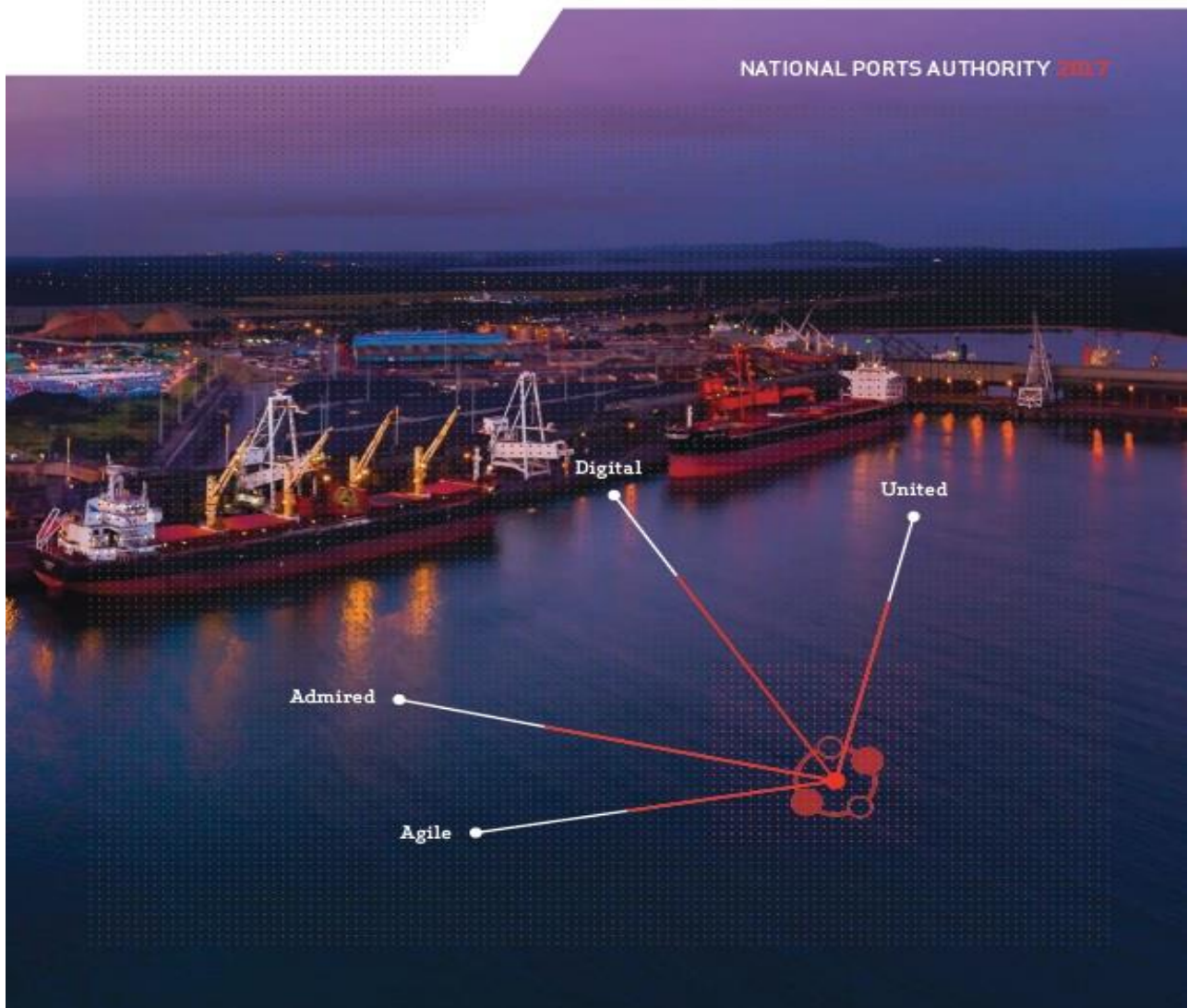




NATIONAL PORTS AUTHORITY 2017



**TRANSNET NATIONAL PORTS AUTHORITY
TARIFF APPLICATION FOR FINANCIAL YEAR 2018/19**

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ABBREVIATIONS AND ACRONYMS

AFS	Annual Financial Statements
APDP	Automotive Production Development Program
BER	Bureau of Economic Research
BESA	Bond Exchange of South Africa
BRICS	Brazil, Russia, India, China & South Africa
CAGR	Compounded Annual Growth Rate
CAPEX	Capital Expenditure
CAPM	Capital Asset Pricing Model
CMEO	Chief Marine Engineering Officer
CPI	Consumer Price Index
CPT	Cape Town
CSI	Corporate Social Investment
CWIP	Capital Work In Progress
DBN	Durban
DBT	Dry Bulk Terminal
DCT	Durban Container Terminal
DDOP	Durban Dig Out Port
DIA	(Old) Durban International Airport
DMS	Dimson, Marsh and Staunton
DMTN	Domestic Medium Term Note
DORC	Depreciated Optimised Replacement Cost
DoT	Department of Transport
DRS	Dredging Services
EIMS	Enterprise Information Management Services
EL	East London
EPMO	Enterprise Programme Management Office
ETIMC	Excessive Tariff Increase Margin Credit
FEL	Front End Loading
FMCSA	Ford Motor Company of Southern Africa
GDP	Gross Domestic Product
GMTN	Global Medium Term Note
GPPCS	Global Port Pricing Comparator Study
GRT	Gross Registered Tonnage
HCM	Human Capital Management
HOPS	Haulier-Road Operations Performance Standards
IAS	International Accounting Standards
IDZ	Industrial Development Zone
IPMS	Integrated Port Management System
JOC	Joint Operations Centres
JSE	Johannesburg Stock Exchange
KAM	Key Account Manager
KPI	Key Performance Indicators
LTPF	Long-term Transnet Planning Framework
MDS	Market Demand Strategy
MIDP	Motor Industry Development Plan
MOPS	Marine Operations Performance Standards
MPT	Multi-Purpose Terminal
MRP	Market Risk Premium

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MSOE	Marine School of Excellence
MTBSA	Man Truck and Bus South Africa
Mtpa	Millions tonnes per annum
NAAMSA	National Association of Automobile Manufacturers of South Africa
NBV	Net Book Value
NERSA	National Energy Regulator of South Africa
NGQ	Ngqura
NIMS	National Infrastructure Maintenance Strategy
NPA	National Ports Authority
NPCC	National Port Consultative Committee
NPP	National Ports Plan
OD	Operating Divisions
OEMs	Original Equipment Manufacturers
OPEC	Organisation of Petroleum Exporting Countries
Opex	Operating Costs
PCC	Port Consultative Committee
PE	Port Elizabeth
PLP	Project Life Cycle Process
RAB	Regulatory Asset Base
RR	Revenue Requirement
RFR	Risk Free Rate
RBCT	Richards Bay Coal Terminal
RCB	Richards Bay
ROD	Record of Decision
ROPS	Rail Operations Performance Standards
RORO	Roll on Roll off
SA	South Africa
SAMSA	South African Maritime Safety Association
SARB	South African Reserve Bank
SARS	South African Revenue Services
SBIDZ	Saldanha Bay Industrial Development Zone
SLD	Saldanha Bay
SOC	State Owned Company
SOE	State Owned Enterprise
SRAB	Starting Regulatory Asset Base
TCC	Transnet Corporate Centre
TEU	Twenty-foot Equivalent Unit
TOC	Trended Original Cost
TONS	Tonnages
TOPS	Terminal Operator Performance Standards
TP	Transnet Properties
TPT	Transnet Port Terminals
TSHD	Trailing Suction Hopper Dredger
UK	United Kingdom
USA	United States of America
VWSA	Volkswagen South Africa
WACC	Weighted Average Cost of Capital
WACD	Weighted Average Cost of Debt
WEGO	Weighted Efficiency Gains from Operations

1. Executive Summary

In terms of Section 72 (1) (a) of the National Ports Act, 2005 (Act No. 12 of 2005) ("the Act"), Transnet National Ports Authority, a division of Transnet SOC Limited ("the Authority") is required, with the approval of the Ports Regulator ("the Regulator"), to determine tariffs for services and facilities offered by the Authority and to annually publish a tariff book containing those tariffs. The Port Directives were approved on 13 July 2009 (gazetted on 06 August 2009) and amended on 29 January 2010. In terms of these Directives, when considering the proposed tariffs for the Authority, the Regulator must ensure that such tariffs allow the Authority to:

- a) recover its investment in owning, managing, controlling and administering Ports and its investment in port services and facilities;
- b) recover its costs in maintaining, operating, managing, controlling and administering Ports and its costs in providing port services and facilities; and
- c) earn a return commensurate with the risk of owning, managing, controlling and administering ports and of providing port services and facilities.

The Authority shall on an annual basis on or before 1 August submit its application setting out its proposed tariffs for all services and facilities offered by the Authority for the following financial year for approval by the Regulator. The Directives also allows the Authority to submit to the Regulator a proposal for the amendment of any tariff for any services and/or facilities offered by the Authority at any port from time to time. The Directives prescribe a period of 4 months upon which the Regulator shall make a decision.

In determining the tariffs, the Authority applies the prescribed Tariff Methodology issued by the Regulator on 30 March 2017. The approved Tariff Methodology allows the Regulator to administer the Authority's tariff setting process and considers a multi-year approach, applicable from 2018/19 to 2020/21 tariff years. It further allows for an annual review and an annual adjustment of tariffs within the three year period as opposed to fixing the tariffs for the full period.

The approach applicable to the tariff period FY2018/19, per the Tariff Methodology, is based on the Revenue Requirement (RR) formula as follows:

Revenue Requirement

$$\begin{aligned}
 &= \text{Regulatory Asset Base (RAB)} \times \text{Weighted Average Cost of Capital (WACC)} \\
 &+ \text{Operating Costs} + \text{Depreciation} + \text{Taxation Expense} \pm \text{Claw-back} \\
 &\pm \text{Excessive Tariff Increase Margin Credit (ETIMC)} \\
 &\pm \text{Weighted Efficiency Gains from Operations (WEGO)}
 \end{aligned}$$

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The components of the RR formula has been summarised in the Tariff Methodology as follows:

- Regulatory Asset Base (RAB):** The RAB represents the value of assets that the NPA is allowed to earn a return on. The value of the assets in the RAB is indexed by inflation each year based on the Trended Original Cost ('TOC') approach.
- Vanilla Weighted Average Cost of Capital (WACC):** The WACC represents the risk adjusted opportunity costs of capital and is the minimum return for an investment in order to continue to attract capital, given the risks. A real WACC is applied, given that the RAB is indexed by inflation.
- Operating Costs:** The Regulator will analyse the operating cost estimates for the period on a detailed line by line basis. The NPA is required to provide detailed and complete motivation for each of the expenses applied for.
- Depreciation:** The depreciation of the assets in the RAB will be calculated as a straight line 40 year on the opening balance of the RAB.
- Taxation Expense:** The Regulator will use the pass-through tax approach where the vanilla WACC will be applied to the average RAB for the period under consideration, less the interest cost of debt, and wear and tear, and other tax allowances.
- Claw-Back:** The key purpose of applying the claw-back is to ensure that the NPA or any port user is fairly treated and is not subjected to unfair gains and losses. The Regulator will spread the total impact of over/under recovery of revenue over a period of two tariff determinations.
- Excessive Tariff Increase Margin Credit (ETIMC):** The Regulator considers it prudent to avoid future tariff spikes by retaining and increasing the NPA's ETIMC.
- Weighted Efficiency Gains from Operations (WEGO):** It is an agreed efficiency gain through operations, excluding the effect of market driven volume growth.

The Revenue Requirement considers the best available information on the latest economic indicators, assumptions and parameters. This Revenue Requirement would translate to 9.36% tariff adjustment for FY 2018/19:

Table 1: Base Revenue Requirement FY 2018/19 to FY 2020/21

DETAILS	2017/18	2018/19	2019/20	2020/21
	ROD	Fixed Tariff Year	Indicative Tariff Years	
	R'm	R'm		
RAB	77 356	80 633	86 830	94 737
Vanilla WACC	5.71%	6.23%	6.52%	6.32%
Return on Capital	4 417	5 020	5 660	5 988
Plus: Depreciation	2 030	2 166	2 333	2 545
Plus: Operating Costs	5 961	5 938	6 258	6 616
Plus: Taxation Expense	1 050	1 150	1 288	1 370
Plus/Less: Clawback	-681	-1 531	106	-
Plus/Less: ETIMC	-593	-	-	-
Revenue Allowed	12 185	12 743	15 645	16 518
Less: Real Estate	-2 798	-3 025	-3 279	-3 542
Marine Revenue	9 387	9 719	12 366	12 976

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The Authority is cognisant of the current economic situation and financial challenges confronting our customer base. In order to assist our customer base the Authority proposes to utilise R81m of the Excessive Tariff Increase Margin Credit (ETIMC) facility to achieve a tariff adjustment within CPI + 3%. This is the tariff range that the Authority considers necessary to deliver the Transnet MDS.

Table 2: Revised Revenue Requirement FY 2018/19 to FY 2020/21

DETAILS	2017/18	2018/19	2019/20	2020/21
	ROD	Fixed Tariff Year	Indicative Tariff Years	
	R'm	R'm		
RAB	77 356	80 633	86 830	94 737
Vanilla WACC	5.71%	6.23%	6.52%	6.32%
Return on Capital	4 417	5 020	5 660	5 988
Plus: Depreciation	2 030	2 166	2 333	2 545
Plus: Operating Costs	5 961	5 938	6 258	6 616
Plus: Taxation Expense	1 050	1 150	1 288	1 370
Plus/Less: Clawback	-681	-1 531	106	-
Plus/Less: ETIMC	-593	-81	-	-
Revenue Allowed	12 185	12 663	15 645	16 518
Less: Real Estate	-2 798	-3 025	-3 279	-3 542
Marine Revenue	9 387	9 638	12 366	12 976

The Authority therefore determined a required revenue of R12 663m comprising of Marine Business revenue of R9 638m and Real Estate Business revenue of R3 025m taking into account ETIMC of R81m.

Table 3 below illustrates the required tariff adjustment taking into account projected volume growth. Expected growth in volume amounts to 2.79% for FY 2018/19, resulting in a tariff adjustment of 8.45%. FY 2019/20 and FY 2020/21 are indicative tariff adjustments.

Table 3: Marine Revenue for FY 2018/19 to FY 2020/21

MARINE REVENUE	2018/19	2019/20	2020/21
	Fixed Tariff Year	Indicative Tariff Years	
	R'm		
Prior Year Revenue	8 646	9 638	12 366
Estimated Volume Growth	2.79%	2.79%	2.79%
Revenue after volume growth	8 887	9 907	12 711
Required Revenue	9 638	12 366	12 976
Tariff Increase	8.45%	24.82%	2.09%

In summary, the Authority hereby applies for R12 663m in revenue comprising of marine revenue of R9 638m and real estate revenue of R3 025m for FY 2018/19. This translates to a weighted average tariff adjustment of 8.45% for FY 2018/19.

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Further to the above, and the application of the approved Tariff Strategy, the Authority proposes the following tariff differentiated adjustments in order to make up the weighted average tariff adjustment of 8.45%:

- An average 10.00% increase for Marine Services tariffs applicable to shipping lines with:
 - Port Dues tariff to increase by 14.05%;
 - Berthing Services tariff to increase by 11.15%; and
 - Other including Pilotage, Towage, VTS to increase by 7.04%.
- An average 7.88% increase for cargo dues tariffs with:
 - FULL containers import and export tariffs to increase by 7.50%;
 - Automotive converted to unitary based tariff structure increasing by 5.00%;
 - Bulk tariffs increasing by 9.00% except:
 - Coal to increase by 10.00%; and
 - Ores and Minerals: Magnetite to increase by 10.00%.
 - Other cargo dues increases by 8.45%.

2. Introduction

The Authority is the landlord in the South African national port system. The Authority is responsible for the safe, efficient and effective economic functioning of the national ports system which it manages, controls and administers. The key business activities of the Authority are to provide and manage port infrastructure and maritime services. In a broader context, the Authority also undertakes to facilitate the development of trade and commerce through market collaboration for the economic benefit of the national economy of South Africa.

3. Legal Basis and Regulatory Requirements

The regulatory framework for the Authority's tariffs is informed by the Act, and the Directives promulgated by the Regulator. In terms of the regulatory framework the Authority is required, with the approval of the Regulator, to determine tariffs for services and facilities offered by the Authority and to annually publish a tariff book containing those tariffs.

3.1 Section 72 of the Act sets out the Authority's obligations in relation to "Authority's tariff book"

72. (1) (a) The Authority must, with the approval of the Ports Regulator, determine tariffs for services and facilities offered by the Authority and annually publish a tariff book containing those tariffs;
- (b) The Authority may, with the approval of the Ports Regulator, amend the tariff book whenever it is necessary to do so.
- (2) The Authority must, prior to any substantial alteration of a tariff, consult with the National Port Consultative Committee.
- (3) Subject to section 9 of the Competition Act, 1998 (Act No. 89 of 1998), the tariffs contemplated in subsection (1) may vary between ports.
- (4) Notwithstanding the provisions of this section, the Authority may enter into an agreement with a licensed operator or a party to an agreement or a port user for the variation of any tariff contemplated in subsection (1).

3.2 The Ports Directives

3.2.1 The Regulator developed the Directives, which were gazetted on 6 August 2009 and amended on 29 January 2010. Of these, the most pertinent to the setting and approval of tariffs are Directive 22 (which deals with the Approval and amendment of tariffs) and Directive 23 (which deals with Tariff requirements).

3.2.2 Directive 23(1) requires the Regulator to consider whether the tariffs proposed by the Authority reflect and balance:

- a) A systematic tariff that is applicable on a comparable basis;
- b) Fairness;
- c) The avoidance of discrimination save where discrimination is in the public interest;
- d) Simplicity and transparency;
- e) Predictability and stability;
- f) The avoidance of cross subsidisations save where cross subsidisation is in the public interest; and
- g) The promotion of access to ports and efficient and effective management and operation in ports.

3.2.3 The opening statement of sub-directive 23(2), reads as follows: In considering the Authority's proposed tariffs, and any subsequent proposed significant variations, the Regulator must enable the Authority to;

- (a) Recover its investment in owning, managing, controlling and administering ports and its investment in port services and facilities;
- (b) Recover its costs in maintaining, operating, managing, controlling and administering ports and its costs in providing port services and facilities; and
- (c) Make a profit commensurate with the risk of owning, managing, controlling and administering ports and of providing port services and facilities.

This sub-directive prescribes that the Regulator must enable the Authority to recover its investment, costs and to earn a profit commensurate with the risk it bears.

3.2.4 Per the Port Directives, the Authority shall on an annual basis on or before 1 August submit its application setting out its proposed tariff for all services and facilities offered by the Authority for the following financial year for the approval by the Regulator. Also the directives allows the Authority to submit to the Regulator a proposal for the amendment of any tariff for services and facilities offered by the Authority at any port from time to time. The directives prescribe a period of 4 months upon which the Regulator shall make a decision.

Any deviation from the set timelines per the Port Directives could result in a significant misalignment between the application submitted by the Authority and the Regulator's ROD.

3.3 Tariff Methodology

- 3.3.1** On 30 March 2017 the Ports Regulator issued a new Tariff Methodology that will be applicable for a period of 3 years, starting from FY 2018/19 to FY 2020/21.
- 3.3.2** The Tariff Methodology prescribes an approach that requires an annual review and an annual adjustments of tariffs within the three year period as opposed to fixing the prices for the full period. This is similar to the previous version of the Tariff Methodology as the Authority will still be required to submit applications presenting three years of information on required revenues, with the first year requesting for a tariff determination and giving an indicative projection of tariff adjustments for the two subsequent years.
- 3.3.3** This approach has simplified tariff and revenue determination for the Authority and participation by the Industry stakeholders, as a result it will be retained by the Regulator. The Tariff Methodology narrows the gap between what is requested and subsequently granted as it is based on rules which are uniformly applied by both the Authority and the Regulator.
- 3.3.4** The Tariff Methodology is still based on the Revenue Requirement approach with the building blocks set out below:

- 3.3.4.1 Regulatory Asset Base (RAB):** The value of total assets in the RAB is indexed by inflation each year - the Trended Original Cost ("TOC") approach. Each year, estimated Capex and depreciation is added to the closing balance for the previous year to arrive at an updated closing balance for the current year. The expected working capital balance is added to arrive at a total RAB estimate, which is averaged over the year to account for the progressive spending of Capital Works In Progress (CWIP) over the period. The RAB formula applicable from the FY 2018/19 to FY 2020/21 tariff years is as follows:

$$RAB_y = \frac{1}{2} [RAB_{c,y} + RAB_{o,y}] + w_y$$

$$RAB_{c,y} = RAB_{o,y}(1 + CPI_y) + CWIP_y \cdot (1 + CPI_y) - D_y$$

Where:

RAB_y	=	value of the RAB used to determine the returns for the period y
$RAB_{o,y}$	=	opening value of RAB for the period y
$RAB_{c,y}$	=	closing value of RAB for the period y
w_y	=	forecast average net working capital over period y
$CWIP_y$	=	value of expected capital investment over the period y
D_y	=	depreciation allowance for assets over the review period y
CPI_y	=	annual rate of general inflation expected over the period y

- 3.3.4.2 **Depreciation:** The following formula which takes into consideration the principle of financial capital maintenance to fully account for capital expenditure and inflation, is used in the calculation of depreciation:

$$Depreciation = (RAB(o,y) + (RAB(o,y).CPI(y)) + (Capex(y)/2.CPI(y))) / 40$$

- 3.3.4.3 **Inflation trending:** The inflation rate for calculating the trend in the value of assets will be the appropriate Price Index forecast for each asset type in each financial year during the tariff period as at the latest forecast published by the National Treasury, which if unavailable by the time of calculation will be substituted with the latest reputable forecast from leading independent institutions such as the Bureau of Economic Research (BER). The same inflation rate will be used in the calculation of the weighted average cost of capital.
- 3.3.4.4 **Capital Works In Progress (CWIP):** Detailed projections for the tariff period, per asset class, service and project as well as monthly planned expenditure schedules must be provided to motivate the CWIP to be included in the RAB. The process will however only take place every six years (or shorter if formally requested by the NPA¹) in order to allow the NPA space to implement CAPEX projects set out in the Tariff Application of one year of the Tariff Methodology.
- 3.3.4.5 **Working Capital:** The estimate of working capital included to adjust for the cash requirements related to CAPEX requirements, equates to the actual *net* working capital as per the latest available NPA annual financial statements, consisting of accounts receivables plus inventory less accounts payables (i.e. operating cash is excluded), adjusted by forecast volume growth and CPI inflation for the following year. In addition, CWIP payables, which are estimated at 1/12th of the capital expenditure projected for that year is included.
- 3.3.4.6 **Weighted Average Cost of Capital (WACC) – Vanilla WACC:** In general, the WACC represents the risk adjusted opportunity cost of capital and is the minimum return for investment in order to continue to attract capital, given risks.

