



VAAL RIVER SYSTEM

RAW WATER TARIFF SETTING FOR AUGMENTATION SCHEMES

2024/25

Rand Water Tariff Consultation

Via Microsoft Teams

Unyielding commitment to

REJUVENATION REVIVAL RENAISSANCE TRANSFORMATION

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Purpose of Presentation

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The purpose of this presentation is to consult stakeholders on input assumptions applied to calculating the Augmentation Schemes tariffs for 2024/25

- TCTA presents the capital cost component of augmentation schemes as an input into the total raw water tariff set by DWS.



Tariff Structure

Water Supply Chain & Revenue Collection

CUC component

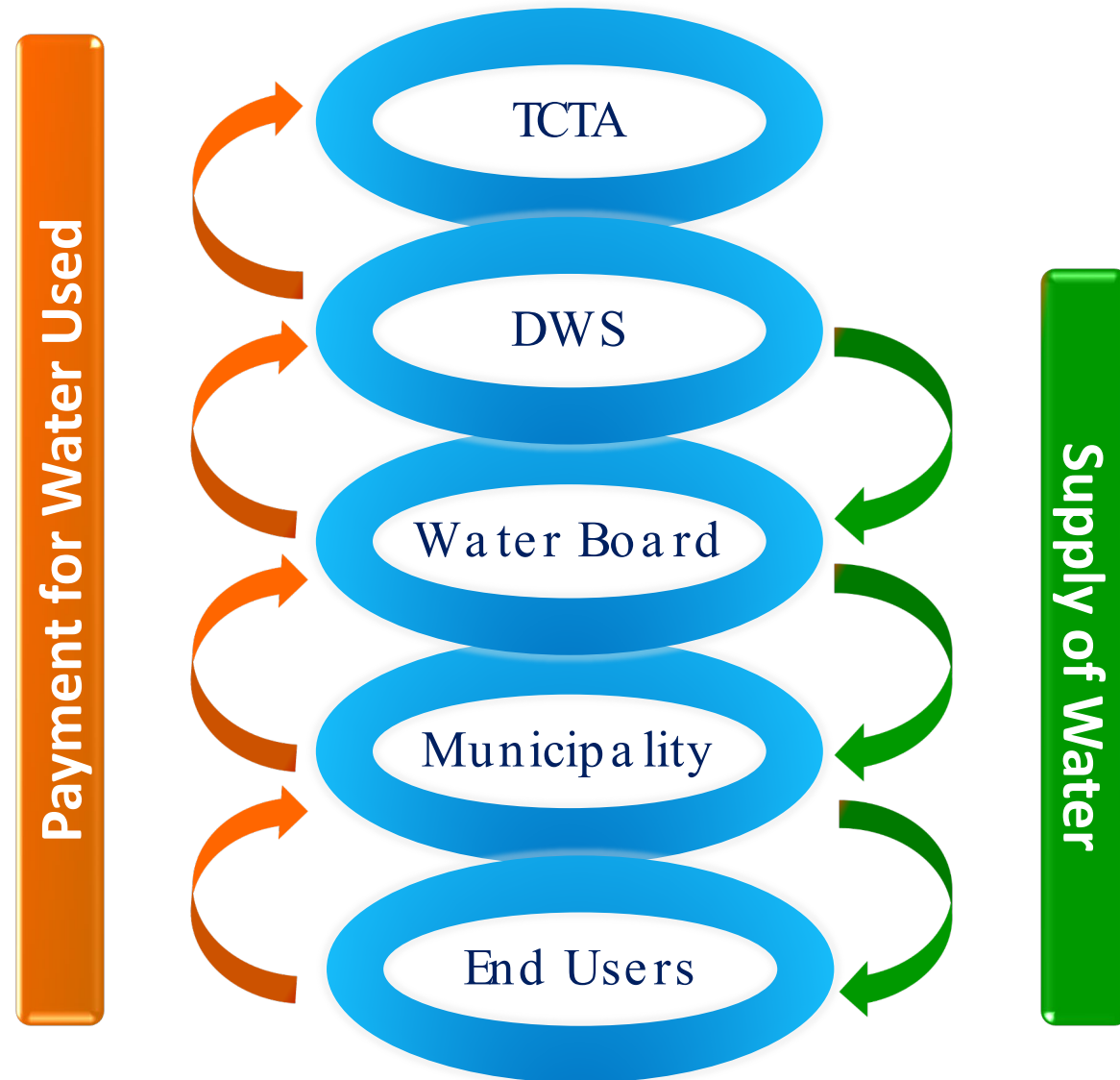
To repay debt incl.

