Tariff Strategy for the South African Port System

National Road Shows

June 2015
Overview

• Tariff Strategy in context
• Status Quo/ Problem Statement
• Approach to the tariff strategy
• Guiding Principles
• Asset Allocation
• Cargo Dues
• Marine Services
• Deviations from the Base Tariff
  – Cross-subsidies
  – Incentives
• Way forward and Implementation
Tariff Strategy in Context

• Tariff Methodology vs Tariff Strategy
  – Tariff Methodology
    • 2013 Interim methodology
    • 2014 Multi-year methodology (applicable to 2017/18)
    • Overall Revenue Requirement
    • Determines the “size of the cake”
    • Calculates the *average* tariff change
    • ROD is the implementing mechanism for the Tariff Strategy
Tariff Strategy in Context

• Tariff Methodology vs Tariff Strategy
  – Tariff Strategy
    • 2nd Round of consultation
    • Answers the question: Who pays for what? And why?
    • Determines “how the cake should be cut”
    • Sets the structure of the tariff book
    • Must be considered with the RR methodology in mind
      – “zero-sum game”
    • Formalisation of existing tariff trajectory
    • Aims to “clean up the tariff book” – status quo
Status Quo/Problem Statement

• Lack of a clear set of principles and rules to be applied in determining the individual tariffs for the various services and facilities, especially where deviating from a baseline tariff;

• Lack of clarity and transparency regarding all operating costs, expenses and revenues incurred or generated from a specific service, facility or land, as well as the value of the capital stock related to such services, facilities or land;

• Lack of explanation for differential tariffs for different commodities using the same handling classification;

• Lack of information detail with respect to services or facilities pricing and cost relationships, making it impossible to determine where and in which direction subsidisation takes place or if it does not;

• Lack of information on how the tariff structure promotes access to ports and efficient and effective management and operation of ports.
Status Quo/Problem Statement

- **Very high tariff levels for cargo dues** resulting from the migration from the old wharfage charge, which was calculated on an ad-valorem basis depending on the value of the cargo;
- **Very high differentials** in the levels of cargo dues for different cargo types and commodities with no clear motivation for the differences;
- Relatively **low tariff levels for maritime services**, which are based on an activity-based costing exercise conducted during the tariff reform of 2002 and that has since not been updated, resulting in the subsidisation of most services;
- Relatively **low and unevenly distributed levels of revenue** from the real estate business based on the asset value and benefits derived from being in the port system.
Tariff Pricing Reform

**Phase 1**

Global Port Pricing Comparator Study
Benchmarking of port prices for a single vessel in SA ports against international ports. Includes marine charges, port dues, cargo dues differentiated by cargo type. Assists identify which port users are subsidising and which are being subsidised.

**Phase 2**

2. Guiding Principles
Drafting of overarching guiding principles and framework for tariff structure setting.

3. Asset Allocation
Determination of how assets should be allocated to port users and the impact thereof

4. Review and Simplification of tariff lines
Cargo tariffs are consolidated and marine tariffs are simplified

**Phase 3**

5. NPA proposal of BPP
Work stream to be further defined—must include engagements with stakeholders including SARS and dti

6. Regulatory accounts valuation methodology review
Discussions on asset valuation for tariff determination purpose as compared to IFRS and regulatory inflationary trended asset base

7. Regulatory design implications analysis
Given the proposed and implied changes in tariff structure, what will the impact be on current methodology (compatibility), Propose Alternative tariff methodologies(s) more suitable to facilitate change.

www.portsregulator.org
Guiding Principles

The following principles were adhered to in creating a fair price structure.

- **Cost Orientation**
  South African ports should be priced according to the underlying cost of the service provided and that this cost should be covered by those users that benefit most directly from using that service.

- **Incorporates price efficiency, cost recovery, equity and user-pay principles**
- **Marginal cost pricing is ideal but Average cost pricing is practical**
- **System wide or levelised pricing allows for cost recovery across all 9 ports**

www.portsregulator.org
## Asset Allocation

Assets were allocated according to benefit.