¹ The information from 3.3.4.1 to 3.3.4.12 was extracted from the *Port Tariff Methodology for Tariff Years 2018/19 – 2020/21* thus reference to the Authority is NPA

A real WACC (cost of equity and cost of debt) will be applied and expressed in Vanilla terms (i.e. post-tax cost of equity and pre-tax cost of debt) and accordingly, a separate allowance for tax expense in the revenue requirement formula is required.

$$WACC_{vanilla} = k_d \cdot g + k_e (1-g)$$

Where:

k_d = pre-tax cost of debt

k_e = post tax cost of equity

g = gearing which is debt over total capital

The components of the WACC are as follows:

- **Cost of Equity:** The post-tax cost of equity is calculated with reference to the Capital Asset Pricing Model (CAPM), which is expressed as:

$$k_e = r_f + \beta \times MRP$$

Where:

r_f = real risk free rate

β = Measure of NPA's exposure to market (non-diversifiable) risk

MRP = The market risk premium measuring the premium over and above the risk free rate that investors might expect in return

- **Risk Free rate (RFR):** The twenty year government bond is an appropriate measure of the Risk Free rate (RFR), and, in particular, the KBP2003M bond instrument (yield) as it adequately reflects the market's perception of sovereign risk and inflation going forward. The average RFR is calculated over a five year period (from June 2011 to May 2016) for the first tariff year, June 2012 to May 2017 for the second and from June 2013 to May 2018 for the final tariff year in the period). The Real RFR is deduced by using the Fisher Equation.

$$1+i = (1+r)(1+E(I))$$

Where:

i = nominal rate

r = real rate

$E(I)$ = Expected inflation

- **Market Risk Premium (MRP):** The MRP is in essence forward-looking and, as such, it cannot be observed but must be forecasted. For the tariff period, the Regulator will use the Dimson, Marsh and Staunton (DMS) estimate of the geometric mean MRP as measured against bonds for South Africa to determine an MRP for the Authority's cost of equity calculation. The use of the DMS dataset over its full period of existence requires the use of geometric mean to better address concerns related to the correlation in excess returns and mean reversion.
- **Beta (β):** Due to the Authority not being a traded company, there is no beta (β) published reflecting its risk relative to firms listed on the Johannesburg Stock Exchange (JSE). A beta has to be set to reflect the risks faced by NPA under the RR methodology. This must ensure an appropriate return for the risk faced.

The inclusion of a claw-back mechanism reduces exposure to systematic risk and the existence of an interventionist regulatory regime requires the Regulator to use a Beta substantially lower than large firms listed on the JSE such as the JSE Top 40.

For the tariff period covered, the Regulator will use the 0.50 asset beta decided upon and motivated in the previous Records of Decision (ROD).

The Hamada equation is used to re-lever the asset beta resulting in an equity beta of 0.86.

- **Gearing (g):** The appropriate gearing for the entity for period is 50%.
- **Cost of Debt:** NPA's actual, embedded debt costs should be used to determine the cost of debt applied within the WACC. The use of Transnet Group short vs long term debt structure will be applied to determine an efficient deemed short vs long term ratio for the NPA.

3.3.4.7 **Taxation Expense (t):** A corporate tax rate of 28% adjusted for a proportional Transnet Group taxation rate will be used for the period. The pass-through tax approach, where the vanilla WACC will be applied to the average RAB for the period under consideration, less the interest cost of debt and wear and tear, and other tax allowances. The corporate tax rate will be used to determine the tax liability which shall be treated as an expense in the RR calculation. Any over or under recoveries in terms of the estimated vs actual taxation allowed will be included or offset in the ETIMC facility.

$$\text{Tax allowance} = (\text{Net revenue before tax allowance}) / (1-t) * t$$

The calculation of tax allowance must also reflect the flow of funds related to any claw-back calculated as well as ETIMC allowances to ensure adequate tax cover for the NPA.

- 3.3.4.8 **Operating Costs:** The NPA is required to provide detailed and complete motivation for the applied expenses, especially on large items like labour and energy costs.

Transnet group costs will be included in the total allowed expenses subject to the requirement that the NPA submits detailed explanation and motivation for the amount to be transferred to Transnet group.

In addition, the NPA shall provide externally audited financial reports with all supporting documentation and detailed explanations including basis of allocation and policy documents that support such allocations.

- 3.3.4.9 **Claw-back:** The key purpose of applying claw-back is to ensure that the NPA or any port user is fairly treated and is not subjected to any unfair gains or losses that are a result of incorrect forecasting, inaccurate information and system shocks. Its main application is to reduce the impact of differences between the allowed revenue (based on a number of forecasts and assumptions) calculated at the time of the tariff application and actual audited figures.

The variables to be estimated in line with the Tariff Methodology, annually, prior to the start of the following tariff year for claw-back purposes are the:

- RAB (including capex)
- Depreciation
- Operating Expenditure
- Tax allowance
- Volumes
- Inflation (CPI)

The total impact of over/under recovery of revenue will be spread over a period of two tariff determinations.

- 3.3.4.10 **Excessive Tariff Increase Margin Credit (ETIMC):** The Regulator regulates in the long term interest of the Port industry. This requires that the Regulator not only confine itself to the immediate tariff decision, but also consider ways to ease any future shocks to the system. It is generally accepted that capital expenditure will spike at some point in the foreseeable future, but that these projects have not as yet been specified to a level of detail that allows for accurate prediction. As such, the Regulator considers it prudent to avoid future tariff spikes by retaining and increasing the Authority's ETIMC.

The Regulator may authorise the release of part or the whole of the value of the ETIMC facility to influence tariff levels whenever it deems necessary including, but not limited to spikes in tariffs (defined as an average tariff increase in excess of the inflation forecast) due to sharp increase in capital expenditure, volume volatility, or and market related factors. The Regulator may also consider national objectives in any decision to add to, or to utilise the ETIMC facility to adjust tariffs.

3.3.4.11 Volume Forecast: The Authority is required to submit detailed volume forecasts with reasons as well as revenue calculations based on the forecast volumes and current tariff levels as well as proposed tariffs for the period.

3.3.4.12 Introduction of efficiency incentive: The Regulator will continue to monitor progress of the results of the Terminal Operator Performance Standards (TOPS) as well as Marine Operators Performance Standards (MOPS) and has introduced an efficiency component to the tariff determination as the Regulator is satisfied that a credible efficiency monitoring system has been established. The incentives built into the RR methodology do not favour increased efficiency or competitiveness as the claw back mechanism takes away the gains from higher efficiency with additional market volume effects. This must therefore be addressed in an integrated way through the inclusion of an efficiency measure within the RR methodology.

The inclusion of an efficiency variable Weighted Efficiency Gains from Operations (WEGO) as set out in the RR formula:

$$WEGO_t = EG_{t-1} \times 0.05 \times Re_{t-1}$$

Where:

Efficiency Gain (EG) = Agreed efficiency gain through operations, excluding the effect of market driven volume growth.

Return on Equity (Re) = return on equity as determined in the ROD.

WEGO is a concept that will be implemented over a period starting from FY 2017/18 as follows:

- FY 2017/18: - selection of KPI's to establish the baseline.
- FY 2018/19: - the selected KPI's are observed throughout the year as a precursor for implementing WEGO.
- FY 2019/20: - WEGO is implemented with audited FY 2018/19 KPI's serving as a baseline.
- The WEGO financial impact will only apply in the Tariff Application for FY 2020/21.

3.3.5 The changes that come with the new Tariff Methodology are summarised as follows:

- (a) Capex: - The methodology requires for detailed as well as planned expenditure schedules per project. The treatment of differences in Capex will be taken off the clawback mechanism and be calculated within a 6 year window period on which the Authority is allowed to implement its capital expenditure programme.
- (b) RFR: - Based on SARS published time series KBP200M (yield on loan stock traded on BESA for Government Bonds – ten years and over), which is compounded on a semi-annual basis.
- (c) Cost of Debt:- use NPA's actual, embedded debt with the use of Transnet Group short term vs long term debt structure to determine an efficient deemed short term vs long term debt ratio for the Authority.
- (d) Tax: - any over or under recoveries arising from the tariff application/ROD vs actual tax expense (which may be due to effects from Transnet Group tax position) will be included or offset in the ETIMC.
- (e) WEGO: - The Regulator has introduced WEGO, which will be calculated on a combination of selected KPI's, on weighted average basis. These KPI's will be audited on a port by port basis. The KPI's and appropriate weights will be selected by the Regulator in consultation with the Authority as well as the PCC's.

4. Proposal on Tariff Structure amendments

A port represents a convergence of physical facilities and services designed to serve as an interchange point between land and sea transport. There are various factors considered in determining port tariffs. Amongst these factors, the most important are pricing objectives and constraints, supply and demand of port facilities, flow of benefits costs and revenues. The tariff structure is composed of many individual tariffs. The Authority has made strides in shifting to a cost reflective tariff structure in many of these individual tariffs. However, some tariff line still need to gradually move to reflect the user pay principle. These individual tariffs are discussed below:

4.1 Implementation of the Tariff Strategy

The tariff strategy sets out the strategic direction for the South African port system where it proposes tariffs for the use of port facilities and services by port users namely cargo owners, terminal operators and vessel owners. It considers flow of costs, flow of benefits and the resulting revenues which accrue when service are provided to port users. The Authority has a responsibility of financing infrastructure and recovering the revenues by charging tariffs. The tariff strategy sets out the tariff structures as well as the tariff levels which reflects cost recovery on a user pay principle basis. The tariff strategy recognises that the current tariff imbalances will need to be phased out on a gradual basis. It is therefore proposing a gradual shift over an estimated period of 10 years. This application illustrates the difference between what cost recovery principle recommends across various tariff categories as compared to the current tariff book. These include assets allocations and movements across various cost/revenue categories. This results in some categories benefiting from steep tariff decreases whilst some categories experience the opposite as the charges shift towards cost based tariffs. The recent base rates determined on cost recovery indicate the need for a general decrease in cargo dues tariffs with some exceptions on some tariff lines. This must be followed by steep increases on some marine services charges, and in particular Port dues tariffs.

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The required shifts are summarised below:

- The principles prescribed in the Tariff Strategy recommends a shift in port infrastructure assets of approximately R28bn to be recovered from port dues. This shift results in steep tariff increases over time. The equivalence of port dues tariff in FY 2015/16 in monetary terms, applying the same principles as prescribed in the new tariff structure with 6 hour per GRT tariff, and using the rates in the tariff book results in a port dues tariff of R11.26. This needs to be compared with R94 per GRT determined following the asset allocation split as per approved tariff strategy. This requires a compounded annual real tariff increase in excess of 20% over this time period.
- In parallel, shifts in assets results in a lower asset base for cargo dues tariff categories which must benefit from lower cargo dues tariffs. The principles are well orchestrated and illustrated in the FY 2018/19 Tariff Application where lower cargo dues compared to the average tariff increase are recommended.

Shifts in asset allocations generally impact all the tariff categories. Whilst the approved Tariff Strategy aims to address the tariff imbalances, implementation hereof becomes complex as the proposed changes need to still offer the Authority its required revenue which fluctuates year on year based on the Tariff Methodology.

4.2 Unitised Automotive Tariff

Vehicles can be shipped either in containers or Roro's. Both these options can be used for vehicles including cars, motorcycles, trucks and any other vehicles being shipped internationally. When vehicles are shipped in containers, they are charged cargo dues tariffs applicable to containers. On the other hand RoRo's are composed of different sizes in length and weight. As a result the way in which automotive tariffs are levied for vehicles need to be dealt with more comprehensively as desired by the Tariff Strategy. Currently the tariff rate is levied per ton, differentiated for imports and exports. The Tariff Book charges R93.85/Ton and R37.03/Ton (imports and exports respectively), which is approximated through the length per vehicle on the assumption that one meter of vehicle length equals 2 tons.

The Authority proposes a simplified cargo dues tariffs for vehicles by classifying all motor vehicles into three categories: Passenger vehicles, Commercial vehicles and Heavy Commercial vehicles. These categories will be defined in the manner already presented in the Tariff Book (page 72):

- Passenger vehicles (PV): length equals 5 metres or less;
- Light Commercial Vehicles (LCV): greater than 5 metres but equal or less than 8 metres; and
- Heavy Commercial vehicles (HCV): greater than 8 metres but equal or less than 10 metres.

With these ranges established, the new tariff structure will then establish the unitised cargo dues tariffs for Automotives at a rate bounded by the end point of the range (e.g. for an import of PV the tariff rate of R93.85 would be applied on the weight of 10 tons (2 ton x 5 metres) to give vehicle unitised R938.50 tariff per vehicle).

The split across vehicle types handled at South African ports has been very stable in relative terms over the past years. Passenger cars represented approximately 93%, Commercial vehicles approximately 5% and Heavy commercial vehicles approximately 2% of the total number of vehicles handled. The volume of motor vehicles in absolute terms has been fairly volatile over the past years and reflects the broader economic environment.

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This new tariff structure would be illustrated in Annexure E: Unitised Automotives Tariffs (on page 75). RoRo's in excess of 10 metres are generally not classified as PV, LCV or HCV, therefore, the Authority proposes to retain the tonnage basis of tariff determination for these types of automotives.

4.3 Bunker Tariff

The port system has in the recent past invested capital to service bunkering in the ports. Currently these new facilities do not attract a specific tariff charge and have been considered part of the normal liquid bulk cargo dues tariffs applicable in the port system. The Authority is of the view that the principles of costs recovery on a user pay principle should apply and these facilities must be paid for by the customer category that benefit from this usage. The Authority would make a proposal on a request for a tariff, but it is pushed forward until such time a proper costing of the bunkering facilities has been completed which will then be followed by a tariff application during the FY 2018/19 financial year. As an established service, Bunkering facilities recently completed in the Port of Durban have demonstrated the following amongst other benefits:

- Improved operational efficiencies by increasing turnaround times of vessels;
- Reduction of risks in refuelling by pipelines;
- Sufficient provision for fuelling ships at the port;
- This avails the full range of bunker grade previously not available in the port; and
- Most importantly it gives a dedicated berth in the Port of Durban.

Once a cost study has been completed, an application will be made to the Regulator.

4.4 Marine Services Tariff Structure

The Tariff Strategy which informs the determination of each and every individual tariff which must apply in the pricing of port services and infrastructure elaborates on the principles that must be adhered to when the tariff structure for the Marine Services is established. These necessitate a change in the tariff structure. The newly proposed Marine Services Tariff Structure will be based on cost recovery, and on user pay principles. The tariff structure is also aimed at introducing simplicity where there is a need and therefore flat rates where possible. Some of the characteristics of marine services charges and tariff structure are as follows:

- Port Dues – introduction of linear fee GRT tariff structure without basic charges
- Berthing and Running of lines – a consolidated tariff structure
- Tugs – a system wide cost based, flat fee tariff structure differentiated per port
- Pilotage - a system wide cost based, flat fee tariff structure differentiated per port
- VTS and Light Dues – No changes to the current tariff structure except a different allocation of costs to these tariffs changing the levels charged in the past.

The new Marine Services tariff structure and tariffs as illustrated in the application is not meant for implementation in FY 2018/19. It is highlighted and shared with all the stakeholders for information as a precursor for implementation which is likely to be in FY 2019/20.

4.5 An update on clauses in the Tariff Book

The tariff book is a document that contains all the tariffs that are payable by port users on the use of all the facilities offered by the Authority. The tariff book consists of all the clauses and conditions that guide the different customer categories on the cargo dues and marine services charges applicable on each service or port infrastructure utilised in the port. Therefore the tariff book is subject to change with each tariff application and resultant ROD. With the developments on the port tariff strategy and trajectory, the corresponding tariff conditions need to be reviewed on an ongoing basis to strengthen the principle of cost recovery on a user pay basis. It has become clear that some conditions urgently require enhancements. These enhancements include definitions, exemptions and most importantly business processes and documentation (i.e. Section 8 of the tariff book). These changes are all attached in Annexure F (Enhancements of clauses in tariff book).

4.6 Incentive and discount schemes

The Tariff Strategy does not preclude consideration of the schemes to incentivise volume growth and port calls, as long as it is self-funding and doesn't require any cross-subsidies. Although none has been proposed at this time of the application, the Authority may approach the Regulator for consideration and approval should such a proposal arise in FY 2018/19.

5. The Business of the Authority

5.1 Introduction

The Authority operates within the port industry, providing services to its target market comprising of port users, which include terminal operators, shipping lines, ship agents, cargo owners and the clearing and forwarding industry. The Authority owns and manages nine commercial ports within South Africa namely, Port Nolloth, Saldanha Bay, Cape Town, Mossel Bay, Port Elizabeth, Ngqura, East London, Durban and Richards Bay.

Port Nolloth is currently not a commercial port and renders maritime services of a basic nature supporting fishing and supply vessels.

Port infrastructure and maritime services are provided in five market segments namely, containers, dry bulk, liquid bulk, break-bulk and automotive. The major commodities handled at the ports are coal, iron ore, manganese, containers, automotive, steel, fruit, ferrochrome and petroleum products. Growth of these commodities is a function of global demand, logistics infrastructure capacity and supply chain efficiencies which include port efficiencies.

Port users fall into three main categories, namely, terminal operators, shipping lines and cargo owners. While numerous other parties utilise the port, they do so to a lesser extent than these principal port users.

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The Authority's operating strategy is premised on Transnet Market Demand Strategy "MDS". Whilst embracing the coming of the 4th industrial revolution, which is underpinned by these four key pillars of focus:

- Provision of port capacity
- Efficient integrated port system
- Regulatory compliance
- Innovation and capability

5.2 Functions of the Authority

The National Commercial Ports Policy requires that the Authority be responsible for the management of the national commercial port system as a landlord port authority. Being a landlord port authority means that the Authority:

- owns, develops and maintains port infrastructure;
- does not engage in landside port operations (except as operator of last resort);
- does not employ cargo handling labour;
- fulfils a port regulatory function including oversight and port landowner function; and
- owns all port land

The Authority's core functions (as set out in Section 11 of the Act) can be summarised in the table as follows:

Table 4: The Authority's Core Functions

Function	Detail
Landlord	Promote the use, improvement and development of ports, and control land use within the ports, having the power to lease port land under conditions it determines.
Master planner	Plan, improve, develop and maintain port infrastructure.
Controller of ports navigation	Make and apply rules to control navigation within port limits and approaches, ensure protection of the environment and ensure safety and security within port limits.
Controller of ports services and facilities	Ensure that port services and facilities are provided, and may enter into agreements or license other parties to provide these.
Marketer and administrator	Ensure that adequate, affordable, equitable and efficient port services and facilities are provided for port users.
Change agent	Ensure non-discriminatory, fair, transparent access to port services and facilities; advancement of previously disadvantaged people; promotion of representation and participation in terminal operations; enhanced transparency in port management.

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Function	Detail
Coordinator with other State Agencies	Advise on all matters relating to the port sector, and liaise with all stakeholders.

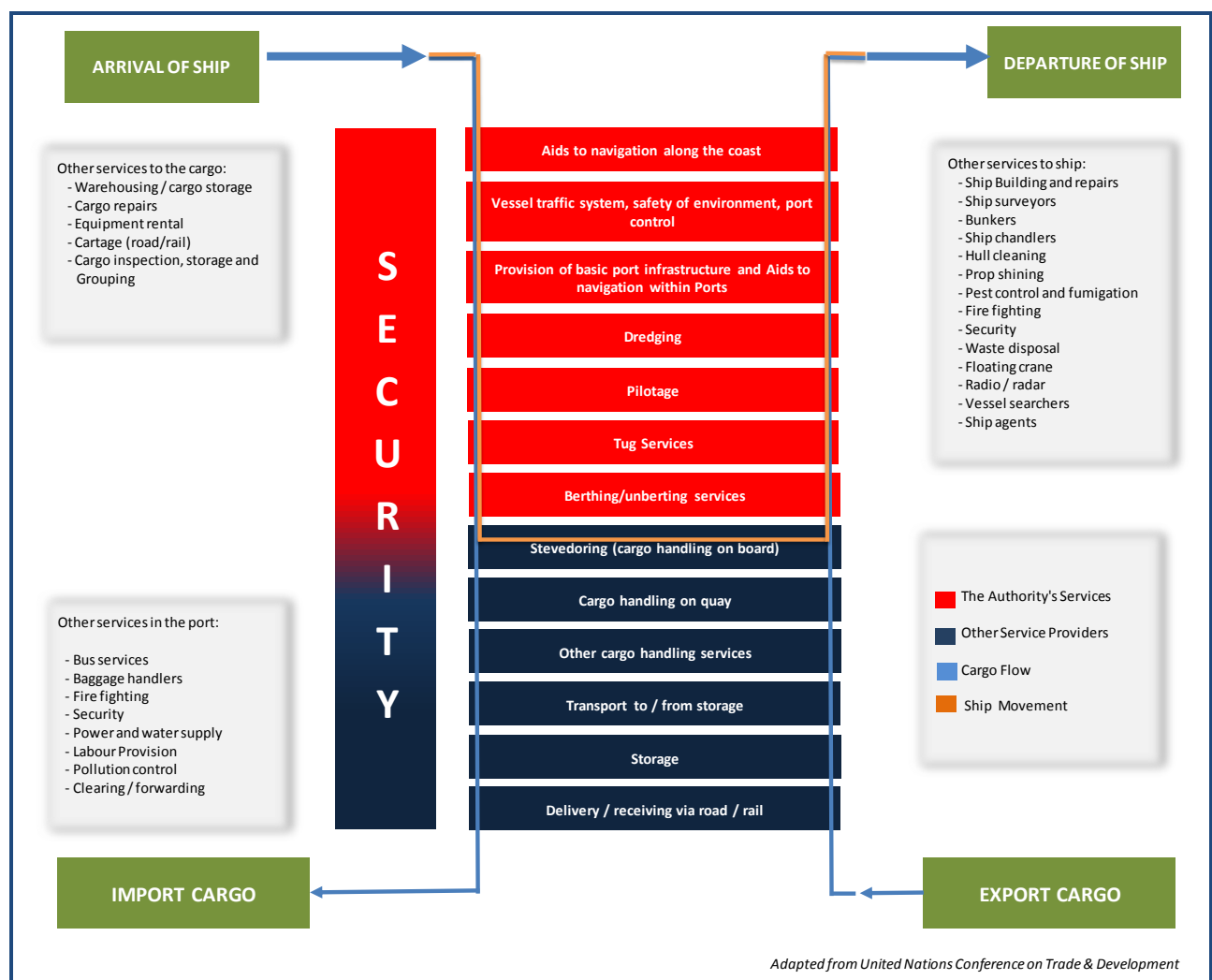
5.3 Tariffs in Perspective

Like any other entity providing commercial port operations, the Authority needs to generate revenue by charging tariffs for the services provided. The Authority generates revenue by charging fees, in accordance with tariffs approved by the Regulator in order to fulfil the functions it must perform in terms of the Act.

As a landlord port authority, the Authority's core services, as specified in the Act, result in a number of revenue streams, which are utilised by the Authority to fulfil its responsibility for the safe, efficient and effective economic functioning of the national ports system.

Figure 1 presents various services provided within a port (adapted from the United Nations Conference on Trade and Development) and it illustrates the flow of cargo and ships through the port system:

Figure 1: Port Services



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The Authority's services at the ports can be divided into two basic groups:

- Basic port infrastructure; and
- Operational services to port users.

The Authority's services and their respective revenue streams are set out in the table 5 on the next page.

Table 5: The Authority's Services and Corresponding Revenue Streams

Port Infrastructure		Revenue Stream
Port land and terminals	Lease port land to terminal operators and other port service and port facility providers in the port(s).	Lease income (rentals)
Wet infrastructure	Lighthouse services infrastructure (lighthouses, buoys, beacons and electronic / radio navigation equipment) , port control and safety, entrance channels, breakwaters, turning basins, aids to navigation within port limits, vessel traffic services, maintenance dredging within ports.	Light dues, port dues, vessel traffic services fees
Dry infrastructure	Quay walls, roads, rail lines, buildings, fencing, port security, lighting (outside terminals), bulk services and in certain cases terminal infrastructure,	Cargo dues, berth dues
Ship repair services	Provide and maintain ship repair facilities	Preparation fee, docking and undocking fees (vessels at repair facilities), berth dues (vessels at repair quays)
Marine services	Pilotage, tug assistance, berthing, running of lines, floating cranes	Pilotage dues, tug assistance fees, berthing fees, running of line fees, floating crane hire fees

In the context of the South African ports system and the Act, the revenue generated from the Authority's services is utilised inter alia to:

- Maintain basic port infrastructure;
- Provide future port infrastructure;
- Maintain and provide the current and future marine fleet; and
- Maintain and provide current and future ship repair facilities

This makes the South African port system distinct from most ports internationally, where typically, some port capital costs are funded through State or Municipal budgets. The Authority's Tariff Book sets out the various tariffs that are charged by the Authority to maintain and develop the South African port system (Refer to **Annexure A**).

