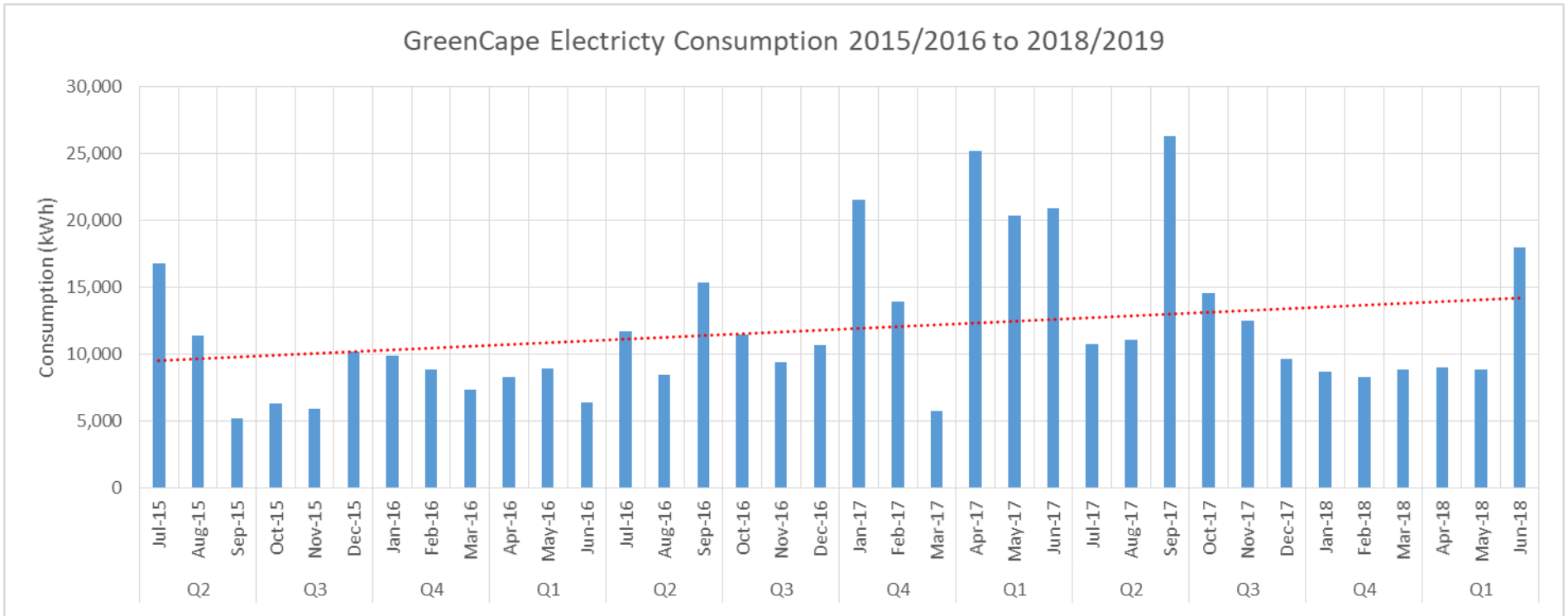
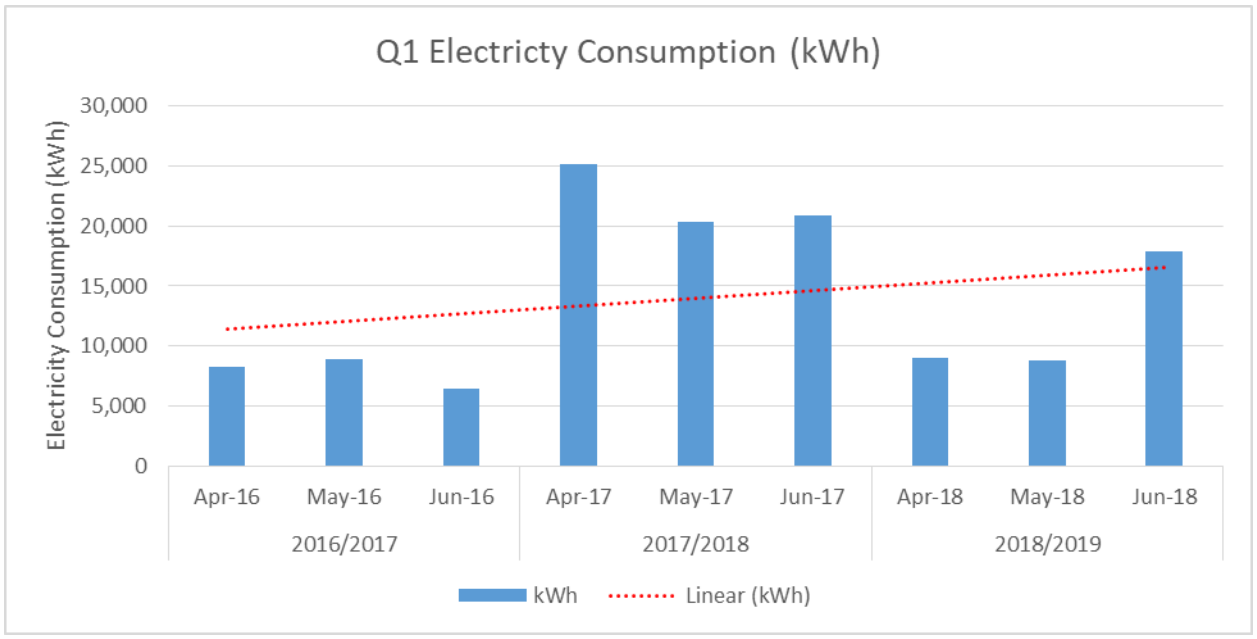
Energy@Work

