

7. WRITING OFF OF NON-TECHNICAL WATER AND ELECTRICITY LOSSES

5/17/2

S Müller

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Hermanus Administration

4 October 2017

1. Executive Summary

National Treasury issued guidelines (MFMA Circular No. 70, December 2013) on how to deal with non-revenue water and electricity. Annexure B of Circular No 70 provides guidance on the accounting treatment of non-technical losses and mentions that a council resolution is required to write off the losses.

2. Service Delivery and Budget Implementation Plan - IGNITE

Directorate Finance
Department Revenue

3. Compliance with Strategic Priorities

Provision of democratic, accountable and ethical governance
Provision and maintenance of municipal services

4. Delegated Authority

None

5. Legal Requirements

Local Government: Municipal Finance Management Act, Act 56 of 2003

6. Background/Discussion/Evaluation/Conclusion**Background**

National Treasury issued guidelines (MFMA Circular No. 70, December 2013) on how to deal with non-revenue water and electricity. Annexure B of the Circular provides guidance on the accounting treatment of non-technical losses and mentions that a council resolution is required to write off the losses.

Discussion

Losses occur in every water and electricity distribution system. Losses are divided into technical losses and non-technical losses. Technical losses are authorised, unmetered uses or unavoidable internal system losses whereas non-technical losses are unauthorised, unmetered uses and avoidable system losses.

In the case of electricity:

- technical losses are caused by the physical properties of the components of the power system. The most obvious example is the power lost in the distribution lines and transformers due to unavoidable internal electrical resistance,
- non-technical losses are caused by illegal connections, inaccurate meters, incorrect meter readings, incorrect billing, etc.

In the case of water:

- technical losses are caused by unmetered, authorised water uses such as fire fighting, cleaning of reservoirs, flushing of pipelines and losses associated with the water treatment process (i.e. backwashing of filters),
- non-technical losses are caused by leaks, pipe bursts, illegal connections, inaccurate meters, incorrect meter readings, incorrect billing, etc.

Evaluation

Electricity (refer to Annexure A for details)

The Municipality purchased 245 751 617 kWh of energy from Eskom during the period under review (1 July 2016 to 30 June 2017) at a total cost of R168 826 514. The unit cost of electricity is therefore R0.6870 per kWh.

During the same period, the Municipality sold 227 638 533 kWh of energy to its customers. This equated to a total loss of 18 113 084 kWh (7.37%). The National Treasury norm for electricity losses is between 7% and 10%.

The technical losses were calculated for the different supply areas as follows:

Gansbaai	4.9%
Kleinmond	3.8% to 4.1%
Hermanus and Hawston	6.6% to 9.6%

Based on the calculations above, it is estimated that the technical electrical losses for the entire system is 5.0%.

The non-technical losses are therefore 2.37% or 5 825 503 kWh. At a unit cost of R0.687/kWh this equates to an amount of R4 002 006.

Water (refer to Annexure B for details)

The Municipality produced 7 556 272 kl of potable water during the period under review (1 July 2016 to 30 June 2017).

AGENDA OF THE MAYORAL COMMITTEE MEETING: 29 NOVEMBER 2017

During the same period, the Municipality sold 5 947 239 kl of potable water to its customers. This equated to a total loss of 1 609 033 kl (21.29%). The National Treasury norm for water losses is between 15% and 30%.

The technical water losses were calculated to be 164 841 kl (2.18%).

The non-technical losses are therefore 19.1% or 1 444 192 kl and this equates to an amount of R2 210 719.

7. Financial Implications

None (Disclosed in the notes to the Annual Financial Statements)

8. Staff Implications

None

9. Comments from other Departments, Divisions and Administrations

None

10. Annexures

Annexure A: Details of Electrical Losses

Annexure B: Details of Water Losses

RECOMMENDATION TO THE COUNCIL:

1. that the non-technical electricity losses to the value of R4 002 006 for the 2016/17 financial year be written off; and
2. that the non-technical water losses to the value of R2 210 719 for the 2016/17 financial year be written off.