6. Port Infrastructure Development Plan and Capital Expenditure

Section 11(1) of the Ports Act lists the main functions of the Authority, amongst others, the responsibilities with respect to the provision of port infrastructure:

6.1 Port Investment planning

“Functions of the Authority”

11. (1) *the main function of the Authority is to own, manage, control and administer ports to ensure their efficient and economic functioning, and in doing so the Authority must:*

- (a) plan, provide, maintain and improve port infrastructure;*
- (b) prepare and periodically update a port development framework plan for each port, which must reflect the Authority’s policy for port development and land use within such port;*
- (c) control land use within ports, and has the power to lease land under such conditions as the Authority may determine;*
- (d) provide or arrange for road and rail access within ports;*
- (e) arrange for such services such as water, light, power and sewerage and telecommunications within ports;*
- (f) Maintain the sustainability of the ports and their surroundings;*

6.2 The Authority’s Capital Investment Programme

The Authority’s investment spending is primarily influenced by its detailed strategic initiatives which aim at providing adequate port infrastructure ahead of demand, improve vessel and cargo turnaround; and improve the productive use of assets to sustain the existing business.

In developing the capex plans, the following activities are considered by the Authority:

- **Long-term Framework Plans:** The Authority prepares a National Ports Plan on an annual basis which includes the individual Port Development Framework Plans. These Plans outline the proposed investments across the ports to create capacity to meet anticipated demand. The latest version available is the National Ports Plan (NPP) 2016. The NPP 2016 informs the ports Chapter of Transnet’s Long Term Planning Framework (LTPF). These 2016 plans are currently available on the Authority’s website for stakeholders review and comment to input into NPP 2017.
- **Capacity studies:** The Authority uses a robust simulation tool to assess the capacity of current infrastructure and to simulate future infrastructure capacity. The capacity studies are updated annually.
- **Volume Studies:** The forecasted volumes used in the Authority’s development plans are based on the Transnet Corporate Plan for the short-term investment guidelines. The long-term investment guidelines use the forecasted volumes from Transnet’s Freight Demand Model, which provides the

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volume studies for all Transnet Operating Divisions. The Transnet Freight Demand Model is a demand forecasting tool developed and utilised in association with the University of Stellenbosch.

- **Prioritization:** Projects are prioritized by safety; and secondly to meet demand forecasted.
- **Interaction with Transnet:** The Authority maintains close interaction with Transnet Planning; Transnet Commercial and Transnet Group Integration during the planning cycle and the development research process. The plan developed by the Authority is incorporated into the Transnet Group Plans.
- **Port Consultative Committees (PCC's):** The Authority adopts a consultative approach to the drafting of the Port Development Framework Plans and the execution of the resultant Capital Investment Plan. Port Development Framework Plans projected for the short, medium and long term as well as 6 year Capital Investment Plans have been consulted with port users. This consultation was conducted on a port-by-port basis during a process facilitated by the Department of Transport (DoT) in June and July 2017 with the South African Maritime Safety Association (SAMSA) as secretariat. These plans are informed, inter alia, by the aforementioned Transnet Freight Demand Model (developed by the University of Stellenbosch).

The following initiatives of the Authority are aimed at supporting the MDS and volume growth:

- Improve management and delivery of capital projects;
- Ensure compliance to Project Lifecycle Process (PLP) model;
- Tracking of capital projects delivery by the Enterprise Programme Management Office (EPMO);
- Improve capital planning and budgeting processes;
- Improve procurement process to reduce turnaround time;
- Ensure disciplined execution of the capital and maintenance programmes;
- Implement integrated commercial management and integrated capacity planning processes with a total supply chain focus to improve customer service and achieve wider integration of the port system;
- Increase focus on business development; and
- Improve land and other asset utilization.

6.3 Key Focus Areas of Capital Investment Program in FY 2018/19 to FY 2020/21

The areas of Capital Investment Program for FY 2018/19 to FY 2020/21 amounts to R 3 053bn, R 5 653bn and R 5 713m respectively. These amounts are included in the Authority's Regulatory Asset Base as capital expenditure in the years in which they are incurred. The key projects listed below are continuing into this tariff control period. On aggregate these projects contribute 70% of the planned spend over the next 3 years.

- Port of Durban execution of DCT berth deepening 203 and 205;
- Port of Durban reconstruction of sheet pile quay walls at Maydon Wharf;
- Port of Durban feasibility and execution on Pier 1 phase 2 infill (Salisbury Island);
- Port of Durban acquisition of 6 tugs (4 replacement and 2 additional);
- Port of Durban Island view berth 9;
- Port of Durban Tug jetty;
- Port of Durban replace water pipelines and billing system;
- Port of Durban Maydon Wharf channel deepening;
- Port of Durban replacement of helicopter;
- Port of Durban Air quality monitoring system;

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- Port of Durban asbestos Kings rest yard upgrade;
- Port of Richards Bay additional rail facility for Duine Area and Richards Bay new helicopter;
- Port of Richards Bay upgrade breakwater;
- Port of Richards Bay offices and workshops for infra manager;
- Port of Richards Bay berth Deeping at small craft;
- Port of Richards Bay upgrade helipad infrastructure;
- Port of Richards Bay hydra network upgrade;
- Port of Ngqura Berth 100A roads, port entrance and services;
- Port of Ngqura Berth Manganese export facility;
- Port of Ngqura Berth automated mooring system;
- Port of East London extend main breakwater and deepen entrance;
- Port of East London refurbishment of sandblast of the buffalo bridge;
- Port of East London fishing facilities;
- Port of East London underground water services;
- Port of East London refurbishment of graving dock;
- Port of East London crane rails rehabilitation;
- Port of Mossel Bay replacement of floor planking;
- Port of Mossel Bay upgrade of service networks (water);
- Port of Mossel Bay upgrade of service networks (communications);
- Port of Mossel Bay refurbishment of additional tug;
- Dredging Services 2nd grab hopper dredger;
- Dredging Services new carter suction dredger;
- Port of Saldanha Bay bulk electrical power supply related to third Tipler; and
- Ship Repair projects in the ports of Durban, East London, Mossel Bay, Cape Town and Richards Bay.

The Authority's capital investment goals are to increase productivity and efficiency, ensuring a safe, secure and compliant port system and whilst optimising human resources.

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Table 6: Strategic Capital Investment Objectives

Strategic objective	Details	LE	Projections						
		2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	Total 7yr
		R'm							
Re-engineering, Integration, Productivity and Efficiency	To maximise return on investments by obtaining additional volumes	430	1 105	3 031	2 023	2 843	3 852	3 112	16 396
	To maximise return on investments by improving operating efficiencies	400	254	279	444	254	161	165	1 957
	To preserve current revenue streams without obtaining additional volumes (ie. revenue protection)	621	1 052	1 182	2 081	2 984	2 110	1 383	11 412
Safety, Risk and Effective Governance	Ensure Safety Optimisation	162	286	477	616	541	259	77	2 419
	Optimise Business Enterprise Offerings	132	213	278	88	30	10	10	761
	Optimally Satisfy Social Investments (non economic value creating projects)	-	12	43	65	162	176	90	548
	Environmental	6	57	174	86	80	90	102	595
Human Capital	Optimise Human Resources	67	75	191	309	53	-	-	694
Total (excl. borrowing cost)		1 818	3 053	5 655	5 713	6 946	6 658	4 938	34 781

The detailed capital expenditure schedule is highlighted in **Annexure B**.

7. The Authority's Total Revenue

7.1 Real Estate Revenue

The vision of the Authority's Real Estate business is to ensure the property portfolio is managed adequately, efficiently, effectively and in accordance with organization policies and a mandate as outlined by the National Ports Act. It also aims to maximize value and support for the Authority's core business.

The Real Estate Strategy drives the management of the property portfolio. There are five key pillars of the Real Estate Strategy:

- (a) Revenue Growth
- (b) Portfolio Optimisation
- (c) Land use and strategic developments
- (d) Total Facilities Management
- (e) Human Resources Capacity Building

Third party tenants enter into short/long term leases to enable them to invest and develop facilities for their operations. Rentals are negotiated on a case by case basis and are therefore not reflected in the Authority's Tariff Book.

The Authority currently manages port land in excess of 43.4 million square meter of which 27 million square meter is the Gross Lettable Area (GLA). The remainder is Greenfields, environmental sensitive areas and vacant area measuring 4.9 million square meter.

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The Authority manages four categories of leases:

- (a) Complimentary leases
- (b) Supplementary leases
- (c) Commercial leases
- (d) Leases with other Government entities

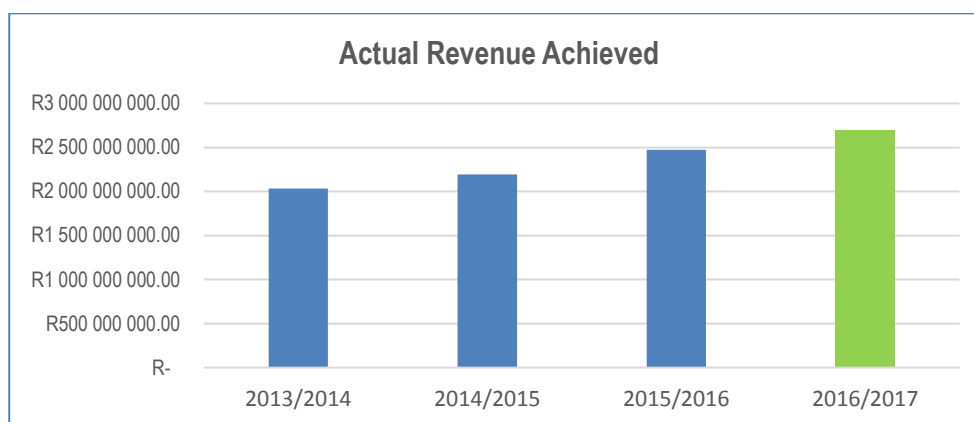
These leases ranges from short to long term leases which are inclusive of terminal operators, licensed service providers and Government entities executing legislative functions. The Management of leases is carried out through following the Lease Management Manual “LMM”. The process of lease management follows an open, transparent, competitive and fair process. All vacant sites are advertised to the public for broader participation. Following the adjudication by the Port Lease Adjudication Committee, a recommendation to award is then sent to the National Property Committee for decision. The new lease procurement process takes up to three months from advertising up to an award.

The Authority is currently managing approximately 750 leases across the eight ports. The Port of Durban which is our biggest Port has 351 leases. The average analysis of the leases ranges between 8 -10 years and the bulk has three years remaining before they expire and the remainder has already expired. The expired leases are currently on a month to month basis pending the lease renewal process.

The Authority achieved a lettable land vacancy rate of 5% in FY 2016/17, an improvement on the industry average of 7%, which generally is attributable to lower economic activity.

The land rental revenue target set for FY 2017/18 is R2 798m which is approximately a 9% growth from the revenues achieved in FY 2016/17. The revenue in ports real estate business is rather stable and gradual as the lease agreements are already in place. However the 9% increase just in one year is driven by amongst others renewal of expired leases, new lease agreements as well as non-normal activities which are normally small in nature (i.e. facilities for still and film shoots).

Figure 2: Actual Real Estate Revenue Received



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Table 7: Real Estate Salient Features

Salient Features of Real Estate Business	FY 2017/18	FY 2018/19	FY 2019/20	FY 2020/21
	Current Tariff Year	Fixed Tariff Year	Indicative Tariff Years	
Number of Ports	8	8	8	8
Gross Lettable Area	Approx 27 million sqm	Approx 27 million sqm	Approx 27 million sqm	Approx 27 million sqm
Number of Tenants	750	750	750	750
Total No. of Terminal Operators	90	90	90	90
Vacancy factor including Unservice/Virgin land	20%	20%	20%	20%
Vacancy factor excluding Unservice/Virgin land	5.0%	5.0%	5.0%	5.0%
Average term of Leases	5 - 25 Years	5 - 25 Years	5 - 25 Years	5 - 25 Years
Estimated Revenue (Current Financial Year)	R2 798 m	R3 025 m	R3 279 m	R3 542 m
Estimated Revenue (Subsequent Financial Year)	R3 025 m	R3 279 m	R3 542 m	R3 823 m
Forecast Revenue Growth	R227 m	R254 m	R263 m	R281 m

By nature of leases being contract driven, the Authority's Real Estate business is not subject to a tariff increase by the Ports Regulator but is taken into consideration in the determination of the allowable revenue. This business is driven by a set of functions which are set out in the Act. In line with the Act the Authority must:

- Control land use within ports and has the power to lease land under such condition as it may determine;
- Ensure that adequate, affordable and efficient port service and facilities are provided;
- Exercise licencing and controlling functions in respect of port services and port facilities to be able to perform efficiently;
- Ensure that any person required to render any port services and port facilities is able to perform efficiently; and
- Promote the achievement of equality by measures designed to advance persons or categories of persons historically disadvantaged by unfair discrimination in the operation of facilities in the ports environment.

Further to the above, in terms of Section 11(1)(r) of the Act, the Authority must promote greater representation, in particular to increase participation in terminal operations of historically disadvantaged persons. In order to achieve compliance with the Act, the Authority as part of its ports' transformation program has considered measures to achieve 75% of Level 4 B-BBEE status in lease contracts and strives for a greater occupation of its lettable properties.

In setting the ports' transformation program, the Authority considers its financial objectives as well as the tenants' financial rewards and incentives. The tenants (i.e. Terminal Operators) derive income from terminal handling charges. This enables the lessee's ability to meet rental payments to the Authority. Should the sub-optimal usage of the leased facilities continue to exist across the port system, this may be attributable to hardships which cause contractual disequilibrium (i.e. the inability to afford rent). The Authority has in the last couple of months observed its tenants struggling to meet rental obligations. In fact tenants are beginning to engage the Authority and have indicated that should the sluggish economic trade conditions (i.e. lower volumes handled at the terminals) continue to persist this will necessitate re-negotiation of leases with possible handover of some leased facilities.

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7.2 Private Sector Participation in the Port Sector (Concession Programme)

In line with its commitment to transformation, the Authority is leveraging off Section 56 of the Ports Act to open up participation in port activities to business owned by Historically Disadvantaged Individuals. The Act mandates the Authority as a landlord and port master planner, to contract with private Terminal Operators to design, construct, rehabilitate, develop, finance, maintain and operate port terminals or facilities.

Over the last 2 years, much momentum has been gained in terms of finalizing concession arrangements across the ports system. Details of the Authority's efforts around concessioning are presented in the table below:

Table 8: 2020 Concession Programme

Port	Completed concession agreements	In progress- concession agreements
Port of Cape Town	<ul style="list-style-type: none"> - Cruise Terminal: - concession agreement concluded with the V&A Waterfront. development continuing parallel to operations - Green fields Liquid bulk Terminal (Burgan Cape): - concession agreement concluded with the facility at operational stage 	<ul style="list-style-type: none"> - Liquid bulk Terminal: - pursuing new concession agreement through S56
Port of Durban	<ul style="list-style-type: none"> - Green fields Cruise Terminal: - Preferred Bidder negotiation stage with concession agreement to follow. 	<ul style="list-style-type: none"> - Greenfields Liquid bulk Terminal - Lot 100 open RFP in progress - Floating Dock – RFP tender preparations in progress - Brownfield Liquid bulk and chemical terminal (Island View Storage)
Port of Saldanha	<ul style="list-style-type: none"> - Greenfields LPG Terminal:- Sunrise energy with concession agreement concluded and operational phase has started 	<ul style="list-style-type: none"> - Greenfields Off-shore supply base:- Operation Phakisa project with Preferred Bidder appointment pending - Greenfields Moss gas Ship Repair & Floating Dock Operation Phakisa project
Port of Port Elizabeth		<ul style="list-style-type: none"> - General Cargo Terminal – sheds 10/11 (S56 process concluded and an appointment of a preferred bidder is pending)
Port of Richards Bay		<ul style="list-style-type: none"> - Green field Ship Repair/floating dock Operation Phakisa project (RFP process to follow)
Port of East London		<ul style="list-style-type: none"> - Both Green fields and Brown fields Liquid Bulk for high inflammable Oils (preparations in progress for S56 RFP) - Greenfields Slipway Split Facility for boat building and ship repairs Operation Phakisa project
Port of Mossel Bay		<ul style="list-style-type: none"> - Preparations underway for a Waterfront Development, currently at feasibility stage
Port of Ngqura	<ul style="list-style-type: none"> - Greenfields Liquid Bulk Terminal – Concession Agreement concluded with OTGC 	<ul style="list-style-type: none"> - Both Greenfields and Brownfields Multipurpose Terminal – S56

The Operation Phakisa projects implemented across the ports system over the past year are also gaining momentum and contributing to operational capacity. These developments align with the growth strategy. The Authority's focus on PSP's within the port system is considered to be a catalyst for economic growth, increases beneficiation and manufacturing activity, job creation and transformation in alignment with governments' objectives.

7.3 Marine Business Revenue

The Authority generates revenue by providing services to port users, which include terminal operators, shipping lines, ship agents, cargo owners and the clearing and forwarding industry. Port Infrastructure and maritime services are made available for use in the five commodity categories namely; containers, dry bulk, liquid bulk, break-bulk and automotives. The main source of revenue is tariffs which are charged by the Authority for providing the aforementioned services as determined and administered by the Regulator. In determining the tariffs, the economic factors are considered. The volume growth anticipated serves as an indicator of economic activity and trade.

7.3.1 The Authority's Volumes

The volumes as presented in this part of the application, showcases the commodity cargoes that go through the ports as well as the movements of the marine vessel traffic entering the ports.

Annually, projections for the Authority's volume budget process usually commence in October and continues to be refined until the Transnet Board approves the budgets in February of the following year. These forecasts present the annual demand probable, on commodities which are handled through the Authority's infrastructure within the port system. This process normally depicts the current year's latest estimates, taking into account the previous year's performance. Forecasts extend to the following year's volumes (budget period) and forecasts volumes for the next six years. This volume demand is a critical element of the MDS as it guides the organisational planning to ensure the availing of capacity ahead of demand whilst at the same time warranting efficient and optimal utilisation of current capacity.

The cargo volumes budget compilation follows a bottom-up approach from the port level to the Authority's validated budget. The process start with Key Account Managers (KAM's) communicating and liaising with customers on their operational and strategic plans (i.e. how this translates into volume forecasts for the six year period at the port level). The KAM's also liaise across the port system with Port Terminals and all other operators to achieve alignment on all cargo categories. This process ends at a central consolidation at the Authority's level. This includes budget evaluation process such as historic, prevailing and anticipated market conditions, operational efficiencies, and infrastructure capacity levels and anticipated improvements.

Transnet also enforces a formal interaction platform with key customers to validate customer volume forecasts. All divisions of Transnet participate to synchronise across the entire commodity value chain.

7.3.2 Transnet Value Chain Coordination

Transnet uses a counter-cyclical investment strategy to manage risk in a challenging environment. Throughout the whole organisation, measures have been put in place to manage revenue risk as well as optimise the full value chain through the new model of coordination. The Transnet value chain coordination (TVCC) is central to operations. The Authority is largely engrossed in the TVCC strategy which aims to improve the supply chain coordination and integration challenges across the full value chain, thus resulting in a competitive offering to customers whilst imbuing a flawless execution with the whole organisational spectrum.

The TVCC offers the following:

- Enable greater collaboration among the operating divisions
- Improve visibility of information
- Measure and monitor systems and processes to a higher level of granularity in performance and risk management
- Provide end-to-end visibility of commodity supply chains

The organisation structure and role of Transnet positions it as the ideal entity to facilitate the functioning of the TVCC. The ports system is a mode of transport that goes beyond the role played by the Authority, as a result its functionality need to be incorporated into the full supply chain to realise value for all role players across the full value chain from pit to ports. The benefits of a value chain co-ordination approach has been demonstrated intentionally and its implementation in the South African environment is expected to improve transport logistics contributing to economic growth.

7.4 Cargo

The global economy remains trapped in a prolonged period of slow economic growth and dwindling international trade. Whilst both economic and political uncertainties weigh in on investment demand in many countries, the nexus between profits and investments has weakened in both the developed and developing countries. The declining demand for capital goods associated with weak investment restrains global trade. In turn weak economic growth drives a further slowdown in productivity and growth. The prolonged sluggishness in the global economy is wide-spread and includes low wage growth which impacts consumer spending, low inflation and rising debt level.

As a commodity exporting country, the South African economic landscape has been shaped by low commodity prices thereby exacerbating economic decline. However the country is expecting a rebound in 2017 from 0.3% growth in 2016. Though not significant, the rebound is expected to give traction which will create an opportunity for a new growth cycle underpinned by commodity price stability. The impediment is still structural reforms which are long overdue. The recent downgrades of the country credit rating to sub-investment grade delays a return to normality. The key factors identified by credit rating agencies are political risks and policy shifts given their proximity and tendency to undermine fiscal and economic growth. These latest developments will have considerable impact to growth in 2017 as it becomes more expensive to borrow money on the international markets in addition to higher debt repayments for existing facilities.

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All of these factors described above have an impact on various categories of cargo that traverse port infrastructure. The Authority's volumes are estimated as follows:

Table 9: Authority's Volume Growth

Details	Actual 2016/17	Budget 2017/18	% Deviation	Forecast 2018/19	% Deviation	Forecast 2019/20	% Deviation	Forecast 2020/21	% Deviation
Container (TEUs)									
Deepsea Full: Imports	1 419 711	1 415 421	0%	1 454 618	3%	1 500 370	3%	1 544 299	3%
Deepsea Full: Exports	1 127 759	1 068 321	-5%	1 097 846	3%	1 134 641	3%	1 169 656	3%
Transshipments	1 026 053	1 062 948	4%	1 097 039	3%	1 135 983	4%	1 168 675	3%
Other	892 764	946 634	6%	972 653	3%	1 004 908	3%	1 034 076	3%
Total	4 466 287	4 493 324	1%	4 622 157	3%	4 775 902	3%	4 916 706	3%
Vehicles (Units)									
Vehicles: Imports	303 156	315 610	4%	318 949	1%	331 922	4%	345 816	4%
Vehicles: Exports	314 098	314 620	0%	342 911	9%	353 303	3%	319 532	-10%
Other	49 556	35 750	-28%	34 581	-3%	35 687	3%	37 701	6%
Total	666 810	665 980	0%	696 441	5%	720 912	4%	703 049	-2%
Break Bulk (Metric Tons)									
Break Bulk: Imports	2 088 113	1 759 465	-16%	1 614 025	-8%	1 638 065	1%	1 666 305	2%
Break Bulk: Exports	4 340 014	4 828 091	11%	4 831 778	0%	4 985 112	3%	5 140 652	3%
Other	151 407	199 629	32%	209 800	5%	1 150 205	448%	1 182 530	3%
Total	6 579 534	6 787 185	3%	6 655 602	-2%	7 773 382	17%	7 989 487	3%
Dry Bulk (Metric Tons)									
Coal Exports	76 802 342	79 800 000	4%	82 136 725	3%	86 930 927	6%	87 265 875	0%
Iron Ore Exports	59 004 020	58 100 000	-2%	58 840 000	1%	58 890 000	0%	58 890 000	0%
Manganese Ore Exports	12 625 607	10 797 000	-14%	10 000 000	-7%	8 000 000	-20%	13 458 000	68%
Other Dry Bulk	30 827 602	29 050 546	-6%	29 073 606	0%	30 428 548	5%	31 659 728	4%
Total	179 259 571	177 747 546	-1%	180 050 330	1%	184 249 475	2%	191 273 603	4%
Liquid Bulk (kl)									
Petroleum	32 206 588	32 769 539	2%	34 365 177	5%	35 096 202	2%	36 107 135	3%
Chemicals	2 289 904	2 047 696	-11%	2 447 984	20%	2 649 379	8%	2 980 484	12%
Other Liquid bulk	6 545 558	6 463 141	-1%	6 724 645	4%	7 069 509	5%	7 355 332	4%
Total	41 042 050	41 280 376	1%	43 537 806	5%	44 815 089	3%	46 442 952	4%

7.4.1 Containers

The World Trade Organisation (WTO) expects growth in the volume of world merchandise trade to rebound in 2017 from the tepid performance in 2016, but only if the global economy recovers as expected and governments pursue the right policy mix.

