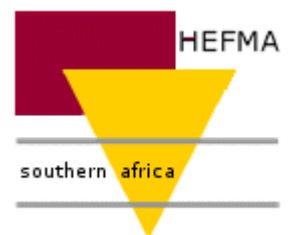
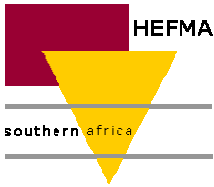


# 2006

## Hefma Benchmark Report





Higher Education Facility Management Association of Southern Africa

Dear HEFMA Colleagues

### 2006 Benchmark Report

Welcome to the 2006 HEFMA benchmark report, the third report of its kind to be published for the benefit of all HEFMA members. For this edition, sadly only 5 institutions have registered their intent to participate in the survey and returned their surveys. I hereby want to extend a warm word of thanks to the five institutions who were willing to make time to fill in the survey questionnaire.

As was the case with previous two reports, this 2006 report focused on 5 operational areas, namely building maintenance, grounds maintenance, cleaning and waste management, energy and security. The survey was once again based on the highly sought after TEFMA benchmark report, scaled down to only include these five areas.

As this report is only the third iteration in HEFMA benchmarking, some problems have still been experienced with some of the definitions. After the recent changes in the higher education landscape in South Africa, some newly formed institutions were also still unable to participate due to inadequate information systems. I am however confident that during the next round in 2008, we will not only be able to iron out these issues, but we also intend to grow the report further to include at least 75% of the Higher Education Institutions in Southern Africa.

The Australasian benchmarking project started out humbly and has since grown into an FM industry leading annual publication. It is my hope that our own HEFMA benchmarking initiative will gain the same recognition as that of our Australasian colleagues. We will endeavor to publish this report annually towards the end of each year, and to grow it with each new issue. The 2007 survey will kick off in April 2008. May our benchmarking project go from strength to strength and become the industry leader benchmarking publication in Southern Africa.

Best regards,

Marcel Theron  
**Executive Member: Information Services**  
HEFMA  
October 2007



## 2006 HEFMA Benchmark Report

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## List of Participating HEFMA Institutions (5)

Rhodes University  
University of Pretoria

University of the Free State  
University of Stellenbosch

University of the Western Cape

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### General Notes and Qualifications:

**Schedule of respondents.** Your institutional representative has been issued with a “*Cheat Sheet*” that identifies survey participants, the names of which have been excluded from the main body of the report for confidentiality reasons.

**Survey Guidelines.** Guidelines and definitions for completing the survey are provided on pages 9/10. Note that additional explanatory notes were embedded into the actual 2006 survey data collection form.

**Survey Errors and Improvements.** As the HEFMA benchmark survey is in its early years some inconsistencies in the way participants interpret the survey definitions and collect and compile data is expected. If you find any errors in this report, or wish to submit suggestions for improving future surveys, please contact Marcel Theron at [marcel.theron@up.ac.za](mailto:marcel.theron@up.ac.za)

Institution	General statistical data							
	CBD Suburban or Rural Campus	Gross Floor Area Total Campus (GFA)	Useable Floor Area Total Campus (UFA)	UFA/GFA	ARV Buildings	Replacement Cost of Buildings	Total EFTSU	GFA provided per EFTSU
	2	3	4	5	6	7	8	9
	Type	m <sup>2</sup> GFA	m <sup>2</sup> UFA	%	R	R/m <sup>2</sup> GFA	No.	m <sup>2</sup> /EFTSU
1	CBD	187 995	130 547	69.4%	R 1 620 910 303	R 8 622	22 000	8.5
2	Suburban	336 498	173 461	51.5%	R 1 449 984 104	R 4 309	11 768	28.6
3	CBD	821 880	508 932	61.9%	R 5 296 046 048	R 6 444	30 735	26.7
4	Suburban	653 303	386 858	59.2%	R 4 793 486 636	R 7 337	17 851	36.6
5	Suburban	178 631	133 577	74.8%	R 725 146 000	R 4 059	5 042	35.4
Mean		2 178 307	1 333 375	61.2%	R 13 885 573 091	R 6 374	87 396	24.9

