacity
- Provide funding towards the cost of performing essential municipal functions in municipalities with limited own revenue bases
- The LGES should recognise the ability of certain municipalities to cross-subsidise the delivery of administrative and other essential municipal services from their sources of own revenue
- The formula should take account of the different levels of fiscal capacity in municipalities, but should not reward inefficiency
- LGES allocations should not crowd out municipal own revenue raising efforts and the revenue-accountability link the collection of these revenues creates

See annexure B for a short assessment of how the proposed formula measures up to the principles set. The way the formula achieves the objectives is described in the next section.

**Background information on the LGES formula review**

In the first phase of the LGES formula review two discussion papers were circulated and can be accessed at http://mfma.treasury.gov.za/Media_Releases/LGESDiscussions/Pages/default.aspx

- The first paper discusses the basis for the principles and objectives listed above
- The second paper gives a detailed analysis of the current LGES formula

# PROPOSAL FOR A REVISED LOCAL GOVERNMENT EQUITABLE SHARE FORMULA

The proposed new formula structure consists of three components and a revenue adjustment factor. The formula has the following structure:

***LGES = Basic Services + (Institutional + Non-Trading Services) x Revenue Adjustment ± Correction***

## Proposed structure for the new LGES formula

***LGES = BS + (I + NTS)xRA ± C***

Where:
- **LGES** is the local government equitable share
- **BS** is the basic services component
- **I** is the institutional component
- **NTS** is the non-trading services component
- **RA** is the revenue adjustment factor
- **C** is the correction and stabilisation factor

### How the components achieve the objectives of the formula

*Objective 1 - Enable municipalities to provide basic services to poor households:*

The **basic services component** funds the provision of free basic services for poor households. This component provides an allocation for every poor household in a municipality to cover the cost of providing a package of free basic water, sanitation, electricity and refuse removal.

*Objective 2 - Enable municipalities with limited own resources to afford basic administrative and governance capacity and perform core municipal functions:*

The **institutional component** provides funding to assist municipalities with their administration and governance costs (though it is not intended to fully fund these costs).

The **non-trading services** component provides funding to assist municipalities to provide core municipal services like municipal health

### Comparison with the structure of the current LGES formula

The current LGES formula is structured as shown below. Like the proposed formula above, it has basic services, institutional and correction components but while the current formula subtracts a revenue-raising capacity correction from the whole formula, the proposed new formula applies a revenue adjustment factor to the institutional and non-trading services components only. The non-trading services component is a new addition to the formula. The development component in the current formula has never been activated.

***Grant = BS + D + I – R ± C***

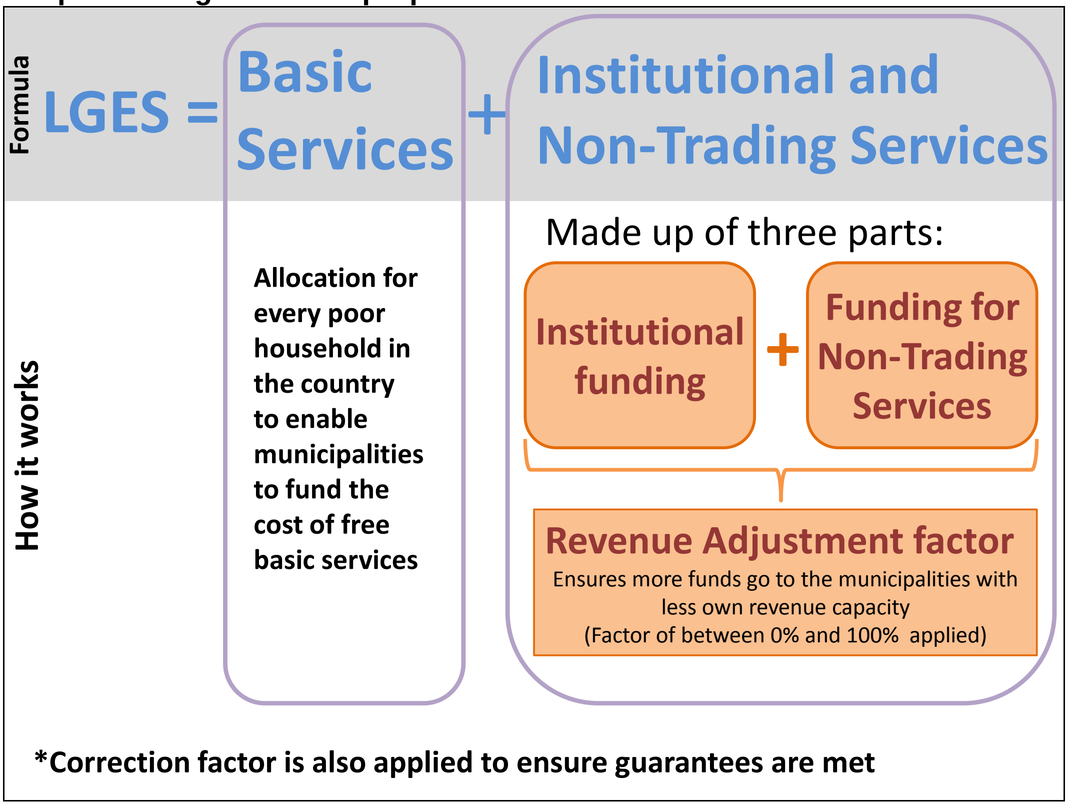
*where*

***BS*** is the basic services component
***D*** is the development component
***I*** is the institutional support component
***R*** is the revenue-raising capacity correction and
***C*** is a correction and stabilisation factor.

services, fire fighting, roads and storm water, municipal planning and cemeteries and other services for all their residents. As with the institutional services component, this component does not intend to fully fund the costs of these services.

The costs subsidised by the institutional and non-trading services components should be funded from general revenues (e.g. property rates, surcharges and other own revenue sources). However there are some municipalities where poverty levels are so high that their general revenues cannot be sufficient to cover these costs even if they optimise their revenue collection. To ensure that funds for these two components only go to the municipalities that need them most, a **revenue adjustment factor** is applied to these components. This factor is based on an index that estimates the different revenue raising potential of municipalities. Those municipalities with the greatest revenue potential will have a factor of zero applied (they will not get an allocation from these two components) while those with less revenue potential will get progressively larger allocations. A revenue adjustment factor is applied in order to take account of the requirement in section 214(2)(e) of the constitution that the division of revenue must take into account the fiscal capacity of municipalities. It is also in line with the recommendations of the Financial and Fiscal Commission for 2005/06 that the local government equitable share should include a measurement of revenue raising capacity.

**Simplified diagram of the proposed new LGES formula**




**Main advantages of the new LGES formula**

- Simpler formula structure is easier to understand
- Updated poverty measure
- More realistic cost estimates for basic services
- Capability to update data
    - Can reflect different cost pressures for each service (e.g. electricity)
    - Incorporates estimates of population growth
- More realistic level of institutional funding for those municipalities that need transfers to sustain their administration
- Includes funding for key non-trading services

## THE LGES FORMULA'S ROLE WITHIN THE LOCAL GOVERNMENT FISCAL FRAMEWORK:

*Services for non-poor consumers should be paid for by those consumers*

The LGES is part of a broader fiscal framework that includes all of the resources available to, and expenditure responsibilities of, local government. Within this fiscal framework the LGES is transferred to municipalities in terms of the constitution in order to supplement municipal own revenue and support municipalities to meet their constitutional duties to provide services to all their residents. Within this fiscal framework services for non-poor consumers should be funded through revenues generated from those consumers. For non-poor consumers the trading services provided to individual consumer units (electricity, refuse removal, water and sanitation) should be funded through tariffs. Non-trading services (including roads, emergency services and parks) that benefit the community as a whole should be funded through general own municipal revenue sources (such as property rates, fuel levy sharing and RSC levies or its replacement). In municipalities where there is a substantial revenue base contributing to general revenues, those general revenues can be used to fund non-trading services for all residents (poor and non-poor). However, where high poverty levels result in a municipality not being able to raise sufficient general revenues to fund these services, the equitable share should make a contribution to assist in funding these services.