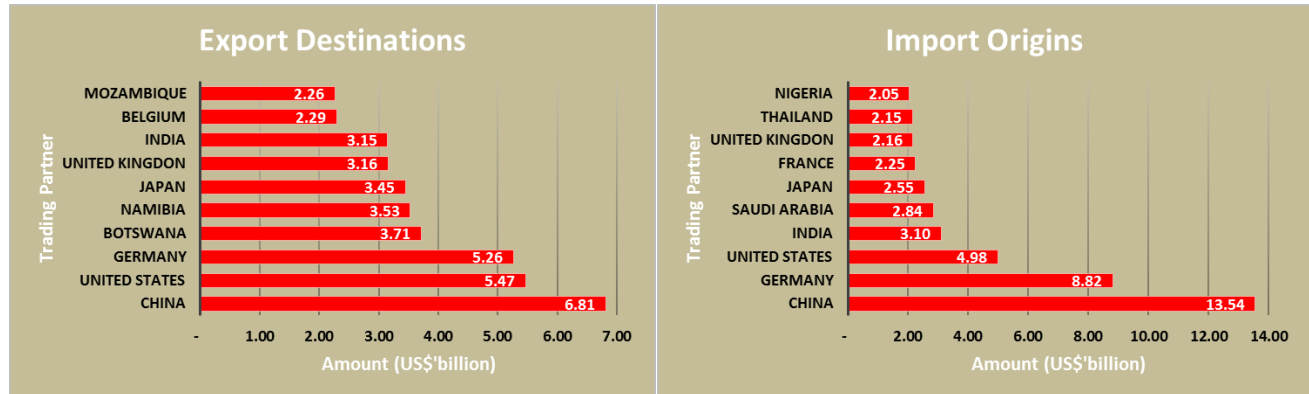
The WTO is forecasting a 2.4% growth in 2017 followed by a growth of between 2.1% to 4% growth range in 2018. This is a relief from the weak international trade growth which lasted for a while, and has not been eradicated as the global economy remains strangled by lack of clarity about governments action on monetary, fiscal and trade policies. Furthermore on the political front, Brexit may have severely damaging impact on trade. Also in the era of Trump presidency, the world might reshape to populist economic policies which includes protectionism. These are followed by far reaching consequences such as tighter fiscal policies and the imposition of measures to curtail trade which could well undermine the global economic growth. However at this point in time the forward looking indicators direct to a stronger trade growth in the first half 2017.

Growth is expected to come from the developed economies and specifically trading partners to South Africa. The overall result is a 3% growth in container business within the port system in both imports and exports. Though the weaker rand is expected to spur on production and exports of locally produced commodities, the volatile exchange rate makes it expensive to source input raw materials. With a flat and stable looking demand for imports of materials in containers, the growth in containers in general will be moderate at 3% per annum over the next three years.

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The full picture on the Authority's container business is informed and impacted on by growth prospects of the trading partners and countries that does business with South Africa.

Figure 3: South Africa's main trading partners (Source: Trade economics 26 July 2016)



With the global economy expected to recover, although not at levels seen pre- global financial crisis and recession, this improves prospects for container exports. Growth comes with the utilisation of production and manufacturing capacity which comes with other benefits such as employment, rises in incomes, retail activity etc.

7.4.2 Automotives

The Automotive industry in South Africa uses state incentives to retain activity in the sector. The Government's Industrial Policy Action Plan (IPAP) provides more opportunities for fixed investment in the sector and this should provide sustainability of the sector in the long-term. South Africa has heavily invested (i.e. estimated in the region of more than R25 billion) since the inception of the IPAP. Some of the recent industry achievements include, investments from Beijing Automobile International Corporation (BAIC), R2.5bn investment by Ford to build the Everest sports utility vehicle and expand the production of the Ford Ranger pickup at its Silverton assembly plant in Pretoria. The other investments come in the form of factories by VW group, BMW, Iveco-Larimer, Toyota, Nissan, Volvo, Goodyear, Sumitomo Rubber industries as well as Daimler for its global bus and truck strategy.

The estimated average growth contributed by both imports and exports is 5%. However the exports on its own grows by 9%. This is largely attributed to forecasted increased demand in Europe. The export sales to Asian countries is expected to experience increased growth. Apart from sales made in Europe and Asia, the motor industry serves other markets including Australia, Africa and North America. There is no optimism from the African markets as most of the commodity driven economies in the Sub Saharan countries experience weak economic conditions. This impacts a lot on the used cars desk as most of the exports are destined for these Sub Saharan Markets. Furthermore, the performance would have been much better, the exit of General Motors South Africa (GMSA) shortens the growth and comes with job losses.

7.4.3 Coal

Falling export coal demand remains an issue for the mining houses. China, United States and India consumes about 70% of world coal. China's demand is expected to decline for the period 2016-2020 as it reduces its coal energy portfolio to 62% in 2020 and this will have an impact in the global supply of coal. However, South Africa remains competitive and preferred to service Chinese coal demands. As a result the concern over the repositioning of coal consumption in China has no immediate impact on the estimated volume growth from the Authority's point of view. In fact coal volumes grow throughout the period with 3% estimated for the FY 2018/19 followed by 6% in the year afterwards. The other factors driving growth are take-or-pay agreements (particularly in South Africa and Australia) which increases exports of sub-bituminous coal.

7.4.4 Iron Ore

Although growth is seen in some commodity prices, the Iron Ore flat, no growth trend continues because of weaker demand and oversupply from Australia and Brazil in the past 3 years. The main contributor is a slowdown in infrastructure spending and construction activity in China.

7.4.5 Manganese Ore

Manganese mirrors all the activities centered on steel and iron ore. The markets continues to see declining prices. Once more this is impacted on by what's happening in China. The manganese market recovery is only expected after 2019. The local demand for steel production seems depressed in the short term whilst exports to China remains the most volatile on a monthly basis hence the forecast decline in FY 2018/19.

7.4.6 Liquid Bulk

World oil prices improved slightly during 2016 with refining capacity remaining at around 22.4 Mtpa. Liquid bulk volume has grown by an average of 2% per annum during 2010 – present, with import growing at an average of 3.6%. It is expected that refined fuels demand will increase by an average of 2% per annum between 2016 -2020. Growth in liquid bulk imports is expected to increase to 5% in FY 2018/19. The other commodities in the liquid bulk category are export of chemicals which is an activity largely affected by global market conditions, in particular European economies.

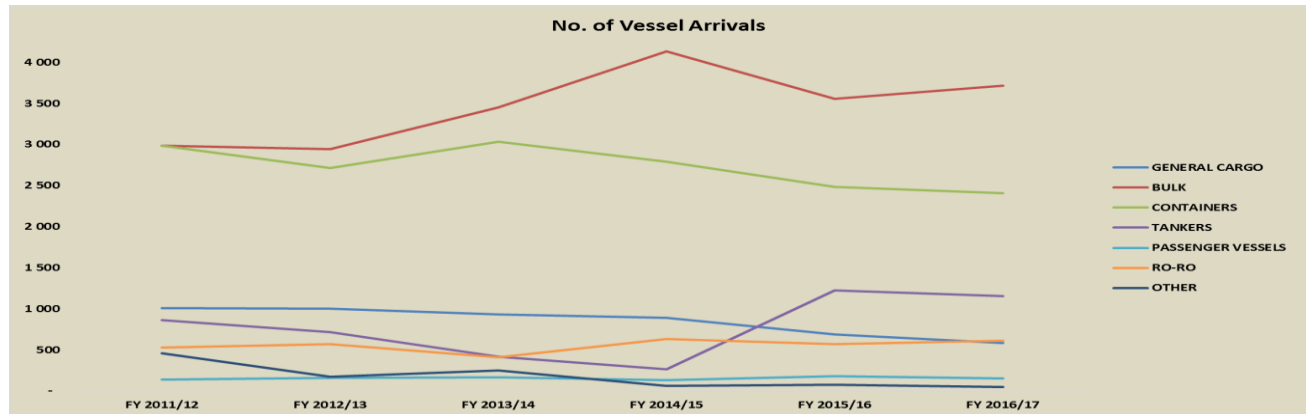
7.4.7 Marine Services

Marine volumes comprise of the number of vessels arriving at South African ports and their associated Gross Registered Tonnage (GRT). The revenue in this category is influenced by the average vessel size and stay in the port. When the average number of calls decrease as larger vessels call into the Authority's ports, which is a trend recently seen, the revenue remains relatively static. Lesser vessels calls with longer stays do attract additional charges, however, this is insignificant and offset by revenue earned from more frequent vessel calls with shorter stays.

The vessel traffic is demand driven as it depends on growth in volumes per cargo commodity. The current outlook for economic activity is moderate. However with the expected volume increase in Containers, Roro's exports and liquid bulk cargo category for FY 2018/19, the marine services revenues driven by vessel calls is expected to fare better as compared to FY 2017/18. Figure 4 below presents historic performance. The purpose of this picture is to highlight the fact that with less trade, the ports have experienced lesser vessel calls with declining GT of vessels in the last three Tariff Application years.

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Figure 4: Port vessel calls



A closer look at the vessel movements over the last five years indicate the following:

- The Authority has not seen significant growth in volumes on vessel calls. The revenue on the Marine services which is presented in the form of charges is predominantly driven by the tariff increase as vessel calls are reducing due to larger vessels consolidating cargoes' across many ports and major hubs. The South African ports are generally experiencing lesser vessel calls. This trend is more prevalent in Container vessels. On the bulk commodity vessels, the calls are very much dependent on the commodity cycle which is expected to recover in the next coming years;
- The recovery in economic activity will be visible in containers as estimated in the increasing volumes in FY 2018/19

In essence the issues driving marine revenue are the recovery in vessels arrivals, especially on containers vessels for FY 2018/19, as well as the proposed tariff increase in line with the cost allocation approaches designed in the tariff strategy.

8. Tariff Application Approach

The tariff application for FY 2017/18 has been prepared in accordance with the approved Tariff Methodology issued by the Regulator. The section that follows illustrates the application of the components of the Tariff Methodology.

8.1 Revenue Requirement Formula

The Revenue Requirement (RR) approach as per the Tariff Methodology for FY 2018/19 to FY 2020/21 forms the basis upon which the Regulator will determine the appropriate revenues for the Authority. The formula as prescribed is as follows:

Revenue Requirement

$$\begin{aligned}
 &= \text{Regulatory Asset Base (RAB)} \times \text{Weighted Average Cost of Capital (WACC)} \\
 &+ \text{Operating Costs} + \text{Depreciation} + \text{Taxation Expense} \pm \text{Claw-back} \\
 &\pm \text{Excessive Tariff Increase Margin Credit (ETIMC)} \\
 &\pm \text{Weighted Efficiency Gains from Operations (WEGO)}
 \end{aligned}$$

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The application of this formula is demonstrated in the sections that follow.

8.1.1 Regulatory Asset Base

The Authority is responsible for the management of the South African national ports system and owns, develops and maintains port land infrastructure.

8.1.1.1 Asset Base

The RAB on which the Authority is allowed to earn a return on by the Regulator involves all assets of the Authority. The Regulator retains the discretion to disallow any portion of the RAB as it deems necessary such as assets that fall outside the ambit of the National Ports Act.

The RAB of the Authority has been trended using the latest inflation forecast from Bureau for Economic Research per the Regulatory Manual.

The process used to determine the RAB is as follows:

- a) In order to determine the value of the RAB on which a return will be calculated in the allowed revenue formula, both the closing and opening values of the RAB including capital expenditure are averaged throughout the period. This is done to recognise availability and incurrence of capital expenditure throughout the financial year rather than on the first day of the financial year.

The formula for the determination of the value to be allowed in the RAB for the tariff period is highlighted in Section 3.3 (subsection 3.3.4) above.

8.1.1.2 Depreciation

- *Financial Reporting*

In terms on financial reporting, the Authority's depreciation is recognised on a straight-line basis over the estimated useful lives of each component of an item of property, plant and equipment. Land and assets in the course of construction are not depreciated. All other property, plant and equipment, including capitalised leased assets, are depreciated on a straight-line basis over their estimated useful lives or the term of the lease, if shorter. Major repairs and overhauls are depreciated over the remaining useful life of the related asset or to the date of the next major repair or overhaul, whichever is shorter. Depreciation commences when the asset is available for use. Assets are depreciated over the following periods as depicted on page 39.

Table 10: Abstract of Depreciation Policy

SIGNIFICANT ACCOUNTING POLICIES	
PROPERTY, PLANT AND EQUIPMENT	
Asset class	Years
Buildings and structures	10 – 50
Buildings and structures components	10 – 25
Permanent way and works	3 – 95
Aircraft including components	5 – 8
Port infrastructure	12 – 100
Floating craft including components	5 – 40
Containers	10 – 20
Vehicles	3 – 15
Machinery, equipment and furniture	3 – 30

- *Tariff Application*

In accordance with the Tariff Methodology, the RAB will be depreciated on a straight line, 40 year basis on the trended/inflated asset base. Furthermore, 50% of the capex that is included in the RAB is inflated in determining depreciation. The resultant depreciation is R2 166m for FY 2018/19, R2 333m for FY 2019/20 and R2 545m for FY 2020/21.

8.1.1.3 *Inflation Trending*

The Tariff Methodology prescribes the use of the Consumer Price Index (CPI) for the tariff period based on the latest forecast published by the National Treasury or alternatively the BER inflation forecast for the purposes of trending the RAB. The Authority has utilised the latest forecasts published annually by Bureau for Economic Research (Source: BER April 2017).

8.1.1.4 *Capital Works in Progress(CWIP)/ Capital Expenditure (Capex)*

The formula for determination of the RAB includes CWIP/Capex. Capex refers to capital works in progress for assets that are under construction. Capex is informed by the Capex program which is projected at R3 053m for FY 2018/19, forecasted at R5 655m for FY 2019/20 and R5 713m for FY 2020/21. Detailed information relating to capital expenditure is demonstrated in **Annexure B: Capital Expenditure**.

8.1.1.5 *Working Capital*

In line with the Tariff Methodology, the formula for estimating the working capital figure to be used in the Revenue Requirement determination includes indexation of trade receivables by the percentage volume growth for FY 2018/19. A similar indexation is applied in the following years with the estimation of volume growth of those years (i.e. same for the three financial years in this application). All other components of working capital are indexed on a cumulative basis by an estimation of inflation of the years in which they are applicable.

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In accordance with the Tariff Methodology, the working capital is determined as follows:

Table 11: Working Capital

Working Capital	FY 2018/19	FY 2019/20	FY 2020/21
Indexation			
Volume Growth	2.79%	2.79%	2.79%
Inflation	5.40%	5.10%	5.30%

AFS 2016/17

Current Assets	1 003	1 032	1 062
Trade receivables	959	986	1 013
Inventories	44	47	49
Current Liabilities	3 802	4 228	4 429
Trade Payables	2 416	2 539	2 674
Current Tax Liabilities	1 096	1 152	1 213
Capex (Payables)	290	537	543
Working Capital	-2 799	-3 196	-3 367

The Capex payable shown in the above table is determined by taking the differences between the tariff year under review (i.e. FY 2018/19) and the latest estimated capex forecasted for the current year (FY 2017/18). This difference is then divided by 12 months to estimate how much would be on the last month of the financial year. This estimate is then increased by the VAT portion to approximate the amount due in the last month of the financial year. This process is repeated for FY 2019/20 and FY 2020/21. The tariff decision is determined only on FY 2018/19 with the additional two years only presented for indicative purpose.

8.1.2 Weighted Average Cost of Capital

The weighted average cost of capital represents an estimate of a return commensurate with the risk of owning, managing, controlling and administering ports and of providing port services and facilities which the Authority is allowed by the Port Directives to earn. The rate of return is determined on a real basis with a weighted average cost of debt and cost of equity.

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The key components used to determine the Vanilla WACC is highlighted in the table that follows:

Table 12: Weighted Average Cost of Capital (WACC)

REAL RATE OF RETURN	2018/19	2019/20	2020/21
Inflation forecast	5.40%	5.10%	5.30%
Nominal Risk-free rate	8.33%	8.33%	8.33%
Real risk free rate	2.78%	3.07%	2.88%
MRP	5.30%	5.30%	5.30%
Asset beta	0.50	0.50	0.50
Equity beta (using Hamada)	0.86	0.86	0.86
Gearing	50.00%	50.00%	50.00%
Debt/equity ratio	100.00%	100.00%	100.00%
Nominal Weighted Average Cost of Debt (WACD)	10.79%	10.79%	10.79%
Tax rate	28.00%	28.00%	28.00%
Real Cost of equity (post-tax)	7.34%	7.63%	7.44%
Real WACD (pre-tax)	5.11%	5.41%	5.21%
Real Vanilla WACC	6.23%	6.52%	6.32%
Explanatory notes: <i>Risk Free Rate: KBP2003M, compounded semi-annually, calculated over a five yearly average from June 2011 to May 2016 for FY 2018/19</i> <i>MRP: Geometric mean with the use of the DMS studies over the full period available dataset</i> <i>Inflation: BER Forecasts</i> <i>Cost of Debt: NPA's actual, embedded (adjusted for an effective weighting) debt costs & utilising Transnet Short term vs Long term debt structure</i> <i>FY 2018/19 MRP figure is used as a proxy for MRP for indicative years FY 2019/20 & FY 2020/21</i>			

The Risk Free Rate (RFR) is calculated over a five yearly average from June 2011 to May 2016 for FY 2018/19 from Government bonds (KBP2003M). The RFR is not available for FY2019/20 and FY2020/21. For illustration purposes the 8.33% of FY2018/19 will be utilized.

8.1.3 Valuation of the RAB

The opening RAB for FY 2018/19 is highlighted in Table 13 as follows:

Table 13: Opening Regulatory Asset Base

Opening Regulated Asset Base	FY 2018/19 Rm
Opening NBV (01 April 2017)	76 287
Indexation	4 709
Depreciation	-2 048
Capex	1 818
Closing NBV (30 March 2018)	80 766

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The valuation of the RAB is highlighted in Table 14 as follows:

Table 14: Regulatory Asset Base

REGULATORY ASSET BASE	FY 2018/19 Rm	FY2019/20 Rm	FY2020/21 Rm
Opening book value	80 766	86 097	93 954
Inflation Index	4 361	4 391	4 980
Indexed Opening Asset Base	85 128	90 488	98 934
Indexation of Capex	82	144	151
Indexed Asset Base	85 210	90 632	99 085
Add :Capex (Corporate Plan)	3 053	5 655	5 713
Depreciation	-2 166	-2 333	-2 545
Closing Book Value	86 097	93 954	102 253
Average Asset Base	83 432	90 026	98 104
Less :Working Capital	-2 799	-3 196	-3 367
Regulated Asset Base	80 633	86 830	94 737

8.1.4 Taxation

The Revenue Requirement formula considers tax expense as a pass-through cost to be recovered from customers. For tax purposes, the Vanilla WACC is applied to the average RAB for the period under review, and does not include the cost of debt as it is a pre-tax determination. The tax calculations further includes the flow of funds related to the claw-back.

The calculation for tax is illustrated below:

Table 15: Tax Calculation

Taxation	FY 2018/19	FY 2019/20	FY 2020/21
Equity Return	2 958	3 313	3 522
Depreciation	2 166	2 333	2 545
Opex	5 938	6 258	6 616
Gross income	11 062	11 904	12 682
Depreciation	2 166	2 333	2 545
Opex	5 938	6 258	6 616
Less Deductions	8 104	8 591	9 160
Taxable Income	2 958	3 313	3 522
Grossup factor	1	1	1
Grossed up taxable income	4 109	4 602	4 892
Tax @ 28%	1 150	1 288	1 370

The equity return is grossed- up (i.e. $1-0.28$) for tax, with a tax shield calculated at 28% on the actual flow of funds.

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8.1.5 Operating Costs

The Authority's operating costs (Opex) are a reflection of growth in expenditure (in line with the organisations forecasts) to sustain day to day operations of the organisation and in support of the strategic initiatives which aim to improve productivity, efficiency as well as enhance port safety. Consequently, most of the Authority's operating costs are of a fixed nature.

The cost elements contributing significantly to the total operating expenditure includes Labour Costs, Energy, Maintenance, Rates & Taxes, Sundry Operating costs, Professional services, Computer & Info systems, Rental and Pre-Feasibility Studies.

The table below highlights the Authority's material operating expenditure items. The Authority's total costs for FY 2018/19 is made up of R 5 429 and R 629m Group overhead costs.

Table 16: Operating Costs Including Group Costs

Cost Category	Actual 2016/17 R Million	Budget 2017/18 R Million	Forecast 2018/19 R Million	Dev '17/18 vs 18/19 R Million	Dev '17/18 vs 18/19 Percentage	% of Opex 18/19	Forecast 2019/20 R Million	Forecast 2020/21 R Million	CAGR 2018/19 - 2020/21
Labour Costs	2 248	2 578	2 806	229	9%	53%	3 053	3 269	8%
Rates & taxes	313	356	374	18	5%	7%	376	423	6%
Maintenance	344	388	408	20	5%	8%	419	443	4%
Contract Payments	55	102	107	5	5%	2%	110	115	4%
Energy	467	537	565	27	5%	11%	599	626	5%
Professional services	18	101	104	3	3%	2%	109	116	6%
Material	76	86	82	-4	-4%	2%	81	80	-2%
Computer & Info systems	131	224	240	17	7%	5%	259	274	7%
Rental	183	233	236	3	1%	4%	242	254	4%
Security costs	91	95	97	2	2%	2%	101	108	5%
Pre -Feasibility Studies	22	128	146	18	14%	3%	136	138	-3%
Sundry operating costs	60	189	144	-46	-24%	3%	124	94	-19%
Total operating cost (excluding depreciation)	4 007	5 015	5 309	294	6%	100%	5 610	5 940	6%
Group Costs	459	602	629	27	4%		648	676	4%
Total operating cost (Including Group Costs)	4 466	5 617	5 938	320	6%		6 258	6 616	6%

Full details relating to Opex is provided in **Annexure D**.

8.1.6 Revenue Claw-back

Per the approved Tariff Methodology, the key purpose of applying a claw back is to ensure that neither the Authority nor port user gain or lose out from differences arising between forecasts made at the time of the tariff application and actual figures on the realisation of capital expenditure, operating expenditure, depreciation, taxation, volume and inflation (CPI).

In calculating the clawback amount, the initial forecasts made on the tariff application are updated with actual information to arrive at an actual required revenue. The actual required revenue is then compared with the actual TNPA revenue achieved. The difference between the two amounts is clawed-back.

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8.1.6.1 Re-computed Claw-back FY 2016/17

The approach used in the calculation was to re-determine the revenue requirement given the full information on actual Capex spending, operating expenditure and depreciation.

The FY 2016/17 Revenue of R11 307m reflects the actual revenue in the FY 2016/17 annual financial statements. The calculation of the claw-back is as follows:

Table 17: Re-computation of RR for FY 2016/17

CLAWBACK	FY2016/17 ROD	FY2016/17 ACTUALS
Return on asset	3 420	3 322
Depreciation	1 948	1 930
Opex + Group Costs	5 487	4 459
Tax	889	865
Clawback	-680	-680
Revenue Allowed/Actual Revenue	11 064	9 896
AFS Revenue	-	11 307
Clawback	-	-1 411
Clawback as per above		-1 411
Contract Revenue		-124
Reverse FY 2016/17 Clawback taken in FY 2017/18		-13
Estimated Clawback for FY 2017/18 (half)		106
Plus return on clawback account for FY 2017/18 @ 5.71% RoR		-88
Net Clawback		-1 531

Re-computed Revenue of R9 896m is the composition of the return on RAB of R71 603m based on a vanilla WACC of 4.64% and depreciation of R1 930m. Opex is R 4 459m and Tax is recomputed as a pass-through cost as R865m.

