UCT Year on Year Change (kWh)

Year on Year total kWh comparison for UCT

Aug

3 471 190

2018

Year

Aug

3 268 081

2019

Year

Total Monthly Electricity Cost (R)

OFFICE

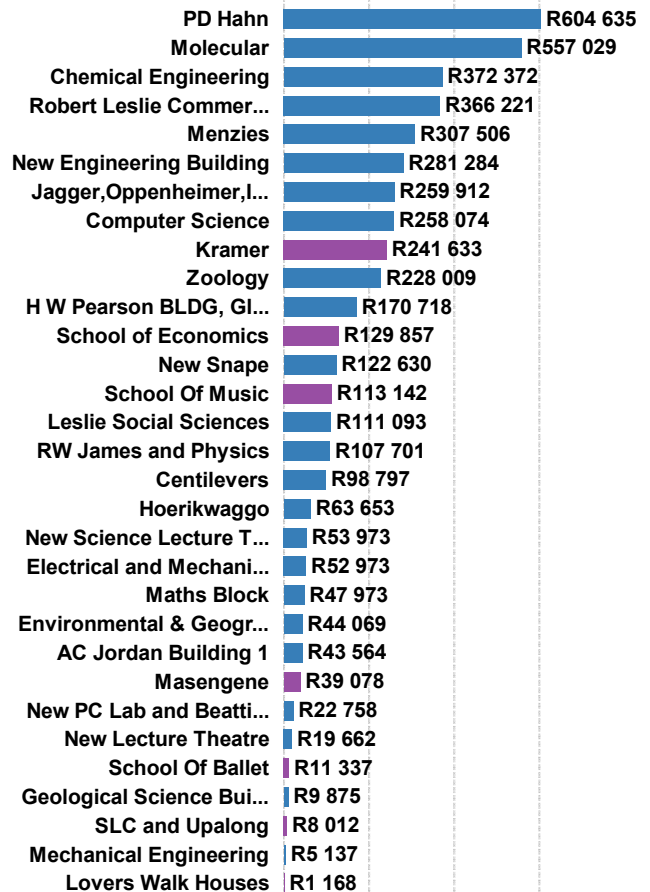| Building	Cost
Student Union Extensio...	R398 623
Geological Ext Science ...	R116 576
Bremner Building	R108 321
Beattie Block	R86 387
Neville Alexander Building	R82 292
Rachel Bloch House and...	R17 609
Maintenance building	R16 801
Harry Oppenheimer Insti...	R15 755
Welgelegen	R14 703
Old Administration Build...	R9 585
Cottage & Glenara	R9 137
Educare and Extension ...	R3 430
Burnage	R2 686
Isaac Albow Building	R1 614

0   200 000   400 000   R

LECTURE VENUE

Building	Cost
PD Hahn	R604 635
Molecular	R557 029
Chemical Engineering	R372 372
Robert Leslie Commer...	R366 221
Menzies	R307 506
New Engineering Building	R281 284
Jagger,Oppenheimer,I...	R259 912
Computer Science	R258 074
Kramer	R241 633
Zoology	R228 009
H W Pearson BLDG, Gl...	R170 718
School of Economics	R129 857
New Snape	R122 630
School Of Music	R113 142
Leslie Social Sciences	R111 093
RW James and Physics	R107 701
Centilevers	R98 797
Hoerikwaggo	R63 653
New Science Lecture T...	R53 973
Electrical and Mechani...	R52 973
Maths Block	R47 973
Environmental & Geogr...	R44 069
AC Jordan Building 1	R43 564
Masengene	R39 078
New PC Lab and Beatti...	R22 758
New Lecture Theatre	R19 662
School Of Ballet	R11 337
Geological Science Bui...	R9 875
SLC and Upalong	R8 012
Mechanical Engineering	R5 137
Lovers Walk Houses	R1 168

0   200 000   400 000   600 000   R

Region Key:

Lower Campus
Upper Campus

The figures above summarize monthly energy costs.

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Report Period: Aug 2019

Monthly Energy Usage (kWh)

OFFICE

Building	kWh
Student Union Extension...	191 951
Geological Ext Science B...	64 386
Bremner Building	58 600
Neville Alexander Building	44 097
Beattie Block	41 387
Harry Oppenheimer Instit...	7 450
Maintenance building	7 356
Rachel Bloch House and ...	6 955
Welgelegen	6 409
Old Administration Building	3 885
Cottage & Glenara	3 300
Educare and Extension B...	1 391
Burnage	364
Isaac Albow Building	118

Ave: 31261

0   100 000   200 000
kWh

LECTURE VENUE

Venue	kWh
PD Hahn	327 333
Molecular	311 403
Chemical Engineering	212 465
Robert Leslie Commer...	194 234
Menzies	166 249
New Engineering Building	152 424
Computer Science	148 074
Jagger,Oppenheimer,I...	141 658
Kramer	134 645
Zoology	115 983
H W Pearson BLDG, Gl...	90 736
School of Economics	67 788
New Snape	67 200
RW James and Physics	52 993
Centilevers	51 863
School Of Music	51 026
Leslie Social Sciences	44 848
Hoerikwaggo	32 158
New Science Lecture T...	24 855
Electrical and Mechani...	24 523
Maths Block	23 485
AC Jordan Building 1	22 719
Environmental & Geog...	21 602
Masengene	18 925
New PC Lab and Beatti...	12 952
New Lecture Theatre	10 308
School Of Ballet	4 707
Geological Science Bui...	4 537
Mechanical Engineering	1 472
SLC and Upalong	973
Lovers Walk Houses	232

Ave: 79199

0   100 000 200 000 300 000
kWh

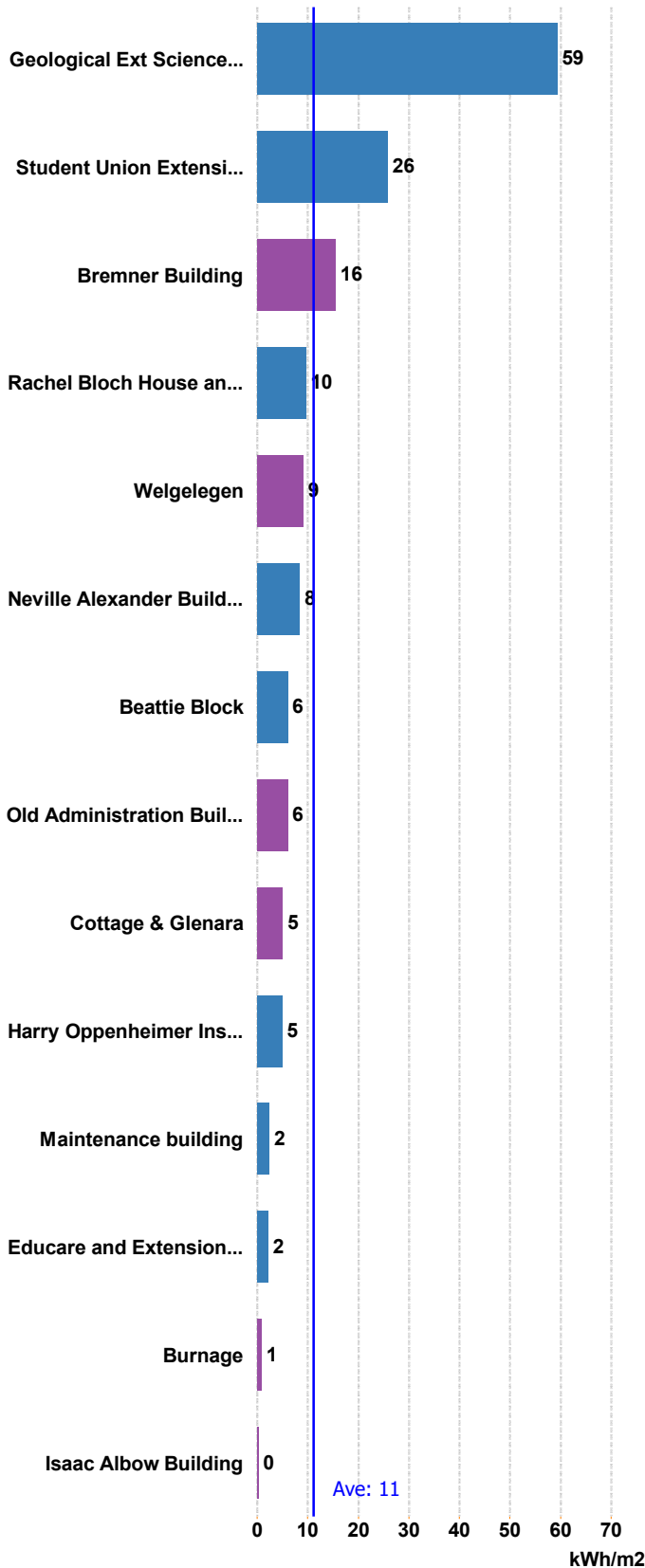## Region Key:

Lower Campus
Upper Campus

The figures in the graphs above represent the total energy consumption measured in kWh's over the reporting period. The less kWh's consumed within a particular month directly equates to a lower electricity bill.
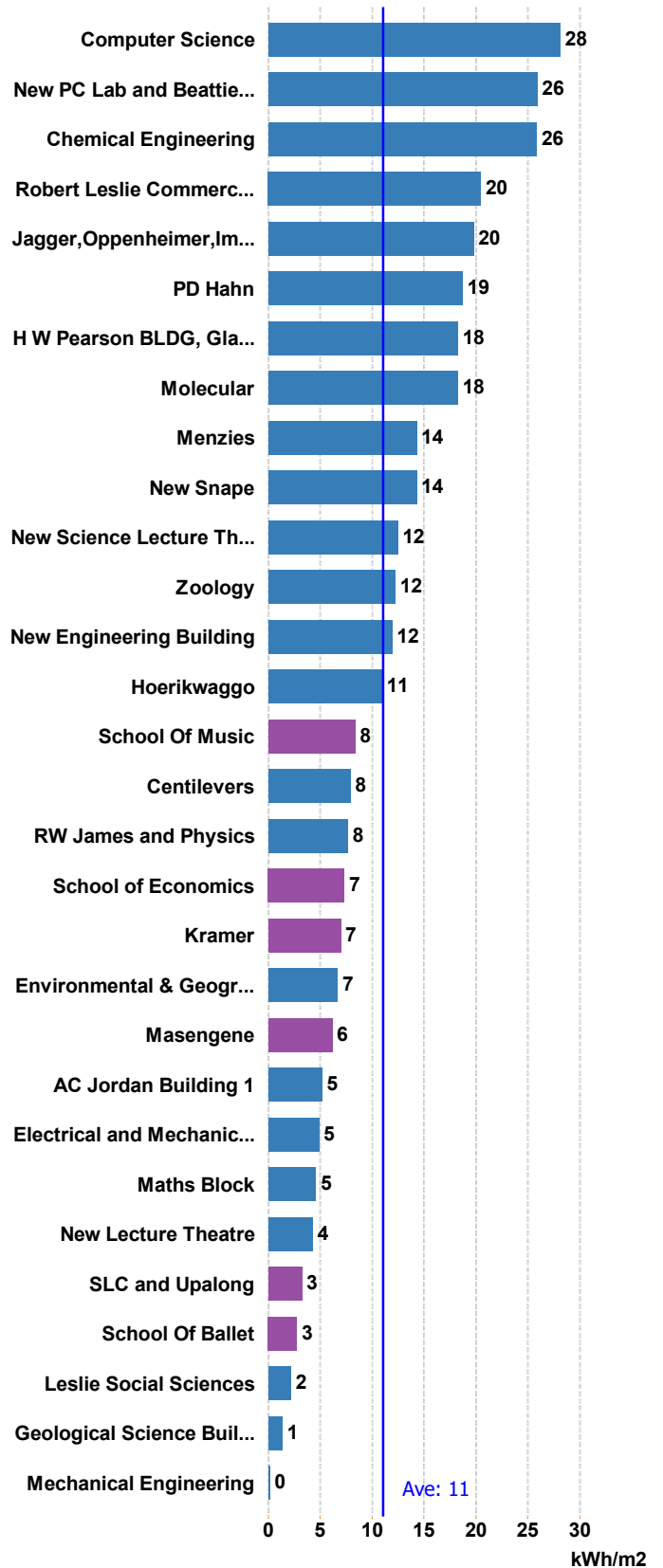
Monthly Energy Usage per Square Meter (kWh/m2)

OFFICE

Building	kWh/m2
Geological Ext Science...	59
Student Union Extensi...	26
Bremner Building	16
Rachel Bloch House an...	10
Welgelegen	9
Neville Alexander Build...	8
Beattie Block	6
Old Administration Buil...	6
Cottage & Glenara	5
Harry Oppenheimer Ins...	5
Maintenance building	2
Educare and Extension...	2
Burnage	1
Isaac Albow Building	0

Ave: 11

kWh/m2

LECTURE VENUE

Venue	kWh/m2
Computer Science	28
New PC Lab and Beattie...	26
Chemical Engineering	26
Robert Leslie Commerc...	20
Jagger,Oppenheimer,Im...	20
PD Hahn	19
H W Pearson BLDG, Gla...	18
Molecular	18
Menzies	14
New Snape	14
New Science Lecture Th...	12
Zoology	12
New Engineering Building	12
Hoerikwaggo	11
School Of Music	8
Centilevers	8
RW James and Physics	8
School of Economics	7
Kramer	7
Environmental & Geogr...	7
Masengene	6
AC Jordan Building 1	5
Electrical and Mechanic...	5
Maths Block	5
New Lecture Theatre	4
SLC and Upalong	3
School Of Ballet	3
Leslie Social Sciences	2
Geological Science Buil...	1
Mechanical Engineering	0