Institution	Maintenance								
	Preventive & Corrective Expenditure								
	Admin & Prof Staff Salaries & On-costs	Trade Staff Wages & On-costs	Total Staff Salaries/wages & On-costs	Materials & Contracts	Maintenance projects on Capital Budget	Total Maint Expenditure	Area Maintained from Central Funds	Cost of Maintenance per m <sup>2</sup> (GFA)	Cost of Maintenance per EFTSU
	10	11	12	13	14	15	16	17	18
R	R	R	R	R	R	m <sup>2</sup> GFA	R/m <sup>2</sup> GFA	R/EFTSU	
1	R 4 498 019	R 2 056 877	R 6 554 896	R 8 940 321	R 13 748 811	R 29 244 028	187 995	R 155.56	R 1 329
2	R 652 578	R 6 840 497	R 7 493 075	R 3 905 897	R 2 231 490	R 13 630 462	336 498	R 40.51	R 1 158
3	R 4 320 000	R 3 330 000	R 7 650 000	R 15 250 000	R 17 500 000	R 40 400 000	821 880	R 49.16	R 1 314
4	R 3 222 609	R 6 998 981	R 10 221 590	R 9 815 233	R 11 268 385	R 31 305 208	656 303	R 47.70	R 1 754
5	R 3 413 743	R 3 408 924	R 6 822 667	R 3 513 000	R 3 598 000	R 13 933 667	178 631	R 78.00	R 2 764
Mean	R 16 106 949	R 22 635 279	R 38 742 228	R 41 424 451	R 48 346 686	R 128 513 365	2 181 307	R 58.92	R 1 470

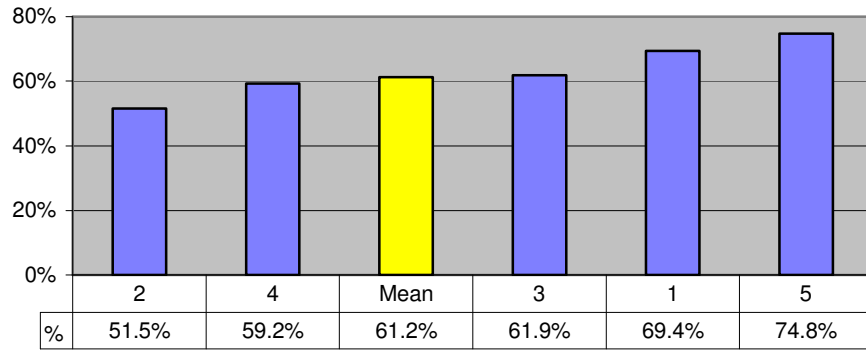
Institution	Cleaning & Waste Management Services									
	In-house Wages & On-costs	Cleaning Materials	Cleaning Contracts			Total Cleaning Expenditure	Area Cleaned from Cent Funds	Cost of Cleaning Buildings	Total Cost Cleaning R/GFA	Total Cost Cleaning R/EFTSU
			Building	Non-Building						
				Gen Waste	Contaminated					
19	20	21	22	23	24	25	26	27	28	
R	R	R	R	R	R	m <sup>2</sup> GFA	R/m <sup>2</sup> GFA	R/m <sup>2</sup> GFA	R/EFTSU	
1	R 1 553 424	R 157 792	R 2 132 205	R 402 168	R 100 542	R 4 346 131	119 690	R 32.95	R 36.31	198
2	R 363 374	R 967 640	R 8 357 666	R 373 500	R 742 853	R 10 805 033	336 498	R 31.00	R 32.11	918
3	R 1 209 600	R 1 700 000	R 8 600 000	R 3 108 000	R 208 000	R 14 825 600	380 000	R 30.84	R 39.01	482
4	R 14 195 026	R 4 173 711	R 12 092 282	R 5 536 595	R 1 048 681	R 37 046 295	656 303	R 48.01	R 56.45	2 075
5	R 1 419 000	R 493 000	R 493 000	R 672 000	R 143 532	R 3 220 532	178 631	R 14.27	R 18.03	639
Mean	R 18 740 424	R 7 492 143	R 31 675 153	R 10 092 263	R 2 243 608	R 67 999 983	1 671 122	R 34.65	R 40.69	778

Institution	Energy Consumption/Expenditure							
	Annual Consumption in Gigajoules	Annual Cost of Energy Purchased	Total GFA services with energy	Energy Consumption per m <sup>2</sup>	Energy Consumption per EFTSU	Energy Cost per m <sup>2</sup> (GFA)	Energy Cost per EFTSU	Average Cost per kWhr
	29	30	31	32	33	34	35	36
	GJ	R	m <sup>2</sup> GFA	GJ/m <sup>2</sup> GFA	GJ/EFTSU	R/m <sup>2</sup> GFA	R/EFTSU	cents/kWhr
1	98 447	R 8 238 208	187 995	0.52	4.5	R 43.82	R 374	30.1
2	83 809	R 5 700 000	336 498	0.25	7.1	R 16.94	R 484	24.5
3	322 926	R 11 270 146	821 880	0.39	10.5	R 13.71	R 367	12.6
4	226 542	R 22 664 490	638 497	0.35	12.7	R 35.50	R 1 270	36.0
5	79 169	R 4 652 244	178 631	0.44	15.7	R 26.04	R 923	21.2
Mean	810 893	R 52 525 088	2 163 501	0.37	9.3	R 24.28	R 601	23.3