RESPONSIBLE OFFICIAL :

BA KING

TARGET DATE FOR IMPLEMENTATION :

30 NOVEMBER 2017

Electricity : Value of kWh Units purchased from Eskom July 2016 to June 2017

	<u>Kleinmond</u> R	<u>Hawston</u> R	<u>Hermanus</u> R	<u>Stanford</u> R	<u>Gansbaai</u> R	<u>Total</u> R
July	361 568.81	136 929.56	2 364 851.68	468 141.16	1 132 716.88	4 464 208.09
	692 878.89	278 534.88	4 199 112.55		1 866 651.82	7 037 178.14
	920 297.81	409 180.01	5 495 882.92		2 489 029.56	9 314 390.30
August	388 147.53	152 211.58	2 204 696.08	492 760.58	1 085 734.93	4 323 550.70
	706 572.24	274 763.49	4 163 319.94		1 872 356.11	7 017 011.78
	976 450.65	397 020.29	5 533 144.66		2 548 865.81	9 455 481.41
September	534 499.55	169 708.96	1 826 739.08	385 558.73	869 461.43	3 785 967.75
	981 385.08	285 908.62	1 763 361.84		893 795.35	3 924 450.89
	1 028 964.25	272 129.30	2 926 540.97		1 361 661.87	5 589 296.39
October	294 863.92	115 444.29	1 691 624.80	351 710.21	804 465.11	3 258 108.33
	318 254.90	132 292.75	1 934 807.95		1 022 967.55	3 408 323.15
	475 611.84	186 276.35	2 841 304.19		1 319 321.98	4 822 514.36
November	298 815.05	115 988.45	1 753 914.77	362 841.40	793 491.58	3 325 051.25
	283 764.56	118 609.99	1 762 529.08		880 230.55	3 045 134.18
	476 667.51	187 934.44	2 905 693.18		1 286 612.64	4 856 907.77
December	316 567.49	106 673.22	1 668 176.73	365 175.51	811 493.96	3 268 086.91
	401 269.81	147 381.80	2 190 963.66		1 142 905.31	3 882 520.58
	555 682.34	189 866.78	3 020 601.07		1 420 804.28	5 186 954.47
January	295 411.77	107 461.78	1 707 764.28	384 602.29	794 046.81	3 289 286.93
	348 531.63	137 551.11	2 065 617.75		1 050 057.70	3 601 758.19
	508 779.50	186 008.46	2 981 103.96		1 356 962.45	5 032 854.37
February	270 379.62	103 151.88	1 617 158.03	376 864.45	748 380.04	3 115 934.02
	285 145.07	117 799.55	1 739 742.38		890 355.94	3 033 042.94
	451 478.01	171 304.59	2 743 121.28		1 250 806.11	4 616 709.99
March	306 663.83	119 909.15	1 766 730.26	338 266.09	898 654.07	3 430 223.40
	312 948.23	127 277.96	1 858 929.56		1 021 634.94	3 320 790.69
	504 035.01	191 882.90	2 973 830.57		1 478 957.04	5 148 705.52
April	254 377.72	98 855.80	1 417 818.23	195 080.11	706 051.09	2 672 182.95
	388 391.04	152 472.27	2 221 631.29	78 920.29	1 202 337.52	4 043 752.41
	438 519.84	165 797.70	2 505 336.44	107 471.25	1 221 773.53	4 438 898.76
May	326 659.29	131 804.97	1 841 909.12	106 212.07	934 306.50	3 340 891.95
	301 924.64	125 618.45	1 819 334.37	104 531.47	1 019 933.15	3 371 342.08
	505 321.75	199 062.49	2 964 162.61	172 139.35	1 494 996.53	5 335 682.73
June	361 883.27	146 562.66	2 151 533.72	261 201.88	1 134 947.04	4 056 128.57
	720 081.82	273 847.03	4 119 376.33	132 222.26	1 962 626.93	7 208 154.37
	1 023 836.10	416 311.54	5 478 459.11	221 840.16	2 664 590.70	9 805 037.61
Value of kWh	17 616 630.37	6 649 535.05	94 220 824.44	4 905 539.26	45 433 984.81	168 826 513.93
kWh purchased	24 475 150.60	9 293 849.22	137 637 730.75	7 906 082.07	66 438 804.69	245 751 617.33
Unit Cost R/kWh	0.7198	0.7155	0.6846	0.6205	0.6838	0.6870
kWh lost in Distribution 1 July 2016 to 30 June 2017						18 113 084.33
Less : 5 % Non-Revenue Technical losses (245 751 617.33 kWh x 5 %)						12 287 580.87
Non-Technical Losses to be written off at cost price (MFMA Circular No 70)						5 825 503.46
Nett Electricity Distribution Loss 2016/17 (Jul 2016 - Jun 2017)						2.37%
						4 002 005.98

