Property Efficiency Report 2019/2020

An annual publication that demonstrates the Western Cape Government's commitment to managing and improving the efficiency, effectiveness and sustainability of its property holdings.

Issue No. 9.

Contents

About the report

The first Property Efficiency Report (PER) was published in 2013 and covered the 2011/2012 reporting period. The baseline established then continues to be used for performance reporting. This, the 9th edition of the PER, highlights the continuing dedication of the Western Cape Government (WCG), through the Department of Transport and Public Works (DTPW) as the custodian of WCG immovable assets, to transparency in its day-to-day activities and the collecting of data that enables evidence-based stewardship of the resources. The information produced here is based on data received from the DTPW, users of the various properties, and other stakeholders.

The property portfolio covered in the report represents a mixture of old and new buildings located inside the Cape Town Central Business District (CBD) and elsewhere in the Western Cape. DTPW takes its mandate from various legislated prescripts, particularly the Government Immovable Asset Management Act, 2007 (Act 19 of 2007) (GIAMA). To ensure that DTPW complies with this mandate, the custodian again developed a Custodian Asset Management Plan (C-AMP) which drew on all the User Immovable Asset Management Plans (U-AMPs) for the 2019/2020 reporting period submitted by the user department and entities.

The strategic intent of the DTPW in regard to its existing immovable assets is to:

Manage the property portfolio and improve its efficiency, effectiveness, and sustainability

Reduce costs

Optimize space utilization

Reduce full-time employee costs

The longer-term strategic approach includes:

The development and implementation of a Master Accommodation Plan to achieve efficiencies and resilience in the office accommodation portfolio;

A shared office building approach aimed at diminishing the demand for additional office space, promoting integration of space, and further improving efficiencies in the use of space; and

An ongoing search for and employment of viable solutions to provide more resilient infrastructure that can effectively adapt to climate change and give effect to greater environmental sustainability.

The report continues to build on work done in prior years, including information gathered from remote meters installed at various facilities in the WCG property portfolio. Off-grid solar photovoltaic (PV) remains a crucial focus, as do the various water efficiency projects introduced during the 2015 – 2018 drought. DTPW is starting to see the many benefits of the improved guardianship of natural resources and reduced dependency on municipal resources.

The performance matrix consists of nine consecutive years' data, thus enabling DTPW to provide a context-appropriate picture, per individual facility, of resource utilisation efficiency, office suitability and space utilisation efficiency.

The consumption of natural resources in the portfolio, mainly electricity and water, remains an area of interest. Data from remote meters has made it possible to generate automated performance reports, develop service alerts for urgent attention, pinpoint faults, and highlight areas where efficiency gains can be made.

Reporting period and scope

This report examines the performance of 37 office buildings, totalling 205 388m^2, from the WCG's real estate portfolio for the 2019/2020 period. All owned and leased office accommodation of over 1 000 m^2 has been included in the portfolio. The data is all in respect of the 12-month period from April 2019 to March 2020.

Changes from the previous report include:

3 Dorp Street has been included again in the portfolio, as the office modernisation project undertaken there was completed.

The Western Cape Education Department (WCED) Central Office has been excluded due to a lack of 12 months' reliable data.

68 Orange Street has not been included as the entire building was vacant and undergoing office modernisation during the reporting period.

39 = 208 658 m²
buildings

28 Owned buildings

- 15 Non-CBD — 54 828 m²
- 11 CBD — 81 092 m²
- 02 EXCLUDED — 3 270 m²

11 Leased buildings

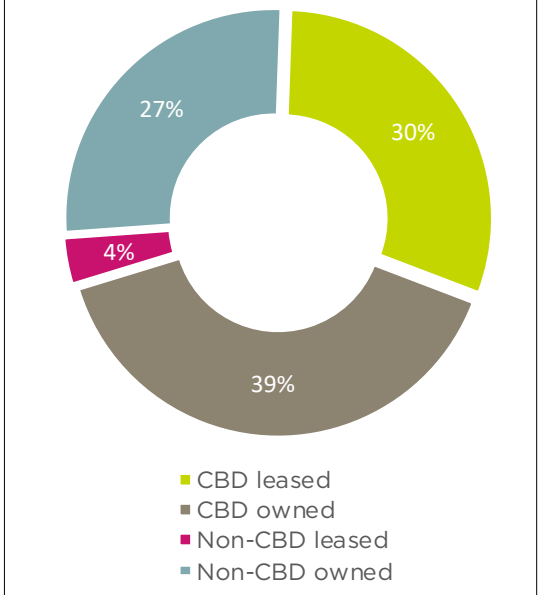
- 03 Non-CBD — 7 357 m²
- 08 CBD — 62 111 m²

Data management and access

A reliable and informative report can only be produced if the data it is based upon is accurate and relevant. The principal sources of baseline data are the DTPW's Public Works Immovable Asset Register, remote meters at the various buildings, Public Works Operational Property Management, the Public Works Property Support Office, the provincial Department of Social Development, Public Works General Infrastructure and the Department of Community Safety.