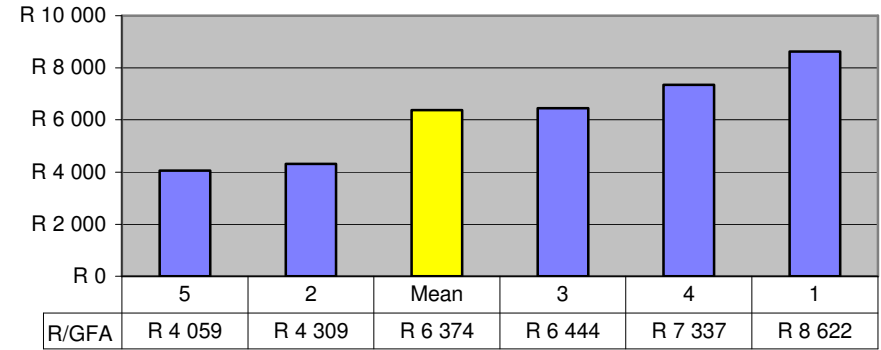
Institution	Security						
	Security Staff Salaries/wages & On-costs	Expenditure on Security Contracts	Other Security Costs	Total Security Expenditure	GFA under Security Patrol	Cost of Security per m <sup>2</sup> (GFA)	Cost of Security per EFTSU
	37	38	39	40	41	42	43
	R	R	R	R	m <sup>2</sup> GFA	R/m <sup>2</sup> GFA	R/EFTSU
1	R 6 595 539	R 1 356 252	R 0	R 7 951 791	187 995	R 42.30	R 361
2	R 2 076 109	R 5 579 978	R 559 082	R 8 215 169	336 498	R 24.41	R 698
3	R 7 060 000	R 12 400 000	R 70 000	R 19 530 000	821 880	R 23.76	R 635
4	R 6 032 322	R 2 273 205	R 924 144	R 9 229 671	656 303	R 14.06	R 517
5	R 1 252 000	R 564 000	R 145 000	R 1 961 000	178 631	R 10.98	R 389
Mean	R 23 015 970	R 22 173 435	R 1 698 226	R 46 887 631	2 181 307	R 21.50	R 536

Institution	Grounds Maintenance					Building Operating Costs			
	Staff Salaries/wages & On-costs	Materials & Contracts	Total Grounds Maintenance Expenditure	Hectares actively Maintained from Central Funds	Maintenance Expenditure per Hectare	Total Op Costs (Maint, Cleaning, Security & Energy)	Operating Costs per m <sup>2</sup> (GFA)	Operating Costs per EFTSU	Operating Costs as % of ARV
	44	45	46	47	48	49	50	51	52
	R	R	R	Ha	R/Hectare	R	R/m <sup>2</sup> GFA	R/EFTSU	% ARV
1	R 1 035 273	R 1 951 306	R 2 986 579	190	R 15 719	R 49 780 158	R 275	R 2 263	3.1%
2	R 503 526	R 2 462 735	R 2 966 261	117	R 25 353	R 38 350 664	R 113	R 3 259	2.6%
3	R 1 350 000	R 9 700 000	R 11 050 000	280	R 39 464	R 86 025 746	R 117	R 2 799	1.6%
4	R 2 582 082	R 4 003 226	R 6 585 308	207	R 31 813	R 100 245 664	R 145	R 5 616	2.1%
5	R 3 200 000	R 1 459 000	R 4 659 000	145	R 32 131	R 23 767 443	R 129	R 4 714	3.3%
Mean	R 8 670 881	R 19 576 267	R 28 247 148	939	R 30 082	R 295 926 066	R 139	R 3 386	2.1%