July 2018

This Energy@Work is focused on Q1 of 2018/2019 (April 2018 to June 2018)





Energy consumption for Q1 (2018/2019) matches consumption of Q1 (2017/2018). However, more energy was consumed in June 2018. This is due to the HVAC unit operating for longer hours compared to the previous year (See next page)

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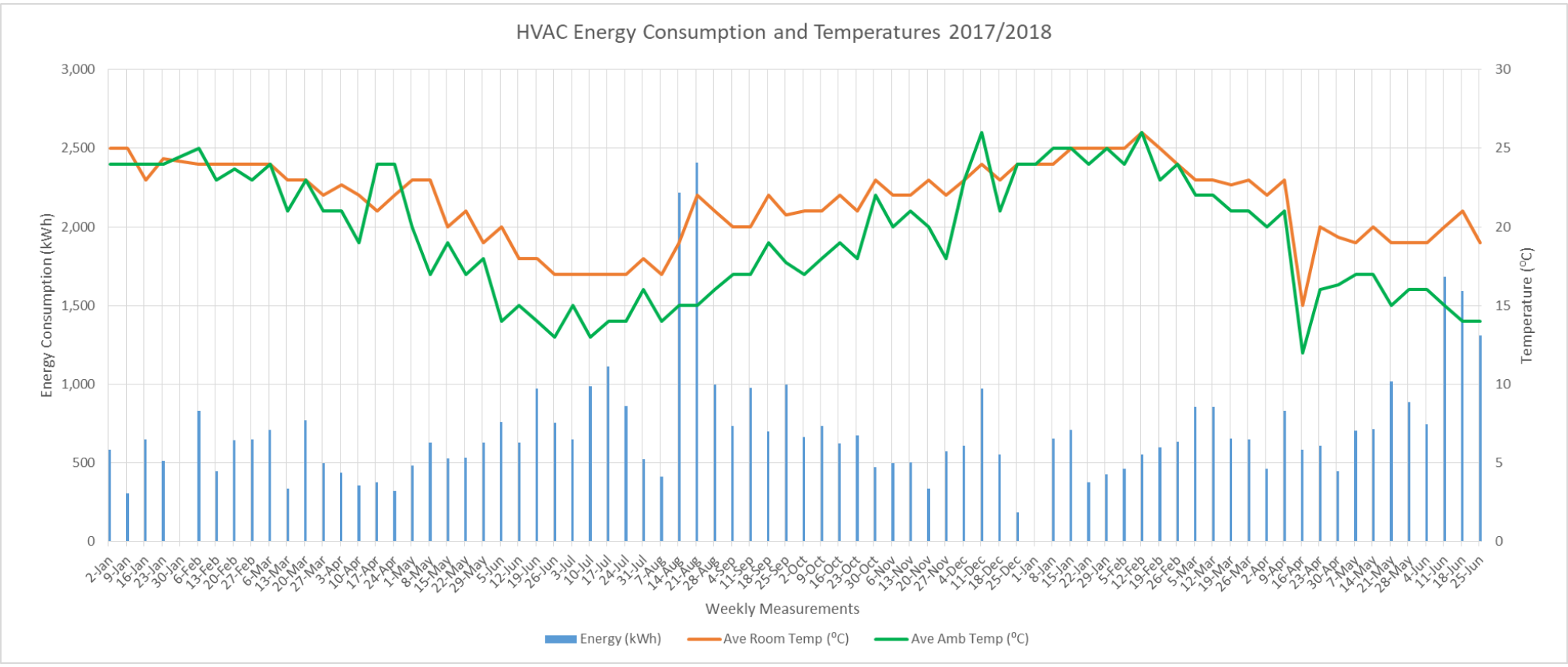