ELECTRICITY LOSSES : 12 Months Moving Average : June 2017

Administration	Suburb	July 2016	Aug 2016	Sept 2016	Oct 2016	Nov 2016	Dec 2016	Jan 2017	Feb 2017	Mar 2017	Apr 2017	May 2017	June 2017	TOTAL	
		kWh	kWh	kWh	kWh	kWh	kWh	kWh	kWh	kWh	kWh	kWh	kWh	kWh	
KLEINMOND	Bertysbaai	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Proteodorp	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Roos-els	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Kleinmond	927 470	830 465	881 965	851 788	758 350	768 466	1 128 023	822 709	822 709	819 146	830 399	846 398	805 134	10 270 313
	Metered	927 470	830 465	881 965	851 788	758 350	768 466	1 128 023	822 709	822 709	819 146	830 399	846 398	805 134	10 270 313
	Subtotal	927 470	830 465	881 965	851 788	758 350	768 466	1 128 023	822 709	822 709	819 146	830 399	846 398	805 134	10 270 313
	Streetlights	33 885	33 885	33 885	33 885	33 885	33 885	33 885	33 885	33 885	33 885	33 885	33 885	33 885	406 620
	PREPAID	942 367	899 549	878 277	889 269	865 003	959 815	912 225	823 602	901 722	910 110	910 110	911 749	959 834	10 893 522
	Total Sales	1 903 722	1 763 899	1 774 942	1 774 942	1 657 238	1 802 166	2 074 133	1 680 196	1 754 753	1 774 394	1 774 394	1 792 032	1 798 853	21 570 435
	ESKOM	2 012 782	2 004 624	3 187 200	1 859 435	1 779 713	1 712 630	1 931 823	1 931 823	1 903 823	1 903 823	1 903 823	1 903 823	1 903 823	24 475 151
	Electricity Losses	109 060	240 725	1 393 074	84 494	122 475	413 134	-66 692	32 434	149 070	156 921	108 117	181 844	2 904 696	
	% Electricity Losses	5%	12%	44%	5%	7%	19%	-4%	2%	5%	3%	6%	5%	11.9%	
	HAWSTON	Hawston	167 508	152 729	157 248	154 086	141 601	141 625	169 560	135 168	141 230	144 105	139 211	138 080	1 782 151
	Metered	11 977	11 926	10 402	9 290	10 311	9 398	16 102	3 194	9 968	11 128	11 474	9 018	124 188	
	Subtotal	179 485	164 655	167 650	163 376	151 912	151 023	185 662	138 362	151 198	152 233	150 685	147 098	1 906 339	
Streetlights	15 366	15 366	15 366	15 366	15 366	15 366	15 366	15 366	15 366	15 366	15 366	15 366	184 392		
PREPAID	517 431	490 878	480 375	484 687	476 642	520 234	485 427	450 290	493 297	490 491	502 166	502 166	5 895 306		
Total Sales	712 282	670 899	663 391	663 429	643 920	686 623	604 018	659 861	661 090	661 090	668 217	668 217	7 986 037		
ESKOM	783 071	788 394	1 006 417	747 207	716 423	780 832	747 191	674 294	748 423	747 084	768 510	782 002	9 293 849		
Electricity Losses	70 790	117 494	343 026	83 779	72 504	94 209	64 735	85 994	88 562	85 994	100 293	116 149	1 307 813		
% Electricity Losses	9%	15%	34%	11%	10%	12%	9%	12%	12%	12%	12%	13%	15%		
GREATER	De Bos	7 655	6 248	6 183	5 776	6 029	6 535	8 235	6 516	6 469	6 868	6 434	79 565		
Metered	978 930	944 948	932 494	890 038	890 836	871 619	1 029 383	919 723	907 893	907 893	955 773	955 773	11 027 977		
Streetlights	26 951	25 837	28 403	27 582	24 978	24 097	34 734	24 133	26 309	24 133	26 309	28 947	24 548		
PREPAID	116 616	111 040	111 040	121 126	94 914	110 240	93 176	105 180	102 146	112 851	102 146	112 851	319 262		
Total Sales	450 444	411 095	484 863	452 699	466 704	482 079	564 964	408 666	486 408	470 433	465 264	499 274	5 642 893		
ESKOM	4 452	3 817	3 817	3 817	3 817	3 817	3 817	3 817	3 817	3 817	3 817	3 817	54 306		