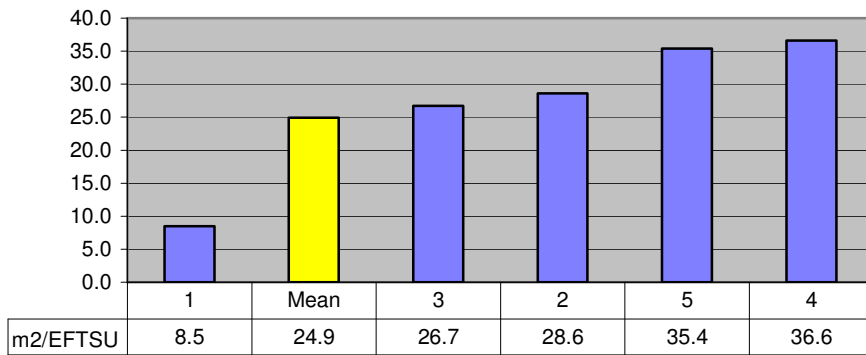
**Building Efficiency (UFA/GFA)**



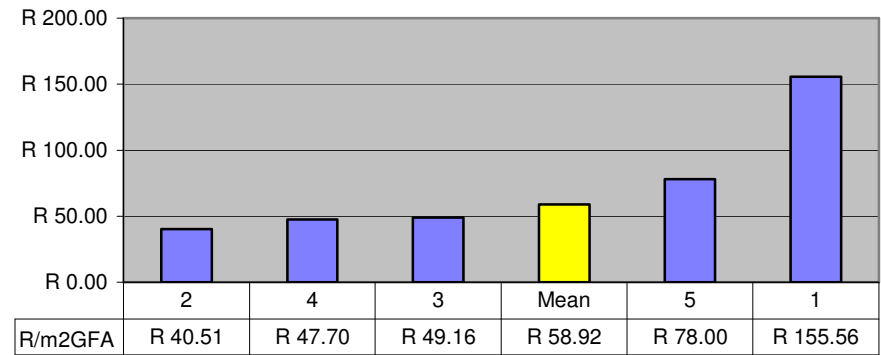
**Asset Replacement Cost (R/m2 GFA)**



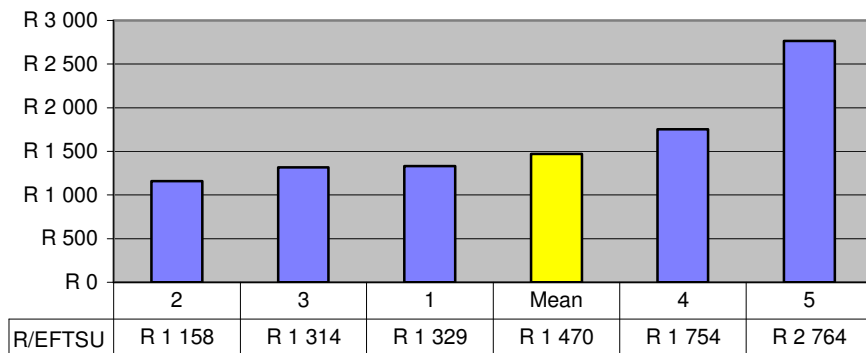
**Space / EFTSU**



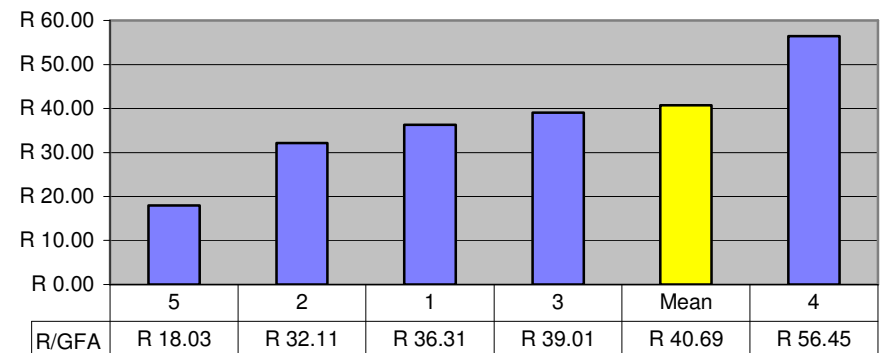
**Maintenance Costs (R/m2 GFA)**



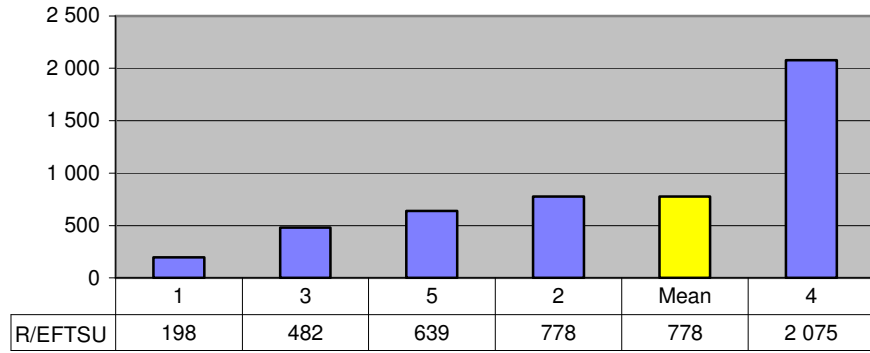