The recomputed revenue of R9 896m is compared with the actual revenue of R 11 307m as presented in the financial statements resulting in a clawback in favour of port users to the value of R1 411m. Added to this is a revenue amount of R124m which represents bilateral contracts revenues not allowed by the Regulator to be discounted to some mining customers in line with the discount contracts they have with the Authority. A further addition to the clawback calculation is the reversal of unfavourable interim clawback amount of R 13m (half of R 26m) provided for in FY 2016/17. The reversal of R13m represents the previous revenue shortfall estimate which was raised as a latest estimate in the last tariff application (i.e. R26m with the 50% principle applicable leading to R13m). This estimate has not materialised and in fact the opposite has occurred and as a result it needs to be reversed. The estimated clawback in favour of customers is reduced by 50% of the estimated under-recovery of revenue for FY 2017/18 equated at R 106m, and increased by R88m interest on clawback account to give a net clawback R 1 531m.

Clawback is a liability either for the Authority or customers (i.e. port users). In this case the Authority is liable for an amount of R 1 531m (this includes R88m interest calculated on the closing balance of the clawback liability which is calculated on the last approved WACC of 5.71%).

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8.1.7 Treatment of Tax

The new tariff methodology requires that a proportional tax rate, based on the assumption that the Authority is treated as an operating division, as opposed to a subsidiary of Transnet Group, will be calculated and corrected through the claw back mechanism. Consideration hereof commences with this tariff application and treatment for clawback will therefore be applied in FY 2019/20 tariff application.

8.2 Revenue Requirement

The Revenue Requirement considers the best available information on the latest economic indicators, assumptions and parameters. This Revenue Requirement would translate to 9.36% tariff adjustment.

Table 18: Base Revenue Requirement from FY 2018/19 to FY 2020/21

DETAILS	2017/18	2018/19	2019/20	2020/21
	ROD	Fixed Tariff Year	Indicative Tariff Years	
	R'm	R'm		
RAB	77 356	80 633	86 830	94 737
Vanilla WACC	5.71%	6.23%	6.52%	6.32%
Return on Capital	4 417	5 020	5 660	5 988
Plus: Depreciation	2 030	2 166	2 333	2 545
Plus: Operating Costs	5 961	5 938	6 258	6 616
Plus: Taxation Expense	1 050	1 150	1 288	1 370
Plus/Less: Clawback	-681	-1 531	106	-
Plus/Less: ETIMC	-593	-	-	-
Revenue Allowed	12 185	12 743	15 645	16 518
Less: Real Estate	-2 798	-3 025	-3 279	-3 542
Marine Revenue	9 387	9 719	12 366	12 976

The Authority is cognisant of the current economic situation and financial challenges confronting our customer base. In order to assist our customer base the Authority proposes to utilise R81m of the Excessive Tariff Increase Margin Credit (ETIMC) facility to achieve a tariff adjustment within CPI + 3%. This is the tariff range that the Authority considers necessary to deliver the Transnet MDS.

Table 19: Revised Revenue Requirement FY 2018/19 to FY 2020/21

DETAILS	2017/18	2018/19	2019/20	2020/21
	ROD	Fixed Tariff Year	Indicative Tariff Years	
	R'm	R'm		
RAB	77 356	80 633	86 830	94 737
Vanilla WACC	5.71%	6.23%	6.52%	6.32%
Return on Capital	4 417	5 020	5 660	5 988
Plus: Depreciation	2 030	2 166	2 333	2 545
Plus: Operating Costs	5 961	5 938	6 258	6 616
Plus: Taxation Expense	1 050	1 150	1 288	1 370
Plus/Less: Clawback	-681	-1 531	106	-
Plus/Less: ETIMC	-593	-81	-	-
Revenue Allowed	12 185	12 663	15 645	16 518
Less: Real Estate	-2 798	-3 025	-3 279	-3 542
Marine Revenue	9 387	9 638	12 366	12 976

The Authority therefore determined a required revenue of R12 663m comprising of Marine Business revenue of R9 638m and Real Estate Business revenue of R3 025m taking into account ETIMC of R81m.

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Volume growth of 2.79% is determined per Table 20 below.

Table 20: Revenues related to volume growth (FY 2018/19)

REVENUE	FY 2017/18	FY 2018/19		
	Revenue LE	Weighted Average Revenue Volume Increase	Revenue: Volume Increase	Revenue: Before Tariff Increase
	R'm	%	R'm	R'm
Containers	3 850	2.8%	107	3 957
Break Bulk	228	-1.6%	(4)	224
Dry Bulk	1 114	0.5%	5	1 119
Liquid Bulk	709	7.2%	51	760
Automotive	375	3.4%	13	388
TOTAL CARGO DUES AFTER REBATE	6 276	2.75%	172	6 448
Marine & other revenue	2 370	2.89%	69	2 439
TOTAL TARIFF BOOK REVENUE	8 646	2.79%	241	8 887
Real estate revenue	2 779	8.84%	246	3 025
TOTAL REVENUE	11 425	4.26%	487	11 912

Table 21 below illustrates the required tariff adjustment taking into account projected volume growth. Expected growth in volume amounts to 2.79% for FY 2018/19, resulting in a tariff adjustment of 8.45%. FY 2019/20 and FY 2020/21 are indicative tariff adjustments.

Table 21: Marine Revenue for FY 2018/19 to FY 2020/21

MARINE REVENUE	2018/19	2019/20	2020/21
	Fixed Tariff Year	Indicative Tariff Years	
	R'm		
Prior Year Revenue	8 646	9 638	12 366
Estimated Volume Growth	2.79%	2.79%	2.79%
Revenue after volume growth	8 887	9 907	12 711
Required Revenue	9 638	12 366	12 976
Tariff Increase	8.45%	24.82%	2.09%

In summary, the Authority has determined a required revenue of R12 663m comprising of marine revenue of R9 638m and real estate of R3 025m for FY 2018/19. This translates to a weighted average tariff adjustment of 8.45% for FY 2018/19.

8.3 The Tariff Strategy

The tariff strategy sets out the strategic direction for the South African port system, in order to provide port users and stakeholders with a clear view of the port tariffs over the next couple of years. The tariff strategy is premised on the user pay principle. The tariff strategy is informed by the eagerness to formulate cost based tariffs as inherent in the asset cost allocations below.

8.3.1 Asset Cost Allocations

In the Tariff Strategy, the Regulator follows a coherent costed infrastructure according to an asset allocation in the similar manner prescribed by the Authority. The Regulator's Tariff Strategy for the South African ports is premised on the following principles:

- **Cost causation:** To provide port users with the correct pricing signals when utilising port facilities;
- **Cost minimisation:** An approach seen to minimise costs;
- **Distribution of benefits:** To achieve equity and reasonability between causers and beneficiaries of costs; and
- **Practicality:** For practicality and ease of implementation of Tariff Strategy.

Furthermore in the allocation or attribution of the cost of port assets, the Regulator takes into consideration which user classes depend more on a particular asset type and the extent to which they would be affected if the infrastructure did not exist. Therefore, in considering where the burden of this asset class allocation should be, the Regulator also looked at the activities of the different users and the benefit they derive there from. The Regulator has categorised port users as follows:

- Shipping Lines
- Cargo Owners
- Terminal operators (and all cargo working lessees)
- All other lessees in the port system

The general underlying logic is that the seaward side benefits mostly shipping lines and cargo owners, while the interface benefits mostly shipping lines and tenants, and the landward side benefits mostly tenants.

Figure 5 that follows identifies the key port assets and allocates these assets to user groups in order to determine a more equitable share of infrastructure and cost sharing between the broad groups.

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Figure 5: Ports Regulator's Asset Allocations

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

This pricing structure which is cost reflective is envisaged to be phased-in over a period of at least 10 years and the Regulator has highlighted the following factors for a prolonged implementation period to be accommodated:

- contractual agreements and binding leases prevents the Regulator from changing tariffs too quickly;
- large shifts in tariffs may lead to unintended consequences and as such, a more gradual approach is favoured; and
- the cost structure of the port system by its very nature changes and evolves over time.

The phased approach as envisaged by the Regulator will lead to the following tariff increase over the envisaged 10 year period:

- **Cargo Owners:** - 5.2% real price decrease on an annual basis;
- **Shipping Lines:** 7.2% real price increase on an annual basis; and
- **Tenants:** 2.8% real increase on lease revenue on an annual basis.

It is envisaged that this proposal will result in steep reduction in the contribution of Containers and Automotives cargo category to the overall Revenue Requirement and slightly higher increases to Dry and Break bulk categories with immaterial changes to liquid bulk category.

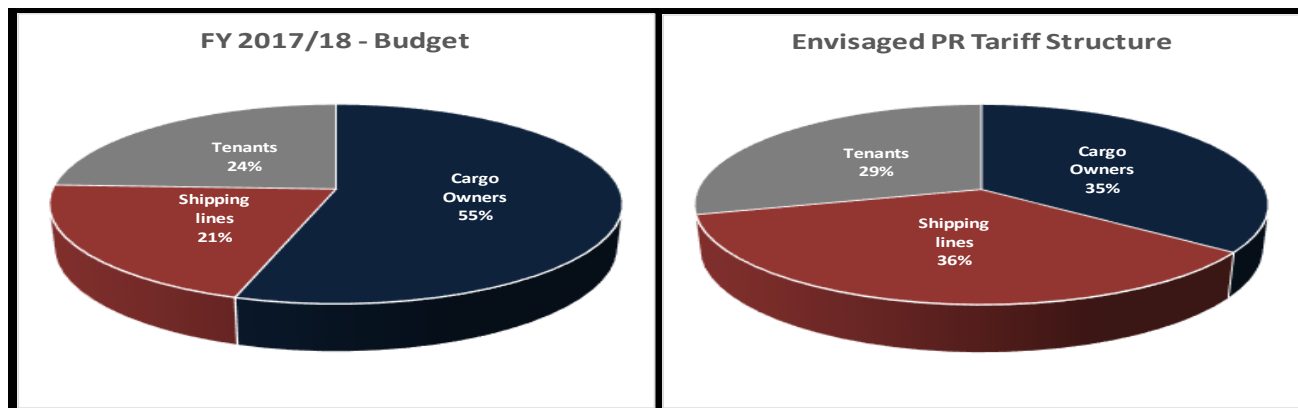
8.3.2 Tariff Book Proposal for FY 2018/19

The tariff strategy is intended to guide the annual setting (or revision) of port tariffs and charges. Once the required revenue for FY 2018/19 has been calculated, the next step would be to formulate cargo dues tariffs (i.e. tariff differentials) in line with the tariff strategy. In aligning tariffs to the tariff strategy (which is an exercise expected to be finalised in the medium to long term), the impact (i.e. feasibility and affordability) of these adjustments are considered on each user group. Furthermore, the Authority should still recover its full required revenue from port users.

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The transition to the Regulator's tariff strategy is depicted in figure 6 below.

Figure 6: Transition to the Regulator's Tariff Strategy



8.3.2.1 *Cargo Dues*

The Tariff strategy prescribes cost and asset allocation of 35% for the cargo dues revenue stream. This shifts the allocations to the shipping lines and Real Estate revenue streams significantly from the current contributions. The Authority proposes a shift, though marginal of cargo dues as it moves towards alignment with the Regulator's envisaged end state.

8.3.2.2 *Shipping Lines*

In the review of tariff lines for Marine Services, the vessel owners are required to contribute partially for breakwaters, channels, fairways, basins, quay walls, berths, jetties, all ship working vessels, aids to navigation, vessel repair infrastructure as well as assets not earning lease revenue and overheads. These allocation increase the revenue contribution required from Marine Services to approximately 36%.

8.3.2.3 *Real Estate*

The real estate revenue category is contributing appropriately to the envisaged revenue contribution in accordance with the tariff strategy.

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8.3.2.4 Differentiated Tariff Proposal

In order for this transition to occur it needs to build-up from the shift in asset allocation which is constructed within the required revenue approved for the Authority. The table below demonstrates the proposed differentiation.

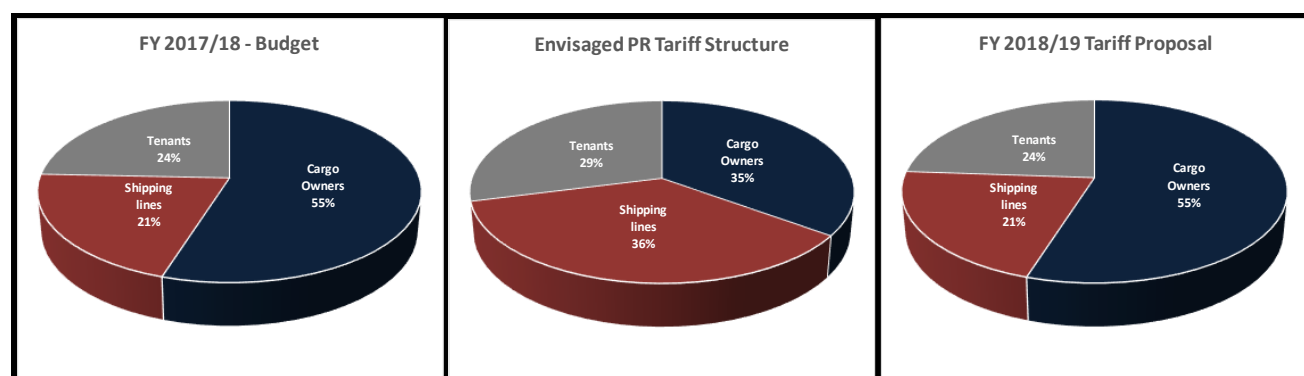
Table 22: Differentiated Tariff Approach results

REVENUE	FY 2017/18	FY 2018/19				
	Revenue LE	Weighted Average Revenue Volume Increase	Revenue: Volume Increase	Revenue: Tariff Increase	Weighted Average Revenue Tariff Increase	Projection
	R'm	%	R'm	R'm	%	R'm
Containers	3 850	2.8%	107	297	7.50%	4 254
Break Bulk	228	-1.6%	(4)	20	9.00%	244
Dry Bulk	1 114	0.5%	5	103	9.20%	1 222
Liquid Bulk	709	7.2%	51	68	9.00%	828
Automotive	375	3.4%	13	19	5.00%	407
TOTAL CARGO DUES AFTER REBATE	6 276	2.75%	172	508	7.88%	6 956
Marine & other revenue	2 370	2.89%	69	244	10.00%	2 682
TOTAL TARIFF BOOK REVENUE	8 646	2.79%	241	752	8.45%	9 639
Real estate revenue	2 779	8.84%	246	-	8.84%	3 025
TOTAL REVENUE	11 425	4.3%	487	752		12 663

With the known estimated tariff increases, in effecting the tariff strategy, with the future in mind, the Authority is proposing an average tariff increase of 10.00% for marine services whilst containing the cargo dues tariffs to an average tariff increase of 7.88%. This average is broken down into 7.50% tariff increase on full containers (imports and exports), 9.00% tariff increase for bulk as well as other categories and 5.00% tariff increase on Automotive tariff category. The further split in bulk is a 10% tariff increase for coal and magnetite commodities (arising from the category of ores and minerals) with the rest of bulk cargo commodities increasing by 9.00%. All of these tariffs, when averaged together within the marine business (i.e. all revenue without real estate) averages at 8.45%. As a result the weighted average tariff adjustment of 8.45% in FY 2018/19 is differentiated and as illustrated on the table above.

The result of the proposed is depicted in the following diagram. Whilst the proposal does not shift the revenue contributions as compared to FY 2017/18 it does however prevent the regression of the old tariff structure.

Figure 7: Transition to the Regulator's Tariff Strategy



8.3.2.5 Port Tariff Incentive Programme (PTIP)

The Authority had proposed a Beneficiation Promotion Programme (BPP) in its proposal for a new tariff structure. This proposal was established on the fundamental principle of self-sustaining with imports used to subsidise exports in each cargo category. The proposed tariff structure would be based on cost with the imports set at twice the price of imports. The discount scheme would apply in accordance with the stage of beneficiation with the advanced stage (i.e. finished goods) receiving a steep discount in the range of 90%. The lesser beneficiated commodity receiving a discount in the range of only 10%. This proposal was not accepted by the Regulator. Instead PTIP which establishes a subsidy to support government imperatives of industrialisation and economic growth has been proposed.

PTIP is a scheme put forward by the Port Industry to support the government policy environment, that seek to bolster the country's economic output by incentivising beneficiation, industrialisation and localisation of manufactured goods through discounts on port tariffs. The Authority is regulated on a tariff methodology and its tariffs are determined in accordance with the tariff strategy that is premised on a cost reflective, user pay principles. These methodologies are keen on limiting cross subsidisation across the tariff categories. However, the industry still wishes to support government imperatives of incentivising beneficiation and aiding economic growth through limited subsidisation inter-tariff categories.

The PTIP is a mechanism that is based on the amount and size of funds made available and public before the scheme can be explored for discounts. It is envisaged that the scheme will be based on a percentage of the revenues granted to the Authority, which will then be used to provide discounts and subsidies to the tariff lines successfully enlisted for incentive. For these reasons, PTIP process flow is summarised as follows:

- Applicants approach the Dti/DoT for making an application
- Once the Dti with DoT have verified all the required information, accreditation will be provided
- With the accreditation granted an applicant will then make an application to the Authority;
- The Authority will then inform the Regulator of the application received as well appraise the application for an assessment of an economic and financial viability and in its application to the Regulator, make a recommendation
- The Regulator will consult on the proposal and made a decision at the time of making a tariff determination on the Authority's application.

The first applications are expected to be received by the Authority in February 2018 for Tariff Application FY 2019/20.

9. Port Efficiency

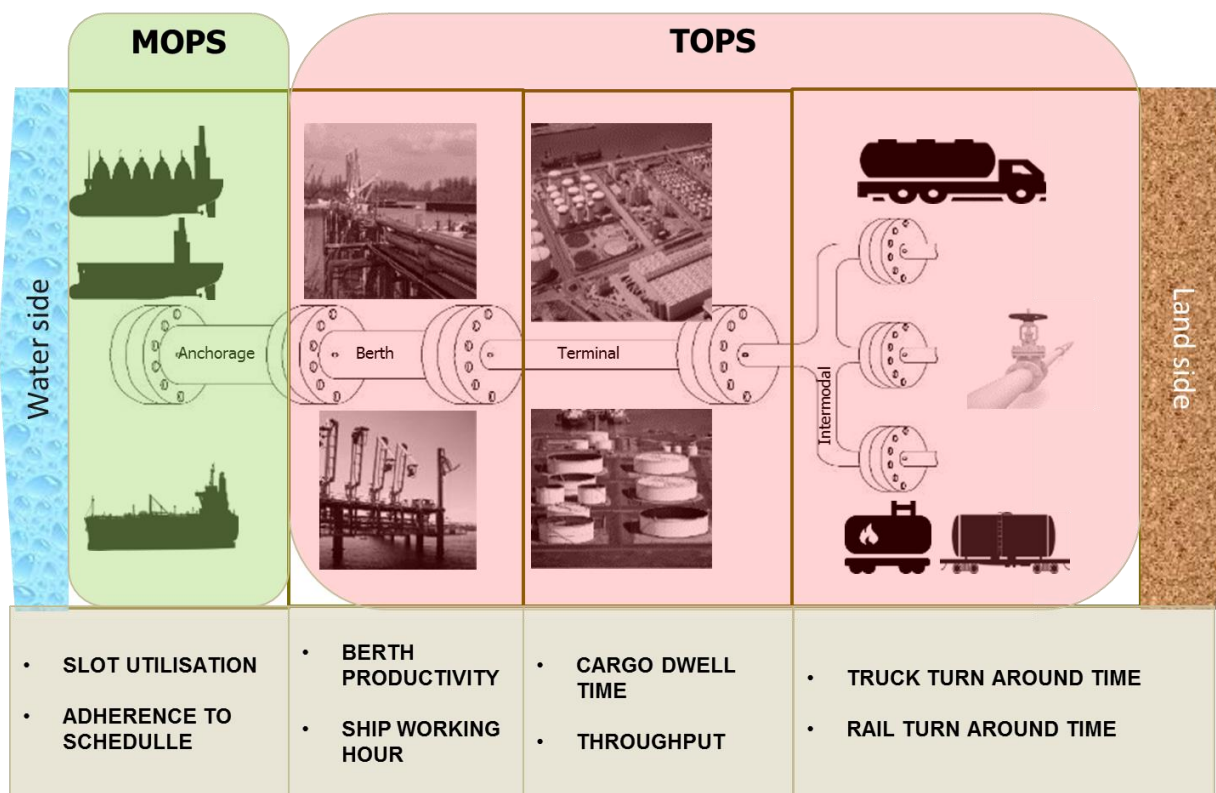
The ports system is central to South Africa's ability to engage in international trade and promote economic growth. Ports exist at the coastal end of supply chains and play a critical role in the effectiveness of respective hinterlands served by these supply chains. The overall performance of ports is therefore a matter of strategic importance.

The primary role of the Authority is to provide port capacity and ensure productive services at the port level to serve demand. The provision of capacity is necessary but in itself not sufficient to ensure efficient port operations. Optimum port operating performance is desired to achieve success, higher service levels and attractiveness of the port.

Authority's Operating Model

The main initiatives in this regard are shown (in Figure 10) below.

Figure 8: Port Performance Model



It is logical that it maintains a set of performance indicators. The Authority has captured such performance indicators through the establishment of the following performance standards; TOPS, ROPS, HOPS and MOPS.

10. Weighted Efficiency Gains Operations

The Regulator has proposed for an integration of these insight into the bigger performance incentive schemes through the revenues (i.e. return on equity in particular) earned by the Authority. The Ports Regulator's required revenue formula includes an efficiency factor (WEGO) into the RR formula.

This Efficiency Gains will be measured on a weighted average growth rate of a selected group of audited performance results on a port by port basis. These will be a basket of key indicators on a port by port basis which will be selected by the Regulator in consultation with the industry (including the PCC's and the Authority). The scheme will be set on targets achieved in the previous year (the baseline), a decline or negative value will result in the Authority losing some percentage of its bottom line.

Port performance indicators are simply the measures of various aspects of the port's operation. In the case of the Authority, it relates to the port system with eight commercial ports. The Authority has measured efficiency through its performance standards of TOPS, ROPS, HOPS and MOPS. Therefore the port performance indicators are not new, they have always been part of the activities within the Authority's space of operations. However, the missing link has always been to align the insights arising from the performance scheme in place and real economic decisions such as informing the calculation of the required revenue.

The Regulator's proposal will be built over time and in fact this allows the Authority time to agree on the weights for each indicator used in the measurement. If this scheme was applicable immediately, the Authority would have been able to respond as it would have presented in the manner as demonstrated in the example on the following page.

Figure 9: Illustration of WEGO application (an example)

PERFORMANCE MEASURE	INSTALLED NORM	Actual TOPS Year 3	TOPS Year 4 Target	Actual TOPS Year 4	TOPS YEAR 5					Terminal Operator Comments
		07/2015 - 06/2016		07/2016 - 12/2016	Q1 Target (Jul - Sep)	Q2 Target (Oct - Dec)	Q3 Target (Jan - Mar)	Q4 Target (Apr - Jun)	Annual Target	
1. Ship Working Hour (Kl/Hour)	658	545	480	434	440	440	440	440	440	TO proposed 440 kl/h
2. Truck Turnaround Time (Minutes)	126	236	250	136	250	250	250	250	250	Agreed with 250 minutes target
3. Rail Turnaround Time (Hours)	23	30	36	34	36	36	36	36	36	TO proposed target of 36 hours but are willing to agree to a target of 34 hrs
4. Cargo Dwell Time (Days)	60	69	72	78	92	92	92	92	92	NPA proposed 72 days. BTT proposed 92 days

WEGO in essence is aligned of the Authority's objective of providing the port capacity, whilst thriving to ensure that the full set of productive services exists at a port in order to serve demand.