To summarise then:

- The first component of the LGES formula funds the provision to poor households of free basic amounts of the trading services that non-poor households can afford to pay for themselves.
- The second and third components of the formula fund non-trading services and administration costs in municipalities where a lack of own revenue capacity (but not a lack of revenue effort) mean they are unable to meet their basic responsibilities for core non-trading services and maintaining a basic municipal institution.

**Change in the magnitude of LGES allocations**

This revised LGES formula is being proposed in the context of a massively increased baseline for local government transfers. As the discussion paper *Analysis of the Current LGES Formula* circulated in the first phase of this review noted, the current LGES formula allocates more than twice the amount, in real terms (inflation adjusted), than it was originally intended to allocate. This additional funding has compensated municipalities for population growth and rising costs, but even taking those factors into account there has been a major additional amount of money allocated to local government in recent years. While some municipalities have used these funds well to deliver more and better services to more of their residents, it is not clear that these funds have delivered value in all municipalities.

The billions transferred through the LGES are unconditional, but they are allocated in order to enable municipalities to fulfil their constitutional mandates. The equitable share is intended to fund service delivery, but this isn't always what the funds have been used for. As one municipality put it in their written comments on the first phase of the consultation process, "Municipalities usually use their equitable share to offset their debts, obligations, creditors, bulk purchases, bank overdrafts."

One of the challenges for the revised LGES formula being proposed here is to make it clearer what the LGES funds allocated through the formula should be capable of funding. Improving the transparency of the formula in this way will allow for greater accountability at all levels.

# SUMMARY OF EACH COMPONENT

## BASIC SERVICES:

This component funds the provision of free basic amounts of the four major trading services, as determined by the relevant national policy, to all poor households. The four services funded through this component are electricity, water, sanitation and refuse removal. The formula used to calculate the funding allocated for each of these services is described in the subsections below.

### Proposed basic services component amount per poor household

R277.78 per poor household per month, made up of the following amounts for each service:

- R56.24 for energy
- R87.90 for water
- R73.25 for sanitation
- R60.39 for refuse removal

This component will be allocated by multiplying the per household amounts above by the number of poor households in each municipality (funds will only be allocated to municipalities authorised for the services being funded).

Within this allocation a total of, R27.78 per month is allocated for maintenance

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*There is no consensus on what factors drive costs, by how much and how to reliably measure these factors*

During consultations, various municipalities suggested that there are a number of factors that can impact on the costs of providing municipal services (for example, the need to pump water uphill). The task team acknowledges this and intended to propose a formula that would account for these various factors. Unfortunately, research and analysis of the factors impacting on the costs of providing municipal services in South Africa is limited. Currently, there are no comprehensive (country-wide) studies that have identified and quantified which factors influence the cost of services and by how much, or how such factors could be fairly measured for all municipalities. The lack of this data proved to be a fundamental constraint in designing the basic services component of the proposed LGES formula.

Given the point above, the proposed costs of providing basic services outlined in this document are the best estimates that the LGES formula review working group has compiled based on available information. In addition, the use of average costs per service is proposed as the fairest and most objective manner in which to allocate the LGES given the limited information available. In some cases costs for a particular service in an individual municipality may be higher than average. In order to provide sufficient funds for these municipalities the formula does two things:

- First, all of the cost estimates used in the formula are significantly above the average cost for municipalities. This creates a margin that will mean that even municipalities with above average costs will have sufficient funds provided through the LGES to cover the provision of basic services to poor households. This margin has been increased by the addition of an amount in addition to the cost estimate, to ensure that all costs are covered
- Second, in cases where the cost of a service in one particular municipality is so far above the average that even the additional margin described above does not cover the cost, they should be

able to cover that cost from some of the funds allocated for one of the other services. As was noted in the section on lessons learnt from the consultations, municipalities that face a much higher cost for delivering one service will not face higher costs for delivering all services. The higher costs of delivering one service should therefore be able to be offset against the lower costs of delivering another service. Therefore, the proposed costing methodology should not result in a significant net disadvantage to any municipality.

*The cost estimates used in the formula can be refined if better information becomes available*

The cost estimates used in the formula can be refined and improved if better information becomes available, either during the consultation process in September 2012 or in future updates of the formula. Such improvements would not require a review of the formula, but would simply be refinements to the way the basic services funds are allocated within the structure of the basic services component detailed below. However it is important to note that any changes to the cost estimates will not result in more funds being added to the formula so any increases or decreases in cost estimates will have to offset by an equivalent decrease or increase elsewhere in the formula.

Details of how the amounts for each service were determined are provided in Annexure A.

**Maintenance**

The basic services funds in the LGES formula are intended to provide for the full costs of providing a service, including the maintenance costs of providing the service. For each of the basic services discussed in Annexure A, details are provided on how much of the costing for that service is allocated for maintenance costs.

*Maintenance costs are funded within the basic services component*

**Updating costs annually**

One of the advantages of the structure of the proposed LGES formula is that it is possible to annually update the cost estimates for each of the basic services funded. This will be done through an annual process that will include all of the organisations involved in the LGES working group (National Treasury, Department of Cooperative Governance, South African Local Government Association, Financial and Fiscal Commission and Statistics South Africa). Each of the subsections below on how the cost estimates were determined also outlines how the cost estimate can be updated each year.

**Different forms of services**

The current LGES formula provides different levels of funding for households who have access to services at or above RDP service levels and those that do not. This proposal for a new LGES formula provides the same basic services subsidy for all households, irrespective of the form of service they reported receiving in the 2011 Census. This approach has several advantages:

- It recognises that municipalities have a responsibility to provide services to all their residents and that in cases where households do not yet have access to RDP level services they must be provided with an alternative service.
- It recognises that the provision of alternative services is not necessarily any less expensive than the operation and maintenance cost of providing RDP level services.
- It allows the formula to be updated based on an estimate of the growth in the number of households in each municipality without having to make any estimates or assumptions about the different forms of access to services these households have. The lack of new

municipal-level data on access to services between censuses means that such estimates could not be credible and would violate the formula principle that the formula should only use credible and verifiable data. Importantly, this will also allow the formula to meet another principle, being dynamic and responsive to changes in municipalities, as it will allow the formula to take account of population growth in municipalities (see section below on "measuring poverty" for more details on how the data on the number of poor households will be updated). It also allows these updates to be done in a way that is simple to understand, facilitating transparency.

**Possibilities for new municipal level data**

Although there are currently no municipal-level datasets released by StatsSA between censuses that can be used to update the LGES formula, there are several possibilities on the horizon that could result in more frequent municipal-level data being released. Possibilities include the publication of population estimates at district municipality level (these estimates were first published in beta form in 2011) and enlarged samples in key surveys that would allow results to be accurate at either municipal level or for small groups of municipalities. If the census is still conducted at 10 year intervals it is also likely that there will be an improved community survey midway between censuses.