**Maintenance Costs (R/EFTSU)**



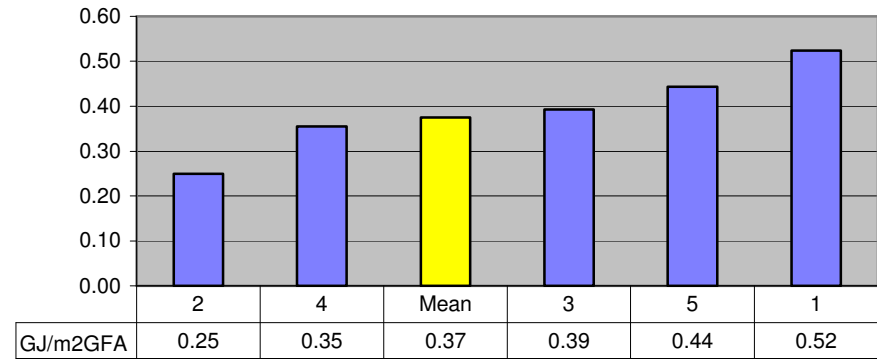
**Cleaning Costs (R/m2 GFA)**



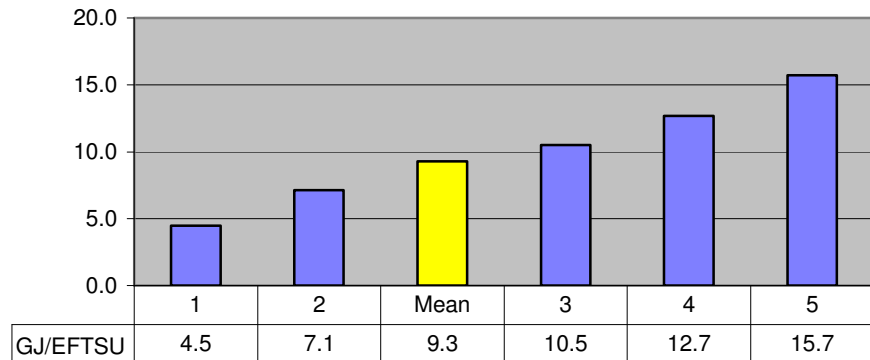
**Cleaning Costs (R/EFTSU)**



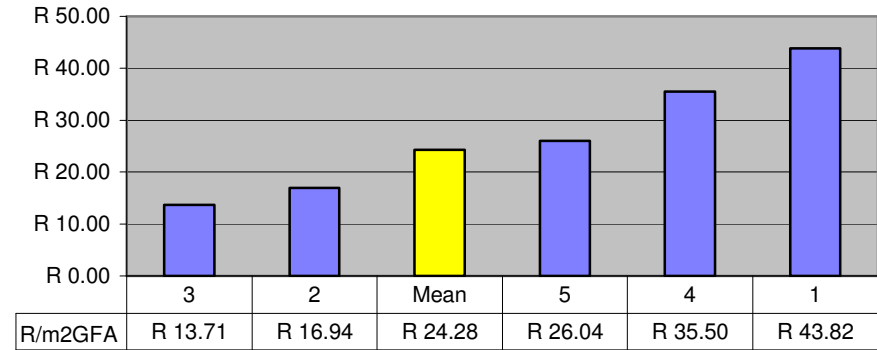
**Energy Consumption (GJ/m2 GFA)**



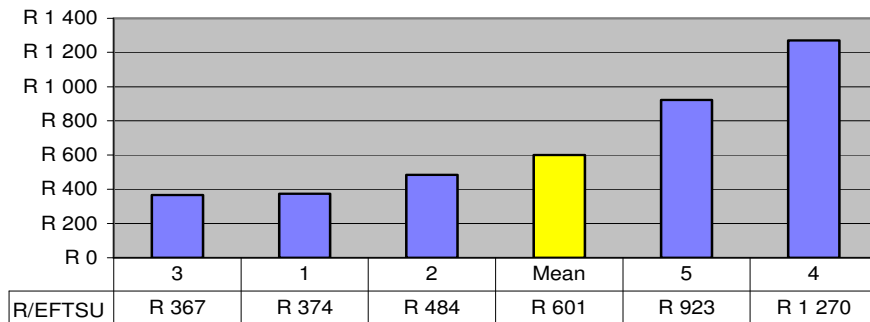
**Energy Consumption (GJ/EFTSU)**



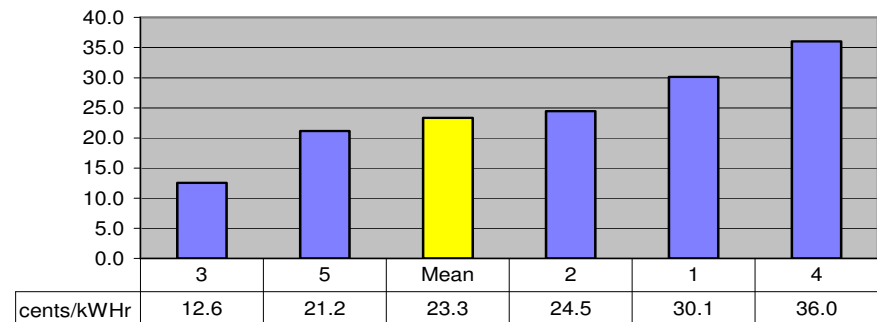