11. Conclusion

The success of a country and its government are measured by its ability to create inclusive and sustained value for the national economy. Success is further defined by the value it is able to generate for the economies within its continent. South Africa being located at the southern tip of the African continent needs to capitalise from its strategic location where we are best placed to serve the East-West cargo traffic, the various South African hinterlands as well as other African states that use South Africa's networks and harbours to transfer their imports and exports to their inland markets. The President's Operation Phakisa Programme has further highlighted South Africa's ideal location to service the African offshore oil and gas industry through marine manufacturing, which includes ship and rig repair, refurbishment and boatbuilding. It is estimated that our oceans have the potential to contribute up to R177 billion to the gross domestic product (GDP) and create just over one million jobs by 2033.

The Authority is at the heart of the South African oceans delivery platform. Through the MDS the Authority plans to expand and modernise the ports system thereby serving as a catalyst for investments in the oceans economy including private sector participation. The successful delivery hereof will contribute to the country's logistic backbone and improve South Africa's competitive status in the global arena.

The FY 2018/19 will mark the 7th anniversary of the launch of the Transnet MDS. Whilst the programme envisaged exponential growth in demand warranting an aggressive capital infrastructure delivery programme, the Authority has had to moderate its investment and spending drive given the significant tapering of demand amidst global economic slowdown. The Authority's slower pace of capacity creation is in direct response to market decline and the result of this responsible approach explains the significant clawback (in favour of customers) included in the Tariff Application FY 2018/19.

The Authority has however learnt to appreciate that in business cycles, certain patterns tend to repeat themselves over time. The recession phase features a contraction in economic activity where corporate profits decline and credit is scarce for all economic factors. Generally recession phases are relatively short-lived and if this observation is true, it is important to re-emphasize the importance of providing capacity ahead of demand. The MDS is important as it provides a practical and repeatable framework that provides a solid foundation for port capacity and economic growth. The MDS has also been redesigned to reflect a new outcomes based approach which at its core considers the financial sustainability of the organisation. Our financial strategy is designed to create capacity over the long term and to maintain financial stability. The Authority's investment focus for the country cannot be achieved through inflationary tariff adjustments which the application of the approved Tariff Methodology FY 2018/19 – FY 2020/21 demonstrates. The proposed weighted average tariff adjustment of 8.45% for FY 2018/19 is within the CPI + 3% range the Authority has maintained as necessary to sustainably deliver its MDS.

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The Tariff Application FY 2018/19 further proposes implementation of the Tariff Strategy as required by the industry. In essence some tariff categories will experience tariff increases above the weighted average tariff increase whilst other categories will benefit from lower tariff increases. Within the Marine Services tariff category further tariff differentiation is proposed to address imbalances informed by the cost causation principle.

The weighted average tariff increase proposed by the Authority is 8.45% differentiated as follows:

- An average 10.00% increase for Marine Services tariffs applicable to shipping lines:
 - Port Dues tariff to increase by 14.05%;
 - Berthing Services tariff to increase by 11.15%; and
 - Other including Pilotage, Towage, VTS to increase by 7.04%.
- An average 7.88% increase for cargo dues tariffs with:
 - FULL containers import and export tariffs to increase by 7.50%;
 - Automotive converted to unitary based tariff structure increasing by 5.00%;
 - Bulk tariffs increasing by 9.00% except:
 - Coal to increase by 10.00%; and
 - Ores and Minerals: Magnetite to increase by 10.00%.
 - Other cargo increases by 8.45%.

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ANNEXURE A: The Authority's Tariff Book

Table 23: The Authority's Tariff Definitions

Tariffs	Service Rendered	Application
Light dues	The provision of navigation aids to vessels along the South African coast	Raised per vessel (per gross ton) at the first port of call (Tariff Book Section 1)
Vessel Traffic Services	The provision of vessel traffic services, safety of the port environment and port control	Raised per vessel (per gross ton) at all ports (Tariff Book Section 2)
Port dues	The provision and maintenance of entrance channels, breakwaters, turning basins, navigational aids (beacons and buoys inside port limits) and maintenance dredging inside the port	Raised per vessel (per gross ton), linked to the time that the vessel remains in port (Tariff Book Section 4)
Berth dues	The provision and maintenance of repair quays and other non-cargo quay (berth) infrastructure	Raised per vessel (per gross ton), per 24-hour period (Tariff Book Section 4)
Cargo dues	To recover the cargo contribution towards the provision and maintenance of basic port infrastructure	Raised per unit of cargo, differentiated between different commodities (Tariff Book Section 7)
Rentals	Lease of port land to terminal operators, port service and port facility providers	Rental arrangements including escalations are negotiated on a case-by-case basis and are not reflected in the tariff book.
Pilotage	Pilotage assistance to vessels entering/leaving the port	Raised as a basic fee per service, plus per vessel (per gross ton) (Tariff Book Section 3)
Tug Assistance	Tug assistance to vessels entering/leaving and shifting within the port	Raised per service, based on the size of the vessel (per gross ton) (Tariff Book Section 3)
Miscellaneous Tug/Vessel services	Tanker fire watch, firefighting and standby services	Raised per service, per hour (Tariff Book Section 3)

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Berthing Services	Berthing services to tie/untie vessels at the berth	Raised per service (Tariff Book Section 3)
Running of Vessel Lines	Running of lines for vessels entering, leaving or shifting	Raised per service (Tariff Book Section 3)
Floating Crane Services	Floating crane services rendered to the vessels	Raised per service, per hour (Tariff Book Section 3)
Ship Repair Facilities	Preparation, Docking and Undocking of vessels at repair facilities	Raised per service (Tariff Book Section 6)
Dry-dock, floating dock, synchrolift and slipways	Dry-dock, floating dock and synchrolift fees	Raised per service for the use of a facility, based on the size of the vessel (per gross ton) (Tariff Book Section 6)

Authority has created a separate section in the Tariff Book, Section 5, where the licence, registration and permit fees are specified. This is summarized in the following table:

Table 24: The Authority's License Fees

Fees	Service rendered	Application
Port Service Licence, Port Rule Licence, Port Rule Registrations and Port Rule Permit Fees	Fees payable for licences, registrations and permits in accordance with section 57 of the Act and with Port Rules issued in terms of section 80(2) of the Act.	Raised as a fee for the respective licences, registrations and permits issued (Tariff Book Section 5)

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ANNEXURE B: Capital Expenditure

The Authority's investment spending is primarily influenced by the strategic initiatives which are aimed at providing adequate port infrastructure ahead of demand.

The capital expenditure for FY 2015/16 to FY 2019/20 is segregated into various categories in order to demonstrate the strategic objectives, major projects considered and the impact of such capital expenditure. In order to provide a view on future capex, information for a 7 year period has also been included. The tables that follow illustrate the capital expenditure:

Table 25: Strategic Capital Investment Objectives

Strategic objective	Actual	LE	Projections		
	2016/17	2017/18	2018/19	2019/20	2020/21
	R'm				
Re-engineering, Integration, Productivity and Efficiency	441	430	1 105	3 031	2 023
	731	400	254	279	444
	531	621	1 052	1 182	2 081
Safety, Risk and Effective Governance	220	162	286	477	616
	58	132	213	278	88
	-	-	12	43	65
	19	6	57	174	86
Human Capital	33	67	75	191	309
Total (excl. borrowing cost)	2 033	1 818	3 053	5 655	5 713

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Table 26: Strategic Capital Investment Objectives

Project	Corridor	Commodity
Provide additional rail facility for Duine area + New Helicopter	RCB	Liquid bulk
Offices and workshops for Infra manager (Pioneer)	RCB	Other
Deepening berth at Small Craft to -14 m CD with associated works (Refurbish repair quay and install floating dock)	RCB	Other
Reconstruction of Sheet-Pile Quay Walls at Maydon Wharf	DBN	Break bulk
New Tug Jetty	DBN	Other
Execution: DCT berth deepening 203 to 205	DBN	Containers (Maritime)
Replace Water Pipelines & Billing System	DBN	Other
Acquisition of 6 tugs for Dbn (4 Replacement & 2 additional)	DBN	Other
Execution: Maydon Wharf channel deepening	DBN	Liquid bulk
Feasibility: Pier 1 Phase 2 Infill (Salisbury Island)	DBN	Containers (Maritime)
Execution: Pier 1 Phase 2 Infill (Salisbury Island)	DBN	Containers (Maritime)
Execution: Fire fighting infrastructure at berth 9 Island View	DBN	Liquid bulk
Extend main breakwater and deepen entrance	EL	Other
Tank farm Berth A100, roads, port entrance and services	NGQ	Liquid bulk
Manganese project	NGQ	Manganese
Automated mooring system at NCT D101 - 103	NGQ	Containers (Maritime)
Bulk electrical power supply related to Third tippler	SLD	Export Iron Ore
2nd Grab hopper dredger	DRS	Other
Purchase of additional helicopter	RCB	Other
Replacement of helicopter ZS-HDP	DBN	Other
Hydra network upgrade (RBC Supply)	RCB	Other
Increased Power Supply capacity to Port of Durban FEL 3	DBN	Other
Refurbishment of Sturrock Drydock	CPT	Other
Refurbishment of Robinson Drydock (Phase 1 & 2)	CPT	Other
Refurbishment of Synchrolift	CPT	Other
Refurbishment of Robinson Drydock floating caisson	CPT	Other
Breakwater Crane Rails rehabilitation	EL	Other
Refurbishment & Sandblasting of the Buffalo Bridge	EL	Other
Construction of Fishing Facilities	EL	Other
Rehabilitation of underground wet services	EL	Other
Replacement of floor planking on Walk-on-Moorings	MSB	Other
Upgrading of service networks (water) in Port	MSB	Other
Upgrading of service networks (communications) in Port	MSB	Other
Transfer and refurbishment of additional 40ton tug	MSB	Other
Air Quality Monitoring System	DBN	Other
Refurbishment of Graving Dock - Caisson gate	EL	Other
SMART People's Ports	HO	Other
Acquisition of new Cutter Suction dredger	DRS	Other
2nd Grab hopper dredger	DRS	Other
Upgrade Helipad Infrastructure RCB	RCB	Other
Asbestos Kings rest yard upgrade	DBN	Other
Ship Repair	All	Other
Other		

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Table 27: Expansion Business vs. Maintenance of Current Business

- FY 2017/18**

Details	TNPA	RCB	DBN	EL	NGQ	PE	MSB	CPT	SLD	LHS	DRS	HO
	LE											
	2017/18											
	R'm											
Expand Business :												
- Growth initiatives	708	95	104	-	213	-	1	-	5	-	290	-
Maintain current Business :												
- Replacement Efficiency/ Service Quality	1 110	161	314	56	20	62	7	163	101	29	63	135
Total (excl. borrowing cost)	1 818	256	418	56	233	62	8	163	106	29	353	135

- FY 2018/19**

Details	TNPA	RCB	DBN	EL	NGQ	PE	MSB	CPT	SLD	LHS	DRS	HO
	Projections											
	2018/19											
	Rm											
Expand Business :												
- Growth initiatives	1 361	222	381	3	465	-	-	-	6	-	265	20
Maintain current Business :												
- Replacement Efficiency/ Service Quality	1 692	113	518	157	12	68	92	285	167	53	4	223
Total (excl. borrowing cost)	3 053	335	899	160	477	68	92	285	174	53	268	242

- FY 2019/20**

Details	TNPA	RCB	DBN	EL	NGQ	PE	MSB	CPT	SLD	LHS	DRS	HO
	Projections											
	2019/20											
	Rm											
Expand Business :												
- Growth initiatives	3 318	190	1 969	52	917	11	-	5	61	6	-	108
Maintain current Business :												
- Replacement Efficiency/ Service Quality	2 337	218	906	140	78	117	64	293	180	65	2	273
Total (excl. borrowing cost)	5 655	408	2 875	191	995	128	64	298	241	71	2	381

- FY 2020/21**

Details	TNPA	RCB	DBN	EL	NGQ	PE	MSB	CPT	SLD	LHS	DRS	HO
	Projections											
	2020/21											
	Rm											
Expand Business :												
- Growth initiatives	2 565	455	1 534	56	313	25	-	51	112	20	-	-
Maintain current Business :												
- Replacement Efficiency/ Service Quality	3 147	258	1 257	218	244	52	86	554	163	78	92	145
Total (excl. borrowing cost)	5 713	713	2 790	274	557	77	86	605	276	98	92	145

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Table 28: Ports Related Spending by Asset Type

- FY 2017/18**

	TNPA	RCB	DBN	EL	NGQ	PE	MSB	CPT	SLD	LHS	DRS	HO
	LE											
	2017/18											
	Rm											
Buildings and structures	256	143	22	10	-	0	1	66	8	5	-	1
Aircraft	83	44	40	-	-	-	-	-	-	-	-	-
Land	-	-	-	-	-	-	-	-	-	-	-	-
Machinery, equipment and furniture	270	8	68	4	2	6	1	23	0	24	1	134
Permanent way and works	38	1	14	2	-	21	-	-	-	-	-	-
Vehicles, Rolling stock & containers	2	-	-	2	-	-	-	-	-	-	-	-
Port Facilities	1 169	60	275	38	231	35	6	74	97	-	352	-
Other	-	-	-	-	-	-	-	-	-	-	-	-
Pipelines networks (etc)	-0	-	-0	-	-	-	-	-	-	-	-	-
Total (excl. borrowing cost)	1 818	256	418	56	233	62	8	163	106	29	353	135

- FY 2018/19**

	TNPA	RCB	DBN	EL	NGQ	PE	MSB	CPT	SLD	LHS	DRS	HO
	Projections											
	2018/19											
	Rm											
Buildings and structures	411	76	161	51	12	4	10	39	9	15	-	33
Aircraft	101	101	-	-	-	-	-	-	-	-	-	-
Land	-	-	-	-	-	-	-	-	-	-	-	-
Machinery, equipment and furniture	442	38	106	2	3	17	1	23	4	38	2	209
Permanent way and works	70	55	12	-	-	3	-	-	-	-	-	-
Vehicles, Rolling stock & containers	19	-	-	17	2	-	-	-	-	-	-	-
Port Facilities	2 010	64	619	90	461	45	81	224	162	-	266	-
Other	-	-	-	-	-	-	-	-	-	-	-	-
Pipelines networks (etc)	-	-	-	-	-	-	-	-	-	-	-	-
Total (excl. borrowing cost)	3 053	335	899	160	477	68	92	285	174	53	268	242

- FY 2019/20**

	TNPA	RCB	DBN	EL	NGQ	PE	MSB	CPT	SLD	LHS	DRS	HO
	Projections											
	2019/20											
	Rm											
Buildings and structures	814	122	279	77	75	-	7	77	98	-	-	78
Aircraft	15	-	15	-	-	-	-	-	-	-	-	-
Land	14	-	14	-	-	-	-	-	-	-	-	-
Machinery, equipment and furniture	570	18	125	2	5	35	3	14	4	71	2	292
Permanent way and works	282	110	150	-	-	22	-	-	-	-	-	-
Vehicles, Rolling stock & containers	31	-	-	11	9	-	-	-	-	-	-	12
Port Facilities	3 923	158	2 286	101	905	72	55	207	139	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-	-
Pipelines networks (etc)	5	-	5	-	-	-	-	-	-	-	-	-
Total (excl. borrowing cost)	5 655	408	2 875	191	995	128	64	298	241	71	2	381

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- FY 2020/21

	TNPA	RCB	DBN	EL	NGQ	PE	MSB	CPT	SLD	LHS	DRS	HO
	Projection											
	2020/21											
	Rm											
Buildings and structures	786	178	273	106	94	-	5	33	60	-	-	37
Aircraft	145	30	115	-	-	-	-	-	-	-	-	-
Land	-	-	-	-	-	-	-	-	-	-	-	-
Machinery, equipment and furniture	511	10	195	3	3	5	1	4	4	98	92	96
Permanent way and works	144	52	70	-	-	22	-	-	-	-	-	-
Vehicles, Rolling stock & containers	21	-	-	-	9	-	-	-	-	-	-	12
Port Facilities	4 107	443	2 138	166	451	50	80	568	211	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-	-
Pipelines networks (etc)	-	-	-	-	-	-	-	-	-	-	-	-
Total (excl. borrowing cost)	5 713	713	2 790	274	557	77	86	605	276	98	92	145

Table 29: Capital expenditure and throughput per commodity

- Containers

Containers								Major Capital Projects
DETAILS	FY2017/18	FY2018/19	FY2019/20	FY2020/21	FY2021/22	FY2022/23	FY2023/24	
	R'm							
Containers	146	365	1 913	1 654	1 843	2 511	1 413	- Dbn: DCT berth deepening berth 203 to 205
- Expand	146	355	1 871	1 439	1 563	2 408	1 413	- Dbn: Pier 1 phase 2 Infill (Salisbury Island)
- Maintain	-	10	42	215	280	103	-	- NGQ: Automated mooring system D101 -103
Volumes ('000 TEUs)								
- Budget and Projections	4 493	4 622	4 776	4 917	5 072	5 204	5 426	
- Capacity	7 643	7 643	7 643	7 643	7 643	9 443	9 443	
Total Capex spend to this year						8 434		
Indicative return on capital						525		
Depreciation						75		
Additional Revenue Required						601		

- Liquid Bulk

Liquid Bulk								Major Capital Projects
DETAILS	FY2017/18	FY2018/19	FY2019/20	FY2020/21	FY2021/22	FY2022/23	FY2023/24	
	R'm							
Liquid Bulk	191	333	787	287	521	790	223	- NGQ: tank farm berth A100, roads, port entrance and services
- Expand	101	256	664	175	250	330	-	- RCB: Facility for LNG
- Maintain	90	78	123	112	271	460	223	
Volumes (mkl)								
- Budget and Projections	41	44	45	46	48	49	51	
- Capacity	92	92	92	92	92	96	96	
Total Capex spend to this year						2 908		
Indicative return on capital						181		
Depreciation						26		
Additional Revenue Required						207		

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- Iron Ore

Iron Ore								Major Capital Projects
DETAILS	FY2017/18	FY2018/19	FY2019/20	FY2020/21	FY2021/22	FY2022/23	FY2023/24	
	R'm							
Iron Ore	33	114	114	144	78	20	367	- SLD: Ore Expansion Phase 2 berth Construction (to 82.5mtpa)
- Expand	-	-	-	-	-	20	367	
- Maintain	33	114	114	144	78	-	-	
Volumes (mt)								
- Budget and Projections	58	59	59	59	59	59	59	
- Capacity	60	60	60	60	60	60	60	
Total Capex spend to this year							503	
Indicative return on capital							31	
Depreciation							4	
Additional Revenue Required							36	

- Coal

Coal								Major Capital Projects
DETAILS	FY2017/18	FY2018/19	FY2019/20	FY2020/21	FY2021/22	FY2022/23	FY2023/24	
	R'm							
Coal	-	15	80	125	13	11	5	- EL: Land preparation for coal export Facility
- Expand	-	-	-	-	3	1	5	
- Maintain	-	15	80	125	10	10	-	
Volumes (mt)								
- Budget and Projections	80	82	87	87	88	90	91	
- Capacity	114	114	114	114	114	114	114	

- Manganese

Manganese								Major Capital Projects
DETAILS	FY2017/18	FY2018/19	FY2019/20	FY2020/21	FY2021/22	FY2022/23	FY2023/24	
	R'm							
Manganese	39	89	248	70	298	223	113	- NGQ: Manganese terminal
- Expand	39	89	248	70	218	137	113	
- Maintain	-	-	-	-	80	86	-	
Volumes (mt)								
- Budget and Projections	11	10	8	13	14	15	15	
- Capacity	30	30	30	24	24	24	24	
Total Capex spend to this year							968	
Indicative return on capital							60	
Depreciation							9	
Additional Revenue Required							69	

- Break-Bulk

Break Bulk								Major Capital Projects
DETAILS	FY2017/18	FY2018/19	FY2019/20	FY2020/21	FY2021/22	FY2022/23	FY2023/24	
	R'm							
Break Bulk	113	81	77	77	53	50	350	- Dbn: Reconstruction of Sheet-Pile quay Walls at Maydon Wharf - DBN: Berth Deepening Maydon Wharf 5-11 & 15
- Expand	-	21	32	45	53	50	350	
- Maintain	113	60	45	32	-	-	-	
Volumes (mt)								
- Budget and Projections	7	7	8	8	8	8	9	
- Capacity	26	26	26	26	26	27	27	

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Automotives

Break Bulk								Major Capital Projects
DETAILS	FY2017/18	FY2018/19	FY2019/20	FY2020/21	FY2021/22	FY2022/23	FY2023/24	
	R'm							
Break Bulk	113	81	77	77	53	50	350	- Dbn: Reconstruction of Sheet-Pile quay Walls at Maydon Wharf - Dbn: Berth Deepening Maydon Wharf 5-11 & 15
- Expand	-	21	32	45	53	50	350	
- Maintain	113	60	45	32	-	-	-	
Volumes (mt)								
- Budget and Projections	7	7	8	8	8	8	9	
- Capacity	26	26	26	26	26	27	27	

Other (Incl. LHS & Bulk Services)

Other (incl LHS & Bulk Services)								Major Capital Projects
DETAILS	FY2017/18	FY2018/19	FY2019/20	FY2020/21	FY2021/22	FY2022/23	FY2023/24	
	R'm							
Other (incl LHS & Bulk Services)	869	1 762	2 404	2 592	2 366	2 157	2 121	- This includes all other investments at Ports including port entrances, roads, electrical networks, sewerage networks etc
- Expand	43	296	557	735	939	998	1 221	
- Maintain	826	1 466	1 847	1 856	1 428	1 160	900	

Fleet- Craft & Dredging Services

Fleet - Craft and Dredging Services								Major Capital Projects
DETAILS	FY2017/18	FY2018/19	FY2019/20	FY2020/21	FY2021/22	FY2022/23	FY2023/24	
	R'm							
Fleet - Craft	205	76	28	575	1 345	799	120	- DRS: Provision of 2nd TSHD - Tugs: Acquisition of 9 tugs (RCB,DBN,PE,SLD) - Tugs: Acquisition of 6 tugs (DBN)
- Expand	109	-	-	121	320	150	120	
- Maintain	96	76	28	454	1 025	649	-	
Dredging Services	172	217	2	92	2	2	33	
- Expand	108	214	-	-	-	-	-	
- Maintain	63	4	2	92	2	2	33	

Table 30: Multi-Year Strategic Objectives

Strategic objective	Details	LE	Projections						
		2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	Total 7yr
		R'm							
Re-engineering, Integration, Productivity and Efficiency	To maximise return on investments by obtaining additional volumes	430	1 105	3 031	2 023	2 843	3 852	3 112	16 396
	To maximise return on investments by improving operating efficiencies	400	254	279	444	254	161	165	1 957
	To preserve current revenue streams without obtaining additional volumes (ie. revenue protection)	621	1 052	1 182	2 081	2 984	2 110	1 383	11 412
Safety, Risk and Effective Governance	Ensure Safety Optimisation	162	286	477	616	541	259	77	2 419
	Optimise Business Enterprise Offerings	132	213	278	88	30	10	10	761
	Optimally Satisfy Social Investments (non economic value creating projects)	-	12	43	65	162	176	90	548
	Environmental	6	57	174	86	80	90	102	595
Human Capital	Optimise Human Resources	67	75	191	309	53	-	-	694
Total (excl. borrowing cost)		1 818	3 053	5 655	5 713	6 946	6 658	4 938	34 781

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Table 31: Multi-Year Capex Spending Per Port Service