Ave: 11

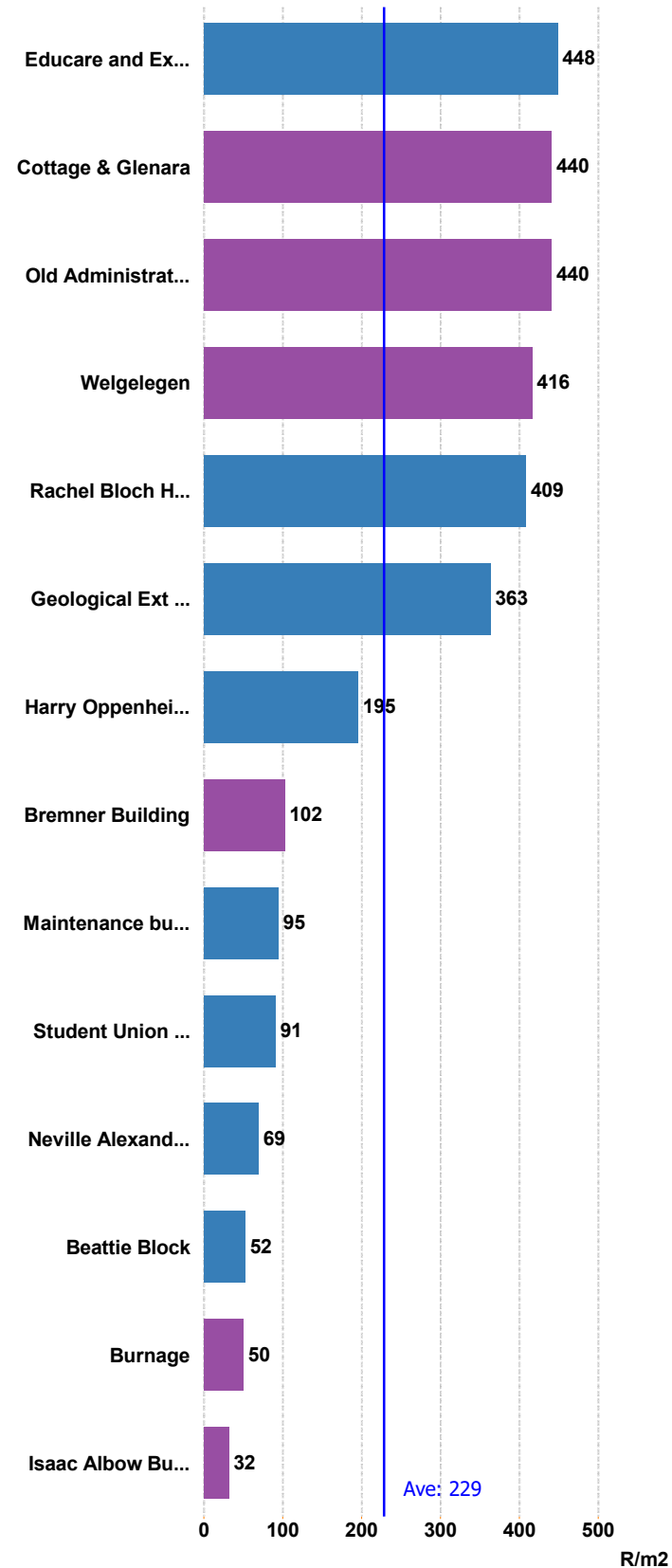kWh/m2

Region Key:

Lower Campus
Upper Campus

The monthly energy usage per square meter (m²) is a benchmarking metric to determine energy usage intensities. The benchmarking metric compares energy intensity figures of similar operations. For example, site "X" has an energy intensity of 400 kWh/m2, and site "Y" has an intensity of 250 kWh/m2. Site "Y" with the lower energy intensity is deemed to be more ef…
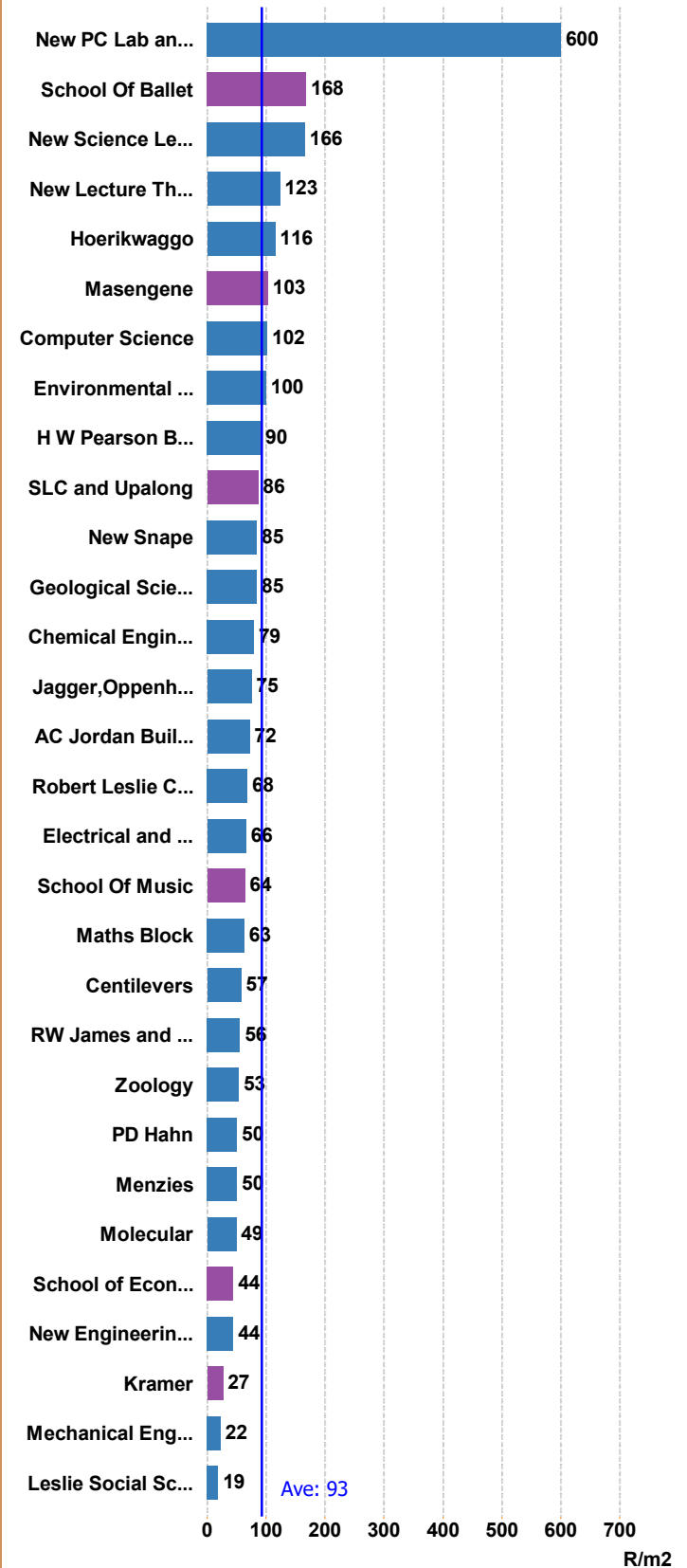
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Report Period: Aug 2019

Monthly Cost per Square Meter (R/m2)

OFFICE

Building	R/m2
Educare and Ex...	448
Cottage & Glenara	440
Old Administrat...	440
Welgelegen	416
Rachel Bloch H...	409
Geological Ext ...	363
Harry Oppenhei...	195
Bremner Building	102
Maintenance bu...	95
Student Union ...	91
Neville Alexand...	69
Beattie Block	52
Burnage	50
Isaac Albow Bu...	32

Ave: 229

R/m2

LECTURE VENUE

Building	R/m2
New PC Lab an...	600
School Of Ballet	168
New Science Le...	166
New Lecture Th...	123
Hoerikwaggo	116
Masengene	103
Computer Science	102
Environmental ...	100
H W Pearson B...	90
SLC and Upalong	86
New Snape	85
Geological Scie...	85
Chemical Engin...	79
Jagger,Oppenh...	75
AC Jordan Buil...	72
Robert Leslie C...	68
Electrical and ...	66
School Of Music	64
Maths Block	63
Centilevers	57
RW James and ...	56
Zoology	53
PD Hahn	50
Menzies	50
Molecular	49
School of Econ...	44
New Engineerin...	44
Kramer	27
Mechanical Eng...	22
Leslie Social Sc...	19

