



## **Record of Decision**

**Tariff Application by the National Ports Authority for the Tariff Year 2011/2012**

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- 1. The National Ports Authority (“the NPA”) has applied to the Ports Regulator of South Africa for approval of the increase in tariffs for services and facilities offered by the Authority for the 2011/2012 tariff year, that commences on 1 April 2011 and ends on 31 March 2012. The Application was made as a request for approval of the Required Revenue.**
- 2. The Ports Regulator has considered the Tariff Application and has refused the requested 11.91% tariff increase sought by the NPA for the tariff year 2011/2012.**
- 3. In considering the NPA’s tariff application, the Ports Regulator concluded that a 4.49% tariff increase was a reasonable increase and therefore appropriate for the 2011/2012 tariff year. It therefore declined to approve the proposed 11.91% tariff increase sought by the NPA for the tariff year 2011/2012.**
- 4. The Ports Regulator’s reasons for declining to approve the requested 11.91% tariff increase sought by the NPA for the tariff year 2011/2012 are set out in Appendix 1 below.**

## APPENDIX 1

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### 1. The Tariff Application

- 1.1. The NPA requested a 11.91% tariff increase on the basis of a Revenue Requirement Model for the tariff year 2011/2012. This Tariff year commences on 1 April 2011 and ends on 31 March 2012.
- 1.2. A summary of the Tariff Application outcomes is set out hereunder:

DESCRIPTION		R Million
Revenue Requirement	2011/12	7 641
Expected Revenue	2010/11	6 584
Expected Increase (%)	Volume	3.7 %
Tariff Increase Requested		11.91 %

- 1.3. The Tariff Application may be accessed on the Regulator website at [www.portsregulator.org](http://www.portsregulator.org).

### 2. The Regulator's Mandate

- 2.1. In considering the NPA's proposed tariffs the Regulator was guided by the National Ports Act and the Directives, and considered the submissions contained in the application, written and oral comments received in the consultation process and its own information and research.
- 2.2. The Regulator is required to assess the NPA Tariff Application and accept or reject it.
- 2.3. In this regard it should be noted that the Ports Regulator has promulgated Directives in terms of section 30(3) of the National Ports Act (Government Notice 825, Gazette No. 32480, 6 August 2009). After considering submissions made by the NPA the Directives were amended in a Directives Amendment Notice, promulgated in Government Notice 37, Gazette No. 32898 on 29 January 2010.

### **3. The Methodology used by NPA**

- 3.1. The NPA elected to use a “revenue requirement methodology” as the basis for its tariff application.
- 3.2. The model was set out as follows:

$$\text{“Revenue Requirement”} = (\text{cost of capital} \times \text{regulatory asset base (“RAB”)}) + \text{operating cost} + \text{depreciation} + \text{taxation expense}$$

### **4. Compliance with the Directives, Regulations and National Ports Act**

- 4.1. The application is largely compliant with the Act, Regulations and Directives with some important exceptions. Key among these is the total exclusion of the property business and the lack of a transparent system for determining tariffs.
- 4.2. The NPA has submitted a tariff increase approval request based on a revenue requirement methodology. Although not articulated expressly by the regulatory framework, it is not specifically excluded. The Regulator therefore decided to accept the methodology that had been used, as amended and applied by the Regulator in this tariff assessment.
- 4.3. The NPA has excluded the real estate business from its application. Though the Regulator has agreed to accept this for this application, all future applications shall include all aspects of the real estate business, and the Regulator shall assess the application on the basis of the entire NPA business. For purposes of clarity, any future application that does not include the real estate business or any other business of the NPA falling within the ambit of the regulatory framework for assessment by the Regulator, shall be rejected as non-compliant, and shall not be assessed.
- 4.4. There are key areas where the application falls foul of the Regulatory framework:
  - 4.4.1. Directive 22(3) requires that the application set out the manner in which the tariffs have been calculated and the model used for determining them. In the application and subsequently in their road-show presentation, the NPA indicated that the tariffs in the tariff book were determined by a range of factors and there was no formula, of general application or otherwise that explained the tariff differentials. In the absence of a clearly articulated model that sets out the application of all factors in specific tariff determinations, the Regulator would have to make determinations on all tariffs that differ from a generalized tariff increase on a case by case basis. In addition, no information allowing assessment of individual tariffs was given for some of the requested increases or decreases against the overall requested tariff. The Regulator