**Energy Costs (R/m2GFA)**



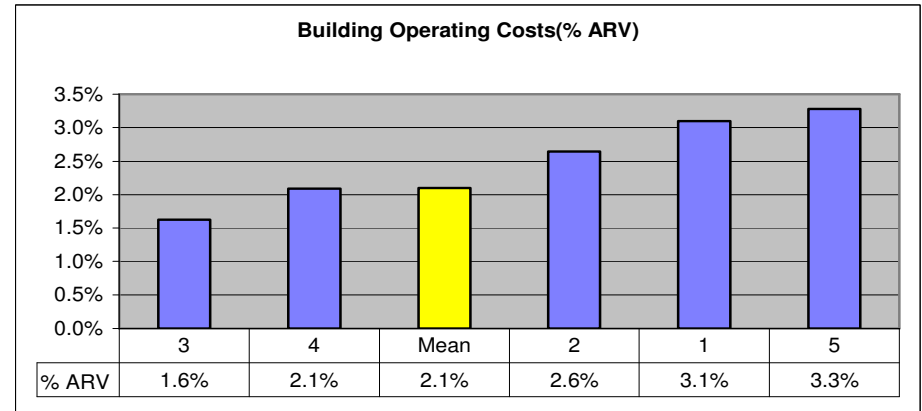
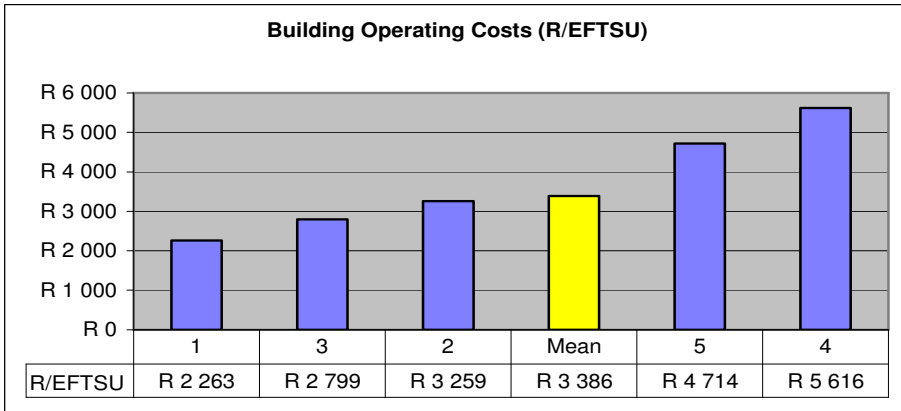
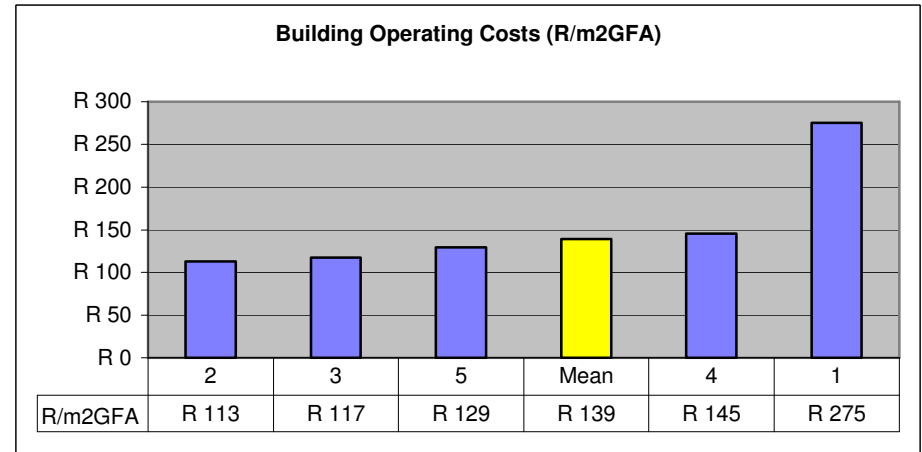
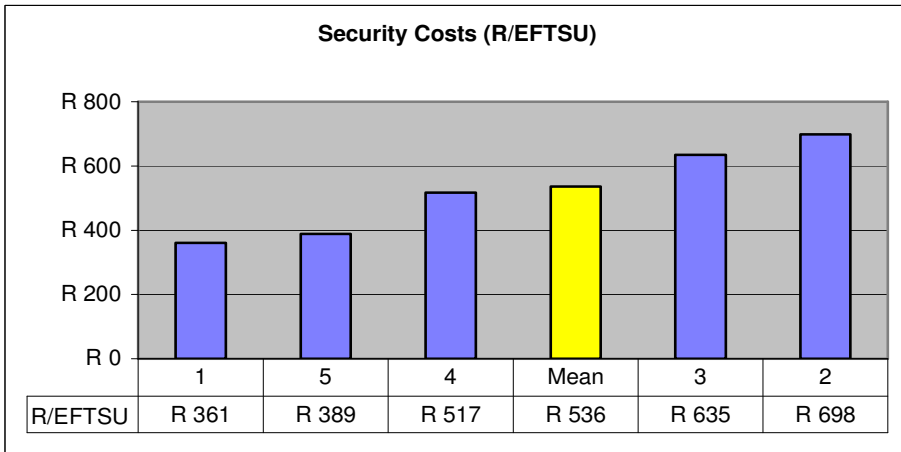
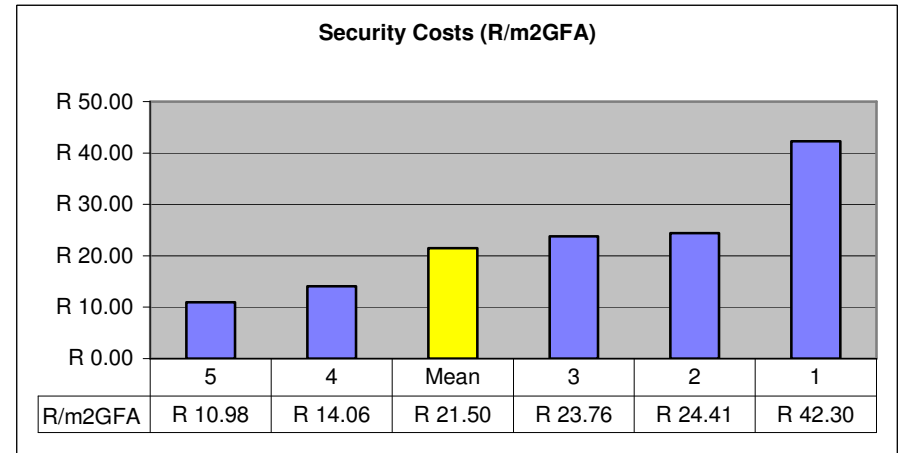
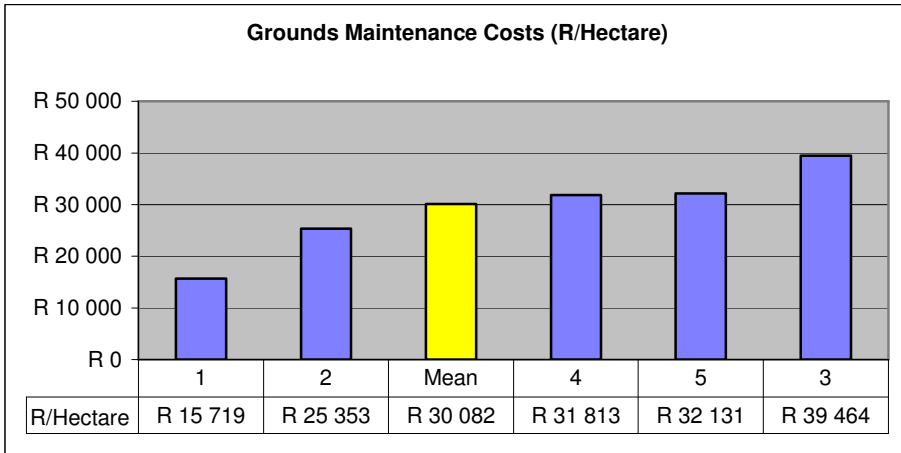
**Energy Costs (R/EFTSU)**