<table>
<thead>
<tr>
<th>Port User Asset Class</th>
<th>Lessees</th>
<th>Terminal Operator</th>
<th>Cargo Owners</th>
<th>Shipping Lines</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breakwaters</td>
<td>33% shared on a NBV basis</td>
<td>33%</td>
<td>33%</td>
<td>33%</td>
</tr>
<tr>
<td>Channels, Fairways, basins</td>
<td>50%</td>
<td>50%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quay walls, berths and jetties</td>
<td>50%</td>
<td>50%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>All ship working vessels and aids to navigation</td>
<td></td>
<td></td>
<td></td>
<td>100%</td>
</tr>
<tr>
<td>Vessel repair infrastructure</td>
<td>40%</td>
<td>15%</td>
<td>15%</td>
<td>30%</td>
</tr>
<tr>
<td>All movable NPA assets, buildings and structures (not part</td>
<td>50% shared on a NBV basis</td>
<td>25%</td>
<td>25%</td>
<td></td>
</tr>
<tr>
<td>of lease agreements) and unused land</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Terminal land and staging areas</td>
<td></td>
<td></td>
<td></td>
<td>100%</td>
</tr>
<tr>
<td>Non-Terminal Land including recreational and yachting</td>
<td>100%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All common access infrastructure</td>
<td>66% Shared on a NBV basis</td>
<td>33%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overheads</td>
<td>50% shared on a NBV basis</td>
<td>25%</td>
<td>25%</td>
<td></td>
</tr>
</tbody>
</table>

Assets were allocated according to benefit.
Asset allocation

The new asset allocation results in the following changes in required revenue per user group.
• The changes will be implemented over a period of ten years;
• The changes reflected above and below are based on the current tariff structure;
  • **Cargo owners**: real decrease in prices on an annual basis of -5.2%;
  • **Shipping lines**: real increase on an annual basis of 7.2% and
  • **Lease revenue**: increase in real terms by 2.8% annually.
• These are **indicative numbers only** and will change each year as the value of the asset base changes due to new capital and revaluation of assets.
• The review of this allocation will be published annually and reflected in the tariff determination.
Cargo Dues – Global Port Pricing Comparator Study

The GPPCS produced by the Ports Regulator for the past three years shows that cargo dues, collectively, are higher than global ports but, importantly, that container and automotive cargo dues are substantially higher than dry bulk cargo dues (which are slightly below the global average).
Cargo Dues – How the individual tariff is calculated

Total Required Revenue (RR) = RAB*WACC + Operating Costs + Tax + Depreciation...

Asset Allocation

Cargo Owners

RR breakwaters and channels, vessel repair, NPA assets, common access infrastructure and overheads

RR allocated to cargo handling type according to vessel call ratio obtained from SAP

Total RR per cargo type/forecasted number of units or tons per cargo type

= cargo due for each cargo type per ton or unit
Individual cargo dues will be rationalised over ten years from a commodity based cargo due to a cargo handling type cargo due. This is reflected in the graph below. Cargo dues are allocated according to the number of vessel calls per cargo handling type.
Cargo Dues change in Required Revenue

Contribution to Required Revenue from Cargo

- **Break bulk**: Current distribution 3.9% | Target distribution 7.7%
- **RoRo's**: Current distribution 9.0% | Target distribution 7.5%
- **Liquid bulk**: Current distribution 9.1% | Target distribution 9.5%
- **Dry bulk**: Current distribution 18.0% | Target distribution 29.7%
- **Containers**: Current distribution 60.0% | Target distribution 45.5%
# Resulting Base Level Cargo Dues

The table below shows the cargo dues expected after 10 or more years, given the proposed tariff strategy. This is based on today’s money, asset valuation, vessel call count and volumes. Ro-ro and containers are differentiated by import and export in line with government’s beneficiation promotion agenda.

<table>
<thead>
<tr>
<th>Cargo Type</th>
<th>Base Tariffs (R) in the proposed end state (based on 2013/14 data)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dry bulk</strong></td>
<td>6.53</td>
</tr>
<tr>
<td><strong>Break bulk</strong></td>
<td>31.03</td>
</tr>
<tr>
<td><strong>Liquid bulk</strong></td>
<td>15.21</td>
</tr>
<tr>
<td><strong>RoRo</strong></td>
<td></td>
</tr>
<tr>
<td>Import (Tons)</td>
<td>51.30</td>
</tr>
<tr>
<td>Export (Tons)</td>
<td>25.65</td>
</tr>
<tr>
<td><strong>Container (full)</strong></td>
<td></td>
</tr>
<tr>
<td>Import (TEU)</td>
<td>651.53</td>
</tr>
<tr>
<td>Export (TEU)</td>
<td>325.77</td>
</tr>
</tbody>
</table>
Marine Services – Global Port Pricing Comparator Study

The GPPCS produced by the Ports Regulator has shown three years in a row that charges to vessels for marine services and port dues are below the global average.