Electricity Losses	44 402	59 278	45 592	39 854	43 224	36 182	31 491	36 226	35 226	35 226	37 682	35 973	484 147		
% Electricity Losses	11.6%	14.5%	9.4%	8.7%	9.3%	7.5%	5.5%	7.7%	7.2%	7.4%	8.0%	7.1%	8.6%		
HERMANUS	Northcliff	1 162 705	1 146 275	1 179 547	1 110 013	1 179 547	1 190 418	1 341 344	1 182 700	1 166 654	1 198 524	1 166 999	1 065 887	14 062 109	
Metered	638 521	647 686	679 500	589 470	585 379	563 831	718 283	543 406	536 714	546 163	600 123	600 123	640 186	7 289 262	
Streetlights	800 908	674 612	602 205	714 383	545 086	666 406	851 450	507 516	578 779	648 982	696 706	696 706	543 778	7 830 811	
PREPAID	3 540 989	3 633 857	3 602 187	3 471 824	3 479 061	3 501 018	3 526 489	3 503 665	3 329 923	3 329 923	3 221 948	3 221 948	41 329 086		
Total Sales	225 190	239 012	258 399	240 975	240 975	264 815	300 756	288 214	230 105	230 105	269 463	283 658	272 492	3 279 915	
ESKOM	8 042 700	7 914 488	7 900 958	7 623 192	7 732 592	8 534 100	7 522 324	7 329 598	7 341 658	7 341 658	7 580 960	7 580 960	92 735 879		
Electricity Losses	108 151	108 151	108 151	108 151	108 151	108 151	108 151	108 151	108 151	108 151	108 151	108 151	1 297 812		
% Electricity Losses	4.8%	4.8%	4.8%	4.8%	4.8%	4.8%	4.8%	4.8%	4.8%	4.8%	4.8%	4.8%	4.8%		
KLEINMOND	Consumption	9 149 655	8 909 608	8 950 573	8 638 356	8 642 854	8 642 132	9 847 785	8 483 395	8 299 942	8 299 942	8 527 290	8 578 043	8 242 898	104 912 531
Streetlights	157 402	157 402	157 402	157 402	157 402	157 402	157 402	157 402	157 402	157 402	157 402	157 402	157 402	1 888 824	
PREPAID	4 394 731	4 277 142	4 191 986	4 193 773	4 144 905	4 560 520	4 229 288	3 901 732	4 287 229	4 280 592	4 317 210	4 317 210	4 528 800	51 327 507	
Total Sales	13 701 788	13 344 132	13 299 961	12 989 931	12 944 761	13 380 054	14 234 475	12 542 529	12 744 573	12 965 284	13 082 655	13 082 655	12 929 100	158 128 862	
ESKOM	14 960 969	14 565 507	15 362 077	13 919 808	13 548 638	15 207 141	14 622 738	12 968 504	13 874 898	13 974 047	14 333 501	13 974 047	14 333 501	171 406 731	
Electricity Losses	1 259 181	1 221 355	2 062 116	930 277	603 877	1 827 088	388 263	425 975	1 324 328	909 614	921 392	1 106 408	1 404 401	13 277 869	
% Electricity Losses	8.4%	8.4%	13.4%	6.7%	4.5%	12.0%	2.7%	3.3%	9.4%	6.6%	6.6%	10%	9.8%		
STANFORD	Stanford North	65 352	72 255	63 234	61 151	60 611	55 859	67 351	62 942	56 834	62 333	62 526	69 299	759 747	
Metered	186 070	199 870	166 191	175 413	188 477	164 484	200 537	197 556	187 874	197 099	187 862	195 358	2 246 799		
Subtotal	251 430	272 125	229 425	236 564	249 088	220 343	267 888	260 498	244 708	250 388	264 657	264 657	3 006 946		
PREPAID	391 887	372 802	362 713	362 374	359 164	393 863	361 308	344 286	365 690	358 783	362 591	378 922	4 419 082		
Total Sales	643 017	644 927	592 138	603 938	608 252	614 206	629 196	604 784	610 398	618 215	618 215	643 579	7 425 628		
ESKOM	660 593	687 445	655 900	676 354	651 187	659 376	690 241	676 354	690 241	676 354	690 241	676 354	7 906 082		
Electricity Losses	17 576	42 517	27 272	27 272	42 935	41 171	71 570	31 150	54 867	32 993	28 061	480 454			
% Electricity Losses	3%	6%	10%	4%	7%	6%	9%	5%	8%	5%	4%	7%			