- LHWP-1 capital
- LHWP-2 capital incl LHDA admin during construction
- AMD-STI (33%) capital
- TCTA administration cost
- Funding costs

BO&RC component

To repay operating costs incl.

- Royalties to Lesotho
- RSA portion of O&M in Lesotho to Ash Outfall in SA
- LHWC RSA delegation costs
- LHDA administration cost for LHWP-1 O&M (and LHWP-2 O&M post construction)



Balanced Tariff Objectives

TCTA

- Secured income stream
- Contractual right to pass tariffs through to DWS
- Compliance with regulatory limits and guarantees
- Sustainable projects

SALGA

- Inflationary increases targeted
- Fair tariff structures

National Treasury

- Government's risk protected - Bankable project
- Affordable services to the people
- Sustainable debt levels in the water sector - debt overlap
- Responsible utilisation of state guarantees

Banks and Investors

Timeous repayment of loan



SARB

Administered prices for inflation targeting

DWS

- Water security balanced with tariff affordability
- Inflationary increases in raw water as input cost in water supply chain
- Affordability/predictability to end-users
- Uncomplicated annual tariff consultations – inflationary increases targeted
- Water demand management incentive (pay on actual use)
- Transparency of costs
- Compliance with Water Pricing Strategy and NWA

Water sector and end users

- Tariff stability and predictability
- Affordable water
- Inflationary increases acceptable
- No cross subsidisation between systems – transparency of costs

TCTA Income Agreement with DWS

- **Inflationary adjustment**

- CPI annually (May index)
- CPI Cap and floor levels



- **Tariff review triggers**

- Variances between budget and actual for previous year
- Changes in capital cost
- Changes in water demand
- Changes in funding cost
- Changes in timing and cost of future augmentation schemes (dependant on system yield)
- Changes in regulatory or legislative environment
- Changes to operations and maintenance costs (TCTA and LHDA O&M)
- Changes in any input assumptions that increase/decrease final repayment date

Other Considerations in Determination of Tariffs

- National Water Pricing Strategy (currently under review)
- Administered prices (targeted inflation levels)
- Affordability to end-users
 - Phase-in of tariff during construction period
 - Smoothing of large increases on capital over 2-3 years
- Stakeholder consultation outcome
- MFMA requirements for timeous approval of tariff increases



Project Update

Project Status Overview

- **AMD-STI**

- Fully implemented and funded – sludge pump still being implemented which is included in Project Budget

- **LHWP-2**

- Capex budget has increased to R 42 billion – timing of cashflows changed
- The two main construction contracts (dam and tunnel) were awarded in October 2022 however costs are still subject to change due to escalation and a few smaller contracts still to be awarded
- The water delivery date for LHWP-2 has moved from June 2028 to November 2028

- **AMD-LTI**

- No provision is made for AMD-LTI

- **Further Augmentation**

- No provision is made yet in the tariff for further augmentation in VRS although the high demand suggests Thukela by 2039 and Vioolsdrift Dam could also be implemented in the 20-year window – **DWS to guide on the assumptions with regards to future augmentation**

Funding Overview

- **Funding**

- Outstanding net debt on VRS as at 31 March 2023 = R 1,9 billion (gross = R 8,7 billion)
- Long-term funding of R 15 billion was concluded in 2021
- Further funding of R 4,5 billion with two Development Funding Institutions is being finalised
- A DMTN programme is being established which is at advanced stage – provision of R 10 billion is made for VRS
- TCTA and DWS have concluded the agreement to settle fiscal contribution on AMD-STI

- **Borrowing Limit**

- TCTA's existing borrowing limit of R 22 730 million expires in March 2024. In April 2023 TCTA applied for an extension which is with National Treasury for concurrence by the Minister of Finance:

	2024/25	2025/26	2026/27	2027/28	2028/29
Applied Borrowing Limit	R 20,920 billion	R 21,379 billion	R 21,198 billion	R 19,426 billion	R 18,974 billion

Funding Overview (Cont...)