Ave: 93
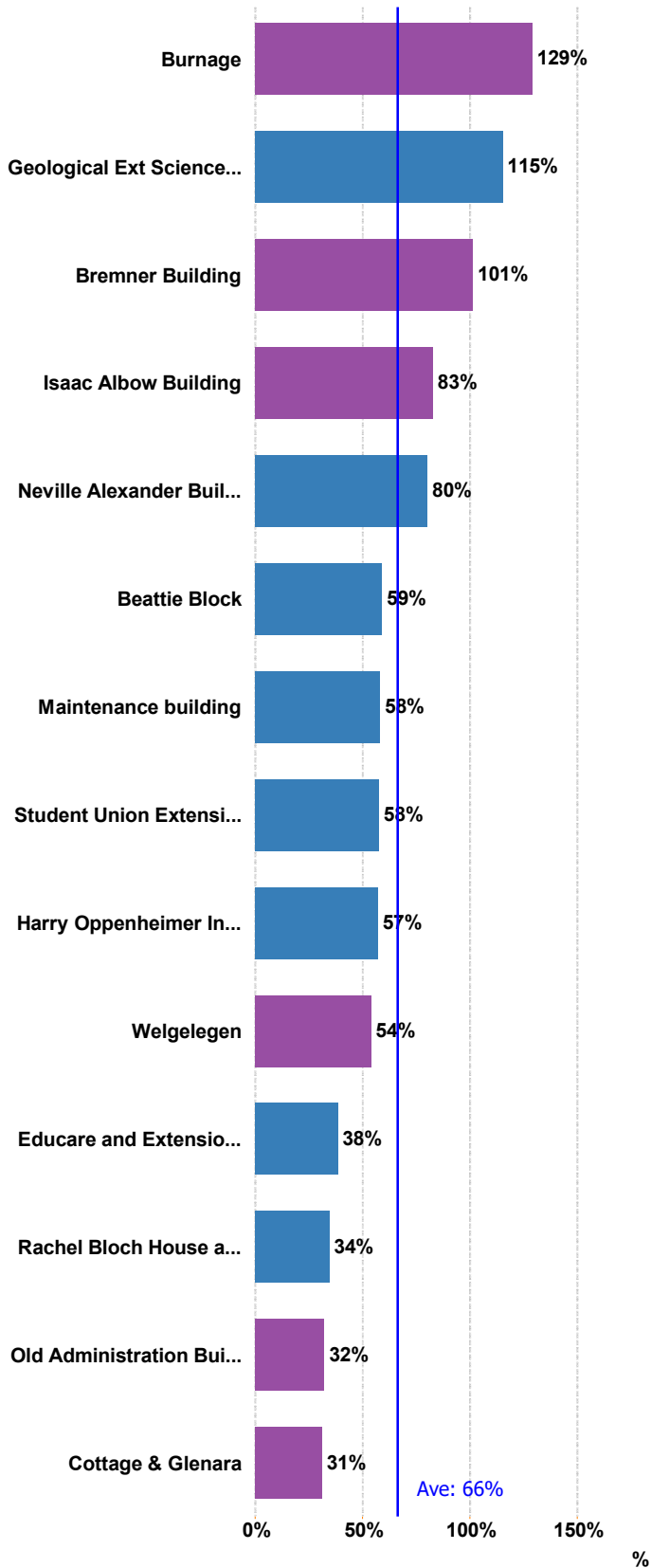
R/m2

Region Key:

Lower Campus
Upper Campus

The monthly cost (R) per square meter (m²) is a benchmarking metric to determine energy cost intensities. The benchmarking metric is useful in order to compare intensity figures to other similar operations.
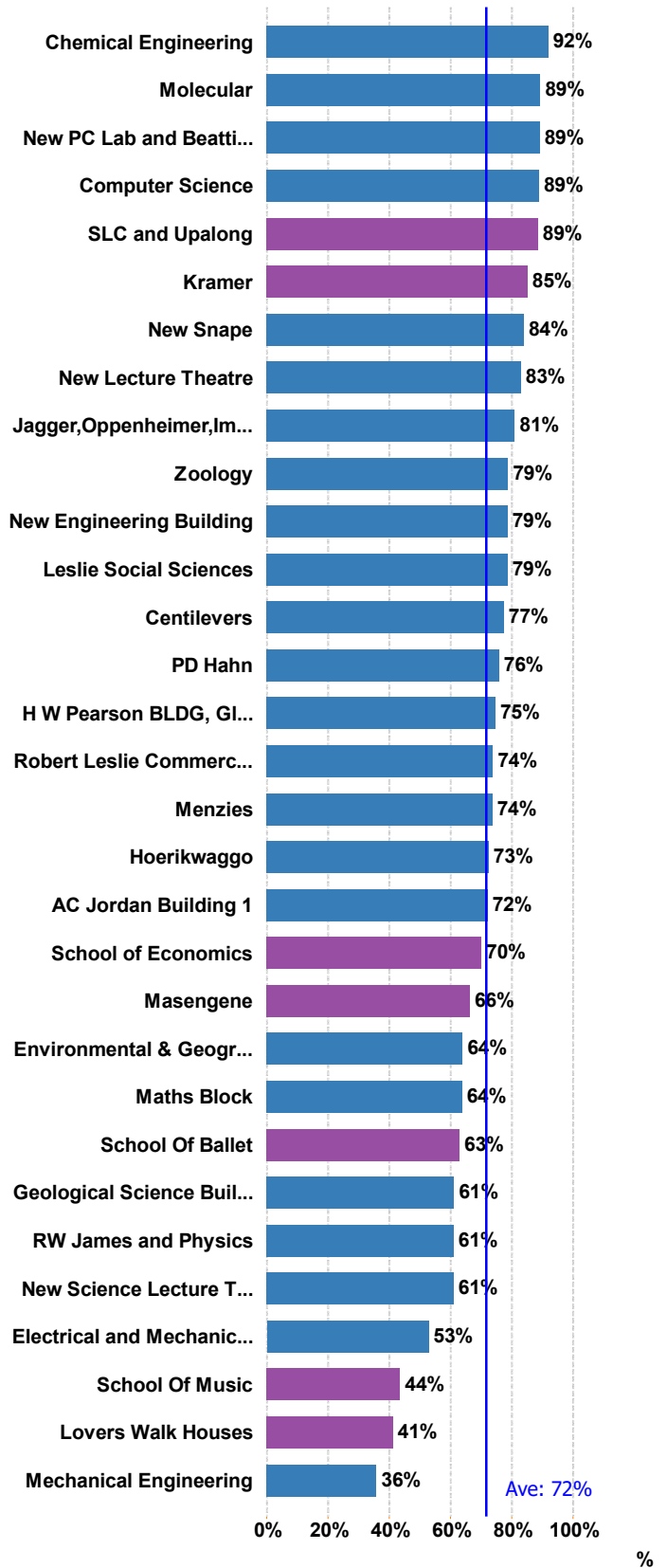
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Report Period: Aug 2019

Monthly "Night" Time Energy Usage (kWh)

OFFICE

Building	%
Burnage	129%
Geological Ext Science...	115%
Bremner Building	101%
Isaac Albow Building	83%
Neville Alexander Buil...	80%
Beattie Block	59%
Maintenance building	58%
Student Union Extensi...	58%
Harry Oppenheimer In...	57%
Welgelegen	54%
Educare and Extensio...	38%
Rachel Bloch House a...	34%
Old Administration Bui...	32%
Cottage & Glenara	31%