Administration	Suburb	July 2016 kWh	Aug 2016 kWh	Sept 2016 kWh	Oct 2016 kWh	Nov 2016 kWh	Dec 2016 kWh	Jan 2017 kWh	Feb 2017 kWh	Mar 2017 kWh	Apr 2017 kWh	May 2017 kWh	June 2017 kWh	TOTAL kWh	
GANSBAAI Metered	Birkenhead	10 189	9 877	10 814	10 556	8 545	8 206	9 568 395	-943 106	7 101	6 422	8 810	6 453	102 222	
	Blompark	8 821	8 022	11 369	9 387	7 628	8 071	4 261	7 063	7 990	7 905	38 612	13 878	133 007	
	De Kelders	162 345	152 885	175 232	134 335	148 481	161 420	221 249	127 859	122 182	147 499	122 886	163 639	104 230	1 821 356
	Franskrans	138 263	138 537	131 480	121 247	129 170	122 195	248 975	140 876	140 876	128 836	122 836	180 576	108 979	1 711 970
	Gonsbaai	1 124 259	1 106 485	1 172 096	1 168 476	1 085 482	984 514	1 058 003	981 243	981 243	995 272	1 068 518	1 068 340	1 261 199	13 311 887
	68 Industrië Park	49 470	48 604	53 263	48 991	55 207	54 905	52 508	54 442	54 442	60 102	49 703	56 810	48 281	632 286
	Kleinbaan	110 067	97 606	105 840	93 910	98 644	98 644	136 534	97 087	97 087	94 299	86 458	124 547	80 678	1 216 680
	Masokhane	3 285	2 415	3 314	3 285	3 785	3 912	3 031	3 031	4 736	5 918	7 672	5 888	8 819	56 074
	Pearly Beach	140 097	144 135	128 168	126 423	129 572	124 373	243 399	147 210	147 210	126 323	139 055	266 700	127 853	1 843 308
	Bredasdorp Distrik	18 319	20 382	21 459	18 532	20 882	18 362	19 917	18 007	18 007	14 489	17 318	18 575	17 838	224 050
	Caledon Distrik	3 433 928	1 788 483	1 773 617	1 760 517	1 964 278	1 751 406	1 873 234	1 949 225	1 949 225	1 818 043	1 103 882	2 001 163	2 162 710	21 615 371
	Subtotal		3 517 431	3 586 652	3 646 910	3 336 008	4 819 466	2 584 642	3 405 872	2 969 951	3 933 630	3 940 918	42 668 211	3 940 918	42 668 211
	PREPAID		1 615 431	1 593 238	1 565 074	1 570 284	1 563 912	1 829 093	1 639 897	1 477 556	1 683 334	1 596 532	1 672 149	1 672 149	19 415 832
	Total Sales		5 047 359	5 110 669	5 151 726	5 063 087	5 210 822	5 145 101	6 459 363	4 062 198	5 017 207	4 653 285	5 550 162	5 613 067	62 084 043
	ESKOM		5 494 498	5 421 325	5 307 792	5 491 468	5 073 506	5 956 861	5 606 756	4 993 338	5 841 755	5 676 624	5 901 451	5 673 431	66 438 805
Electricity Losses		447 139	310 657	156 066	428 381	-137 316	791 760	-852 607	931 140	824 549	1 023 339	371 289	60 364	4 354 761	
% Electricity Losses		8%	6%	3%	8%	-3%	13%	-15%	11%	14%	18%	5%	1%	6,5%	
TOTAL for GANSBAAI / STANFORD															
Consumption		3 685 358	3 789 556	3 816 077	3 729 367	3 895 998	3 566 351	5 087 354	2 845 140	3 650 580	3 229 383	4 184 018	4 205 575	45 674 757	
PREPAID		2 005 018	1 966 040	1 927 787	1 937 658	1 923 076	2 222 956	2 001 204	1 821 841	1 977 025	2 042 117	1 959 123	2 051 071	23 834 914	
Total Sales		5 690 376	5 755 596	5 743 864	5 667 025	5 819 074	5 779 307	7 088 558	4 666 981	5 627 605	5 271 500	6 143 141	6 256 646	69 509 671	
ESKOM		6 155 091	6 108 770	5 963 692	6 122 678	5 724 693	6 612 238	6 296 996	5 669 691	6 448 837	6 349 706	6 547 423	6 345 071	74 344 887	
Electricity Losses		464 715	353 174	219 828	455 653	-94 381	832 931	-991 562	1 002 710	821 233	1 078 206	404 283	88 425	4 835 215	
% Electricity Losses		7,6%	5,8%	3,7%	7,4%	-1,6%	12,6%	-12,6%	17,7%	12,7%	17,0%	6,2%	1,4%	6,5%	
Total Metered		12 835 013	12 699 164	12 766 650	12 367 723	12 538 852	12 198 483	14 935 139	11 328 535	11 950 522	11 756 673	12 762 061	12 448 473	150 587 288	
Total Streetlights		157 402	157 402	157 402	157 402	157 402	157 402	157 402	157 402	157 402	157 402	157 402	157 402	1 888 824	
Total Prepaid		6 399 748,90	6 243 182,00	6 119 772,40	6 131 430,50	6 067 581,10	6 803 475,20	6 230 492,50	5 723 572,90	6 264 233,60	6 322 708,60	6 276 332,40	6 579 870,90	75 162 421,00	
Total Consumption		19 392 163,90	19 099 748,00	19 043 824,40	18 656 555,50	18 768 835,10	19 159 360,20	21 323 083,50	17 209 509,90	18 372 177,60	18 236 783,60	19 195 795,40	19 185 745,90	227 638 533,00	
ESKOM		21 116 060,47	20 674 277,00	21 325 769,32	20 042 486,04	19 273 331,13	21 819 378,89	20 919 734,00	18 638 195,10	20 517 738,35	20 224 604,24	20 521 470,40	20 678 572,39	245 751 617,33	
Electricity Losses		1 723 897	1 574 529	2 281 945	1 385 931	509 496	2 660 019	-403 300	1 428 685	2 145 561	1 987 821	1 325 675	1 492 826	18 113 084,33	
% Electricity Losses		8,16%	7,62%	10,70%	6,91%	2,64%	12,19%	-1,93%	7,67%	10,46%	9,83%	6,46%	7,22%	7,37%	
Metered consumption since 1 July 2015															
Streetlights adjusted w.e.f. 1 Jan 2012															