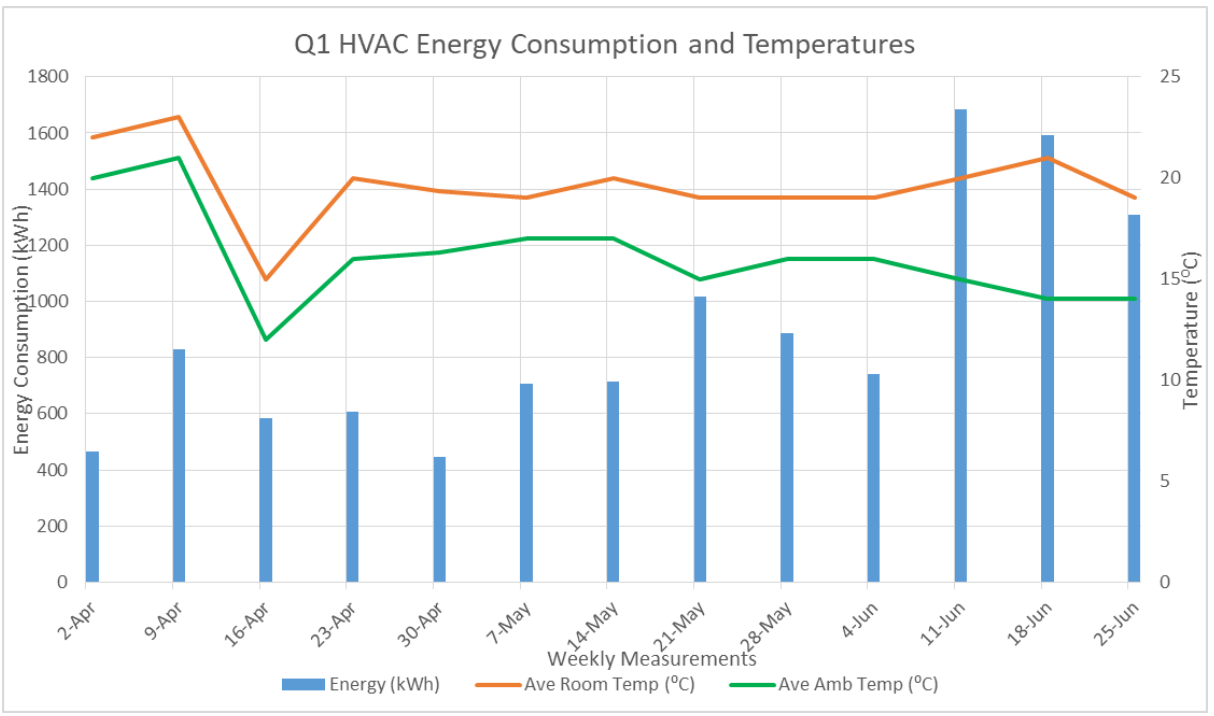

- The room temperature is not a constant temperature – follows ambient temperature
- The seasonal temperature trend is clearly visible, but the energy consumption does not follow the seasonal trends (hotter days should consume more energy)
- Energy consumption for Q1 (2018/2019) matches consumption of Q1 (2017/2018). However, more energy was consumed in June 2018. This is due to the HVAC unit operating for longer hours compared to the previous year.