### Measuring poverty

The measurement of poverty used in the formula is of great importance as the LGES provides funding to enable municipalities to provide services to poor households.

South Africa has not defined a national poverty line, though several different poverty measures are used for different policy purposes in different government policies. Municipalities made suggestions for how poverty should be measured, including benchmarking it against various social grants, indigence measures specific to individual municipalities and using data on grant recipients from the South African Social Security Agency (SASSA). Municipal indigent policies cannot be used as these differ from one municipality to another and in order to keep the formula fair and objective the LGES needs to be based on a national poverty measure. As SASSA data is not recorded at municipal level, social grant data also cannot be used.

For the new formula, there are two options proposed for how the number of poor households per municipality can be measured. Stakeholders are invited to submit comments on which of these options they prefer.

**Option 1**

The first option for measuring poverty is to define a particular income level for households below which households would be considered to be in poverty. This is the same way poverty is defined in the current formula, which uses an R800 per month household poverty line. The amount that the new poverty line would be set at would be significantly higher than this as inflation alone means that an income of R800 in 2001 (which is when the data used in the current formula was collected) would be worth the equivalent of about R1 500 in 2011 when the most recent census was conducted. A new income poverty line would therefore definitely be above the level of R1500 per household per month.

The LGES working group investigated the possibility of defining poverty in terms of imputed expenditure instead of income but Statistics South Africa have advised us that it will not be possible to do this within the timelines necessary for the new formula. They will however investigate whether it is possible to do so in future and the formula may be updated accordingly.

**Option 2**

The second option would be to measure poverty in terms of the proportion of households in poverty. This would be done by targeting the formula at particular deciles. A decile refers to 10 per cent of households, in other words in this context, the poorest decile is the poorest 10 per cent of households. The second decile would be the next poorest 10 per cent of households[1].

***Options:***
*Two options proposed for definition of poverty:*
*1. Define at specific level of HH income*
*2. Define in terms of deciles*

*Stakeholders are requested to please send inputs on which option they prefer*

Under this option either the lowest 4 or 5 deciles would be likely to be targeted, in other words the poorest 40 or 50 per cent of households in the country would be funded for free basic services through the LGES formula.

It is important to note that targeting the poorest 50% of households in the country will not mean that 50% of households in each municipality will be funded. Poverty is not evenly distributed across the country, and so some municipalities will have a larger than average share of the poor households, meaning that more than 50% of their households will be targeted by the LGES. Each municipality will be funded for the number of their households that are among the poorest 50% of households in the country (or 40% if that is the level chosen).

*Updating the poverty data in the formula:*

One of the advantages of using deciles is that the formula (option 2) would be that it would be easier to update in future. Because this measure is based on the proportion of poor households the proportion will remain the same in future and the formula would simply have to update the population numbers of different municipalities.

*The proposed formula will be updated annually to reflect estimates of population growth*

As the number of households in the country increases (through population growth) the number of households targeted by the formula will increase. The number of households in the formula will be increased in the formula each year based on the population growth for the country recorded in StatsSA's midyear population estimates. This growth will be distributed among municipalities based on their average growth in the period between 2001 and 2011[2]. This will provide an estimate of the population growth in each municipality. These estimates will be recalibrated to actual figures as soon as updated official population data becomes available. Using estimates for population growth, although not 100 per cent accurate, is better than not reflecting any population growth in the formula, and as one municipality put it during a workshop, municipalities should be comfortable with this methodology as many of them bill their customers based on estimates for the quantity of services they consume. It will be assumed that the proportion of

[1] Deciles are determined by ranking all households from poorest to richest and then dividing them into ten groups so that the poorest 10% of households form the 1st group (or decile) and the richest 10% of households form the 10th decile.

[2] Although the population of the whole country is growing, the population of some municipalities is growing much faster than others. Thus, if the country's population grows by 1% in a year, some municipalities may see their population grow by 2% while others will grow by only 0.5%. The proposed formula will use past growth rates (between 2001 and 2011) to distinguish which municipalities should be treated as growing faster than the national average, and which should have their population figures in the formula grown more slowly.

poor households in each municipality remains constant, until such time as this information can be updated with official data from StatsSA.

Over the longer term, as South Africa develops and poverty reduces, the proportion of households subsidized through the formula can be reduced. When this happy change is necessary, StatsSA's data on poverty will be used to make updates.

It would also be possible to use a similar methodology to update the poverty numbers in option 1, by using the number of poor households defined in terms of the income poverty line to calculate the proportion of poor households in each municipality and then updating the number each year based on this proportion. Again, the update would be done using estimated population growth.

*Setting the amount*

Neither of the options listed above clearly describe the level at which the poverty measure would be set. This is done deliberately so that stakeholders can comment on the methodology they prefer without trying to calculate how many households would be impacted under each option. In the end it is likely that a very similar number of households would be targeted under either option.

INSTITUTIONAL COMPONENT:

During the first phase of the consultation process many municipalities raised the high costs of managing a municipal administration as a major concern and something they felt the LGES should do more to fund. Municipalities raised a number of specific administrative costs that they felt the equitable share should take account of, including the costs of compliance with national regulations (particularly regulations on financial management) and the costs related to the size of municipal councils.

*The proposed formula will allocate more realistic amounts for the institutional costs of municipalities that cannot fund these from own revenues*

The size and structure of a municipality's administration should be determined by the need to deliver services to their residents. Municipalities have a wide degree of discretion on how they structure their administration to meet their service delivery obligations and it would not be appropriate for the LGES allocations to be based on a set of funding norms that could be taken to imply that the formula is being used to impose norms for administration on municipalities. The LGES formula would not be an appropriate vehicle through which to introduce such norms and standards. As with the basic services allocations, the LGES formula can only be designed to fund existing policies.

The proposal for this component is therefore to provide an amount of core funding for municipal administrations, ensuring that a larger allocation is provided for poorer and larger municipalities.

The allocation of this component will be based on:

- A base allocation of the following values:
    - R5 million for every local municipality
    - R5 million for district municipalities authorised for the water and sanitation functions
    - R3 million for district municipalities not authorised for the water and sanitation functions
    - R5 million for metropolitan municipalities

- An allocation based on the size of a municipal council. This is not intended to fund the cost of councillors,[3] council size is used as a proxy for the size of a municipal administration as the number of councillors per municipality increases with population size, but not in a way that is proportional, so it reflects the economies of scale in administrative services that larger municipalities should be able to achieve. To calculate this allocation the number of councillors per municipality will be multiplied by a per councillor allocation[4]. This will mean that a municipality with 20 councillors will get twice as much through this allocation as a municipality with 10 councillors.

The base allocation will ensure that all municipalities, including the smallest of municipalities get a reasonably sized allocation through this component. The lower base allocation for district municipalities not authorised for the water and sanitation functions recognises that these municipalities have fewer service delivery responsibilities and should have smaller and less costly administrations. The second part of this component takes account of the size of each municipality's administration, while also recognising that some economies of scale are achieved in larger municipalities.