Ave: 66%

LECTURE VENUE

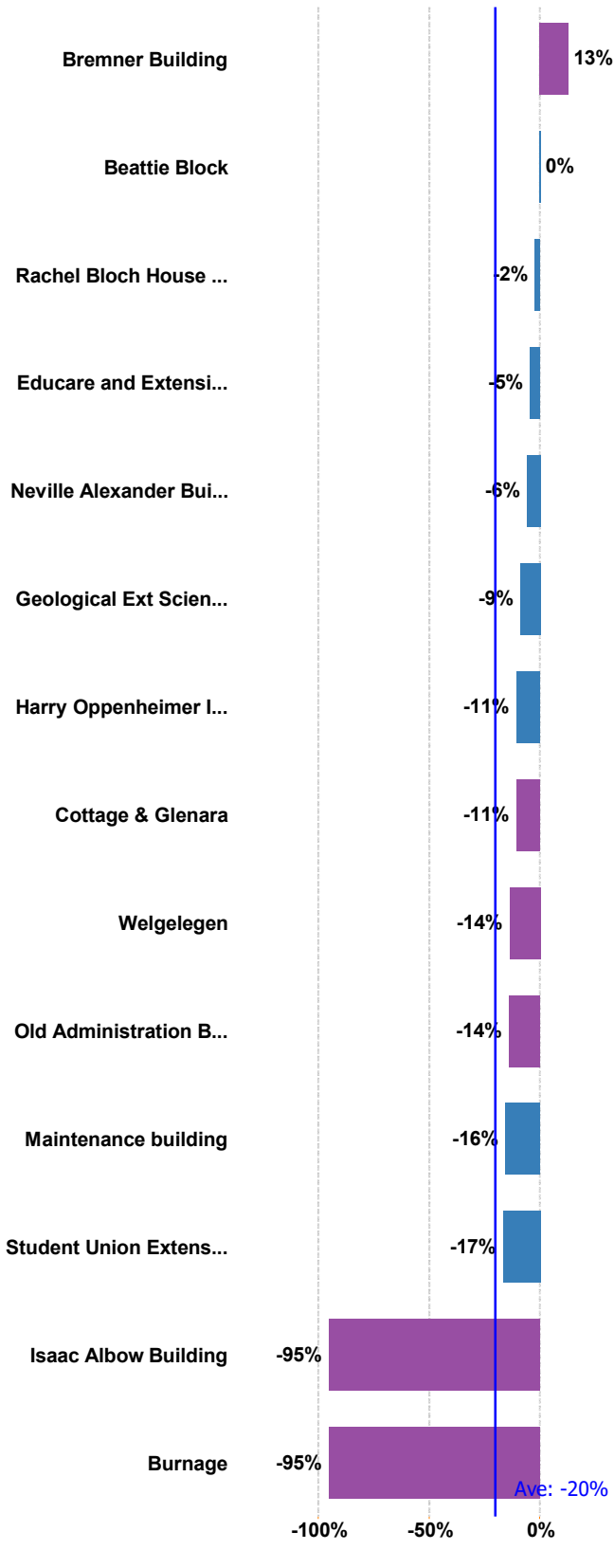| Building	%
Chemical Engineering	92%
Molecular	89%
New PC Lab and Beatti...	89%
Computer Science	89%
SLC and Upalong	89%
Kramer	85%
New Snape	84%
New Lecture Theatre	83%
Jagger,Oppenheimer,Im...	81%
Zoology	79%
New Engineering Building	79%
Leslie Social Sciences	79%
Centilevers	77%
PD Hahn	76%
H W Pearson BLDG, Gl...	75%
Robert Leslie Commerc...	74%
Menzies	74%
Hoerikwaggo	73%
AC Jordan Building 1	72%
School of Economics	70%
Masengene	66%
Environmental & Geogr...	64%
Maths Block	64%
School Of Ballet	63%
Geological Science Buil...	61%
RW James and Physics	61%
New Science Lecture T...	61%
Electrical and Mechanic...	53%
School Of Music	44%
Lovers Walk Houses	41%
Mechanical Engineering	36%

Ave: 72%

The figures above compare your energy usage during open hours to energy usage during closed hours. The aim is to minimise your closed time energy usage (lowest % possible). Open hours used: (Weekday: 08:00 - 17:30, Saturday: 08:00 - 13:00, Sunday: 08:00 - 13:00)
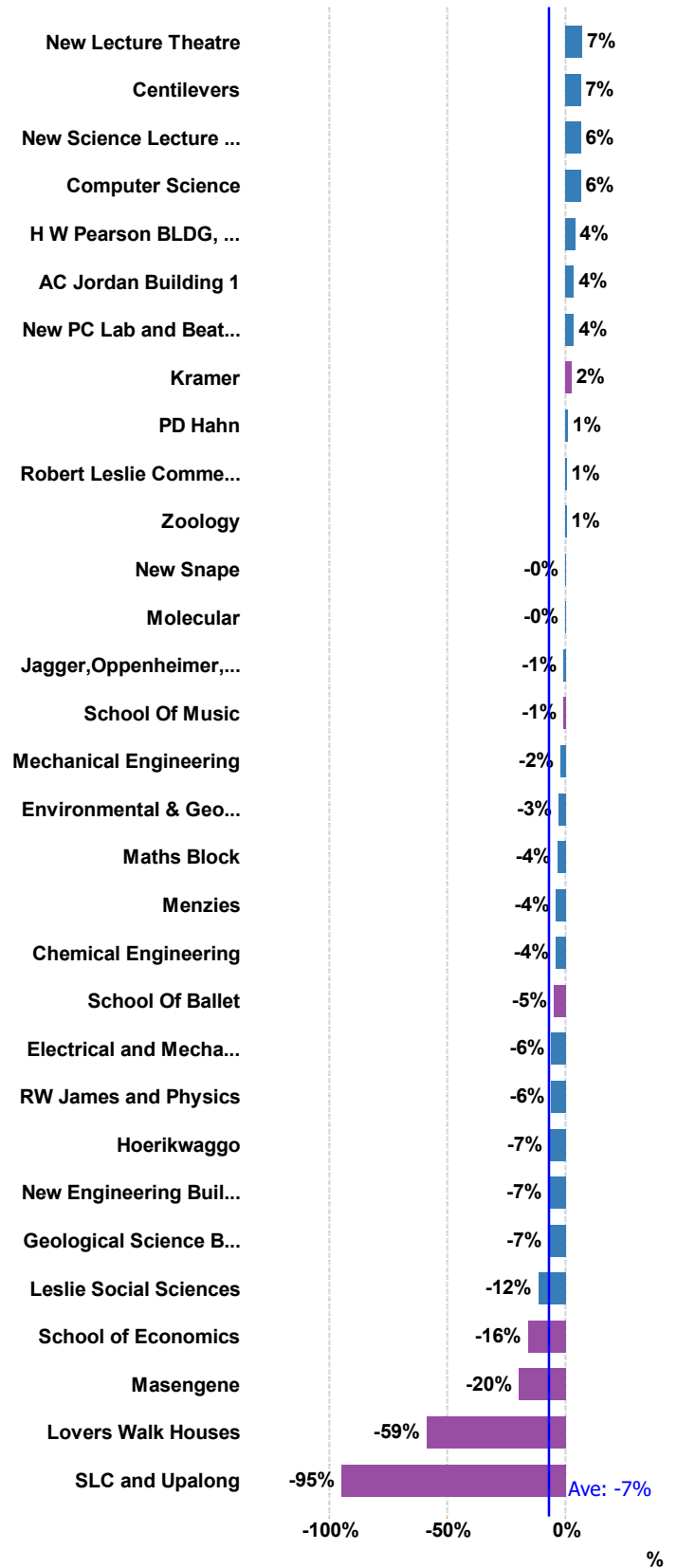
TERRA FIRMA SOFTWARE

Report Period: Aug 2019

Change in Month on Month Energy Usage (Change in kWh as a %)