- **Debtors**

- As at 31 March 2023, there was R 719 547 009 in payments outstanding from DWS for revenue invoiced in the month of March 2023 which was within terms.
- Revenue on VRS was received on average 1-day beyond payment terms
- The cumulative amount of interest for previous late payments amounts to R 256 million as of 31 March 2023. The Water Trading Entity is not in a position to settle the interest and informed TCTA that it should be recovered through the tariffs. DWS to inform the users in this regard under the various Water Supply Agreements between DWS and the users.

- **Sovereign Credit Rating**

- On 23 May 2023 Moody's maintained a stable outlook on South Africa and maintained South Africa's sovereign bond debt ratings at 'Ba2' – downgrades could impact on funding costs



Input Assumptions

Variables in Tariff Determination

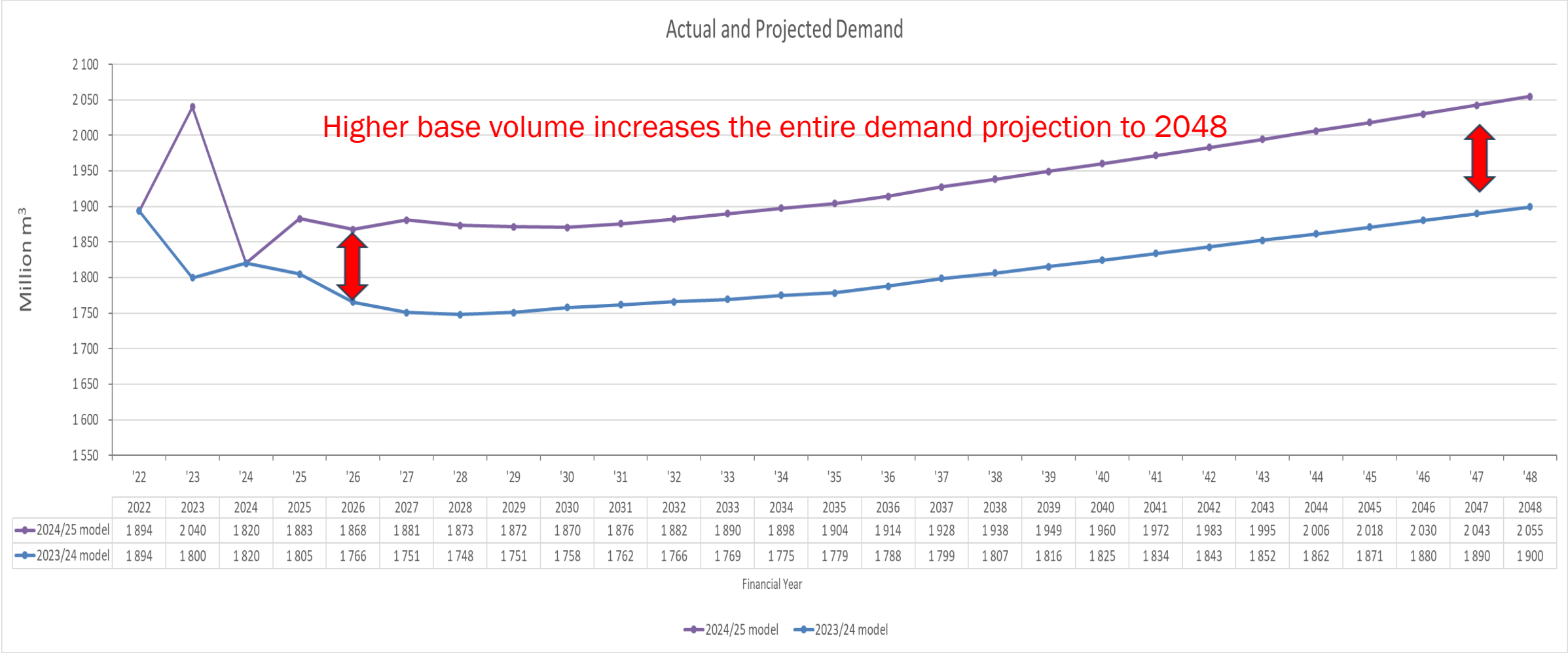
- Interest rates
- Inflation (CPI)
- Demand projections, license allocations, yields
- Implementation plan and operational declaration of new infrastructure
- **Cost and timing of future augmentation in the system**
- Administration costs
- **Royalties**
- O&M in Lesotho including Delivery Tunnel North up to Ash River outfall, the designated point of delivery to DWS and implementation of the Ash River management plan
- **Regulatory limit implications (Borrowing limit or limit of guarantees)**
- Tariff affordability or willingness to pay by users