Capex spend per Port Service / Facility	LE	Projections						
	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	Total 7yr
	R'm							
Infrastructure	1 249	2 633	5 552	4 948	5 525	5 783	4 703	30 393
Marine services	186	99	30	575	1 345	799	120	3 154
Lighthouse services	29	53	71	98	73	74	83	482
Dredging services	353	268	2	92	2	2	33	753
Total (excl. borrowing cost)	1 818	3 053	5 655	5 713	6 946	6 658	4 938	34 781

Table 32: Multi-Year Ports Related Spending by Asset type

Asset Type	LE	Projections						
	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	
	R'm							
Buildings and structures	256	411	814	786	747	910	896	
Aircraft	83	101	15	145	100	-	-	
Land	-	-	14	-	47	113	125	
Machinery, equipment and furniture	270	442	570	511	276	227	179	
Permanent way and works	38	70	282	144	110	100	493	
Vehicles, Rolling stock & containers	2	19	31	21	3	-	-	
Port Facilities	1 169	2 010	3 923	4 107	5 663	5 307	3 245	
Other	-	-	-	-	-	-	-	
Pipelines networks (etc)	-0	-	5	-	-	-	-	
Total (excl. borrowing cost)	1 818	3 053	5 655	5 713	6 946	6 658	4 938	

Table 33: Multi-Year Port Related Spending per Commodity

Major Commodity	LE	Projections						
	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	Total 7yr
	Rm							
Containers	158	365	1 913	1 654	1 843	2 511	1 413	9 859
Liquid Bulk	142	456	725	319	521	790	223	3 175
Iron Ore	34	114	114	144	78	20	367	872
Coal	-	5	20	45	13	11	5	99
Manganese	37	89	248	70	298	223	113	1 080
Break Bulk	103	81	77	77	53	50	350	790
Automotive	-	-	-	-	-	-	-	-
Fleet - craft	186	99	30	575	1 345	799	120	3 154
Dredging Services	353	268	2	92	2	2	33	753
Other (incl LHS)	804	1 576	2 526	2 737	2 792	2 252	2 314	15 001
Total (excl. borrowing cost)	1 818	3 053	5 655	5 713	6 946	6 658	4 938	34 781

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ANNEXURE C: Volumes

Table 34: Revenue from volume increase before tariff increase

DETAILS	2017/18	2017/18	2018/19	2018/19
	Volumes: Latest Estimate	Revenue: Tariff Book Latest Estimate R'm	Volumes: Increase Budget	Revenue: Volume increase before Tariff Increase Budget R'm
Containers TEU's				
Deepsea Full: Imports	1 415 421	3 039	39 197	84
Deepsea Full: Exports	1 068 321	686	29 525	19
Transshipment	1 062 948	74	34 091	2
Other	946 634	52	26 019	1
Total Container (TEUs)	4 493 324	3 850	128 832	107
Vehicles (Units)				
Vehicles: Imports	315 610	268	3 339	3
Vehicles: Exports	314 620	106	28 291	10
Other	35 750	1	-1 169	-0
Total Ro-Ro (Units)	665 980	375	30 461	13
Breakbulk (Metric Tons)				
Breakbulk: Imports	1 759 465	62	-145 440	-3
Breakbulk: Exports	4 828 091	164	3 686	-1
Other	199 629	2	10 171	0
Total Breakbulk (Tons)	6 787 185	228	-131 583	-4
Dry Bulk (Metric Tons)				
Coal Exports	79 800 000	285	2 336 725	8
Iron Ore Exports	58 100 000	374	740 000	10
Manganese Ore Exports	10 797 000	96	-797 000	-7
Other	29 050 546	359	23 060	-6
Total Dry Bulk (Tons)	177 747 546	1 114	2 302 784	5
Liquid Bulk (KI)				
Petroleum	32 769 539	26	1 595 638	4
Chemicals	2 047 696	59	400 288	2
Other	6 463 141	624	261 504	45
Total Liquid Bulk (Kilo litres)	41 280 376	709	2 257 430	51
Cargo Dues Revenue	-	6 276		172

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ANNEXURE D: Operating Expenditure

Table 35: Operating Expenditure

Cost Category	Actual 2016/17 R Million	Budget 2017/18 R Million	Forecast 2018/19 R Million	Dev '17/18 vs 18/19 R Million	Dev '17/18 vs 18/19 Percentage	% of Opex 18/19	Forecast 2019/20 R Million	Forecast 2020/21 R Million	CAGR 2018/19 - 2020/21
Labour Costs	2 248	2 578	2 806	229	9%	53%	3 053	3 269	8%
Rates & taxes	313	356	374	18	5%	7%	376	423	6%
Maintenance	344	388	408	20	5%	8%	419	443	4%
Contract Payments	55	102	107	5	5%	2%	110	115	4%
Energy	467	537	565	27	5%	11%	599	626	5%
Professional services	18	101	104	3	3%	2%	109	116	6%
Material	76	86	82	-4	-4%	2%	81	80	-2%
Computer & Info systems	131	224	240	17	7%	5%	259	274	7%
Rental	183	233	236	3	1%	4%	242	254	4%
Security costs	91	95	97	2	2%	2%	101	108	5%
Pre -Feasibility Studies	22	128	146	18	14%	3%	136	138	-3%
Sundry operating costs	60	189	144	-46	-24%	3%	124	94	-19%
Total operating cost (excluding depreciation)	4 007	5 015	5 309	294	6%	100%	5 610	5 940	6%
Group Costs	459	602	629	27	4%		648	676	4%
Total operating cost (Including Group Costs)	4 466	5 617	5 938	320	6%		6 258	6 616	6%

The Authority's total costs is R 5 938m for FY 2018/19. This includes the Transnet Group overhead costs of R629m.

The Operating Expenditure represents all the expenses incurred on a day to day basis in the course of running the business of the Authority both at the ports and also Head Quarters. The main drivers of the additional 6% increase (i.e. R322m) in FY 2018/19 as compared to the FY 2017/18 budget is Labour costs, Computer and information system and pre-feasibility studies. The other cost elements that are contributing to the increase include cost of utilities in water, property rates, energy, maintenance and professional fees.

The sections that follow provide a high level explanation for cost items per Table 35 above.

Labour Cost

The Authority is a labour intensive organisation which executes all its deliverables in terms of its mandate. Labour cost is a function of delivering on the Authority's mandate in terms of operating efficiently, oversight functions, project management and maintenance. Labour costs therefore forms a substantial portion of the overall operating expenditure, compromising of 53% of the total operating costs for FY 2018/19.

The expected growth in labour costs for FY 2018/19 is approximately 9% (R229m). This averages 8% in the 3 year tariff period. This growth is inclusive of headcount as well as the salary increments over the 3 year tariff period. The costs are further unpacked as follows:

o **Headcount**

In order to fully deliver on its mandate, and to perform its oversight role in the port system as well as execution of projects in an efficient manner, the costs projected as well as the headcount is presented as follows:

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Forecasted total number of permanent employees:

Table 36: Total Number of Employees

	Actual 2016/17	Budget 2017/18	Forecast 2018/19	Deviation 17/18 vs 18/19	Deviation % 17/18 vs 18/19	Forecast 2019/20	Forecast 2020/21
Total Number of Employees	4 349	5 093	5 248	155	3.0%	5 404	5 493

The key drivers for growth in headcount are as a result of the following:

- Employment of port engineering personnel in order to create adequate port infrastructure capacity ahead of demand and maintaining existing and new assets;
- Meeting minimum manning levels of marine at 100% service and matching manning levels with number of tugs required per shift linked to meet the MOPS requirements;
- Manning of the port operational centres to ensure systematic views of port performance;
- Increase Fire Services personnel to ensure correct manning levels i.t.o. operating of new fire trucks;
- Enterprise Risk Management (ERM) personnel to ensure oversight and compliance with risk management requirements;
- Trainers required for marine engineering schools in the Port. Training in the Port is scheduled to commence in January 2018 with 25 learners and will increase by 25 learners each year to reach a full capacity of 100 learners; and
- The key operations functions filled with staff include Artisans, Chief marine engineering personnel, Electrician, Tug Master, Engineer port operations etc.

○ **Remuneration**

Remuneration is made up of annual salary adjustments. An increasing headcount leads to increased remuneration.

○ **Training**

Adequate training and development of human capital is a core focus area for the Authority. This ensures continuous growth and advancement of the Authority and therefore remains a priority. The Authority continues with various training initiatives including cadet training, pilot training, tug master training and chief marine engineer officer training.

The Authority has extended the Operation Phakisa programme by establishing Marine Engineering training schools in the Ports of Durban, Cape Town, Ngqura and Port Elizabeth, Mossel Bay and East London. These schools are intended to create opportunities for the communities to participate in the port sector with the aim to address poverty, unemployment and inequality.

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The progress status on each of these training schools is as follows:

- Port of Durban: Training commenced in April 2016. (SLA between the Authority and Transnet Engineering - 25 trainees)
- Port of East London: training to commence in FY 2017/18.
- Port of Mossel Bay: training to commence in October 2017. The SLA is already in place between the Authority and PETROSA.
- Port of Cape Town: training to commence in FY2017/18. Refurbishing the facility has already commenced.
- Port of Port Elizabeth and Ngqura: Have commenced the upgrade of the buildings hosting satellite campuses.

The Authority continues with its normal training initiatives relating to cadet training; helicopter pilot training, aircraft maintenance and aircraft avionics training. These are budgeted at R103 m including compensation for the cadets.

Rates and Taxes

Rates and taxes relate to municipal rates and are based on the methodology employed by the municipalities in accordance with the Municipal Rates and Taxes Act. Normally the increase in this cost category is above inflation rate. The increase in the current financial year is set at 9% and is mainly attributed to the Ports property values.

Rates and taxes are expected to increase by 6% over the 3 year period.

Maintenance

The maintenance cost covers aged infrastructure and it's planned. It also covers routine maintenance for newer infrastructure assets, newer marine craft and increased maintenance focused on the ship repair business.

It is necessary to ensure that Aids to Navigation infrastructure and other assets are maintained to ensure general safety of navigation and protection of the marine environment.

The average growth in maintenance over the three year period of approximately 4% and is mainly attributed to the following:

- The National Infrastructure Maintenance Strategy (NIMS) provides maintenance benchmarks for State Owned Enterprises (SOE's) which is set at 5% of the book value of port infrastructure. The Authority currently spends approximately 1% of book value on port infrastructure with the aim to gradually align to a benchmark level of 5%. This is an accelerated spending on maintenance over the next few years as the Authority intends on reaching an initial target of 2.5%;
- Ports handle larger container vessels than they were designed to accommodate, necessitating a higher frequency of maintenance dredging;
- Ports are handling bigger, deeper ships with a very small under keel clearance. This has led to scouring of the seabed which then requires additional dredging. An external Grab Dredger has been hired in Durban to attend to this operational challenge as an interim measure whilst the Berth Deepening project is being executed;

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- Ongoing maintenance of ageing infrastructure;
- Maintenance of new infrastructure assets (Automated Mooring System will be maintained for the full year in 2018/19 vs few months in 2017/18)
- Increase in the Maintenance of electrical network (High masts and substations)
- Maintenance of marine craft (2 tug will go to the dry dock in East London, Pilot boat will also be due for a lay-up).

Contract Payments

The increase on contract payment for FY 2018/19 is approximately 5% with the average increase over the three year tariff application period of approximately 4%.

Contract payments mainly relates to the helicopter pilot services in the Port of Durban and Richards Bay and the increases are attributable to the ageing of the fleet.

Energy

Energy costs are mainly attributable to the fuel and electricity consumption of the Authority. The increase in costs for FY 2017/18 is approximately 5% (R27m) and mainly due to the following:

- Electricity bills increasing when electricity tariffs are increased estimated at 6% over the 3 year period.
- Fuel costs relating to the new marine craft including the new dredgers with capacities higher than the older craft. To date 2 tugs have been commissioned and it is expected that a further 6 tugs will be commissioned by the year ended 2017/18.
- Larger bollard pull capacity of the craft for improved efficiencies, this result in higher fuel consumption.

Professional Services

Professional fees relate to Operational Audits & Transnet Certification, and Real Estate projects relating to Land use audit projects, Anticipated Section 56 consultants and Investment Property Valuation Fees. These include the pre-feasibility study for the development of LNG Import Facilities at the ports of Richards Bay as part of the country's medium to long term energy supply strategy.

Material

Material costs relate to material used in the maintenance of marine fleet and civil maintenance and are therefore directly influenced by maintenance activity. The material costs decrease from FY 2017/18 is 7% with the average decrease in material costs over the 3 year tariff application period amounting to 5%. The explanations provided above under Maintenance have a direct bearing on material as well.

Computer and Information Systems

Computer and information systems include network costs, software licences, information system support, development cost, computer consumables and on-going maintenance thereof.

The average increase over the three year period is approximately 7%. The major part of this cost increase is attributable to the implementation of the Smart People's Port programme. This is an all-encompassing,

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integrated digital platform created to enhance efficiencies and improve port operations control. It encompasses functions such as Smart Ports capacity planning, Smart Ports logistics location and scheduling control, Smart Ports traffic management and Smart Ports container management.

The Smart People's Port programme is aimed at availing many key enablers to enhance Port operations in that it serves the following:

- All port function activities are aggregated into a single repository creating a single source of information
- It provides operations insight, digitized infrastructure and operations automation as it enables real time communication to all port operations and this assists in securing a stable network coverage for all land and sea activities
- Tracking of all assets required to ensure full visibility to better manage port operations and incident management activities
- Mapping of all port processes to create visualisation of all activities from the control centre
- The human resources in the ports are able to achieve a far richer visibility of the port operations continuously and this assists in management decisions and creating a safer environment
- Improving turnaround times of vessels, trains and trucks.

Rental

Rental costs relates to the hiring of internal and external land and buildings, leasing of vehicles, equipment, computers and furniture. The average increase over the three year period is approximately 4%.

Security

Security costs relate to the use of private security firms at the ports and the expected increase from budget 2017/18 to budget 2018/19 is 2% with the 3 year average growth of 5%.

Pre-Feasibility Studies

Pre-feasibility studies are undertaken to determine future capital investments in a pre-feasibility phase to determine the best alternative for construction, preliminary design work and costing to assess overall viability of the project.

The increase in pre-feasibility costs for FY 2018/19 is 14% (R18m).

The Authority will be embarking on research on other development projects including the Richards Bay expansion; increased power supply in the Port of Durban; roads study interlinked with metro; Point and Bayhead precinct development plans, wind and long wave mitigation studies, the Cape Town container terminal expansion, Port Elizabeth investigation for a passenger liner terminal and a car terminal. It will also be necessary for the Authority to complete the revised National Ports Plan and Port Development Framework Plans, as well as land use and port zoning plans for development.

Sundry Operating Costs

The detailed costs relating to sundry expenses are highlighted in Table 37 below. Sundry Costs include expenses relating to insurance, stationery and printing, transport, promotions and advertising, and other miscellaneous operating expenditure.

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The main cost drivers relating to sundry expenses are as follows:

- Legal Costs:
- Health and Sanitation
- Insurance
- Other (i.e. mainly consulting)

Further to the above, the request for proposals for the Section 56 projects and public hearings thereof will lead to increased environmental management, legal fees, printing/stationary, promotions and advertising and feasibility studies.

Table 37: The Authority's Sundry Operating Costs

Cost Category	Actual 2016/17 R Million	Budget 2017/18 R Million	Forecast 2018/19 R Million	Dev '17/18 vs 18/19 R Million	Dev '17/18 vs 18/19 Percentage	% of Opex 18/19	Forecast 2019/20 R Million	Forecast 2020/21 R Million	CAGR 2018/19 - 2020/21
External property auxiliary costs revenue	-231	-255	-272	-17	7%	-5%	-291	-312	7%
Intra NPA recoveries	-407	-446	-471	(24)	5%	-9%	-498	-525	6%
Intra cc recoveries	365	328	304	-24	-7%	6%	316	306	0%
Intra cc charges	62	65	69	4	6%	1%	73	78	6%
Miscellaneous revenue	-57	-51	-53	-2	4%	-1%	-56	-60	6%
External Audit Fees	9	17	17	1	4%	0%	18	19	4%
	-	-	-	0			-	-	0%
Entertainment	8	21	22	1	4%	0%	23	24	4%
Environmental management	7	20	30	10	51%	1%	28	28	-4%
Fines and Penalties	1	0	0	0	0%	0%	0	0	4%
Health and Sanitation	34	48	49	2	4%	1%	52	55	6%
Insurance Operations	34	29	31	2	7%	1%	34	36	8%
Legal Costs - Tax Deductible	-60	21	21	1	4%	0%	22	23	4%
Internal Audit	15	15	16	0	3%	0%	16	17	3%
Membership Fees	7	8	9	0	5%	0%	9	9	5%
Bank Charges	0	0	0	0	5%	0%	0	0	5%
Catering Costs	0	11	12	0	4%	0%	12	13	4%
Claims Paid	9	0	0	0	5%	0%	0	0	6%
Commission Paid	0	-	-	0	0%	0%	-	-	0%
Discount Allowed	1	-	-	0	0%	0%	-	-	0%
Gifts	0	0	0	0	5%	0%	0	0	5%
License Fees	2	3	3	0	5%	0%	3	3	5%
Magazines, Books and Periodicals	0	1	1	0	4%	0%	1	1	4%
Newspapers	-	-	-	0	0%	0%	-	-	0%
Nursery / Flower Expenditure	8	11	12	1	6%	0%	13	13	5%
Water	88	90	95	5	6%	2%	100	105	5%
Other 1	33	49	52	2	4%	1%	54	57	5%
Navigation, Landing and Parking	30	35	37	2	4%	1%	39	41	6%
Postage	0	0	0	0	5%	0%	0	0	5%
Printing and Stationery	9	22	23	1	5%	0%	24	26	5%
Promotions and Advertising	24	49	52	3	5%	1%	55	57	5%
RDP Costs / Social Investment	-	-	-	0	0%	0%	-	-	0%
Regional Services Levies	-	-	-	0	0%	0%	-	-	0%
Telecommunication Services : External	19	21	22	1	5%	0%	23	24	5%
Travel Benefits / Concessions	-	-	-	0	0%	0%	-	-	0%
Transport Cost : External	2	4	4	0	5%	0%	4	4	5%
Travel - Local	42	64	67	3	5%	1%	70	73	5%
Travel - Overseas : Deductible	4	11	11	1	6%	0%	12	12	4%
Total sundry operating expenses	60	190	162	-28	-15%	3%	156	129	-11%

Other 1

This is mostly consulting fees, corporate identity, corporate social investment, conferences and intra charges.

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Table 38: Breakdown of Other 1 Cost

Cost Category	Actual 2016/17 R Million	Budget 2017/18 R Million	Forecast 2018/19 R Million	Dev '17/18 vs 18/19 R Million	Dev '17/18 vs 18/19 Percentage	% of Opex 18/19	Forecast 2019/20 R Million	Forecast 2020/21 R Million	CAGR 2018/19 - 2020/21
Total Other 1	33	49	52	2	4%	1%	54	57	5%
Promat Levy	-	0	0	0	5%	0%	0	0	6%
Consulting Fees	5	19	20	1	4%	0%	20	21	5%
Credit Management Fees	-	-	-	-	0%	0%	-	-	0%
Inter Divisional Miscellaneous Leasing & Contract	0	0	0	0	5%	0%	0	0	6%
Capital Project Clearance	-	-	-	-	0%	0%	-	-	0%
Contributions	0	0	0	0	5%	0%	0	0	6%
Corporate Identity	1	4	5	0	5%	0%	5	5	5%
Bouquets & Wreaths	0	0	0	0	5%	0%	0	0	5%
Revenue Stamps & Other Taxes	-	-	-	-	0%	0%	-	-	0%
Sponsorships	-5	1	1	(0)	-19%	0%	1	1	2%
Corporate Social Investment	18	11	11	1	6%	0%	12	12	6%
Accounts Pay Clearance Account	-	-	-	-	0%	0%	-	-	0%
Suspense Account	-	-	-	-	0%	0%	-	-	0%
General Ledger Clearance Account	-	-	-	-	0%	0%	-	-	0%
Strike Related Cost	-	-	-	-	0%	0%	-	-	0%
Plant Hire Credits Sanction Work	-	-	-	-	0%	0%	-	-	0%
Interest Paid	0	0	0	0	6%	0%	0	0	5%
Conference: Portnet	3	4	5	0	3%	0%	5	5	5%
Foreign Exchange Cost	-	-	-	-	0%	0%	-	-	0%
Intra Pad Miscellaneous Charges	10	10	10	0	5%	0%	11	11	5%

Group Overhead Costs

The services provided by each Transnet corporate cost centre to the respective Operating Divisions (ODs) of Transnet vary in accordance with OD requirements and the nature of its activities. Transnet allocates these shared costs based on a top down costs centre allocation approach as opposed to a top down expenditure line item allocation approach.

This effectively means that total costs relating to a particular cost centre are allocated to the ODs using a cost driver predetermined by and agreed with the cost centre managers for that particular cost centre and this consequently informs the allocation of the expenditure line items such as personnel costs, fuel costs etc. within that cost centre.

Furthermore, where possible, identified costs per general ledger account that could be traced to ODs are allocated directly without the use of predetermined cost drivers. These may include but are not limited to the Incentive bonuses provision, Impairments on trade receivables and other internal income and expense recoveries.

Year on year differences in allocated corporate overhead costs or differences between budgeted cost and actual cost allocations will primarily be as a result of changes in spending priorities due to cost optimisation as well as changes in cost driver percentages (per cost centre) with cost driver remaining the same.

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Table 39: Group Overhead Costs

TRANSNET GROUP CORPORATE OVERHEAD COSTS							
Details	FY 2016/17 Actual	FY 2017/18 Budget	FY 2018/19 Projection	Dev FY 17/18 vs. FY 18/19	Dev FY 17/18 vs. FY 18/19 (%)	FY 2019/20 Projection	FY 2020/21 Projection
Revenue external	(739 328)	-	-	-	0,00%	-	-
Revenue internal	-	-	-	-	0,00%	-	-
Internal recoveries	(15 839 299)	-	-	-	0,00%	-	-
Revenue	(16 578 627)	-	-	-	0,00%	-	-
Net operating expenses excluding depreciation and amortisation	381 027 098	440 069 129	590 336 740	150 267 612	34,15%	613 561 825	644 255 224
Personnel costs	136 576 902	139 343 955	163 607 531	24 263 576	17,41%	170 264 615	178 328 242
Fuel costs	84 730	241 206	89 915	(151 291)	-62,72%	93 288	98 140
Electricity costs	3 788 571	1 930 244	5 160 364	3 230 121	167,34%	5 336 621	5 626 201
Material costs	225	509 597	11 559	(498 039)	-97,73%	12 121	12 793
Other operating costs	240 576 669	298 044 127	421 467 371	123 423 244	41,41%	437 855 180	460 189 846
<i>Accommodation and Refreshments</i>	1 106 643	1 850 673	2 137 545	286 872	15,50%	2 245 597	2 363 632
<i>Professional Fees</i>	88 906 116	95 544 896	201 410 427	105 865 530	110,80%	210 066 202	221 028 791
<i>Electronic Data Costs</i>	44 983 158	58 429 784	82 926 306	24 496 522	41,92%	7 556 432	90 708 690
<i>Internal Audit</i>	5 473 124	23 130 793	7 169 290	(15 961 502)	-69,01%	86 023 398	7 979 592
<i>Social Investment</i>	28 987 636	36 058 450	36 314 684	256 233	0,71%	37 549 286	39 586 283
<i>Miscellaneous Costs</i>	71 119 991	83 029 530	91 509 119	8 479 589	10,21%	94 414 264	98 522 858
Profit from operations before depreciation, amortisation and items listed below	364 448 471	440 069 129	590 336 740	150 267 612	34,15%	613 561 825	644 255 224
Depreciation and amortisation	40 843 186	40 746 981	32 167 797	(8 579 184)	-21,05%	28 218 182	25 005 274
Profit from operations before the items listed below	405 291 657	480 816 110	622 504 538	141 688 428	29,47%	641 780 008	669 260 498
Profit on sale of interest in businesses	-	-	-	-	0,00%	-	-
Impairment of assets	(535 078)	(838 747)	-	838 747	0,00%	-	-
Dividends received	-	-	-	-	0,00%	-	-
Post-retirement benefit obligation costs	5 526 629	27 490 335	4 963 544	(22 526 791)	-81,94%	5 231 575	5 524 543
Fair value adjustments	(379 590)	132 500	-	(132 500)	0,00%	-	-
Income from associates	-	-	-	-	0,00%	-	-
Profit from operations before net finance costs	409 903 618	507 600 197	627 468 081	119 867 884	23,61%	647 011 582	674 785 041
Transnet Capital Projects	49 931 960	871 788	1 089 848	218 060	25,01%	1 201 515	1 214 764
Transnet Foundation	(157 772)	105 269	47 427	(57 842)	-54,95%	6 442	9 645
Total Corporate Overhead Costs: NPA	459 677 806	508 577 254	628 605 357	120 028 102	23,60%	648 219 539	676 009 450
Total Corporate Overhead Costs NPA: YOY % Increase							
% Proportion of Group Corporate Overhead Cost Allocated to NPA							
	11,25%	10,64%	23,60%			3,12%	4,29%
		14,62%	15,88%			15,68%	15,62%

An allocation of 15.88% of the Group Corporate overhead costs for FY2018/19 has been allotted to the Authority. The remaining 84.12% has been allocated to other Transnet operating divisions. It is worth noting that allocation to the Authority has increased by R120 m from R508, 6 m in FY 2017/18 to R628. 6 million in FY 2018/19. This increase is explained as follows:

Changes in cost driver percentages. This doesn't change the cost drivers but only the proportions in percentages. This changes from 14.62% to 15.88%. The variance amounts to 1.26% (from 14.62% to 15.88%) and contributes a further R49.8 m of the abovementioned R120 m.