decision is therefore restricted to approving an overall increase with general application across all tariffs. The NPA has indicated that it has commenced a tariff review project that will address these concerns. The review methodology considers among other factors the facilities used, the commodity value and the throughput, although the specifics have not as yet been made available to the Regulator. The Regulator acknowledges that a tariff review project is underway, but has not been provided with the details of what tariffs are to be amended, in what manner, the factors to be taken into consideration in such a review as well as their application to specific tariffs and the time frames of such processes.

- 4.4.2. Directive 22(3)(b) requires that all operating costs, expenses and revenues incurred or generated from a port service or port facility, as well as the value of the capital stock related to such services or facilities are to be declared in the application. The NPA did not give a breakdown per service and per facility in their application. The capex programme provided has not been provided with the level of granularity necessary to make an accurate assessment on these matters. All future applications must articulate the capital expenditure programme in a more detailed manner, and must include the views and determinations of the PCC's and the NPCC, when they are operational.
- 4.4.3. Directive 22(3)(c) requires that the amounts to be invested and revenues that are to be utilized in port development, safety, security and environmental protection must be provided and the manner in which the tariffs will affect the cost of doing business in the ports. The NPA application indicates that revenue is not calculated in that manner and therefore cannot comply. This will be dealt with in the 2011 tariff methodology consultation process. The NPA had indicated that they acknowledge that any increase in NPA tariffs will increase the cost of business, but no analysis or indications of the impacts of such increases and how that will affect the cost of doing business was provided.
- 4.4.4. Directive 23(1) requires that the Regulator must have regard to whether the requested tariffs reflect and balance a range of considerations:
- (i) 23(1)(a) - a systematic tariff methodology that is applicable on a consistent and comparable basis. The comments relating to the lack of a tariff methodology above refers. The NPA has indicated that it has commenced a tariff review project that will address these concerns. The review methodology proposes to consider among other factors the facilities used, the commodity value and the throughput. The application does not articulate how these balance and define the exact determination of tariffs.

- (ii) 23(1)(b) - fairness. No explanation was furnished for differential tariffs for different commodities using the same handling classification, other than that a range of factors were used in the tariff determinations for individual items. This is relevant to comments on a consistent methodology. The NPA has indicated that its tariff review project will correct historical inconsistencies, but the details thereof are not available as yet.
- (iii) 23(1)(c) - the avoidance of discrimination, save where such discrimination is in the public interest. No explanation was given for any price discrimination and no price discrimination was identified. The differential tariffs for commodities were not explained nor the differences between export and import, other than the range of factors quoted above. The NPA has commenced a tariff review project that will target correcting these. The review methodology considers among other factors the facilities used, the commodity value and the throughput, but have not as yet seen general application and appear to be targeted at certain commodities or commodity types and services in their initial efforts, without setting out the exact processes for avoiding discrimination in such a review.
- (iv) 23(1)(f) - the avoidance of cross-subsidisation, save where in the public interest. The low level of information detail with respect to services or facilities pricing and cost relationships etc, makes it difficult, if not impossible, to determine where and in which direction subsidisation takes place or if it does not. No claim or denial was made that any subsidisation existed, or that such subsidisation that existed was in the public interest and on which grounds public interest was determined.
- (v) 23(1)(g) - promotion of access to ports and efficient and effective management and operation of ports. The information provided in the application was not sufficient to determine this, as no specific information was given on the access, efficiency and effectiveness.