Source of Input

- **Economic forecast**
 - New 30-year BER economic forecasts (inflation, real interest rates)
- **DWS forecasts**
 - **Base volume for next financial year**
 - Water demand forecasts (high and low scenarios including projected water restrictions)
 - System yields
 - Future schemes timing and projected costs
 - Provision to third party users
 - Fiscal funding allocation projections for AMD
- **Lesotho Highlands Water Commission (LHWC) forecasts**
 - LHWP-1 annual O&M in Lesotho
 - Administration costs of LHWC and LHDA
 - LHWP-2 capex projections
 - Royalty forecasts

Demand

Base Volume 1 883 million m³/a



Demand

Base Volume 1 883 million m³/a (calc...)

Financial Year for which tariff was Calculated	Projected Volume Used for Tariff Determination million m ³ /a	Actual Delivery Invoiced million m ³ /a	Average last 5-years million m ³ /a
2024/25	1883		
2023/24	1820		
2022/23	1800	2040	1883
2021/22	1750	1894	1820
2020/21	1750	1857	1785
2019/20	1700	1796	1784
2018/19	1606	1828	1729
2017/18	1606	1723	1681
2016/17	1606	1719	1662
2015/16	1604	1853	
2014/15	1645	1524	
2013/14	1550	1588	
2012/13	1526	1629	

Input Assumptions – 2024/25

INPUT ASSUMPTION	2023/24 TARIFF MODEL Projected for 2024/25	2024/25 TARIFF MODEL Updated input assumption	DETAILS/ SOURCE	IMPACT ON TARIFF
Opening net debt Debt as at 31 March 2024	Net: R 1 682 million Gross: R 12 329 million	Net: R 7 724 million Gross: R 7 829 million	TCTA Treasury - Higher net debt due to lower cash balances from higher capex spend - Lower gross debt due to delayed drawdown on commercial loans.	Higher net debt increases tariff
Inflation: Average CPI over the remainder of the debt repayment period	4,61%	4,52%	BER	Lower average CPI reduces tariff as the tariff will grow at a lower rate
Inflation for base year: (May 2023 CPI per Stats SA website)	4,80%	6,30%	Stats SA	Higher inflation
Funding cost: Average real interest rates over the remainder of the debt repayment period	4,47%	4,64%	BER	Higher funding cost supports an increase in tariff (only applicable to floating rate funding). Higher investment rates on cash supports a lower tariff

Input Assumptions – 2024/25 (cont...)