OFFICE

Building	Change
Bremner Building	13%
Beattie Block	0%
Rachel Bloch House ...	-2%
Educare and Extensi...	-5%
Neville Alexander Bui...	-6%
Geological Ext Scien...	-9%
Harry Oppenheimer I...	-11%
Cottage & Glenara	-11%
Welgelegen	-14%
Old Administration B...	-14%
Maintenance building	-16%
Student Union Extens...	-17%
Isaac Albow Building	-95%
Burnage	-95%

Ave: -20%

LECTURE VENUE

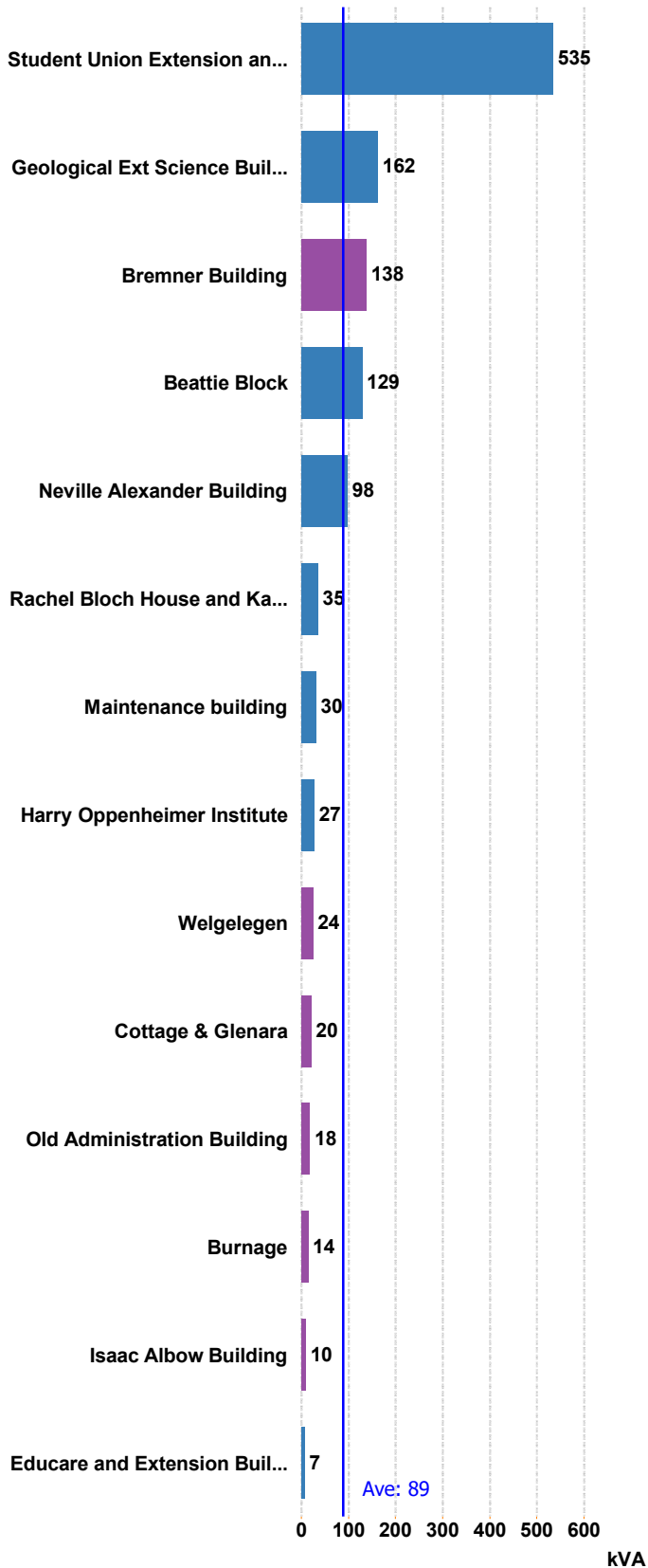| Venue	Change
New Lecture Theatre	7%
Centilevers	7%
New Science Lecture ...	6%
Computer Science	6%
H W Pearson BLDG, ...	4%
AC Jordan Building 1	4%
New PC Lab and Beat...	4%
Kramer	2%
PD Hahn	1%
Robert Leslie Comme...	1%
Zoology	1%
New Snape	-0%
Molecular	-0%
Jagger,Oppenheimer,...	-1%
School Of Music	-1%
Mechanical Engineering	-2%
Environmental & Geo...	-3%
Maths Block	-4%
Menzies	-4%
Chemical Engineering	-4%
School Of Ballet	-5%
Electrical and Mecha...	-6%
RW James and Physics	-6%
Hoerikwaggo	-7%
New Engineering Buil...	-7%
Geological Science B...	-7%
Leslie Social Sciences	-12%
School of Economics	-16%
Masengene	-20%
Lovers Walk Houses	-59%
SLC and Upalong	-95%

Ave: -7%

The figures above compare energy used last month to this month, as a percentage. A positive number shows an increase in energy usage, and a negative number shows a decrease in energy usage form last month to this month.
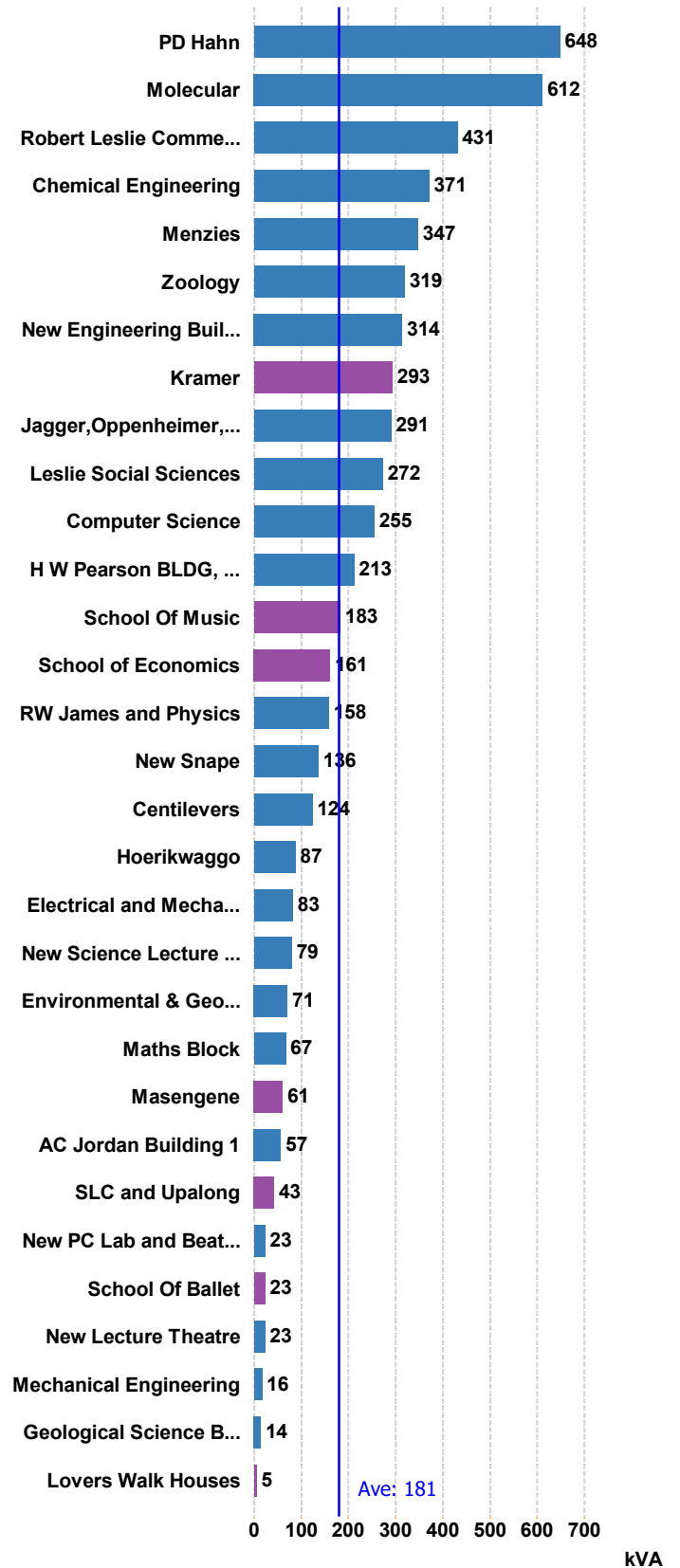
TERRA FIRMA SOFTWARE