## 5. The Application Specifics

- 5.1. The 2011/2012 tariff year Application methodology submitted is consistent with the 2010/2011 Application. It has been developed on the Required Revenue basis by the NPA. This approach, though not determined as the most appropriate approach, has not been rejected by the Regulator. The Regulator assessed the Application on this basis, and largely used the methodology applied by the NPA, except where the application thereof was not appropriate or was incorrect in the opinion of the Regulator.
- 5.2. The Regulator shall commence a review of the Tariff methodology to be followed in subsequent tariff applications, with all stakeholders in February 2011.
- 5.3. The NPA used the following formula for required revenue:

$$\text{“Revenue Requirement} = (\text{cost of capital} \times \text{regulatory asset base (“RAB”)}) + \text{operating costs} + \text{depreciation} + \text{taxation expense”}^1$$

- 5.4. This is in accordance with the standard approach to Revenue Requirement.
- 5.5. The standard exposition is:

$$RR = (v - d + w)r + D + E + T^2$$

With:

- $v$  = value of the assets used in the regulated services
- $d$  = accumulated depreciation on such assets
- $w$  = working capital
- $r$  = return on the capital reasonably expected
- $D$  = depreciation accounted for in the period of the tariff
- $E$  = operating expenses
- $T$  = taxation expense
- $v - d + w$  = Regulated Asset Base

### 5.6. The Regulated Asset Base (RAB)

- 5.6.1. The Regulated Asset Base (RAB) submitted by NPA was R 51.606 billion. This was comprised of a 2011/2012 opening RAB of R 47.541 billion, a capital budget of R 2.929 billion, depreciation of R 937 million, and a closing RAB of

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<sup>1</sup> Equation 1

<sup>2</sup> Equation 2

R52.602 billion. The average of the opening and closing balances was therefore R 51.606 billion according to their calculations.

5.6.2. The RAB was calculated as follows:

DETAIL	R million
NBV at March 2010 (excluding Real Estate business)	43 246
NBV inflated to 31 March 2011	45 818
Less: Depreciation for FY 2010/11	(823)
Add: CAPEX for FY 2010/11	2 546
Closing NBV at 31 March 2011	47 541
Inflation	6.46 % <sup>3</sup>
Opening NBV inflated to 31 March terms	50 610
Less: Depreciation for FY 2010/11	(937)
Add: CAPEX for FY 2010/11	2 929
Closing NBV at 31 March 2012	52 602
Average opening and closing RAB	51 606
Add: Working Capital	(126)
RAB for Tariff Application 2011/12	51 480

5.6.3. Although the Regulator had concerns about the DORC result (also raised in the previous ROD) used to assess the starting RAB in the previous application, and its resultant steep increase in the value of the assets just before regulation commenced, it decided to accept the valuation in the absence of an alternative.

5.6.4. The starting RAB therefore commences from that accepted by the Regulator in the previous year, as amended.

<sup>3</sup> The applicant also used a 5.87% inflation rate for WACC calculations.

## 5.7. RAB determined by The Regulator.

- 5.7.1. The starting RAB for the 2011/2012 financial year(1 April 2011) is R 46.414 billion. That being the determination of the closing balance for the year 2010/2011 in the previous determination, as adjusted for a calculation error that has subsequently been explained. It is comprised as follows:
- (i) R 46.650, the corrected closing balance for the year 2010/2011
  - (ii) Removing the capital expenditure forecast in the 2010/2011 application and allowed, but not to be spent on the basis of capital expenditure forecasts in the 2011/2012 application, that being R 236 million.
- 5.7.2. The Closing RAB for the 2011/2012 financial year(31 march 2012) is R51.131 billion and is comprised of the following:
- (i) The starting balance of R 46.414 billion.
  - (ii) Trended by inflation of 5.87% CPI to R49.414 billion. NPA had inflated their closing RAB in the application by CPI inflation of 6.46%, while using a CPI inflation forecast of 5.87% in their WACC calculations. The Regulator considered the CPI forecast of 5.87% as credible and therefore used it for all elements requiring inflation.
  - (iii) A depreciation of (R937million)
  - (iv) A capital work in progress allowance, that the Regulator grants, of R2.929 billion
- 5.7.3. The Average RAB for the 2011/2012 tariff year is therefore R48.772 billion.
- 5.7.4. In determining the final RAB that is to be inserted in the equation 2 above, certain adjustments have to be made. The final RAB ( $v - d + w$ ) used in the calculation is calculated as follows:

Average RAB:		R 48 772m
Plus Working Capital:	+	R -126m
CWIP under-expenditure impact adjustment:	-	R 117m
Final RAB for Equation 2 above:		<u>R 48 529m</u>



## 5.8. Cost of Capital

5.8.1. The NPA application used the Capital Asset Pricing methodology to determine the cost of capital. The NPA used the post-tax WACC approach. The regulatory framework does not dictate or preclude this approach. The application requested that the nominal post-tax WACC for NPA be assessed as being 11.56%. The Regulator determined that the nominal post-tax WACC should be 10.85%, when applying all its determinations on the elements below.

5.8.2. The formula for calculating the weighted average cost of capital under the CAPM is as follows:

$$WACC_{post-tax} = k_d \times (1 - t) \times g + k_e (1 - g)$$

Where:

$k_d$  = pre-tax cost of debt;

$k_e$  = post tax cost of equity;

$g$  = gearing, which is debt over total capital (a target gearing of 45% in the case of the NPA);

$t$  = corporate tax rate (used for the NPA due to Transnet's unusually high effective tax and the difficulty of calculating a tax rate for a non-tax paying entity that is a subsidiary of such company).

### 5.8.3. Cost of Equity

The NPA used the following cost of equity methodology:

$$k_e = R_f + \beta \times (MR - R_f)$$

Where:

$k_e$  = cost of equity (post tax – dividends are not taxable in South Africa);

$R_f$  = nominal risk free rate;

$MR$  = market return;  $((MR - R_f))$  = Market Return Premium calculated over long term;

$\beta$  = beta coefficient.

#### (i) Risk Free Rate

5.8.3.i.1. The NPA considers the South African risk free rate to be a post-tax rate. The Regulator accepts this classification of the  $R_f$  as post-tax for this application.

5.8.3.i.2. The NPA requested a nominal risk free rate of 8.81% . This risk free rate is based on a twenty year government bond – namely, the R186 10.5% 2026 bond . The Regulator accepts the R 186 as a proxy for the risk free rate in SA. The average risk free rate calculated by the Regulator over a 1 year period (250 day averages from 12/10/09 to 08/10/10) was also 8.81 %.

**(ii) Beta Co-efficient**

5.8.3.ii.1. The NPA's equity is not publicly traded and therefore it is not possible to calculate its beta directly. The approach that is commonly followed in estimating the beta for such companies is to identify publicly listed companies that are very similar to the NPA.

5.8.3.ii.2. The NPA proposed an asset Beta of 0.62 which was determined by the simple average of a selection of ports. The ports or port systems quoted were a list of 11 ports determined by the NPA. The applicant did not sufficiently argue the appropriateness of the selection as proxies for the NPA.

5.8.3.ii.3. The NPA de-levered and re-levered a simple average of the selected port beta's (The Hamada Equation was used). The asset beta of 0.62 (determined by reference to their 2009 WACC Policy, although also making reference to an asset beta of 0.59 calculated) was re-levered to an equity beta of 0.98.

5.8.3.ii.4. The Regulator opted to retain its interim approach used in the 2010/2011 tariff assessment and use the latest Queensland Competition Authority (QCA) global asset beta for ports (0.5) as a proxy, as the scope of the QCA asset beta covers a wide range of global publically listed ports, and was backed up by additional studies sourced by the Regulator.