![Bar chart showing deviation in percentage of various commodities over three years.](image-url)
Marine Services

Costs for marine services will be collected according to the following rationale in the tariff strategy:

<table>
<thead>
<tr>
<th>Tariff</th>
<th>Tariff Base/Design Methodology</th>
<th>Charge Frequency</th>
<th>Rationale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Port Dues</td>
<td>GRT per port/ 6 hour periods/linear fee per GRT</td>
<td>Per visit</td>
<td>Incentive for quicker turnaround times</td>
</tr>
<tr>
<td>Berthing and Running of lines</td>
<td>Consolidated tariff/Linear fee per GRT</td>
<td>Per visit</td>
<td>Simplification</td>
</tr>
<tr>
<td></td>
<td>Flat fee per Tug, irrespective of Tug size/number of tugs determined by Harbour master</td>
<td>Per visit as determined by Harbour master</td>
<td>Incentive for latest technology vessels by moving away from fixed vessel size/tug ratio</td>
</tr>
<tr>
<td>Tugs</td>
<td>Flat fee per service differentiated by port</td>
<td>Compulsory at every port/per visit</td>
<td>Simplification</td>
</tr>
<tr>
<td>Pilotage</td>
<td>GRT per port/linear fee differentiated by port</td>
<td>Every port where available</td>
<td>As per current tariff book</td>
</tr>
<tr>
<td>VTS</td>
<td>GRT per port/linear fee differentiated by port</td>
<td>First port of call</td>
<td>As per current tariff book</td>
</tr>
<tr>
<td>Light Dues</td>
<td>GRT per port/linear fee differentiated by port</td>
<td>First port of call</td>
<td>As per current tariff book</td>
</tr>
</tbody>
</table>
Total Required Revenue (RR) = RAB*WACC + Operating Costs + Tax + Depreciation...

Asset Allocation

Shipping Lines

RR Tugs
- RR Tugs/total movement adjusted by tug port factor
  - Flat rate per tug differentiated by port

RR Pilotage
- RR Pilotage/total movement adjusted by pilotage port factor
  - Rate per service differentiated by port

RR VTS
- RR VTS/total GRT (all vessel arrivals at all ports in one year)
  - Flat rate per ton for each port visit

RR Lights
- RR Lights/total GRT (all first arrivals over one year)
  - Flat rate per ton for each visit to SA ports system

RR Berthing and running of lines
- RR / Ship GRT serviced
  - Incremental linear fee per GRT

RR Breakwater and channels, quay walls and berths, vessel repair, NPA assets and overheads (Port Dues)
- RR infrastructure/port dues factor
  - Linear incremental fee per 6h stay and GRT
Marine Services Cost allocation

The proportions of revenue recovered from various marine services will change under the tariff strategy in the following ways. Changes are a result of a more accurate reflection of the underlying cost of each service.
Marine Services Cost changes

The value of revenue recovered from various marine services will change under the tariff strategy in the following ways.

The chart shows the current and proposed revenue requirements for different marine services, measured in Rand Million. The services include Port Dues, Tugs, Pilotage, VTS, Light Dues, Berthing, Ship Repair, Floating Crane, Networks, and Facilities.
Rental

\[ \text{Total Required Revenue (RR)} = \text{RAB} \times \text{WACC} + \text{Operating Costs} + \text{Tax} + \text{Depreciation} \]

Asset Allocation

Lease Holders

RR breakwaters, quay walls and berths, vessel repair, NPA assets, terminal land, common access infrastructure and overheads

RR allocated according to current NPA lease structure until more information is available.
Deviations from the Base Tariff

The tariff strategy attempts to create a fair pricing system where tariffs are cost reflective and allocated according to benefit as far as possible. However, in special cases, it makes strategic sense to deviate from a cost reflective tariff. The deviations from the base tariff outline these special cases.
Criteria for allowing a cross-subsidy

Cross-subsidisation between user groups will be avoided as far as possible but will be allowed when it is in the public interest in accordance with the Directives to the National Ports Act (12 of 2005). Criteria have been identified under which subsidies will be granted. These are that the cross-subsidy:

– will meet economic growth and developmental objectives;
– aligns to national policy objectives with port pricing;
– is necessary for equality in benefit;
– will minimise finance and volume risk;
– will promote efficient use of port facilities;
– will reduce congestion;
– will promote the inclusion of previously disadvantaged persons;
– is aimed at reducing carbon emissions;
– If not granted, implies a drastic cost to the economy.