**Cost of Energy (cents/kWhr)**







## Guidelines for completing the 2006 HEFMA benchmark survey

Welcome to the 2006 HEFMA Benchmark Survey. This survey is has been adapted for South African higher education institutions, and is a simplified version of the previous years. Please fill in only the green cells on each tab of the spreadsheet. Depending on your screen size, you may be required to scroll through the tabs at the bottom of the spreadsheet. Totals are calculated in the yellow cells and carried forward to this page to show your Institution's total building operating costs..

### General Instructions:

- 1) All Higher Educations Institutions in South Africa annually submit a HEMIS survey. In this benchmark survey, you are required to use the **HEMIS definitions** as indicated. This will ensure that all participating institutions use the same definitions for calculations. The HEMIS definitions are applicable to **GFA, AFA, ARV and EFTS**.
- 2) Only fill in the **green** cells. **Yellow** cells are calculated by the computer. **Blue** cells are the RSA 2005 figures (averages or totals) to provide you with an order of magnitude to use as a reference.
- 3) You may include or exclude student housing (residences) from your figures, as long as you do it consistently. If you include residences in your GFA, you must also include it in your AFA and ARV, as well is in the relevant data fields associated with providing services to student housing. Thus if you maintain your residences but don't clean them, include the residences in your GFA for Maintenance, but exclude it in your GFA for Cleaning and Waste Removal.
- 4) Start on the tab "**General Statistical Data**" and work your way through all the tabs. Ensure that you fill in values in **all six tabs**. Don't despair, there are only 27 data fields to fill in!
- 5) Save this spreadsheet as **YourUniversityBenchmark.xls**. When you are done, please email this spreadsheet with your results back to marcel.theron@up.ac.za. All questionnaires must be submitted back before **31 August 2007**. On completion of the survey and analysis, the final report (in PDF format), will be distributed electronically to all HEFMA members.
- 6) Remember, the name of your institution will not be revealed to other participants, unless you give your explicit permission. Please consider to participate, even if you have already indicated your inability to do so. The more participants, the higher the validity of the project.

