

CIGFARO MSCOA WORKSHOP

Smart costing for smart municipalities:
Impact of costing on tariff setting

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Title:

Smart costing for smart municipalities: Impact of costing on tariff setting

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Purpose of Costing

To improve the understanding of the principles and techniques of cost allocation to support a consistent approach across municipalities.

The costing segment in *mSCOA* provides for the recording of full cost reflection for at least the four core municipal functions, being electricity, water, waste water and waste management services, as a minimum requirement (for now).

Focusing on these functions is essential for setting cost reflective tariffs as these four services are the most significant revenue generating functions within municipalities and will ensure that other revenues like equitable share and revenue from assessment rates be used to finance roads, subsidising indigents and general services.

Full Cost Recovery

Full cost recovery is the process of gathering and reporting information about true cost of providing a service by tracking and accumulating the total cost of the process to provide the service.

Full cost recovery is also a methodology that all municipalities should apply to ensure that all costs needed to render a tariff service are recovered.

Costing will initially be applied to the four core municipal functions namely electricity, water, waste water, and waste management services. Focussing on these functions is essential for setting of cost-reflective tariffs for the most significant revenue-generating functions.

It should therefore include:

- Direct Costs (Primary Costs)
- Indirect Costs (Secondary Costs)

Direct Costs (Primary Costs)

A direct cost is one that can be **specifically** related to a particular service, function or activity based on actual consumption; in other words, it is directly related to the cost objective.

In order to improve the accuracy of costing a service, it is essential to assign as many direct costs as necessary for full cost recovery to the service. This will improve the accuracy and relevance of total cost by reducing arbitrary cost allocations.

Care should be taken that costs such as debt Impairment, depreciation, interest on external borrowing and contributions to reserves, which are often budgeted for in the Finance function, are included under the relevant service.

Examples of Direct Costs:

- Salaries
- Stationery
- Telephone Costs
- Materials
- Consultancy Fees
- Insurance
- Office Rental
- Printing
- Legal Fees
- Conference Fees

Indirect Costs (Secondary Costs)

Indirect costs are those which are not directly attributable to the output, are often referred to as overheads and are normally incurred for multiple programmes or services.

Indirect costs need to be assigned to the relevant service and therefore less precise.

The method used to allocate indirect costs needs to be a rational and consistent method that approximates the proportional benefit derived from the service.

Examples of Indirect Costs:

- Accounting
- Asset Management
- Legal Services
- Specialist Financial Management
- Bulk Services
- Electricity Consumption
- Refuse Removal
- Sanitation Charges
- Labour
- Security Services
- Telephone and Internet Training
- Vehicles

Overheads Costs and Basis of Calculations

The identification and inclusion of indirect costs will involve a trade-off between accuracy and the cost of producing the cost information. The following are examples of overhead costs and their basis of calculation:

Cost pool (Overhead costs)

- IT Services
- Office Rental
- Cleaning Services
- Asset Management
- Procurement Services
- Meter Reading
- HR Services

Allocation base (basis of calculation)

Number of users
Floor space occupied (square metres)
Floor space occupied (square metres)
Value of Assets
Number of Purchase orders
Number of meters for each service
Number of Personnel

Cost Structure – High Level Classification

At the highest level, the costing structure distinguishes between departmental charges (support services), internal billing and activity-based recoveries.

Departmental Charges and Recoveries (Support Services)

This refers to the allocation of overheads to a cost centre used by multiple functions, such as Information Technology; for example, pro rata allocations based on the number of service points or users such as the electricity department. Some applications refer to assessment charges.

Internal Billing

This refers to departmental use of internal services such as electricity, water, wastewater management and waste management, for example cost allocation for the electricity department's water.

Activity Based Recoveries

This refers to the actual allocation of resources (used or benefit method) used by various departments; for example, allocation of labour is based on time sheets, and the allocation of vehicles and plant equipment is based on log sheets.

Cost Recovery Approach

The intention of cost allocation is to provide the most accurate allocation of costs possible to determine the full cost of rendering a service. The following approaches or can be followed:

The “Usage” or “Benefit” Method / Approach

The “usage” or “benefit” approach looks to build from the bottom up, starting with the activities themselves (for example, processing a service requirement) and calculating the resources they consume.

Costs are then attributed to these activities, which in turn can be summed to calculate the cost to serve an end-to-end process.

Pro Rata Approach

The approach starts with the cost data as found in the municipality’s general ledger.

The costs are allocated on a proportionate allocation basis to outputs by using measures such as:

- number of staff involved in production of the output as percentage of total staff;
- direct resource use in the production of the output as a percentage of total resource use; and
- the budget consumed for the output as a percentage of the total budget.