***Input requested from stakeholders:***

*The base allocations proposed here (R3 million for district municipalities not authorised for water and sanitation and R5 million for all other municipalities) can be changed. What do stakeholders view as a realistic base allocation (remembering the base allocation is only one part of the I-component)?*

This component and the Non-Trading Services component will both be subject to the revenue adjustment factor. This will ensure that municipalities will only receive funds from these components in proportion to their need for additional funding as a result of their low potential to fund these costs from own revenues. These two components will also act as balancing items in the formula, absorbing all available funds remaining after the Basic Services component has been allocated.

It is envisaged that those municipalities who receive funding from this component (after the revenue adjustment factor is applied) will receive a larger I-component allocation than they do through the current formula. This should therefore provide a more realistic level of institutional funding for these municipalities. However, the objective of this component is not to fully fund municipalities' administration costs, as all municipalities should be making some contribution towards those costs from their own revenues.

### NON-TRADING SERVICES:

The Financial and Fiscal Commission (FFC) recommended in 2001 that eight services be funded through the LGES as 'basic services'. These include the four services listed in the proposed basic services component described above, as well as municipal health, fire fighting, storm water management and municipal roads. In the view of the FFC all of these services except electricity were defined as basic services in terms of at least three of the following four criteria:

[3] A separate councillor support subsidy for the first three grades of the six municipal grades in terms of the gazette on upper limits for councillor salaries is provided for outside of the LGES formula.

[4] The amount per councilor used in the formula will be determined so as to ensure all of the funds in the I-component are distributed. This portion of the I-component will therefore act as a balancing item ensuring that all the available funds are allocated.

- Being in the Bill of Rights
- Being essential to life (in terms of the definition in the Municipal Systems Act)
- Contributing to social and economic development (in terms of section 153(a) of the Constitution
- Being listed in policy or legislation

Although electricity only meets the last two criteria the FFC recommended it be included as a basic service on the basis o the strong emphasis on electricity provision in government policy.

*This proposal includes a new component to fund core municipal services in addition to the basic services provided to households*

In this proposal for the equitable share all of the services in the basic services component are trading services, meaning they are services that non-poor households are charged for by the municipality. Poor households cannot afford to pay for these services and so the LGES provides funding to enable municipalities to provide a basic amount of these services to poor households. These basic services are also provided to individual households and it is possible to isolate the service delivered to each household (e.g. the 50kWh of electricity given to a household or bag of refuse removed). The other four services described as 'basic services' by the FFC are however not delivered to individual households but to communities as a whole (e.g. a storm water drains prevent an area from flooding, not just one household, and municipal health inspectors monitor environmental health for a whole community, not an individual household. These distinctions support the proposition that the trading and non-trading services should be funded differently in the LGES formula.

In the case of non-trading services, it is also expected that municipalities with larger non-poor communities will be able to fund all or most of these services from general revenues (e.g. property rates and surcharges). This is a form of cross-subsidisation as revenues generated from non-poor residents are used to fund services that benefit the community as a whole, including poor residents. In municipalities with fewer non-poor residents such cross-subsidisation may not be possible. For this reason this component is subject to an adjustment factor (explained below) that accounts for the varying cross-subsidisation capabilities of different municipalities and ensures more funds are directed to those municipalities with limited own revenue capacity.

Although metropolitan municipalities are responsible for providing all municipal services in their area of jurisdiction, in the rest of the country the responsibility for municipal functions is divided between district and local municipalities. Where district municipalities are responsible for fire services or municipal health services, the funds allocated for those services will be transferred to them; funds for the remaining services in this component will be transferred to local municipalities.

The services funded through this component do not have to be limited to those listed by the FFC as 'basic services' and municipalities should be encouraged to use their discretion to use any available addition funding provided through this formula towards the costs of some of the other services they raised during the consultation process as being underfunded. These services include municipal planning, cemeteries, street lighting, trading regulations and beaches, parks and recreation facilities and disaster management.

**The developmental role of local government**

Municipalities play a vital role in the development of strong communities and vibrant local economies. Businesses can only function and grow if they can rely on municipalities to provide roads, clean water, sanitation, electricity and refuse removal as well as planning and zoning for development and providing licences for businesses. The core functions of municipalities are vital for development, as a consequence the FFC recommended in their Submission for the Division of Revenue 2007/08, that it is not necessary to include a development component in the formula and that, "The developmental needs of local governments should be better accounted for in the LES formula by designing a formula that more fully accounts for the full expenditure needs of local government."

This formula proposal is based on the approach to development recommended by the FFC. The components outlined here provide funding for the delivery of basic services and for municipalities without the potential to raise sufficient own revenue to be able to perform their other key functions.

Other aspects of development are funded through different aspects of the local government fiscal framework including the funding of infrastructure development for poor communities through conditional grants and the funding of infrastructure in wealthier areas and business districts through own revenue sources including borrowing and development charges.

*Allocation mechanism:*

As described above, the nature of non-trading services means that the way they should be funded is very different to trading services. It also means that their costing is very different. The LGES formula review working group has reviewed several sources including municipal budget data, government policies and had conversations with experts in some of the services, but it has become apparent that there is no definitive way to cost these services and that cost estimates for these services are even less exact than for basic services. The proposed allocation mechanism for this component is therefore to provide a basic amount for the two services that are usually provided by districts. These subsidies will be calculated on a per household basis as the services are for all residents, not just the poor, and the own revenue source equivalent for districts (the RSC/JSB levies replacement grant) is not contributed by households. The level of these subsidies will be calculated to provide roughly the same quantum of money currently provided to districts and metros for the municipal health function (R896 million is allocated through the current LGES formula for this function in 2012/13).

- Municipal health: R5 per household
- Fire services: R3 per household (this allocation will go to local municipalities if they perform the fire services function in the most recent Municipal Demarcation Board capacity assessments)

The remainder of the funds in this component will be allocated among local and metropolitan municipalities based on the number of poor households in their municipality. Only the poor population is included as a factor in the calculation of this component as non-poor residents already contribute to the administration and governance costs of their municipalities through the property rates and other revenues they contribute to municipalities. Using the number of poor households in the calculation of this component means that if 1% of all the poor households in the country reside in a particular municipality, then 1% of the funds allocated through this method will go to that municipality.

**Options for additional factors to be used in determining the allocation of the Non-Trading Services component**

The proposal above is for the funds for non-trading services to be allocated among local municipalities in proportion to the number of poor households in each municipality. During the first phase of the consultation process for this review, a number of municipalities raised factors they said raised the cost of their delivery of services. While there is not sufficient information on how much these factors increase costs by for them to be used in the calculation of the funding allocations for any of the individual services funded in the basic services component, they could be used as part of the calculation of funds allocated for general services in the NTS component. These factors could be included as follows:

- The area size of local municipalities (in square kilometres) could be included as a 10% weighting in the allocation of NTS funds. This would give some compensation to municipalities that have to deliver services across vast distances and incur above average costs in doing so. However, the total area size of municipalities is an imprecise measure of the distances across which services are delivered as there are some municipalities that include large unpopulated areas (particularly in former District Management Areas).
- The CSIR has developed a method of dividing the country up into units called mesozones that are smaller than wards. Measuring the density of these mesozones gives a reasonably accurate measure of the difference between urban areas, sparsely populated rural areas (e.g farming areas) and rural areas with scattered rural settlements where service costs are likely to be higher than average. The proportion of households in areas with scattered rural settlements could be used as a 10% weighting in the allocation of NTS funds for local municipalities. Updating the mesozones with 2011 data would take some time, so for 2012/13 2001 census data would have to be used for this small portion of the formula.