Water Distribution Losses 2016/2017 per Distribution Area

DEPARTMENT	Bulk Water per Scheme Total Kℓ	Bulk Water per Town Kℓ	Losses per Town Kl	% of Loss	Town Loss as % of Scheme Loss	Water Metered plus Operational Losses Kℓ	Non-Technical		Cost per Kℓ Purified R	Cost of Water Losses R
							Water Losses Kℓ	Water Losses Kℓ		
Water Treatment : Kleinmond : Buffelsrivier : Kleinmond / Buff. River Total	1 573 880	752 588 821 292	203 625 455 126 658 751	30.9% 69.1% 100.0%		561 632 394 482 956 114	190 956 426 810 617 766	0.66 0.96	126 031.11 409 737.39 535 768.49	
Water Treatment : Hermanus (De Bos)	4 111 346	4 111 346	317 045	7.7%		3 885 878	225 468	0.26	58 621.68	
Water Treatment : Stanford	304 177	304 177	76 937	25.3%		234 007	70 170	0.03	2 105.10	
Water Treatment : Franskraal : Pearly Beach : De Kelders : Baardskeerdersbos : Buffeljagsbaai : Gansbaai Total	1 566 869	981 433 132 537 435 920 13 052 3 927	366 388 21 928 162 737 5 047 200	65.9% 3.9% 29.3% 0.9% 0.0%		631 848 111 615 280 646 8 236 3 736	349 585 20 922 155 274 4 816 191	4.68 1.04 0.47 5.71 -	1 636 058.39 21 759.20 72 978.84 27 496.76 -	
Total	7 556 272	7 556 272	1 609 033			6 112 080	1 444 192		R 2 354 788.53	

	Kl
21.29%	1 609 033
2.18%	164 841
19.11%	1 444 192

Total / General water losses
Operational / Technical Losses
Nett / Non-technical water losses

Franskraal Bulk =	981 433 =	R	0.69	of Franskraal/De Keide
De Kelders Bulk =	435 920 =	R	0.31	of Franskraal/De Keide
Total Franskraal/De Kelders Gansbaai (Franskraal/De Kelders) losses divided in same ratio	1 417 353	R	1.00	

BR