Great care has been taken to ensure that the meter readings are accurate. Meter readings were compared to the consumption reflected on the various municipal accounts. Anomalies were investigated and corrected. The information was analysed using sound and responsible methodologies to ensure the data was correctly interpreted.

Portfolio percentage split based on m²



The WCG's portfolio was benchmarked against the Green Building Council of South Africa (GBCSA) database of office building data. Various landlords use GBCSA's energy and water benchmarking tool (private and public sector) to determine the performance of their buildings against similar buildings in the same geographic area, as well as other buildings in the owner's portfolio. The private sector cost benchmark was derived from data from private landlords, MSCI, the South African Property Owners' Association (SAPOA) and various other published reports.

In this edition, we also have the pleasure of benchmarking our energy efficiency performance against a portfolio of City of Cape Town (CoCT) office buildings. DTPW is extremely excited and looks forward to working more closely with the CoCT to build a public sector office benchmark in the future.

Foreword

BONGINKOSI MADIKIZELA

Minister of Transport and Public Works

The preparation of this 9th edition of the Property Efficiency Report (PER) is being undertaken against the backdrop of unprecedented fiscal uncertainty, the aftermath of the peak and continued presence of COVID-19, a recent history of severe disruptions in business activity, and increased pressure on government to meet growing societal needs. These situational factors further emphasise our rationale for a report of this nature, the need for greater efficiency across our property portfolio and the increasing need for this in forthcoming reporting periods.

The property performance results reflected for the current reporting period again demonstrate continued improvement across most measures reported on as well as against the applicable benchmarks. I am exceedingly proud of both the team directly responsible for preparing it, and also the greater departmental and Western Cape Government (WCG) effort reflected in these exceptional results.

I am confident of this team's focus and determination to continue along our sustainability path and to accept our fair share of responsibility to future generations.

We have recently seen Western Cape Water Supply System dams overflowing and experienced flashbacks to a recent time when we were planning and preparing for a potential "Day Zero" when some of our taps could have run dry. With load shedding very much a part of our everyday lives, we look forward to a time when this too is a thing of the past. The environmental results in this report are testament to our sustainability commitment and I am confident of this team's focus and determination to continue along our sustainability path and to accept our fair share of responsibility to future generations. Further recognition of this is the recent appointment of the head of the Public Works Branch, Gavin Kode, to the board of the Green Building Council of South Africa as a volunteer non-executive director. This appointment recognises our historic work on sustainable infrastructure and accommodation in the Western Cape and also highlights what is possible within the public sector.

For the first time, this publication now also includes the City of Cape Town's own office portfolio efficiency measures, in addition to the private sector benchmarks and the National Department of Public Works and Infrastructure Energy Performance Certificate (EPC) against which we are now also able to compare our performance. The City of Cape Town has been utilising the WCG's PER publication as a performance gauge over the last three years and is busy with an extensive efficiency study of its own. We look forward to examining the City of Cape Town's property efficiency report as soon as this is published. This is a simple but significant example of collaboration and transparency within and between spheres of government.

Our focus will therefore have to be on protecting those core aspects that speak directly to our occupational health and safety obligations. The approach will be to prioritise maintenance as far as is practically possible to that end.

In the run-up to the 2020/2021 financial year, as well as now due to the impact of COVID-19, the Department of Transport and Public Works (DTPW) was requested to effect significant budgetary cuts. The largest portion of the cut was absorbed within the infrastructure units of the DTPW, leading to a delay in giving effect to a number of infrastructure and accommodation projects, each with various degrees of economic, social or development impact. Our Provincial Public Works budget has been reduced. This has a negative impact on the ability of DTPW as the custodian to provide services to departments, and has delayed some of the office modernisation projects that are aimed at providing a more efficient work environment in line with the outcomes of this Property Efficiency Report. Our focus will therefore have to be on protecting those core aspects that speak directly to our occupational health and safety obligations. The approach will be to prioritise maintenance as far as is practically possible to that end.