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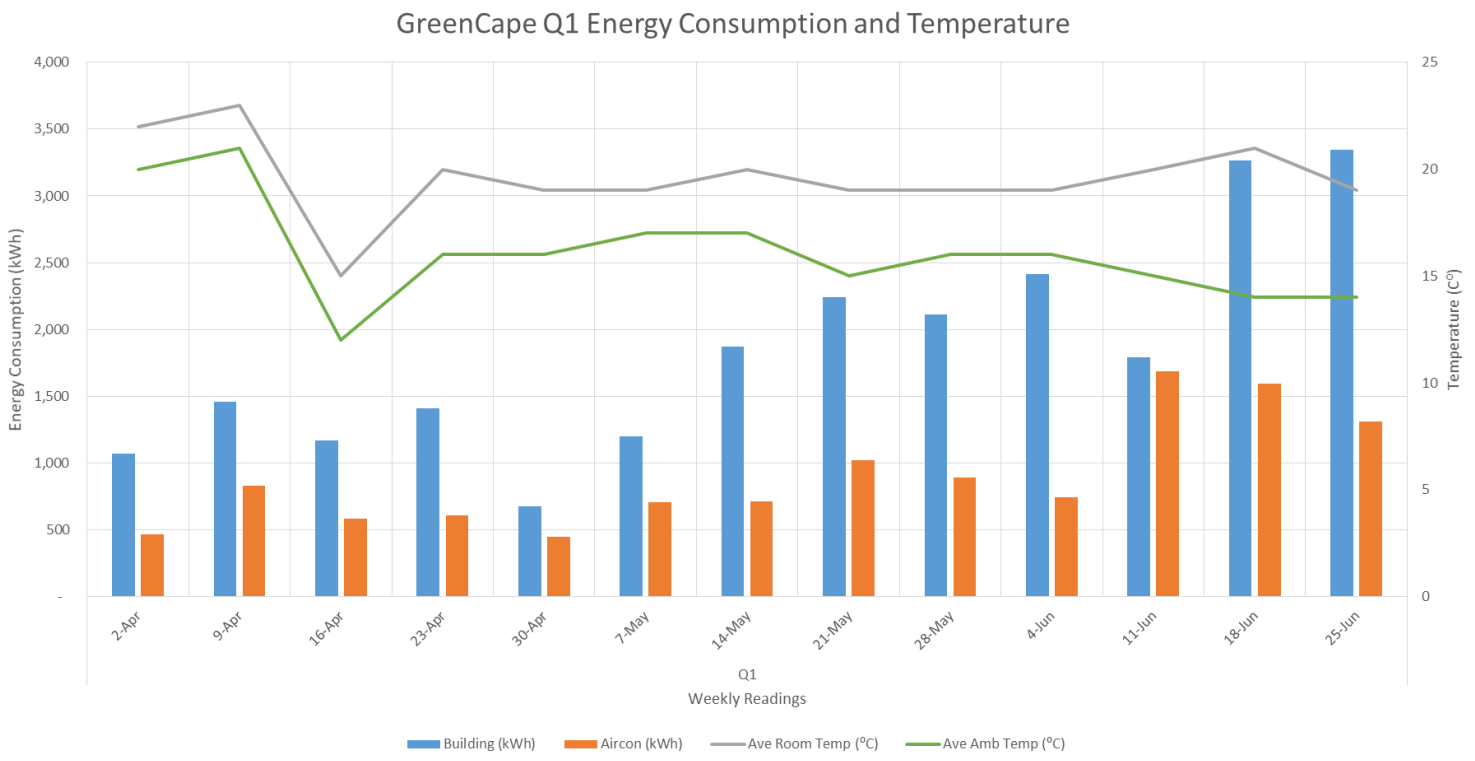