If both of these factors are used it would mean the proportion of poor households will account for 80% of the alloctions to local municipalities through the NTS component.

### REVENUE ADJUSTMENT FACTOR

Both the Non-Trading Services and Institutional components of the formula will have a Revenue Adjustment factor applied to them. This factor will be applied to the formula-determined allocations for both of these components, so that the allocations of municipalities with the least capacity to raise own revenue are multiplied by a factor of 1, while municipalities with substantial own revenue have their allocations multiplied by zero. There will be a sliding scale between these two ends of the spectrum.

This revenue adjustment factor is designed specifically to take account of section 227 of the constitution, which requires that, *"Additional revenue raised by provinces or municipalities may not be deducted from their share of revenue raised nationally, or from other allocations made to them out of national government revenue."*

It is therefore important that the revenue adjustment factor is not applied as a subtraction but rather that it targets an additional amount to those with limited ability to raise own revenue.

It is also important that the revenue adjustment factor is based on an assessment of what municipalities could collect in own revenues and not

*A revenue adjustment factor will ensure more Institutional and Non-Trading Services funds are allocated to municipalities with the least potential to fund these from own revenues*

what they are collecting. Section 227 of the constitution also states that, *"There is no obligation on the national government to compensate provinces or municipalities that do not raise revenue commensurate with their fiscal capacity and tax base."*

The index proposed below is therefore comprised of objective measures of the circumstances facing municipalities that would be expected to impact on the amount of own revenues they have the potential to collect. No actual revenue collection figures from municipalities (which reflect both the potential to raise revenue and the effort applied to actually collecting revenue) are used in the index proposed below. All of the data used is taken from the 2011 Census and so cannot be manipulated to favour a particular municipality.

It must be noted however that the index outlined below is not intended to produce an accurate estimate of the revenue raising potential of municipalities. In other words, the index described below cannot be used to assess whether a municipality is collecting what it should be able to. Instead, what the index does is demonstrate the *relative* ability of different municipalities to raise own revenues.

The revenue adjustment factor that is applied will be based on a per capita index built using the following factors from the 2011 Census data:

- Total income of all individuals/households residing in a municipality (as a measure of econ activity and earning)
- Reported property values (closest proxy for prop rates revenue)
- Number of households on traditional land
- Employment rate
- Proportion of poor households as percentage of total number of households in the municipality

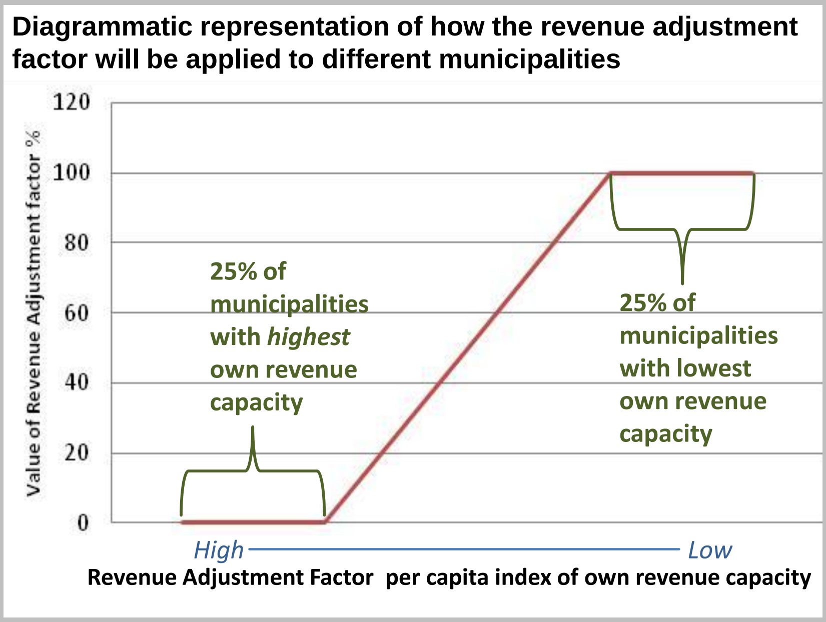
The inclusion and weighting of data for each of these factors will depend on the quality and reliability of the data for each item. The LGES working group will asses data quality and its relationship to municipal revenue raising capabilities together with StatsSA once the 2011 Census data is released. It is therefore not possible to propose weightings for the different factors at this stage. It is also important to note that this index does not include municipal revenues from businesses. This means that the index will underestimate municipal revenue, it also means that there is no possibility of creating any disincentive through the formula for municipalities promoting local economic activity. Because the data for this index comes from the census it will not be possible to update annually. This should not be a major problem as the index is only used to indicate the relative ability of municipalities to generate own revenues and this is unlikely to change significantly in the next few years.

As district municipalities do not have significant own revenue raising abilities, the index above cannot be applied to them. Instead, districts will have their adjustment factor calculated based on their RSC/JSB levies replacement grant allocations, as these allocations are the replacement for what was previously the primary revenue source of district municipalities.

It is proposed that the revenue adjustment factor should be zero for the top 25% of municipal scores in the index and 1 for the bottom 25% and that a sliding scale be applied in between these two points. The same sliding scale will be applied to the metro/local index and to the district municipalities based on their RSC/JSB levies replacement grant income (see box below for diagram of how this would work, and options for setting the cut-offs at different levels).

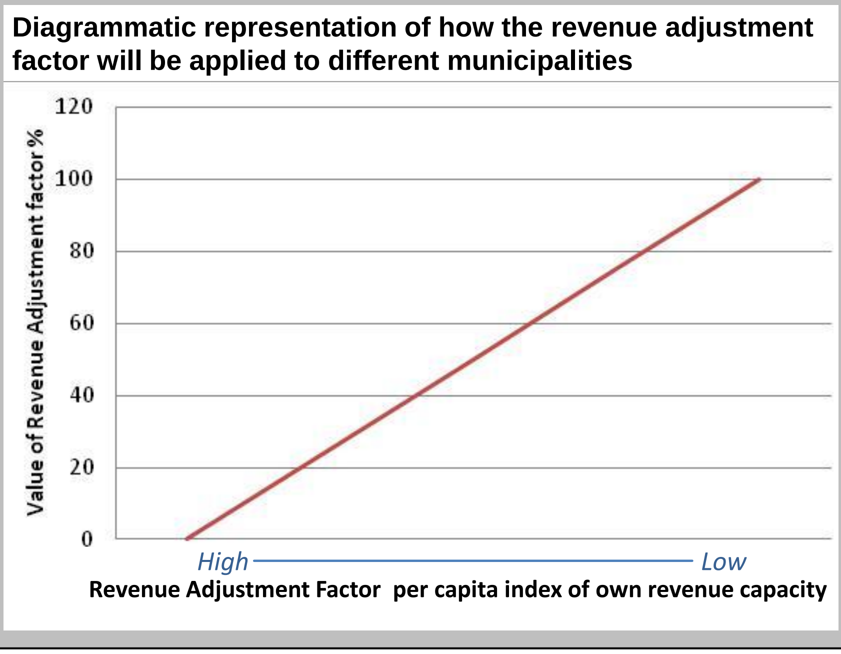
## An illustration of how the Revenue Adjustment factor will be applied

The diagram below shows how the revenue raising capacities municipalities with different will determine the revenue adjustment factor applied to their NTS and I component allocations




The 25% of municipalities with the greatest capability to raise own revenue (as measured in terms of the per capita revenue adjustment index described above) will have a revenue adjustment factor of zero. This means they will not get any allocation from the NTS and I components that this factor is applied on. The 25% of municipalities with the lowest own revenue capability will get a revenue adjustment factor of 100%. Municipalities with revenue capabilities in between these two ends of the spectrum will have a revenue adjustment factor of between 1% and 99% depending on what their revenue raising capability is.