Report Period: Aug 2019

Monthly Maximum Demand (kVA)

OFFICE

Building	kVA
Student Union Extension an...	535
Geological Ext Science Buil...	162
Bremner Building	138
Beattie Block	129
Neville Alexander Building	98
Rachel Bloch House and Ka...	35
Maintenance building	30
Harry Oppenheimer Institute	27
Welgelegen	24
Cottage & Glenara	20
Old Administration Building	18
Burnage	14
Isaac Albow Building	10
Educare and Extension Buil...	7

Ave: 89

LECTURE VENUE

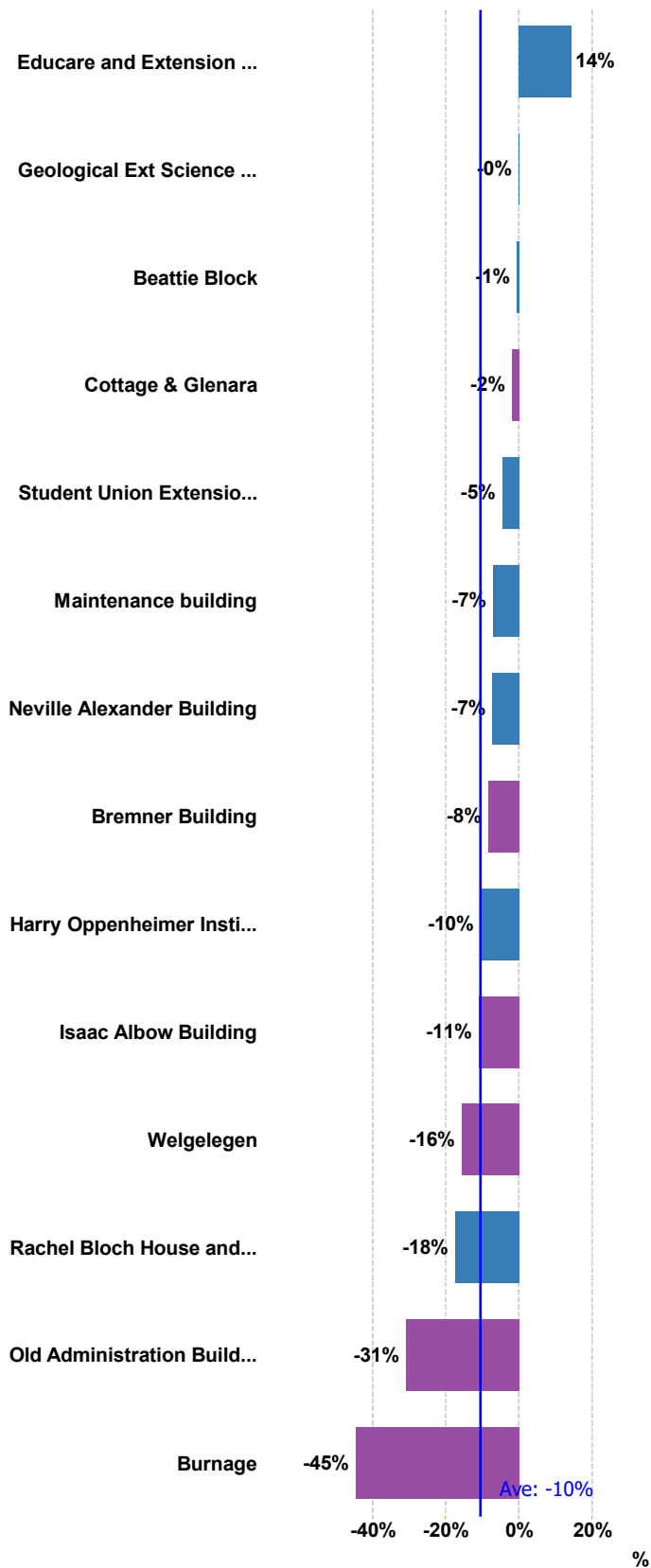| Venue	kVA
PD Hahn	648
Molecular	612
Robert Leslie Comme...	431
Chemical Engineering	371
Menzies	347
Zoology	319
New Engineering Buil...	314
Kramer	293
Jagger,Oppenheimer,...	291
Leslie Social Sciences	272
Computer Science	255
H W Pearson BLDG, ...	213
School Of Music	183
School of Economics	161
RW James and Physics	158
New Snape	136
Centilevers	124
Hoerikwaggo	87
Electrical and Mecha...	83
New Science Lecture ...	79
Environmental & Geo...	71
Maths Block	67
Masengene	61
AC Jordan Building 1	57
SLC and Upalong	43
New PC Lab and Beat...	23
School Of Ballet	23
New Lecture Theatre	23
Mechanical Engineering	16
Geological Science B...	14
Lovers Walk Houses	5

Ave: 181

Region Key:

Lower Campus
Upper Campus

Maximum demand is the single highest peak power requirement over a billing period. Maximum demand is an important value to watch as maximum demand charges can amount up to 50% of the total electricity bill.
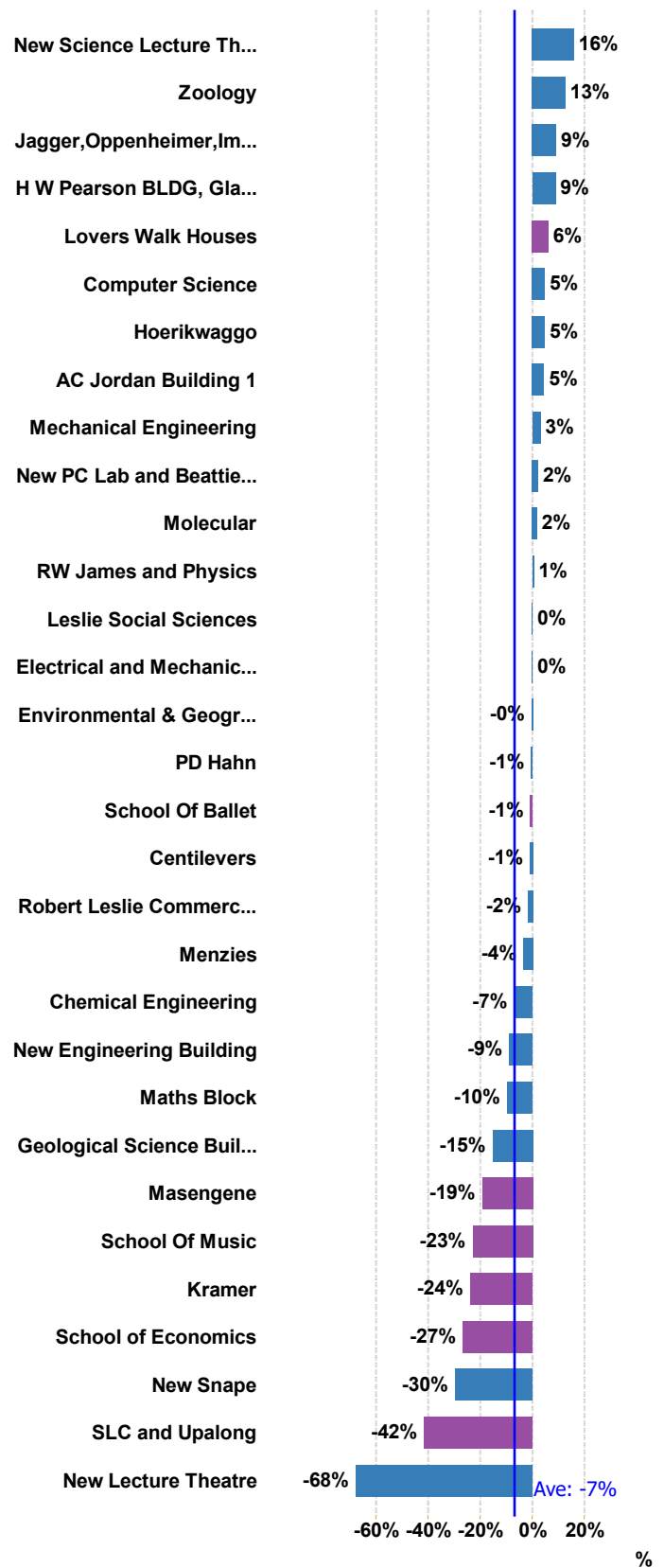
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Report Period: Aug 2019