5.8.3.ii.5. The methodology for proxy beta determination for future tariff assessments shall be determined with all stakeholders in the Regulator's process in 2011.

5.8.3.ii.6. Consequently, the asset beta approved by the Regulator is 0.5 and using the Hamada equation to re-lever the beta based on the NPA's target gearing of 45%, the approved equity beta for the NPA is 0.7945.

**(iii) Market Risk Premium**

5.8.3.iii.1. The assumed Market Risk Premium in the application was 6.0%. This was based on a long-term premium (1900 to 2007) of 5.8%. As both the Regulator and the NPA research have come up with the long term

premium at 5.8%, the Regulator decided to remain with a market risk premium at 5.8%.

#### **5.8.4. Cost of Debt**

- (i) The NPA requested a nominal post-tax cost of debt of 7.72%. This is higher than the rate for equivalent State Owned Entities. The Regulator decided to accept 7.72% for this assessment.

#### **5.9. Operating Costs**

**5.9.1.** The expenses in the 2011/2012 application amounted to R 2.859 billion, a 20.94% increase from the expenses determined by the Regulator as appropriate in the in 2010/11 tariff assessment. The Regulator remains concerned about the trend emanating from the NPA applications which apply for above inflation increases in operating costs, although in some of the elements of the expense categories the justifications have been accepted by the Regulator. An increase of 13.04 % was considered appropriate, from the base of last year's tariff assessment, as amended for labour costs, resulting in allowable expenses for the 2011/2012 tariff year of R 2.672 billion.

**5.9.2.** Bearing in mind the base determinations the Regulator made in the 2010/2011 assessment, the Regulator made the following determinations on expense categories:

(i) Labour Expenses - The NPA gave adequate justification for the labour expenses forecast for 2010/2011 tariff year being higher than the determination in the 2010/11 assessment, thus the budget estimate of R 1 206 million (versus the R 1 146 m that was considered appropriate for the 2010/11 tariff year) was used as a base. The increase that was determined was 3.7 % for volume growth, inflation of 5.87 % and an additional 3 %. This resulted in total determined labour expenses of R1.362 billion.

(ii) Energy Expenses - An increase of 3.7% was permitted for volume growth plus an increase of 25%, which takes into account the NERSA approved increases in electricity, resulted in a total energy expense determination of R261 m (26.93 %).

(iii) The following expenses were determined as per the applicant's request:

- rates and taxes- R 100 mil
- contract payments - R 75 mil
- material - R 69 mil

- rental- R 57 mil
- security – R 55 mil
- research and development R 13 mil

(iv) The following expenses were determined as increased by 3.7% for volume growth and 5.87% for inflation:

- professional services R 74 mil
- computer and stationery R 64 mil
- sundry operating costs R 338 mil.

## **5.10. Depreciation**

5.10.1. The requested depreciation of R 937 million was accepted, although the actual expended in the financials would be assessed and the various processes around determination of elements of the tariff approach in 2011 would assess the depreciation allowance and methodology to be applied to subsequent applications.

## **5.11. Taxation Allowance**

5.11.1. The NPA requested the corporate tax rate of 28%. The Regulator accepted the corporate tax rate as requested for this assessment, in spite of considering it an area that would need to be addressed in the processes in 2011.