The diagram below shows an alternative way of applying the Revenue Adjustment factor. In this scenario all municipalities get some allocation from the I and NTS components, but only the municipality with the very lowest own revenue capacity gets 100% of the allocation calculated through these components. Municipalities get a larger percentage of the I and NTS allocations the less own revenue capacity they have. Any permutation between these options is possible, and stakeholders are requested to comment on how they think the revenue adjustment factor should be applied.



### THE CORRECTION AND STABILISATION COMPONENT AND THE PHASING IN OF THE NEW FORMULA

One of the principles of the LGES formula is that it should provide predictability and stability. With this in mind, a correction and stabilisation component is included in the new formula and will work in much the same way as the correction and stabilisation component works in the current formula. The component ensures that all guarantees in the formula are met and will be the component through which the smoothing of allocations will be managed during the phasing in of the new formula.

The introduction of the new formula will result in significant changes to the allocations of some municipalities. These changes will be the result of both the introduction of the new formula and the updating of the base data from census 2001 to census 2011. ***National government and the LGES formula review working group are committed to ensuring that the phase in of the new formula will provide adequate time for municipalities to adapt to any decreases or increases in their LGES allocations***.

In order to minimise the impact of these changes, avoid destabilising municipal budgets and ensure that municipalities have time to adapt to their changed allocations (in the case of both increases and decreases), the allocations will be phased in over a period of three to five years. During this period, all municipalities will receive at least 90% of the indicative LGES formula allocation for 2013/14[5] that was gazetted in terms of the 2012 Division of Revenue Act. Final decisions on the period over which the new formula will be phased in can only be made once the 2011 Census data is inputted into the new formula and allocations are determined. Municipalities can be assured though that the phase in mechanism will minimise any suddent changes to allocations and will be designed to give municipalities sufficient time to adjust to the new levels of their allocations.

## WAY FORWARD

The LGES formula described above is only a proposal. All local government stakeholders are invited to comment on the proposal and propose amendments to it. Written comments should be sent to LGESreview@treasury.gov.za by **26 September 2012**. This will give the formula review team enough time to take account of these comments and the inputs from a consultation workshop to be hosted by SALGA on 18 September 2012 before a revised formula proposal is presented to the Budget Forum in early October.

Stakeholders are invited to submit comments on any aspect of this proposal, and have also been asked to comment specifically on options regarding:

- How poverty is measured in the formula
- The factors used in allocating the Non-Trading Services component
- How the revenue adjustment factor should be applied

If the proposed formula is supported by stakeholders and approved by the Budget Forum then the LGES working group will construct an Excel version of the formula, input data into it and use it to determine allocations that will be published as part of the 2013 Budget. The Minister of Finance will approve the final allocations made before they are tabled in parliament with the national Budget.

[5] A guarantee of 90% of the 2013/14 indicative allocation was made in the Explanatory memorandum to the Division of Revenue Bill (Annexure W1 to the Bill).

## IMPACT OF THE PROPOSED NEW FORMULA

The current LGES formula results in allocations for the most rural municipalities that are somewhat below the national average allocation through the formula when measured on the basis of allocations per poor household. Figure 1 below shows this (in the figure allocations for district and local municipalities serving the same area are added together). These municipalities are the least likely to be able to raise own revenues and so this distribution of the LGES entrenches their financial disadvantage rather than alleviating it.

**Figure 1: LGES allocation per poor household in the current formula (2012/13)**

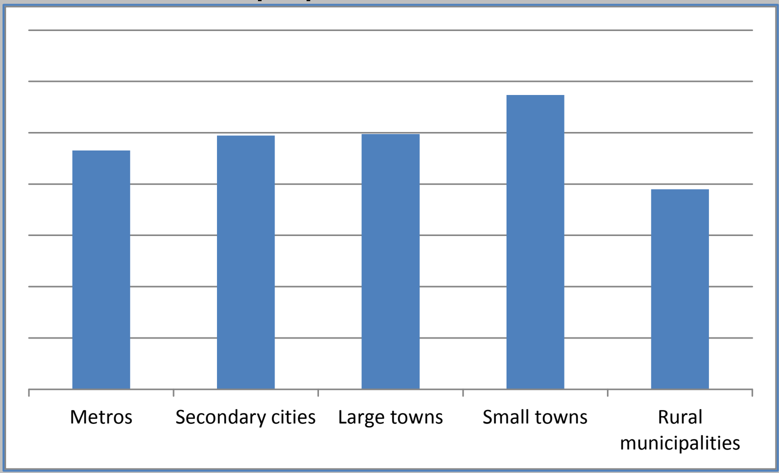
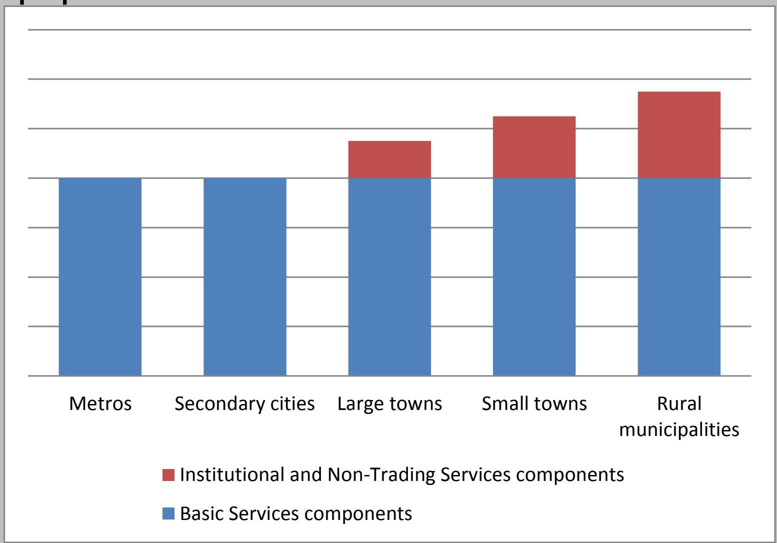



Figure 2 below shows an estimate of the equivalent allocations using the proposed new formula (note scale and figures cannot be exact as the census data has not been released yet). It shows that all municipalities get the same per poor household allocation through the basic services component, but that the Institutional and Non-Trading Services components work to ensure those municipalities with less own revenue resources get larger allocations.

**Figure 2: Approximate LGES allocation per poor household in the proposed new formula**




Note: diagram is not to exact scale as the proposed new formula is not operational yet

The updating of the data used in the formula will also mean that the new formula will reflect population growth and compensate those municipalities that have grown rapidly. The mechanisms for updating the formula in future also mean that fast growing municipalities will see their equitable share allocations increase accordingly.

# ANNEXURE A

## COST ESTIMATES FOR BASIC SERVICES

This annexure provides a detailed description of how the cost estimates used in the basic services component were derived and how they will be updated each year.

The basic services component in the proposed formula provides R277.78 per poor household per month, made up of the following amounts for each service:

- R56.24 for energy
- R87.90 for water
- R73.25 for sanitation
- R60.39 for refuse removal

These allocations are not presented as reflecting the exact costs of providing municipal services. They are based on estimates of the costs of municipal services and, as described in the body of the proposal, it is believed that when taken together they provide sufficient funds for a municipality to be able to provide and maintain a package of free basic services to poor households.