Benefits of Implementing Costing

The most important advantage of implementing costing is that it provides accurate and complete information on the real cost of managing a tariff service. All secondary cost can be identified and allocated to the relevant service, ensuring that those who are using the service are paying the full cost of the service.

Once the full cost of each service has been calculated, municipal managers will have a better understanding of their costs and will be able to predict future costs more precisely. They will also be able to make informed decisions about potential cost savings, as well as the types and levels of services provided.

Additional benefits are as follows:

- Being able to set fees and charges for services
- Ensures the sustainability of services
- Promote efficiency and cost effectiveness
- Assists in decision-making around levels of service (increasing or decreasing)
- Promotes allocation of internal resources, ensuring that availability resources are utilised optimally, and duplication of services can be identified.

Risks of NOT Implementing Costing

Should a tariff service not recover the full cost of rendering such a service, the municipality will not be able to finance network expansions or properly maintain existing infrastructure.

This will ultimately result in low service levels, which in turn will have a negative effect on the willingness of customers to pay.

In essence, levels of cost recovery from the user will result in insufficient income for the effective and efficient operation and management of the services.

Additional risks are as follows:

- Potential for cross-subsidisation from property rates or services
- A widening gap between full cost and current expenditure will result in huge tariff increases when not rectified.
- No transparency around tariff determination
- An increase in emergency repairs against scheduled or preventative maintenance
- An increase in risk of more service outages, as preventative maintenance is not being done, with the accompanying inconvenience for customers and loss of revenue for the municipality.

Steps to implement Full Cost Recovery

There are a number of steps that municipalities need to follow to implement full cost recovery. The following checklist serves as a guideline for municipalities to assist them in the process. It should be noted that some of these steps can be undertaken concurrently.

Step 1: Develop a preliminary cost allocation plan

Step 2: Analyse the current position

Step 3: Decide on a costing methodology to be applied

Step 4: Determine the principles for setting fees and charges

Step 5: Implement service level agreements

Step 6: Training

Step 7: Stakeholder Information sessions

Step 8: Develop and produce effective reporting

Step 9: Document procedures

Step 10: Review cost allocation process

Budgeting for Costing in *m*SCOA

At the highest level the Costing segment structure distinguishes between:

Charges to the receiving department and *recoveries* from the sending department.

In the case of charges the municipality must **debit** the receiving department (function) and for recoveries **credit** the sending department (function) with the same amount.

The total amount for all the costing transactions must therefore be zero.

When budgeting the municipality must link the six regulated segments correctly according to the guidance in the costing segment Project Summary Document (PSD)

Budgeting for Costing in *m*SCOA

The linkages of the six regulated segments must be as follows guided by the PSD for the costing segment:

The **Project** Segment must be Default Transactions

Function Segment must be the function used for the expenditure that are re-allocated (sending function) and the function (receiving function) must be for that received the expenditure.

The **Item** Segment must be Expenditure: Default for both legs of the transaction. (Debit and Credit).

The Fund Segment must be Non-funding Transactions

The **Costing** Segment must be charges for the receiving function and recoveries for the sending function linked to the expenditure re-allocated.

The **Regional** Segment must be Administration or Head Office

COST REFLECTIVE TARIFF TOOL

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DATA NEEDED TO APPLY COST REFLECTIVE TARIFFS

- Accurate data to provide service efficiently and effectively
- Number of consumers for all four services
- Annual volume sold to each consumer category
- Distribution of volumes of water and electricity sold between tariff bands
- Peak electricity demand for each consumer category
- Value of external grants and subsidies
- Value of other revenue

COST REFLECTIVE TARIFF TOOL DEPENDANCY

- On the full and accurate recording of all cost components per service
- The using of reliable data and systems (billing, asset registers, meters)
- Differentiating between fixed, variable and capital costs
- Using costing insights to guide policy, tariffs and operations

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WHY COSTING MATTERS FOR TARIFF SETTING

- Tariff setting must result in what it cost to provide the service
- Under-costing will result in too low tariffs, cash flow stress, and poor maintenance of infrastructure
- Over-costing will result in unaffordable tariffs, non-payment and rising arrears
- Balanced costing will enable credible and defensible tariff decisions

STRATEGIC DECISIONS

- Each service must reflect its own operating and capital costs
- Where cross-subsidies are necessary, they must be explicit, approved by council and visible in the budget
- Indigent and social support must be budgeted for; it cannot be hidden in under-recovery
- Tariff structures should also encourage efficient behaviour, for example using inclining blocks or time-of-use where appropriate
- How will other revenue be allocated?
- Which service can be rendered at a deficit or surplus and the value of the deficit or surplus?