## Guidelines for each column

Column	Guideline
--------	-----------

### General Statistical Data

- |   |   |
|---|---|
| 1 | The name of your institution e.g. University of Pretoria  |
| 2 | Indicate whether this figures represent the aggregate of all your campuses (preferably) or name of separate campus. If not aggregate, please fill in a survey per campus. |
| 3 | The all inclusive total floor area of all floors measured over the outer walls of the building. Includes all assignable and non-assignable areas.                         |
| 4 | AFA = GFA - non-assignable floor area (NFA): NFA includes mechanical floor areas, custodial floor areas, circulation floor areas etc                                      |
| 5 | Calculated field. Do not fill in.   |
| 6 | The total cost to erect a similar building at today's cost. Includes building cost, professional fees, municipal costs and fixed equipment.                               |
| 7 | Calculated field. Do not fill in.   |
| 8 | Use the standard HEMIS definition for Equivalent Full-time Students. Only include contact students and exclude distance students.   |
| 9 | Calculated field. Do not fill in.   |

### Maintenance (Corrective and Preventive)

- |    |   |
|----|---|
| 10 | Include costs of professional and administrative staff directly and indirectly involved in the maintenance operation. Where a staff member spends only part of his or her time on maintenance activities, please estimate & apportion their time and costs accordingly. Include a provision for FM management overhead. |
| 11 | Include all costs associated with maintenance trades staff working on maintenance activities only. Where maintenance staff also perform "new work", this portion should be excluded from the maintenance costs reported.  |
| 12 |   |
| 13 | Include the costs of materials (e.g. paint, timber, hardware, lamps, plumbing supplies, etc) used by your maintenance staff on preventive and corrective maintenance activities plus payments made to external service providers (e.g. air-conditioning, lift, electrical, plumbing contractors,                        |

- etc).
- 14 Spent on maintenance projects from capital budget. Exclude budgets spent on new work.
- 15 Calculated field. Do not fill in.
- 16 Cannot exceed the GFA in Col 3.
- 17 Calculated field. Do not fill in.
- 18 Calculated field. Do not fill in.

### Cleaning and Waste Management Services

- 19 Include costs of professional and administrative staff directly and indirectly involved in the cleaning and waste management operations. Where a staff member spends only part of his or her time on these activities, please estimate & apportion their time and costs accordingly. Include a provision for FM management overhead.
- 20 Include the costs of cleaning materials used by your cleaning staff on all cleaning related activities plus materials provided to external service providers.
- 21 Payments made to external service providers.
- 22 The total cost of general waste removal, either internally or by waste removal contractor.
- 23 The total cost of contaminated waste removal, either internally or by waste removal contractor. Include pathological and chemical waste removal.
- 24 Calculated field. Do not fill in.
- 25 Cannot exceed the GFA in Col 3.
- 26 Calculated field. Do not fill in.
- 27 Calculated field. Do not fill in.
- 28 Calculated field. Do not fill in.

### Energy

- 29 The total annual energy consumption of your Institution that relates to the GFA in column 43. Only include by facilities that are included in GFA in column 43.
- 30 The total annual cost of energy purchased by your institution that relates to the GFA in column 43. Only include cost to facilities that are included in GFA in column 43.
- 31 Ensure GFA figure is consistent with definitions provided in Columns 41 and 42. Cannot exceed the GFA in Col 3.
- 32 Calculated field. Do not fill in.
- 33 Calculated field. Do not fill in.
- 34 Calculated field. Do not fill in.
- 35 Calculated field. Do not fill in.
- 36 Calculated field. Do not fill in.

### Security

- 37 Include costs of professional and administrative staff directly and indirectly involved in the security operation. Where a staff member spends only part of his or her time on security activities, please estimate & apportion their time and costs accordingly. Include a provision for FM management overhead.
- 38 Indicate whether this figures represent the aggregate of all your campuses (preferably) or name of separate campus
- 39 Payments made to external service providers.
- 40 Calculated field. Do not fill in.
- 41 Only use the Gross Floor Area of the buildings patrolled, not the area of all grounds patrolled. This figure can not exceed the GFA in Col 3.
- 42 Calculated field. Do not fill in.
- 43 Calculated field. Do not fill in.

### Grounds Maintenance

- 44 Include costs of professional and administrative staff directly and indirectly involved in the grounds maintenance operation. Where a staff member spends only part of his or her time on maintenance activities, please estimate & apportion their time and costs accordingly. Include a provision for FM management overhead.
- 45 Include the costs of materials used by your grounds maintenance staff on these activities plus payments made to external service providers.
- 46 Calculated field. Do not fill in.
- 47 Effective area of grounds maintained with these funds. This may include the area of your landscaped gardens and sports fields if applicable.
- 48 Calculated field. Do not fill in.