INPUT ASSUMPTION	2023/24 TARIFF MODEL Projected for 2024/25	2024/25 TARIFF MODEL Updated input assumption	DETAILS/ SOURCE	IMPACT ON TARIFF
Floating to fixed ratio for base year	99,99/0,01%	100,00/0,00%	TCTA Treasury	No impact
Administration cost for base year: Annual administration costs after project completion	R 318 million	R 330 million	TCTA - Costs allocated in terms of cost recovery methodology	Higher admin costs increase tariff
Demand: Average volume over debt repayment period	1 790 million m3/a	1 912 million m3/a	DWS	Higher average demand lowers tariff
Volume for base year: Base Water Demand (2024/25 base volume)	1 820 million m3/a	1 883 million m3/a	DWS	Higher base volume decreases tariff
Electricity Tariff % increase base year (2024/25)	10,00%	12,74%	NERSA decision on Eskom Retail Tariff and Structural Adjustment application for 2023-24 Financial Year	Higher Royalty charges projections resulting in a higher BO&RC tariff
Interest on previous late payments	R 259 million	R 0 million	As provided by DWS	Tariff will be higher if payment is not received
LHWP-2 Capex	R 36,1 billion	R 42,1 billion	LHDA November 2022 approved budget	Higher capex increases tariff
AMD-STI Capex	R 2,6 billion	R 2,6 billion	TCTA approved budget	No impact

Input Assumptions 2024/25: AMD-STI

Cost Allocation	<ul style="list-style-type: none">▪ 33% to Vaal River users▪ 67% fiscal contribution
Cost components	<ul style="list-style-type: none">▪ All project related costs allocated in ratio▪ capital, funding, debt management costs from inception of AMD for 20-years from 2016/17▪ O&M costs to continue in perpetuity
Funding	<ul style="list-style-type: none">▪ Part of integrated VRS funding programme under combined borrowing limit and explicit government guarantee
Fiscal contribution	<ul style="list-style-type: none">▪ R 2 857 million contributed to March 2023 since inception including O&M▪ R 1 890 million still outstanding on capex as at 31 March 2023▪ Fiscal contributions (67%) to continue until debt is repaid in March 2032▪ Fiscal contributions to continue in perpetuity for O&M▪ MTEF allocations firstly allocated to O&M and balance to outstanding debt

Comparison of previous year: 2022/23

INPUT ASSUMPTION	2022/23 BUDGET	2022/23 ACTUAL	VARIANCE	REASONS FOR VARIANCE
Opening net debt as at 31 March 2022	Net: R 7 580 million	Net: R 3 856 million	- R 3 725 million	Higher cash balance due to: <ul style="list-style-type: none"> - Higher than forecasted revenue in FY2021/22 - Re-investment of earlier than forecasted loan drawdowns, due to lower capex spend in FY2021/22
Opening gross debt as at 31 March 2022	Gross: R 7 821 million	Gross: R 9 538 million	+ R 1 717 million	- Higher gross debt due to drawdowns on new loan facilities
Capital budget:	R 36,4 billion	R 42,0 billion	+ R 5,6 billion	Increased cost as per November 2022 LTCP
Volume for base year (2022/23):	1 800 million m3/a	2 040 million m3/a	+ 240 million m3/a	Actual volumes higher than budgeted
Revenue for base year:	R 6 678 million	R 7 568 million	+ R 890 million	Revenue amount includes revenue from BO&RC. Actual revenue for FY 2022/23 is higher than forecasted due to a higher than forecasted volumes
Capital Tariff (CUC + BO&RC) for base year	R 3,710/m ³	R 3,710/m ³	-	-
Administration cost for base year (LHWP) :	R 219 million	R 265 million	+ R 46 million	Costs allocated in terms of cost recovery methodology
Administration cost for base year (AMD):	R 56 million	R 37 million	- R 19 million	Costs allocated in terms of cost recovery methodology



Brief Overview of 2023/24 Tariff

Brief overview on 2023/24 Tariff

- **Tariff adjustments**

	CUC	BO&RC	Weighted Average Augmentation Schemes Tariff
2023/24 Tariffs:	0,0% increase	31,1% increase <i>taking into account reversal of previous under recoveries</i>	5,2% increase