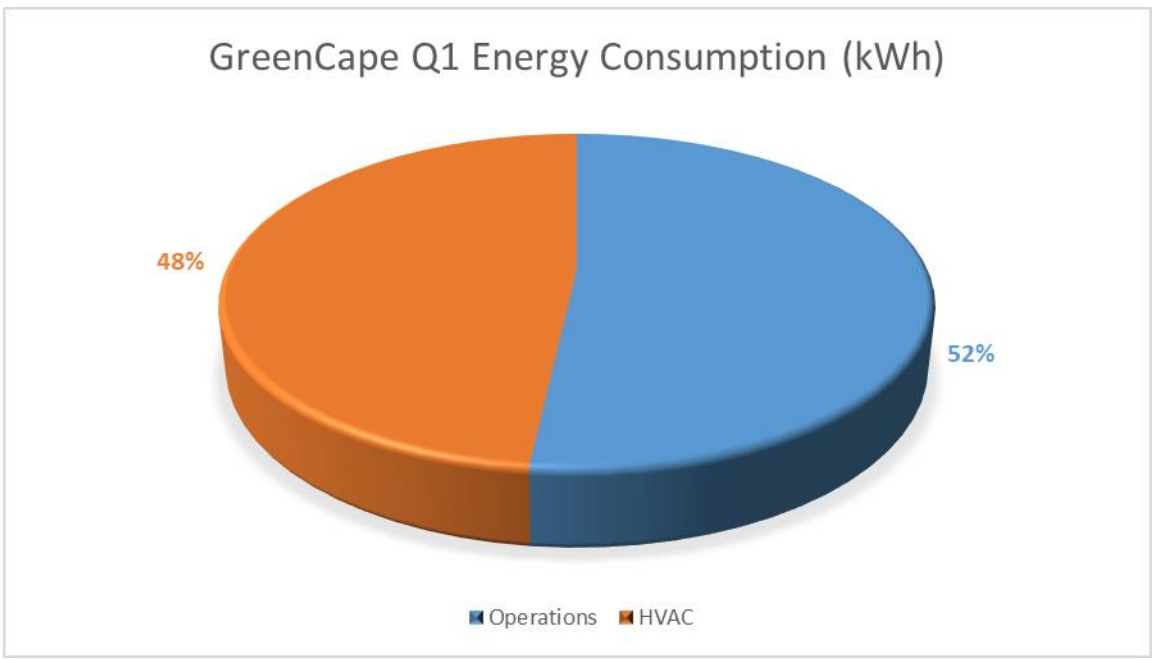

48% of Q1's electricity consumption was from only the HVAC. The remaining 52% was consumption from everything else (lighting, computers, heaters, hydroboil, hot water geyser etc)

Energy@Work

July 2018

GREEN BUILDING COUNCIL OF SOUTH AFRICA

EWP ENERGY WATER PERFORMANCE V1

Inputs

Total Energy Usage	146,112	kWh/annum
Total Mains Electricity Equivalent	146,112	kWh/annum
Total Emissions	175,334	$kgCO_2$/annum

Results

Energy Intensity	176.04	kWh/m²/annum
Benchmark Building Energy Intensity	238.96	kWh/m²/annum
Total Emissions	211.25	$kgCO_2$/m²/annum
Benchmark Building Total Emissions	286.76	$kgCO_2$/m²/annum
Points towards Green Star SA rating**	9	

1	2	3	4	5
79-100%	57-78%	34-56%	12-33%	INDUSTRY AVERAGE
LESS EFFICIENT	LESS EFFICIENT	LESS EFFICIENT	LESS EFFICIENT	
6	7	8	9	10
12-33%	34-56%	57-78%	79-99%	100%
MORE EFFICIENT	MORE EFFICIENT	MORE EFFICIENT	MORE EFFICIENT	MORE EFFICIENT

**indicates the number of energy points achieved if the project were to target a Green Star SA - Existing Building Performance rating

Year	Qtr	Consumption (kWh)	kWh/sqm	kWh/Pax
2015/2016	Q2	33 354	40.19	680.69
	Q3	22 341	26.92	455.95
	Q4	26 044	31.38	531.51
2016/2017	Q1	23 642	28.48	482.49
	Q2	35 381	42.63	722.06
	Q3	31 485	37.93	642.56
	Q4	41 175	49.61	840.31
2017/2018	Q1	66 372	79.97	1 354.52
	Q2	48 032	57.87	980.25
	Q3	36 640	44.14	747.76
	Q4	25 760	31.04	525.71
2018/2019	Q1	35 680	42.99	728.16
Average		**35 492**	**42.76**	**724.33**

Assumptions:

- Gross Lettable Area (GLA) = 830 sqm
- Occupancy hours (45 hours per week)
- Number of occupants = 49

Results:

- Average South African quarterly consumption = **55.75 kwh/sqm**
- For Q1 (2018/2019) GC is **12.76 kWh/sqm less** than the South African average