APPROACH TO TARIFF SETTINGS

- Starting point is a credible budget
- To ensure a funded budget
- Trading services funded by tariffs and supplemented by operating grants and subsidies
- Other services funded by property rates and general revenue resources
- In the case of Governance and Administration services - not directly provided to consumers and therefore no separate funding sources
- Funded budget is when collectable rates, tariffs, operating grants and subsidies and non-tariff revenue resources are sufficient to cover operating expenditure to provide services
- The tool requires users to distinguish between fixed and variable costs, direct costs and overheads
- The result is a calculated cost per unit – for example, per kWh, per kilolitre, per erf, or per bin – which becomes the technical base for tariff setting

BENEFITS OF SETTING COST REFLECTIVE TARIFFS

- Cost reflective tariffs should include all costs to run services into the future
- Cost reflective tariffs must provide its share to finance indirect costs
- Cost reflective tariffs will provide enough revenue to fund a budget
- When tariffs are based on accurate costing, the cost recovery ratio for each service improves over time
- It will provides for a more stable cash flow to fund operations, maintenance and asset renewals
- Current accounts can be paid and arrears to Eskom, water boards and other creditors can be reduced
- It strengthens the municipality's financial position, reduces dependence on bailouts or relief and improves audit outcomes.
- Ultimately, residents experience more reliable services, because the municipality can sustain the infrastructure and pay its obligations on time

BENEFITS CONTINUE

- The NT tool provides a transparent and auditable basis for tariff decisions
- Councillors can see the cost breakdowns and understand the consequences of under-recovery - It improves the quality of debates during the budget process and helps manage expectations in public participation meetings
- Documentation from the tool can be included in tariff consultation packs, showing how tariffs have been derived at
- It also strengthens accountability to oversight bodies, ***municipalities can demonstrate that tariffs are not arbitrary, but linked to documented costs and approved policies***

PRACTICAL CHALLENGES

- Political pressure often pushes tariffs below cost, which feels helpful in the short term, but creates long-term financial risk
- Municipalities fail to ring-fence services and track performance per service
- Cleaning of underlying data including updating customer information, meter records, consumption history and asset registers
- To make use of the tool as a standard step in the budget and tariff process every year
- Targets for cost recovery and the monitoring of actual performance against these targets during the year are not done
- Difference in approach to Indirect Costs
- **Municipalities that are applying the Costing Segment vs those that are not – adjustments to the tool is needed**

COMMON ERRORS IN BUDGETS

Revenue	Energy	Water	Waste water	Waste
Exchange Revenue				
Service charges - Electricity	21 368 148			
Service charges - Water		6 838 547		
Service charges - Waste Water Management			6 846 582	
Service charges - Waste Management				3 080 122
Sale of Goods and Rendering of Services				
Agency services				
Interest				
Interest earned from Receivables				
Interest earned from Current and Non Current Assets				
Operational Revenue				
Non-Exchange Revenue				
Licences or permits				
Transfer and subsidies - Operational				
Interest				
Fuel Levy				
Operational Revenue				
Total Revenue (excluding capital transfers and	21 624 540	7 676 814	7 339 067	3 505 724
Expenditure				
Employee related costs	614 567	1 664 819	1 469 571	1 188 560
Bulk purchases - electricity	18 315 378			
Inventory consumed	120 000	180 000	15 000	260 000
Debt impairment	297 714			788 351
Depreciation and amortisation	3 383 000			
Interest				250 000
Contracted services	930 000	675 000	209 400	400 000
Transfers and subsidies				
Irrecoverable debts written off				
Operational costs	851 032	728 345	797 456	228 823
Total Expenditure	21 429 045	6 458 797	4 963 815	3 244 742
Surplus/(Deficit)	195 495	1 218 017	2 375 252	260 982

CONCLUSION

- Smart costing is a foundation for smart, sustainable municipalities
- Cost-reflective tariffs protect services and communities over time
- The tool offers a structured way to align costs and tariffs
- The next step is to embed the tool and costing discipline in the municipal budget and tariff processes
- **Important to test affordability on a full municipal bill and not on one service in isolation**

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THANK YOU

For additional information on municipal matters, visit the MFMA Webpage at <http://mfma.gov.za> or



https://lg.treasury.gov.za/ibi_apps/welcome



<https://municipalmoney.gov.za>

For additional information on national and provincial budgets, visit: <https://vulekamali.gov.za>