- **Base volume**

- 1 820 million m³/a

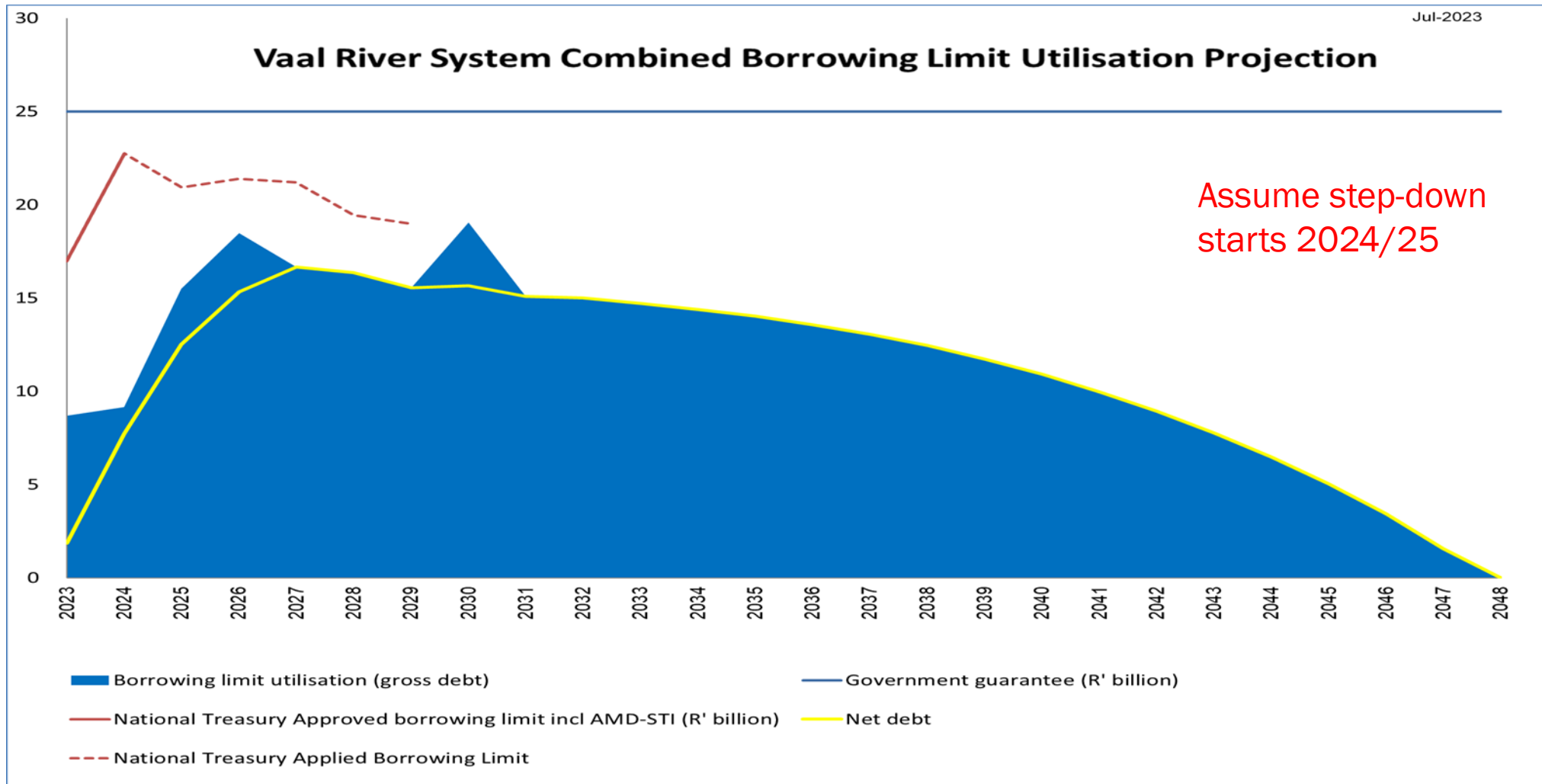
Brief overview on 2023/24 Tariff (cont...)