**Funding alternative services**

While the cost estimates presented in this annexure are based on the provision of electricity, piped water, waterborne sanitation and weekly refuse collection, it is acknowledged that these are not the appropriate forms of service delivery for all areas. It is also acknowledged that not all households have access to basic services and that backlogs remain.

The proposed LGES formula does not distinguish between the different types of services households have access to, it also treats poor households the same whether they have access to a service or are still waiting to be provided with access. **This is a major change from the current LGES formula** which gives un-serviced households 45% of the allocation for serviced households. This change is made for two reasons:

- Where municipalities do not provide access to services like electricity and water, they must provide residents with alternative services (e.g. paraffin for lighting or water from water tankers). These alternative services are not necessarily any less expensive than the operational costs of providing reticulated services.
- Where on-site services (e.g. VIP sanitation, rainwater harvesting, solar panels and on-site refuse disposal) are more appropriate mechanisms for delivering a service, the LGES formula should not penalise municipalities for using these methods of service delivery by giving a smaller allocation for them.
- Using the same cost estimates for all households makes the formula much simpler and far easier to update to reflect population growth in municipalities. As there is currently no source of municipal level data on access to services between censuses it would be impossible to update the number of households used in the basic services component if that data had to be linked to the type of access to services each household has. In other words, this helps the formula to comply with principles 2 (be dynamic and reflect changes) and 5 (be transparent and simple).

The allocations per service in this component are certainly an improvement on the estimates used in the current formula. The structure of the proposed new formula also allows the costs of the different services to be adjusted individually so that fast rising prices in a particular service can be accounted for and municipalities compensated accordingly.

The cost estimates used in the formula can be refined and improved if better information becomes available, either during the consultation process in September 2012 or in future updates of the formula. Such improvements would not require a review of the formula, but would simply be refinements to the way the basic services funds are allocated within the structure of the basic services component. However it must be noted that the LGES formula cannot be based on cost data submitted by municipalities as this would create a perverse incentive for municipalities to exaggerate their costs in order to try to get a higher allocation. For the same reason it would be difficult to base the costing of services on surveys or cost studies conducted by third parties specifically for the purpose of influencing the way funds are allocated in the formula. This would risk undermining the credibility of the data used in the formula.

The sections below detail how these cost estimates were determined for each service as well as how much of the cost estimate is allocated for maintenance and how the cost estimates will be updated in future. Each section also includes a brief discussion on the implications of using these cost estimates for the provision of alternative services (see textbox above).

### ENERGY:

Electricity prices are regulated by National Energy Regulator of South Africa (NERSA) making it relatively easy to identify a national price for the free basic service (FBS) amount of 50kWh per month. The regulated price of electricity for households is based on a system of 'inclining block tariffs' that result in customers paying a higher price the more electricity they use. Because there may be some level of cross-subsidisation in the lowest of the four inclining block tariff levels in NERSA's tariff guideline for municipalities it has been recommended that the LGES costing for electricity be based on the second block in the inkling block tariff structure. Using the upper limit of the 2012/13 second block (82c/kWh) produces a monthly cost of R41 per household for the amount of 50kWh provided for in the Department of Energy's policy on free basic electricity. This amount is considerably higher than the R31 per household monthly charge Eskom is allowed to charge municipalities for providing FBE in terms of NERSA regulations. The proposal ensures that municipalities with higher than average costs are not disadvantaged with the use of the average cost across all municipalities.

*Annual updates:*

The electricity costs in the formula will be updated annually using NERSA's block 2 guideline municipal tariff for the previous year as the base. This amount will then be inflated using the MYPD approved or expected increase for the bulk component and projected consumer price inflation (CPI) for the rest of the costs. NERSA publishes its final guideline tariffs too late for the formula calculations to be based on the approved block two tariff for the budget year. The split between different cost components (bulk and other) will be done in line with the average municipal cost-split used by NERSA, outlined in table 1 below.

**Table 1: Composition of different cost factors in NERSA pricing model**

| Cost category | Percentage of total costs | Proposed method for updating |
|---|---|---|
| Energy purchases (bulk) | 70% | NERSA MYPD |
| Salaries and wages | 10% | CPI (NT projections) |
| Repairs and maintenance | 6% | |
| Capital charges | 4% | |
| Other costs | 10% | |

Applying this methodology to the 2012/13 cost of R41 per month gives a cost for 2013/14 of R46.24 per household[6].

As discussed in the LGES formula proposal, the use of an average cost in providing electricity attempts to account for the differences in costs across municipalities. However, it is noted that certain municipalities may have higher than average costs due to certain unique factors. In order not to disadvantage municipalities in such circumstances, a R10 premium is applied to the average household cost of providing electricity. This will bring the total amount allocated for electricity to **R56.24 per poor household per month in 2013/14**.

*Maintenance funding:*

The NERSA determined tariffs on which the electricity subsidy is based already include funding for maintenance. As table x shows, 6% of the tariff is for maintenance costs. An additional 4% is for capital charges, which municipalities should also be able to use for maintenance in the case of poor households as infrastructure for these household will generally have been built through grant funds so they will not have to fund capital charges. This means that in the case of poor households, 10% of the cost estimate is for maintenance.

This means that for each poor household the formula funds R5.62 per month for maintenance of electricity infrastructure.

*Alternative services:*

The Department of Energy's gazetted Free Basic Alternative Energy Policy lists four options for municipalities to provide alternative sources of energy to households not supplied with electricity (solar panels directly supplying households are considered a source of electricity, not alternative energy). These four options are paraffin, coal, liquefied petroleum gas and bio-ethanol gel. In terms of the policy, municipalities can choose which of these sources of energy is most appropriate to supply to communities in their area. Some of these sources of energy are significantly more expensive than others and so it seems reasonable to assume that part of the choice of which energy source a municipality will provide will be based on affordability. The policy also leaves it up to municipalities to choose what quantity of the alternative energy products to supply.

### WATER:

There is evidence of wide variation in the costs of providing water to different households. It is apparent that the average costs of water supply are higher in areas with dispersed settlements, hilly topography, or where water has to

[6] Because the NERSA MYPD 3 determination has not yet been made it is assumed for the purposes of this calculation that the bulk price will increase by 16% in 2013/14, the same rate at which it increased in 2012/13. CPI projections for the 2013/14 published in the 2012 Budget review are 5.3%.

be pumped uphill. For example, a study of the costs of rural water supply schemes in two district municipalities shows that in one district the average cost per household per month of running rural schemes was R44, while in the other district the cost was less than half that, at an average of R19 per household per month. The study found that most of this difference is accounted for by the differences in topography between the two districts and the consequent need to pump water uphill in most areas of the more expensive district municipality.

A lack of credible measures of these variables makes it impossible to include them in the formula. There is also no simple way to account for how much each of these factors should be weighted in determining how much more expensive water supply should be in a particular area. Water costs often vary even within municipalities, as most municipalities have more than one water scheme serving the different communities and areas within their jurisdiction.