Change in Month on Month Maximum Demand (Change in kVA as a %)

OFFICE

Building	Change
Educare and Extension ...	14%
Geological Ext Science ...	0%
Beattie Block	-1%
Cottage & Glenara	-2%
Student Union Extensio...	-5%
Maintenance building	-7%
Neville Alexander Building	-7%
Bremner Building	-8%
Harry Oppenheimer Insti...	-10%
Isaac Albow Building	-11%
Welgelegen	-16%
Rachel Bloch House and...	-18%
Old Administration Build...	-31%
Burnage	-45%

Ave: -10%

LECTURE VENUE

Building	Change
New Science Lecture Th...	16%
Zoology	13%
Jagger,Oppenheimer,Im...	9%
H W Pearson BLDG, Gla...	9%
Lovers Walk Houses	6%
Computer Science	5%
Hoerikwaggo	5%
AC Jordan Building 1	5%
Mechanical Engineering	3%
New PC Lab and Beattie...	2%
Molecular	2%
RW James and Physics	1%
Leslie Social Sciences	0%
Electrical and Mechanic...	0%
Environmental & Geogr...	-0%
PD Hahn	-1%
School Of Ballet	-1%
Centilevers	-1%
Robert Leslie Commerc...	-2%
Menzies	-4%
Chemical Engineering	-7%
New Engineering Building	-9%
Maths Block	-10%
Geological Science Buil...	-15%
Masengene	-19%
School Of Music	-23%
Kramer	-24%
School of Economics	-27%
New Snape	-30%
SLC and Upalong	-42%
New Lecture Theatre	-68%

Ave: -7%
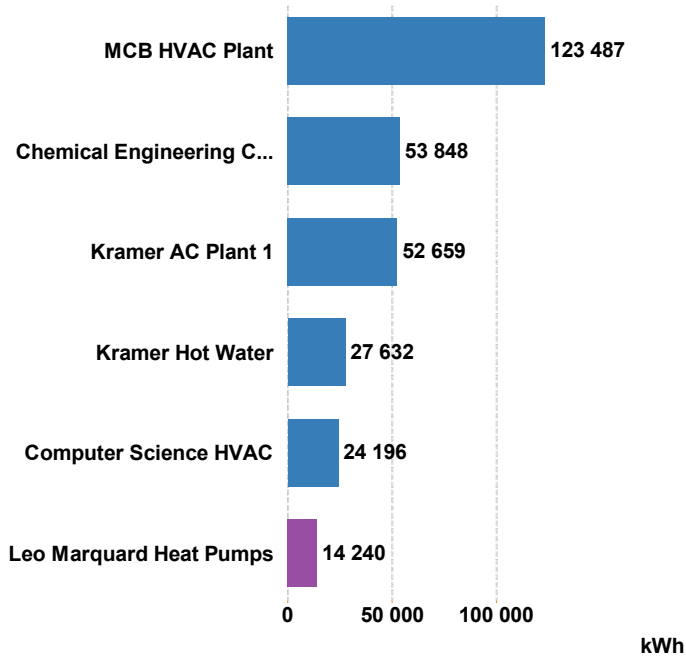
The figures above compare maximum demand values from last month to this month, as a percentage. A positive number shows an increase in maximum demand, and a negative number shows an decrease in maximum demand.
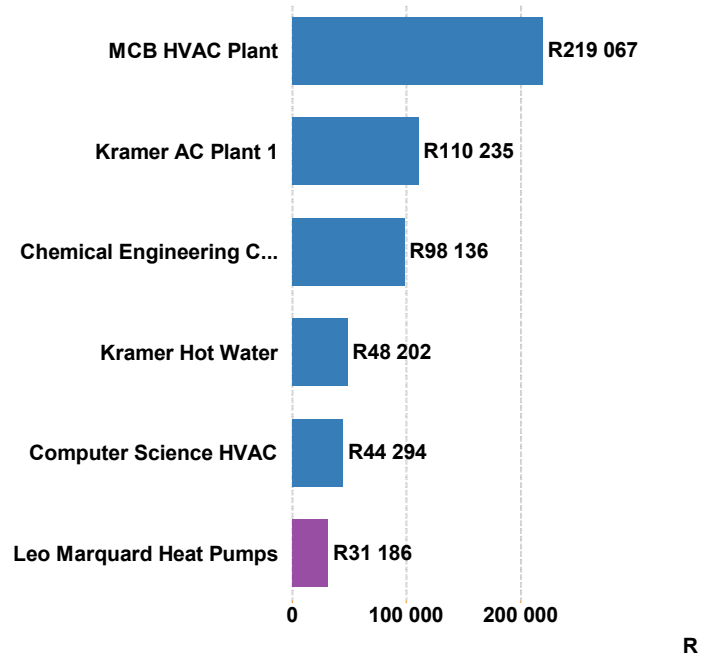
tf TERRA FIRMA SOFTWARE

Report Period: Aug 2019

HVAC and Water Heating (kWh)

	kWh
MCB HVAC Plant	123 487
Chemical Engineering C...	53 848
Kramer AC Plant 1	52 659
Kramer Hot Water	27 632
Computer Science HVAC	24 196
Leo Marquard Heat Pumps	14 240

HVAC and Water Heating (R)

	R
MCB HVAC Plant	R219 067
Kramer AC Plant 1	R110 235
Chemical Engineering C...	R98 136
Kramer Hot Water	R48 202
Computer Science HVAC	R44 294
Leo Marquard Heat Pumps	R31 186

Generator Monthly Energy Usage (kWh)

	kWh
Werner Beit South Gener...	377.811
OBS Square Residence ...	299.056
Wolfson Pavillion Gener...	281.596
Falmouth Generator	161.956
Chris Barnard BLD Leve...	29.163
Werner Beit Cryogenics ...	26.852
Animal House Generator	17.997
Chris Barnard BLD Leve...	16.833
Anatomy Building Gener...	3.241
Bremner Data Centre Ge...	1.303