Industry will have an opportunity to apply to the NPA to receive a cross-subsidy.
Incentives

- Incentives in its simplest form can be seen as a special case of discounts that serves some commercial purpose.
- These discounts are therefore available to the NPA in order to gain some commercial goal, without requiring any cross-subsidy from other users. The objective of the discount is to be clearly revenue neutral at minimum i.e. It must pay for itself.
## To Conclude: Strategic approach to cross-subsidies

<table>
<thead>
<tr>
<th>Potential Cross-subsidies arising from historical pricing</th>
<th>Tariff strategy approach</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cargo owners are subsidising other user groups</strong> such as vessel owners, and tenants.</td>
<td><strong>A new asset allocation</strong> that results in an infrastructure cost reflective tariff proportional to the benefit each user group derives from the infrastructure or service provision. See sections 2 and 3.</td>
</tr>
<tr>
<td><strong>Container and automotive cargo owners pay more than dry bulk cargo owners</strong> on a global comparator basis</td>
<td><strong>Similarly, infrastructure is costed according to benefit derived</strong> from each cargo handling type – this is calculated by weighting total revenue required from cargo owners according to the number of vessel calls per cargo type and is then divided by total volume to get a per unit cost. See section 4.1.</td>
</tr>
<tr>
<td>It is still to be determined whether <strong>lessees</strong> are being subsidised (i.e. paying less than market value for their land) and whether some lessees are subsidising others (i.e. paying unequal or unfair tariffs).</td>
<td>**The Regulator will start to <strong>actively monitor rental prices</strong> to ensure that two pieces of land with similar characteristics are not being charged radically different rentals. Furthermore, the Regulator will endeavour to determine the <strong>market value of port land</strong> as part of its asset valuation exercise. See section 4.3.</td>
</tr>
<tr>
<td><strong>Port users of a particular port subsidising users in other ports</strong>, through a system wide tariff book approach.</td>
<td><strong>System-wide pricing will remain</strong> in order to reduce the risk placed on any single port user; however, the tariff book is to be rebalanced and direct user charges in certain instances may be introduced. See section 2.3.</td>
</tr>
<tr>
<td><strong>Port users subsidise fledgling port-related industries</strong> and other national policy initiatives/government objectives.</td>
<td><strong>Discounting certain infrastructure for identified port users in order to achieve national objectives of economic growth and inclusion</strong> will remain. See section 5.</td>
</tr>
<tr>
<td><strong>Use of port revenue/profits for non-port purposes.</strong></td>
<td><strong>This is outside the scope</strong> of the tariff strategy</td>
</tr>
<tr>
<td><strong>Port users of the same category or user group paying lower tariffs than similar users through differentiated tariffs or discount structures.</strong></td>
<td><strong>All discount structures are to be removed from the tariff book.</strong> Tariff rationalisation will result in a gradual move towards consolidated tariffs that will include the removal of any discount structure currently in place. Certain built-in incentives and discounts will remain, mainly related to coastwise shipping and transhipment etc. See section 5.2 for further information.</td>
</tr>
</tbody>
</table>
Way Forward

• Cargo dues to be amended in a similar way to previous tariff determinations for 2016/17.

• Convergence with annually published base rates to be accelerated beyond 2016/17 based on ongoing sensitivity analysis.

• Volume discounts to be removed within five years—or as situation allows

• Charges will be simulated during 2016/17 and implemented in 2017/18.

• Overall lease revenue annual increases sufficient for implementation of the strategy, however, more work within lease revenue required.

• Annual monitoring of amongst others, freight rates and volumes will allow the assessment of the impact of the strategy, including the effect of pass through and intermodal changes as well as the effect of vessel changes etc.
How your tariff change will be determined

RR determines Average tariff change

Tariff strategy indicates general change by sector

Changes dependent on: Revenue Requirement and Price sensitivity

Tariffs will only converge to base rate
  i.e. cannot increase above or decrease below base rate

Tariff application will contain proposed tariff changes – commenting process
Way Forward (cont)

- **Phase 3**
  - Beneficiation Strategy to be concluded
  - Review of the Tariff Methodology
  - Valuation of the asset base

  To include Stakeholder and government consultation process

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**Phase 1**

1. **Global Port Pricing Comparator Study**
   - Benchmarking of port prices for a single vessel in SA ports against international ports.
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