The remainder is driven by an Increase in corporate overhead costs by 13.82% in 2018/19 which further contributes an additional R70.3 m. The further level of granularity is provided as follows:

- The increase of 13.82% is mainly attributable to an element of inflationary increases to an extent of approximately 5.5% CPI;
- The remainder is attributable to those costs that generally tend to increase at higher rates than inflation (e.g. electricity, wage increases etc.); and
- The increase in professional fees is mainly as a result of Private Sector Participation (PSP) related consultation work, which will impact TNPA related investments in port industries over the medium term.

ANNEXURE E: Unitised Automotive Tariffs

This is an illustration of the new tariff structure of FY 2017/18 approved tariffs. The current measure of tonnage is acceptable and should be aligned with other ports internationally at these suggested tariffs:

Table 40: Proposed Automotive Tariffs

Description	Metres	Gross Weight	Unitised	
		Kilograms	Imports	Exports
Passanger Vehicles (PV)	length equals 5 metres or less	10 000	985.43	388.82
Light Commercial vehicles (LCV)	greater than 5 metres but equal or less than 8 metres	20 000	1 576.68	622.10
Heavy Commercial Vehicles (HCV)	greater than 8 metres but equal or less than 10 metres	24 000	1 970.85	777.63

Roro's in excess of 10 metres are generally not classified as PV, LCV or HCV, therefore, the Authority proposes to retain the tonnage basis of tariff determination for these types of automobiles.

ANNEXURE F: An Illustration of the Marine Services Tariff Structure

The Illustration of these tariff structure is as follows:

Principles of cost recovery

- The revenue currently earned from the provision of the marine services through charges and tariffs does not contribute the required level of revenues on a cost recovery basis. As a result, the tariff strategy is an approach developed by the Port Industry to remove imbalances through implementing a cost based tariff structure on a user pay principle.
- The observation of the tariff structure from the Authority tariff book, indicates that both VTS and pilotage services are currently contributing more than required as compared to the cost based revenue calculations, all other tariff categories are currently under recovering as compared to the required level of revenues on a cost basis.
- The average tariff increase applied for Marine Services Charges is 10.00%.

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The principles informing tariffs are illustrated on the figure below:

Figure 10: Marine Services Tariff Structure

Tariff	Tariff Base/Design Methodology	Charge Frequency	Rationale
Port Dues	GRT per port/per hour periods/linear fee per GRT	Per visit	Incentive for quicker turnaround times
Berthing and Running of Lines	Consolidated tariff/Linear fee per GRT	Per visit	Simplification
Tugs	Flat fee per Tug, irrespective of Tug Size/number of tugs determined by Harbour master	Per visit determined by Harbour Master	Incentive for latest technology vessels by moving away from fixed vessel sizes/tug ratio
Pilotage	Flat fee per service differentiated by port	Compulsory at every port/per visit	Simplification
VTS	GRT per port/linear fee differentiated by port	Every port where available	As per current tariff book and international practice
Light Dues	GRT per port/linear fee differentiated by port	First port of call	As per current tariff book and international practice

The indicative Marine Services tariff structure is illustrated as follows:

Port Dues

Port dues serve as a means to recover of both capital and operating costs used in the provision and maintenance of entrance channels, breakwaters, turning basins, navigation aids (beacons and buoys inside port limits) and maintenance dredging inside the port. This new tariff structure will be based on the Gross Registered Tonnage (GRT), per 6 hour periods, per linear fee per GRT. The new tariff structure is incremental and progressive as compared to the structure in the tariff book as vessel staying longer in the port pay more. It encourages quicker turnaround times with substantial benefits for those vessels that would respond.

The proposed tariff structure consolidates berth dues into port dues on a linear increment per GRT.

The Authority's approach is to illustrate the principles highlighted above with the current earned revenue in order to show the range needed to shift the tariff to the required level (which is the level determined on a cost base on allocation of assets basis). The resultant tariff is R11.26 per 100 GRT per 6 hour increment and is calculated as follows:

- FY 2015/16 base rate tariff is R115.19 per 100 GRT plus an hourly rate of 34.54 per 100 GRT
- This results in an effective rate of R11.26 per 6 hour increment
- When a cost based tariff is calculated, the level required in FY 2015/16 terms is R94 per 100 GRT per 6 hour increment.
- The difference between the current Port Dues tariff (R11.26 per 100 GRT per 6 Hour increment) and the cost based tariff (R94 per 100 GRT per 6 hour increment), if compared on the same principle as required by the marine services charges prescribed in the Tariff Strategy is approximately 825%.
- In an effort to make a gradual shift to the required level of Port Dues this FY 2015/16 is indexed by FY 2016/17 tariff increase (3.55%) and FY 2017/18 tariff increase of 7.90% to arrive at a level of R12.58

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The FY 2018/19 proposal for Marine Services Charges for Port Dues tariffs (in the current tariff structure) is 14.05% which gives a tariff of R14.35.

Berthing services

All vessels berthing at quays or buoys will pay mooring and unmooring (tie and untie the vessel) charges. The proposed tariff structure establishes the berthing services tariff by consolidating the running of lines dues into berthing services by determining the linear increment per GRT. The proposed tariff for FY 2015/16 tariff is R13.93 per 100 GRT and was calculated as follows:

- FY 2015/16 base rate tariff is R1 898.17 per plus a rate of 8.05 per 100 tons or part thereof
- This results in an effective rate of 13.93 per hour increment
- This is increased by 3.55% for FY 2016/17 and 7.90% in FY 2017/18
- The difference between the current tariff (R13.93) and the cost based tariff (R22) is approximately R15.56
- In an effort to make a gradual shift to the required level of berth services tariff is indexed by FY 2016/17 tariff increase (3.55%) and FY 2017/18 tariff increase of 7.90%

The FY 2018/19 proposal for Marine Services Charges for Berth Dues tariffs (in the current tariff structure) is 11.15% which gives a tariff of R17.30.

Tugs and pilotage

Vessel arrival at or departure from port or shifting to another berth shall be provided with tugboat assistance, which is chargeable, the charges thereof determined by the number of tugs set by the harbour master to provide the service. Tugs charges will be driven by the number of tugs used per service on a flat fee basis. These two tariff structure consider the national port system approach. In other words, the applied cost factor per tug per operating hour will be the same across ports, however since tugs will be charged per service and time needed to provide the service differs across the ports and the actual tariff will vary by port.

The FY 2018/19 proposal for Marine Services Charges for Tug Dues tariffs (in the current tariff structure) is 7.04% which give flat fee per Tug tariffs listed in Table 41 on page 78.

Pilotage

The pilotage will be established at a flat fee per service differentiated by the port. All vessels coming in or going out of the port or shifting within the port areas carried by pilots shall pay pilotage fees. The differentiating across the port aims to achieve a fair reflection of the actual resources used for each port and also consider geographical differences of distance from the pick-up point for pilot to berths, time and movement to berths etc.

The FY 2018/19 proposal for Marine Services Charges for Pilotage fee tariffs (in the current tariff structure) is 7.04% which give flat fee per service tariffs differentiated per port listed on Table 41 on page 78.

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VTS and Light dues tariffs

The tariff structure doesn't change, the current VTS tariff rate are very close to the desired cost recovery tariff rate. This tariff recovers for the provision of vessel traffic services, safety of the port environment and port control. Although the light dues (i.e. provision of navigation aids to vessels along the South African coast) rate appears to be higher than required rate, the increase shouldn't be significant to enable getting to the point of levelling off of the rate between what is desired and the current.

The FY 2018/19 proposal for Marine Services Charges for VTS and Light Dues tariffs (in the current tariff structure) is 7.04% which give tariffs of R0.33 per GRT per port and R0.41 per GRT per port respectively.

The indicative rates are as follows:

Table 41: Marine Services Tariff Structure Proposal

Tariff	Tariff Base/Design Methodology	Charge Frequency	Rate	% tariff increase achieved
Port Dues	GRT per port/ per hour (i.e. per 6 hour for the Authority) periods/per linear fee per GRT	Per visit	R15.35 per 100 GRT per 6 hour increment	14.05%
Berthing and Running of Lines	Consolidated tariff/Linear fee per GRT	Per visit	R17.74 per 100 GRT per hour increment	11.15%
Tugs	Flat fee per Tug, irrespective of Tug Size/number of tugs determined by Harbour master	Per visit determined by Harbour Master		7.04%
Ports				
Durban			R 30 583	
Richards Bay			R 35 586	
East London			R 23 111	
Ngqura			R 42 704	
Port Elizabeth			R 35 586	
Mossel Bay			R 28 469	
Cape Town			R 43 843	
Saldanha			R 78 632	
Pilotage	Flat fee per service differentiated by port	Compulsory at very port/per visit		7.04%
Ports				
Durban			R 18 147	
Richards Bay			R 11 964	
East London			R 3 450	
Ngqura			R 7 661	
Port Elizabeth			R 7 319	
Mossel Bay			R 3 906	

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Cape Town			R 10 879	
Saldanha			R 11 621	
VTS	GRT per port/linear fee differentiated by port	Every port where available	0.33	7.04%
Light Dues	GRT per port/linear fee differentiated by port	First port of call	0.41	7.04%

ANNEXURE G: FY 2018/19 Tariff Book Changes

Table 42: Proposed Tariff Book changes

Issue	Current read	Suggestion
Definitions		
1. Cargo DEF 1	means any cargo, goods, wares, merchandise, and articles of every kind whatsoever, including animals, birds, fish, plants and containers, carried, or intended to be carried, by sea.	means any cargo, goods, wares, merchandise, and articles of every kind whatsoever, including animals, birds, fish, plants and containers, carried, or intended to be carried, over the port infrastructure by sea.
2. Coaster DEF 1	refers to vessels carrying cargo exclusively between the ports in Richards Bay/Walvis Bay range on a regular schedule. To qualify as a bonafide coaster, an application must be lodged and approved by the Authority.	refers to vessels carrying cargo exclusively between the SA ports, on a regular schedule. To qualify as a bonafide coaster, an application must be lodged and approved by the Authority.
3. Coastwise cargo DEF 1	means cargo moving by sea between SA ports, including Walvis Bay and Luderitz, provided that both the country of origin and destination is SA or Namibia.	means cargo moving by sea between SA ports.
4. Transshipment DEF 3	N/A	means an act of off-loading cargo from one ship (generally at the hub port) and loading some cargo onto another ship to be further carried to the final port of discharge.
Tariffs		
5. Light Dues on Vessels Page 1.1	N/A	Add the paragraph: The sea within a distance of twelve (12) nautical miles from the baselines shall be the territorial waters of the Republic. When vessels go beyond twelve (12) nautical miles it would be deemed as being outside the ports territorial waters.
6. Light Dues Page 1.1	Light dues in respect of coasters are payable in terms of a special agreement. Coaster Light Dues will be raised on a monthly basis to vessels granted "Bonafide Coasters" status. In the event where bonafide coasters enter a South African port following a visit or call from a foreign port other than Walvis Bay and Luderitz full Light Dues is payable at the first South African port of call.	Light dues in respect of coasters are payable in terms of a special agreement. Coaster Light Dues will be raised on a monthly basis to vessels granted "Bonafide Coasters" status. In the event where bonafide coasters enter a South African port following a visit or call from a foreign port, full Light Dues is payable at the first South African port of call.
7. Exemptions A-1	<ul style="list-style-type: none"> SAPS and SANDF vessels; Non-selfpropelled small and pleasure vessels not used for gain; Vessels that remain at the anchorage outside the port except in the following instances: <ul style="list-style-type: none"> When moored at a single buoy mooring or any similar facility. 	<ul style="list-style-type: none"> SAPS and SANDF vessels; Non-selfpropelled small and pleasure vessels not used for gain; SAMSA vessels; SA Medical & Research vessel; Vessels that remain at the anchorage outside the port except in the following instances:

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		– When moored at a single buoy mooring or any similar facility.
8. SAMSA Levy A-1	N/A	Add: Exemptions <ul style="list-style-type: none"> Foreign naval / war vessels.
9. VTS Charges Page 2.1	Exemptions <ul style="list-style-type: none"> Vessels belonging to the South African Police Services (SAPS) and the South African National Defence Force (SANDF); Vessels resorting under Section 4, (small vessels and pleasure vessels) 	Exemptions <ul style="list-style-type: none"> Vessels belonging to the South African Police Services (SAPS) and the South African National Defence Force (SANDF); Vessels belonging to SAMSA; SA Medical & Research vessels; Vessels returning from anchorage at the order of the Harbour Master; Vessels resorting under Section 4, (small vessels and pleasure vessels)
10. Port Dues – Exemptions Page 4.2	<ul style="list-style-type: none"> Vessels belonging to the SA Police Services (SAPS) and the SA National Defence Force (SANDF); The time a vessel occupied a drydock, floating dock, syncrolift or slipway; Vessels resorting under Section 4, Clause 2 but only at their registered port; Fishing vessels licensed by the Department of Environmental Affairs and Tourism, but only within the fishing port declared under the Sea Fisheries Act, 1973 (Act 58 of 1973) at Saldanha. <p>In the event of a coastal vessel entering from a foreign port excluding Walvis Bay and Luderitz, full port dues would be payable at the first South African port of calls.</p>	<ul style="list-style-type: none"> Vessels belonging to the SA Police Services (SAPS) and the SA National Defence Force (SANDF); Vessels belonging to SAMSA; SA Medical & Research vessels; The time a vessel occupied a drydock, floating dock, syncrolift or slipway; Vessels resorting under Section 4, Clause 2 but only at their registered port; Fishing vessels licensed by the Department of Environmental Affairs and Tourism, but only within the fishing port declared under the Sea Fisheries Act, 1973 (Act 58 of 1973) at Saldanha. <p>In the event of a coastal vessel entering from a foreign port excluding Walvis Bay and Luderitz, full port dues would be payable at the first South African port of calls.</p>
11. Berth Dues Page 4.2	N/A	<p>Berth dues are calculated by obtaining the following source documents from the terminal Operators:</p> <ul style="list-style-type: none"> Bulk and break bulk vessels: the source document is the Crane allocation sheet from the planning department at MPT/TPT Container vessels: the source is the Terminal Performance Report from the MIS department at TPT Other vessels: the source is the Statement of Facts from the vessels agents.

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		Berth dues are calculated by deducting the number of hours worked as per the source document from the period the vessels is in port, taking into account the free periods before and after cargo working hours.
12. Passengers' Levy: All Ports Page 4.10	The passenger levy is raised at all ports where passengers embark or disembark, including all visiting passengers at the ports. Please note that the levy is raised on a per call basis.	Add: Visiting passenger in transit per call.....Rxx,xx The passenger levy is raised at all ports where passengers embark, disembark or visit the ports. The levy is raised on a per call basis.
13. Split Account Fees Page 4.10	N/A	Add: Amending fee per order.....Rxxx,xx
14. Transshipped Cargo Page 7.8	<ul style="list-style-type: none"> Cargo loaded and then landed on the same vessel / different vessel (malfunction/damaged/unpacked/repacked) 	<ul style="list-style-type: none"> Cargo loaded at a South African port and then discharged from the same vessel due to container malfunction/damage/unpack/repack; Add: <ul style="list-style-type: none"> Cargo not manifested; Cargo not manifested for SA that is discharged due to damage/malfunction and then shipped/airfreighted to the country of final destination within 90 days of cargo being discharged. Unpack and repack must be done at a Customs bonded warehouse/Custom's supervision. Documentary proof must be available to the Authority.
15. Transshipped Cargo Page 7.8	6m / 20' containersRxx,xx 12m / 40' , 13,7m / 45' containersRxxx,xx Empty containers, all sizes.....Rxx,xx	6m / 20' containers (Full/Empty)Rxx,xx 12m / 40' , 13,7m / 45' containers (Full/Empty)Rxxx,xx Remove: Empty containers, all sizes.....Rxx,xx
16. Late Orders and related fees Page 7.8	8. Penalties and Related Fees Penalties applicable for cancellations and late submission of cargo documentation are as follows: Late, incomplete and non-submission of manifests and outturn reports All cancelled orders to be accompanied by the original order.	8. Late Order and Related Fees Late order fee is applicable for cancellations and late submission of cargo documentation are as follows: Late, incomplete and non-submission of manifests and outturn reports per manifest/outturn report . All amended orders to be accompanied by the original order (upon request from the Authority).
17. Cargo Dues Order Page 7.8	Cargo Dues Orders must be presented at the port where the consignment will be landed/shipped/transhipped. For the inland port of City Deep container cargo dues orders will be accepted for all ports at our	Cargo Dues Orders must be presented at the port where the consignment will be landed/shipped/transhipped. Overborder offices will still accept cargo dues orders for containers.

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	Johannesburg Revenue Office. Overborder offices will still accept cargo dues, orders for containers.	Add: Any cancellations and amendments on this order will be applicable per each container on the list. Any applicable fees will be levied per container.
18. Type of Documentation Page 8.2	Coastal Cargo <ul style="list-style-type: none"> Cargo Dues Order per inward and outwards movement, supported by an inwards or outwards manifest and empty container list. 	Coastal Cargo <ul style="list-style-type: none"> Cargo Dues Order per inward and outwards movement, supported by an inwards or outwards list, differentiated between full, empty, 6m (20'), 12m (40') or 13,75m (45').
19. Import Documentation Page 8.3	2. Manifests must be submitted within one (1) day before vessel arrival. 2.1 Empty container lists must be submitted within one (1) day before vessel arrival.	2. Manifests must be submitted within one (1) day before vessel arrival. 2.1 Manifests in respect of empties must be submitted within fourteen (14) day before vessel arrival.
20. Export Documentation Page 8.3	2. Manifests must be submitted within fourteen (14) days after vessel departure. 2.1 Empty container lists must be submitted within fourteen (14) days after vessel departure.	2. Manifests must be submitted within seven (7) days after vessel departure. 2.1 Manifests in respect of empties must be submitted within seven (7) days after vessel departure.
21. Inbound Transshipment Page 8.3	4. Empty container lists must be submitted within three (3) days after vessel departure.	4. Manifests in respect of empties must be submitted within three (3) days after vessel departure.
22. Outbound Transshipment Page 8.4	4. Empty container lists must be submitted within three (3) days after vessel departure.	4. Manifests in respects of empties must be submitted within three (3) days after vessel departure.
23. Responsible Party Page 8.4	In instances where cargo dues orders have not been received, such charges will be billed to the container operator for container traffic and the vessel agent for bulk and breakbulk traffic. Cargo Dues for uncleared containers will be billed to the container operator.	In instances where cargo dues orders have not been received, such charges will be billed to the container operator per TEU for container traffic and the vessel agent for bulk and breakbulk traffic. Cargo Dues and all related charges for uncleared containers will be billed to the container operator per TEU for containerised cargo.
24. Penalties Page 8.4	3.1 Penalties for late submission of Cargo Dues Orders Cargo Dues Orders will be considered late when submitted after the agreed upon timeframes for documentation.	3.1 Late order fees for late submission of Cargo Dues Orders Cargo Dues Orders will be considered late when submitted to the Authority after the stipulated timeframes.
25. Penalties Page 8.5	3.2 Non-submission of Cargo Dues Orders The Authority will apply an incremental penalty based on the cargo dues payable and dependent on how late documentation is submitted or when a non-submission is discovered by the Authority's internal verification process. This penalty will be imposed 30 days after vessel arrival for imports and 30 days after vessel departure	3.2 Non-submission of Cargo Dues Orders The Authority will apply an incremental late order fee based on the cargo dues payable and dependent on how late documentation is submitted or when a non-submission is discovered by the Authority's internal verification process. Refer below for late order application:

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	<p>for exports. The incremental penalty is tabled below:</p> <p>Number of days late</p> <p>31-60 days 61-90 days 91-120 days >120 days</p> <p>Penalty application</p> <p>10% 30% 50% 100%</p> <p>Where cargo documentation is submitted, whether timeously or not subsequently cancelled for whatever reason and resubmitted, interest / penalty charges if applicable will be levied from the date of the new order in the event of undeclaration, in addition to the cancellation fee of Rxxx,xx per order.</p>	<p>Number of days late</p> <p>31-60 days 61-90 days 91-120 days >120 days</p> <p>Penalty application</p> <p>(10% Value of Cargo dues order) (30% Value of Cargo dues order) (50% Value of Cargo dues order) (100% Value of Cargo dues order)</p> <p>Where cargo documentation is submitted, whether timeously or not subsequently amended for whatever reason and resubmitted, late order fee charges if applicable will be levied from the date of the new order in the event of undeclaration, in addition to the amendment fee of R xxx,xx per order.</p>
26. Penalties <i>Page 8.5</i>	<p>3.3 Late and incomplete or non-submission of Manifests/Outturn reports</p> <p>The penalty for late and incomplete or non-submission of manifests will be Rx xxx,xx per manifest. The Authority will determine non-submission of Manifests through its internal verification processes.</p>	<p>3.3 Late and incomplete or non-submission of Manifests/Outturn reports</p> <p>The late order fee for late and incomplete or non-submission of manifests/outturns will be Rx xxx,xx per manifest/outturn.</p>
27. Cancelling Orders <i>Page 8.5</i>	<p>4. CANCELLING ORDERS</p> <p>Incorrect orders must be cancelled and a new order must be submitted. Cancelled cargo dues orders will attract an administrative fee of Rxxx,xx per order.</p>	<p>4. AMENDING ORDERS</p> <p>Incorrect orders amended within seven (7) days from the date of submission (inclusive of weekends and public holidays) will not attract an amending fee for all non-revenue items e.g. container number. 2. After seven (7) days, an amending fee of R xxx,xx will be charged per order.</p>
28. Terminal Outturn Report <i>Page 8.5</i>	<p>Outturn reports are required on a per vessel basis from all terminals at the respective ports, within 10 days after the vessel completed working.</p>	<p>Outturn reports are required on a per vessel basis from all terminals at the respective ports, within 5 days after the vessel departure.</p>
29. PortsOnline <i>Page 8.6</i>	<p>PortsOnline</p>	<p>Order-to-Cash</p>