- **Notes for future tariffs**
 - CUC medium-term increases projected at CPI
 - Risk of uncertainty in costs relating to LHWP-2
 - Implementation costs could change on LHWP-2 - still at the early stages of implementation
 - Funding model for AMD LTS (costs are excluded from the tariff)
 - Risk of water restrictions due to delay in LHWP-2 and AMD-LTI
 - Demand/supply balance still indicates a potential water deficit – risk of water restrictions which risks future revenues
 - Potentially large increase next year on BO&RC if no over-recovery in 2023/24, create a buffer to assist with end-user affordability
 - Risk of lower borrowing limit or guarantee in future



VRS Proposed Tariff for 2024/25

Projected debt curve – at 2024/25 tariff review



- The delay in LHWP-2 resulted in the peak of debt reducing substantially as the debt overlap is not material anymore.
- Envisaged expenditure for 2023/24 might be lower, which will lower the curve in 2023/24.
- The redemption of DFI funding in 2030 is causing the peak of gross debt.

Vaal River Raw Water Tariff 2024/25

Vaal River System Users	2023/24 Actual Tariff R/m ³	2024/25 Proposed Tariff R/m ³	Weighted Average Increase %
• CUC	R 3.094	R 2.805	-9,35%
• BO&RC Base Tariff	R 0.808	R 0.948	17,31%
• Impact of over-recovery	-	-R0.028	-
• BO&RC tariff incl over recovery	R0.808	R0.920	13,88%
Total augmentation schemes capital charge for raw water	R3.902	R3.725	-4,5%

Marginal Users	2023/24 Actual Tariff R/m ³	2024/25 Proposed Tariff R/m ³	Weighted Average Increase %
Capital charge for marginal users of VRS	R 6.616	R 5.997	-9,35%

Notes to Augmentation Schemes Tariffs 2024/25

- **Capital Unit Charge (CUC)**
 - May 2023 CPI was 6,30% year-on-year
 - Base volume of 1 883 million m³/a for 2024/25 (higher than previous year at 1 820 million m³/a)
 - Increases for 2023/24 tariffs as consulted – Ministerial approval obtained
 - Proposed a 9,35% decrease – balanced between uncertainties and end-user affordability scenarios:
 - Tariff is substantially higher than what is required to repay by 2048
 - Implementation costs of LHWP-2 could still vary - at the early stages of implementation
 - Future demand could reduce as a result of potential water restrictions until AMD-LTS and LHWP-2 operational
 - Potentially large increase next year on BO&RC if large under-recovery in 2023/24 or re-calc
 - Overall increase to end-user is below CPI of 6,30% with 4,5% decrease on CUC
 - Risks not covered in CUC:
 - TCTA's borrowing limit and guarantee – potential limitations in the future, depending on limits set
 - Non-payment by DWS – revenue, fiscal contribution for AMD
 - Debtors period beyond 30-days – tariff assumes all payments timeously

Notes to Augmentation Schemes Tariffs 2024/25 cont...

- **Bulk Operating and Royalties Charge (BO&RC)**
 - Without over-recovery = increase of 17,31%
 - Including over-recovery = increase of 13,88%
 - Under-recoveries from previous years taken into account – from 2022/23:
 - higher actualised volumes (+13,3%) in water use for 2022/23 when compared to the forecast (2 040 million m³/a versus 1 800 million m³/a)
 - higher actualised Royalties charges (+6,1%) for 2022/23 when compared to the forecast (R 1 404 million versus R 1 323 million)
 - higher actualised O&M (+16%) for 2022/23 when compared to the forecast (R 106 million versus R 92 million) (combined LHDA, LHWC and O&M up to Ash Outfall)

Combined Vaal River Raw Water Tariff 2024/25 – Base Volume of 1 883 million m³/a

VRS	2023/24 Actual	2024/25 Proposed	Weighted Average increase %
i) State schemes			
Existing Vaal O&M	R 0,8950	R 0,9120	1,90%
AMD O&M	R 0,0860	R 0,0939	9,23%
	R 0,9810	R 1,0059	2,54%
ii) Augmentation Schemes			
CUC	R 3,094	R 2,805	-9,35%
BO&RC incl recoveries	R 0,808	R 0,920	13,88%
	R 3,902	R 3,725	-4,54%
Total State and Augmentation Schemes	R 4,88	R 4,73	-3,12%

- **Existing Vaal O&M:** DWS projection 1,9% increase
- **AMD O&M:** Proposed increase of 9.23%
- **CUC:** Normally the CUC is used to balance the combined impact to equate to CPI when the combined impact is below CPI, but this year the CUC can reduce.