## **5.12. Revenue Over-recovery for 2010/2011**

In the application, the NPA has disclosed that the expected Revenue for 2011/12 is R6.584 billion. As the Regulator had considered a 4.42% increase with a required revenue of R6.020 billion appropriate for the 2010/2011 tariff year, based on the information provided to the Regulator by the NPA (such as expected volume increases) the over-recovery must be addressed. If this is not addressed, it may create a regulatory space for consistent under-forecasting of expected growth. The Regulator shall correct the negative or positive impacts of errors so as to ensure a stable regulatory environment free of inappropriate incentives. When the over-recovery is addressed, the impact on the tariff is as per the table below. We determine that 34 % of the additional revenue was reasonably used for expenses attached to such revenue (based on the non-contractual aspects of the expenses) and only 66 % of the over-recovery is actually removed. The Regulator has decided to adjust the tariff increases to remove the total impact of over-recovery over a period of 2 tariff determinations. As the over-recovery total is currently based on an NPA forecast, the Regulator shall remove 50% of 66% (see above) of the forecast over recovery from the revenue allowed in the 2011/2012 tariff year. At the next

tariff decision the Regulator shall remove the residual over-recovered and the impact thereof, based on the actual end of year revenue as at 31 March 2011. The amount of over-recovery that is removed from the revenue for the 2011/2012 tariff year is therefore R 186 million. The residual over-recovery and any impact thereof, as accurately determined from the 2010/2011 statutory audit of NPA, shall be used to adjust the 2012/2013 tariff determination.

## 6. "Required Revenue" Result

- 6.1. The application of the above amendments to the NPA 2011/2012 tariff application has the following result:

Return on Capital:		R 2 284m
Depreciation:	+	R 937m
Operating Expenses:	+	R 2 672m
Tax Expense:	+	R 816m
Total Revenue:	=	R 6 710m
Less 50% of forecast over-recovery in 2010/11	-	R 186m
<u>Revenue Required 2011/2012</u>	=	<u>R 6 523m</u>

- 6.2. The resulting tariff increase therefore is:

Required Revenue 2011/2012:		R 6 523m
Allowed Revenue 2010/2011 :		R 6 020m
Revenue resulting from volume increase:		R 6 243m
Revenue shortfall		R 280m
<u>Tariff increase 2011/2012</u>	=	<u>4.49%</u>

## 7. Concerns of the Regulator

- 7.1. The Regulator has raised a few concerns, some repeated from the previous assessment, that would need to be resolved in the 2011 stakeholder process. Some have been raised above in the body of the decision elements, and some are emphasized here. In general, the entire tariff methodology needs to be consulted so as to finalise all elements thereof.
- 7.2. The methodology for determining proxy betas for the NPA in particular, needs to be agreed in the 2011 process.
- 7.3. The NPA should ensure a higher level of detail on its capex for the tariff applications, so as to allow a greater scrutiny thereof. The comments and inputs received from the Ports Consultative Committees and the National Ports Consultative Committee, when they are fully operational, needs to be included. A breakdown of the capex programme must show the amount of money that is transferred internally on every project, such as fees that are paid to either Transnet, or any of its subsidiaries/divisions, in addition to other service costs.
- 7.4. All subsequent applications must include all aspects of the NPA business in the application, in particular, real estate. All subsequent tariff assessments shall include all aspects of the NPA business.
- 7.5. Related party transactions, such as internal transfers for services, temporary cash holdings in other divisions or group etc, must be disclosed separately in future tariff applications.
- 7.6. The 2011 tariff methodology process shall also deliver a standard for regulatory accounts, including depreciation methodologies to be used in the regulatory accounts.
- 7.7. The tariff review project of the NPA must give the detail required and the timeframes over which these shall be achieved.
- 7.8. In future applications, all operating expense items must be fully disclosed, in particular, explanations regarding all increases beyond forecast inflation must show why and how they are increasing. The increases should be broken down by those resulting from additional activity and those resulting purely from inflation. Those expense growth category components resulting from increased activities, must be articulated and not defined purely by reference. The sundry costs element in the operating expenses, the second largest cost category, requires a much greater level of detail and breakdown than is currently provided. The energy expense item should also be justified by forecasts of energy inflation, that are backed by research. A distinction should also be made for overlapping categories in the justifications, such as electricity in the 2011/2012 application that is included under the explanations for both energy and sundry operating expenses.