It is therefore proposed that a single national cost estimate for water services should be provided for. This estimate will be more than sufficient to cover the cost in most municipalities of 6kl of free water per household provided for in government policy. As explained in the section describing the outcomes of the first stage of the consultation process (above), it is important to bear in mind that higher than average costs in one service are likely to be offset by lower than average costs in another service. In the case of water supply, the areas that are most likely to face significantly higher than average costs are rural dispersed settlements. While the operating and maintenance costs providing potable water in these areas will be higher than average, the appropriate sanitation technology in these dispersed settlements, VIP toilets, have significantly lower operating and maintenance costs for municipalities. An examination of the costing model for municipal services used by the DBSA to assist municipalities plan for the capital and operating and maintenance costs of infrastructure rollout shows that the average operations and maintenance costs of VIP are about a third of that of waterborne sanitation schemes. This will mean that in rural areas with dispersed settlements, the higher cost of water provision, can be set off against the lower operation and maintenance cost of sanitation provision.

In order to arrive at a proposed level for the water and sanitation subsidy, bulk tariffs charged by water boards were examined. For 2012/13 these range between R3/kl and R7/kl. This wide range in part reflects the different infrastructure costs that are provided for in the cost structures of different water boards. In order to make sure that all municipalities are able to provide water to their poor households it is proposed that the average cost be based on the highest bulk cost of R7/kl. At this price, 6kl in 2012/13 would cost R42. In the vast majority of municipalities this will provide significantly more than the actual cost of 6kl of bulk water. In addition, funding must be provided for the costs of treatment and reticulation. The different cost structures of water schemes around the country mean that there is no firm ratio of bulk to reticulation costs, however it is proposed that for the purposes of the formula the provision for treatment and reticulation costs should be set at the same level as the median cost of bulk water, R5/kl, or a total of R30. As with electricity, a further R10 premium is added to this amount to help ensure there is sufficient funding to cover costs in all circumstances. These figures are then inflated to give cost estimates for 2013/14[7]. This means that for 2013/14 the total provision in the formula for 6kl of water will be **R87.90 per poor household per month**.

[7] Bulk costs are inflated by 9% (based on average previous increase in bulk tariffs approved for water boards. The other costs are increased by projected CPI (5.3%)

*Maintenance:*

The funding for maintenance is captured within the cost estimate outlined above. It should be assumed that 10% of the cost estimate is provided for maintenance, meaning that R8.79 per poor household is provided for maintenance costs.

*Annual updating:*

The cost estimates for bulk water will be updated based on the average percentage increase in the cost of bulk water for water boards approved by Parliament for the previous year. The reticulation portion of the cost will be updated using projected CPI.

### SANITATION

During the consultations some municipalities commented that the provision of reticulated sanitation services required 4kl of additional water per household to ensure there was enough water in the system. It is therefore proposed that the sanitation costing be based on the cost of water. The proposal is that in order to provide for 4kl of water per household and a provision for wastewater treatment works[8] and maintenance that an amount equivalent to 4kl of water be provided for sanitation, plus an additional amount towards the treatment costs of sanitation. It is proposed that the equivalent of the cost of an additional kl of water be provided towards the wastewater treatment costs of the sanitation service. Thus the sanitation coast will be pegged at 83% (5/6) of the cost of the provision for water. In 2013/14 this is equal to **R73.25 per poor household per month.**

This is more than the operating and maintenance costs of most sanitation systems require. It is certainly a lot more than the cost of maintaining the provision of VIP services, but as explained above, the additional funds can be used to offset any higher costs incurred in the provision of water or other services in rural areas where VIP sanitation is the most appropriate technology for delivering sanitation services.

Maintenance portion:

The funding for maintenance is captured within the cost estimate outlined above. It should be assumed that 10% of the cost estimate is provided for maintenance, meaning that R7.32 is provided for maintenance costs.

*Annual updating:*

The cost estimates will be updated based on the increase in the cost of water. The provision for sanitation will be benchmarked at 83% of the provision for water.

### REFUSE REMOVAL:

The Department of Environmental Affairs' (DEA) National Policy for the Provision of Basic Refuse Removal Services to Indigent Households defines basic refuse removal as, "the most appropriate level of waste removal service provided based on site specific circumstances." The policy provides several options for providing the service, including on-site disposal if regularly supervised (mainly in remote rural areas), community transfer to central collection point (in medium density settlements), kerbside collection or

[8] The DBSA costing model estimates the cost of wastewater treatment at R1.51 per kilolitre in 2009 prices.

organised transfer to central collection point (in high density areas). The frequency of collections for different types of waste and different areas are also specified in the policy, with organic waste needing to be disposed of weekly and recyclable materials needing to be collected at least once a month in rural areas and fortnightly in urban areas.

While the policy describes the appropriate levels of service for different settlement densities, the LGES formula review working group has been unable to find a fair way to measure the densities of different settlement areas within municipalities that corresponds to those in the policy for basic refuse removal. This does not mean however that such methods will not be developed in future. However, for this formula it is proposed that the same cost estimate be used for all households. This allows for greater costs in collecting waste in rural areas (due to the long distances involved) to be offset by the less frequent collections required in these less-dense rural areas.

Although DEA have developed a model to assist municipalities to set cost-reflective tariffs, the LGES working group have been advised that this model should not be used to calculate a general cost estimate for all municipalities as the model depends on inputting unique data for each municipality. So instead the amount proposed for refuse removal is based on data from the DBSA model for municipal service costs. In this model the average cost for refuse removal across all types of municipalities was R41 in 2009. In the model, an additional R2.33 per household is required for the costs incurred at landfill sites, transfer stations and recycling facilities. Adding these together and then inflating them to account for the impact of CPI between 2009 and 2013 gives a cost estimate for refuse removal for 2013/14 of R50.39 per household.

As discussed for the other services above, in order not to disadvantage municipalities that have higher than average costs, a R10 premium is applied to the average household cost of providing each service. This will bring the total amount allocated for refuse removal to **R60.39 per poor household per month in 2013/14**.

*Annual updates:*

The cost estimate for this service will be updated annually using projected CPI inflation.

*Maintenance portion:*

Maintenance costs are captured within the cost estimates described above. A maintenance cost of 10% within the cost estimates provides an amount of R6 per poor household for maintenance for this service.

# Annexure B

## Evaluating how the LGES formula proposal performs against the principles set for the formula

| Principle | | Performance of formula proposal | Comments |
|---|---|---|---|
| 1 | **Be objective and fair** | Good | The structure of the formula does not favour any individual municipality |
| 2 | **Be dynamic and able to respond to changes** | Big improvement over current formula | The revised formula includes mechanisms to allow the formula to be regularly updated to reflect changes such as population growth and increases in the costs of particular services |
| 3 | **Recognise diversity among municipalities** | Weak point – needs further work | Although several differences are recognised (such as those between district and local municipalities), the lack of data and consensus on what factors drive costs to be higher in one area than another means that these factors could not be taken into account in the formula |
| 4 | **Only use high quality, verifiable and credible data** | Good | StatsSA data from the Census again forms the backbone of the formula, ensuring that the formula is based on credible municipal level data. Projected population growth will be used for the first time to allow greater flexibility. Projections will only be used for a limited number of variables, thereby ensuring that the majority of the formula is still based on data endorsed by StatsSA. |
| 5 | **Be transparent and simple** | Improvement over current formula | The basic services component is much simpler and easier to understand and the new formula structure is designed to speak directly to the objectives of the formula, making it easier to understand. |
| 6 | **Provide for predictability and stability** | Good | The guarantees from the current formula will be retained and the phase-in process for the new formula will further ensure stability. |