VRS Future Tariff Projections

Future Tariff Projections – Base Tariff

	2025/26 Projected	2026/27 Projected	2026/27 Projected
Capital Tariff R/m³			
• CUC	2.591	2.349	2.079
• Base: BO&RC	0.942	1.222	1.362
Total Augmentation Schemes Capital Tariff	3.533	3.571	3.441
Capital Tariff %			
• % Increment - CUC	-7.6% ¹	-9.3%	-11.5%
• % Increment – BO&RC	-0.6%	29.7% ²	11.5%
% Increment – Weighted average	-5.9%	1%	-3.6%
Inflation			
CPI projections	4.8%	4.8%	4.8%

Note 1: Potential step-down in CUC starting 2024/25

Note 2: Projected energy costs projects a higher royalty cost. Numbers are refined annually based on

Future Tariff Projections – Incl over/under recovery on BO&RC

	2025/26 Projected	2026/27 Projected	2026/27 Projected
Capital Tariff R/m³			
• CUC	2.591	2.349	2.079
• Base: BO&RC	1.037	1.222	1.362
Total Augmentation Schemes Capital Tariff	3.627	3.571	3.441
Capital Tariff %			
• % Increment - CUC	-7.6% ¹	-9.31%	-11.5%
• % Increment – BO&RC	12.7%	17.9% ²	11.5%
% Increment – Weighted average	-2.6%	-1.5%	-3.6%
Inflation			
CPI projections	4.8%	4.8%	4.8%

Note 1: Potential step-down in CUC starting 2024/25

Note 2: Projected energy costs suggests a higher royalty cost. Numbers are refined annually based on NERSA

Notes to Future Tariff Projections - CUC

- **Future CUC**
 - Potential triggered adjustment are possible relating to:
 - Future increases are curbed to stretch the repayment period to 20-years post the peak of debt – assuming no further augmentation required in this period
 - Future augmentation in the 20-year window if WDM&WC is not successfully implemented (Thukela required by 2039 on high demand scenario – expenditure to start 2030)
 - Vioolsdrift Dam and potential impact on VRS tariffs
 - Final project costs on LHWP-2
 - Demand - Water restrictions
 - Regulatory parameters within which TCTA needs to operate (borrowing limit and guarantee)

Notes to future Tariff Projections - BO&RC

- **Future BO&RC**
 - Volatility in BO&RC tariff projected:
 - increase in input costs e.g. operations and maintenance costs and royalty costs
 - under/over recovery on BO&RC carried over (under/over recovery in 2023/24 will be carried over in 2025/26 tariff)
 - Users elected not to have a tariff stabilisation reserve in 2018 – therefore no means to smooth out large increases
 - Tariff often looks lower than what it is, due to over-recoveries that “artificially reduces” the tariff for a specific year - increases should be measured against the base tariff
 - future energy price increases



Way Forward On Tariffs

Way Forward

- Comments on this consultation meeting to be sent within 7-days to:
 - Sizani Moshidi: MoshidiS@dws.gov.za
 - Paul Nel: nelp@dws.gov.za
 - Sello Machitje: MachitjeS@dws.gov.za
 - Thabani Nomvalu: tnomvalu@tcta.co.za
 - Alicia Keyser: akeyser@tcta.co.za
- User comments to be considered by DWS and TCTA
- Sector-specific and National consultation to be conducted by DWS
- Augmentation Schemes tariff to be submitted post consultations by TCTA to DWS by 31 August 2023
- Tariffs to be approved by Minister
- Tariff model to be audited by TCTA external auditors

Thank you!!



Questions

Alicia Keyser
Project Finance
akeyser@tcta.co.za