The DTPW is acutely aware of the enormous pressure that is being brought to bear on government to actively contribute towards measures aimed at protecting the most vulnerable against the devastating impact of the pandemic, to stimulate economic growth, and to adapt to a new normal – a new normal in which COVID-19 and its related implications will be with us for the next 12–18 months. Although the Red Dot and Red Dot Light transport initiatives in response to COVID-19 are significant innovations and performance achievements from the transport side of the DTPW, the procurement, contract management and construction of the Cape Town International Convention Centre Hospital of Hope, as well as other infrastructure and accommodation projects, are due to the direct efforts and determination of the Public Works teams.

The DTPW is acutely aware of the enormous pressure that is being brought to bear on government to actively contribute towards measures aimed at protecting the most vulnerable against the devastating impact of the pandemic, to stimulate economic growth, and to adapt to a new normal – a new normal in which COVID-19 and its related implications will be with us for the next 12–18 months.

These efforts aimed at fighting the scourge of COVID-19 have demonstrated the value of our historic investment in systems, technology and people. Building off these investments will be a cornerstone of our approach going forward. Leveraging the goodwill and trust generated through our existing initiatives and collaboration does, however, happen in a context of trade-offs and difficult choices, where the consequence of our decisions has a direct impact on the lives of our citizens. Nowhere is this trade-off starker than in the infrastructure space.

I am confident that the DTPW stands ready to actively contribute towards this effort and has shown, through innovation, determination and cross-collaboration, that such a contribution can fundamentally shift existing paradigms.

Introduction

JACQUELINE GOOCH

Head of Department, Transport and Public Works

Ellen Johnson Sirleaf said that "The size of your dreams must always exceed your current capacity to achieve them. If your dreams do not scare you, they are not big enough". Some years ago already, we started to dream – not daydream or wander aimlessly, but to dream of a future that was not only possible, but which we truly desired. A future that was worth creating – because they say that the best way to predict the future is to create it.

We looked at the sustainability of what we were doing, and asked ourselves the key question of what the cost is, was or would be, to current and future generations of the decisions we would either make, or not make, today. We looked at the citizen and how becoming citizen-centric in a complexity system was essential. We went "back to the future", so to speak. We looked at the considerations necessary for shaping our future and designing our future vision. We saw that infrastructure was our societal backbone – that the infrastructure ecosystem was the invisible socio-economic backbone that touches every citizen all the time. We saw that we needed to create a fundamentally different set of initial conditions that would give rise to an alternative future that was vested in human dignity, sustainability and resilience.

We developed our Massive Transformative Purpose (MTP). In its simplest sense, an MTP is a "highly aspirational tagline" for an individual or group or organisation. It is a huge and audacious purpose statement, it is unique to the individual or group or organisation, and it is aimed at fundamental transformation. We developed our MTP as:

Enabled communities leading dignified lives. And the hashtag by-line that was developed to support this was:

#JUSTdignity

Our MTP is therefore an embodiment of the ethos of ethical behaviour, citizen-centricity, and the construction of a compact between the state and citizens that will guide the actions of the Department through the next strategic planning period 2020 to 2025. In crafting our 20-year vision, the Department is placing the citizen at the centre of its service delivery mandate. Within this context, it is deeply committed to realise both the goals and objectives that have been set at a national level as enshrined in, for example, the National Development Plan (NDP) and the Medium-Term Strategic Framework, as well as those set at a provincial level in the Provincial Strategic Plan. It strives to give concrete effect to the spirit and the letter of the Constitution of the Republic of South Africa, 1996.

As a department, we have set the protection of the provincial infrastructure asset base, the leveraging of technology, and the well-being of our staff as core components of our overall strategic drive towards maximising the impact of our services. These are all substantial aspects of property efficiency – which is the essence of this report. In an increasingly volatile, uncertain, complex and

ambiguous (VUCA) environment, we have endeavoured to improve our agility, create unity around purpose, and be creative and innovative.

We continue to make progress towards spatial integration and have provided land for affordable human settlements. The development of the former Conradie Hospital site as the Better Living Model Exemplar Project (BLMEP) has been awarded to the successful bidder, relevant site planning approvals were obtained from the City of Cape Town, and construction is well underway of this approximately R5.5bn development. We are living in unprecedented times and are undoubtedly called to respond in unprecedented ways.

In reflecting on the dreams from many years ago when we first set out on this Property Efficiency Report journey, I am pleased to see the significant fruit that has emerged from these dreams. The continued efforts of Provincial Public Works to invest time and resources into this report process, and the levers which drive performance, will ensure that it maintains its position as the most efficient public sector property manager in South Africa. And I am confident that the same dedication, commitment and vision of the people in the Department will ensure that, when we look back in time, we will have enabled communities to lead dignified lives.

Executive summary

This is the 9th edition of the Property Efficiency Report.
The report examines the performance of 37 selected office buildings from the Western Cape Government's real estate portfolio.

	2018/2019						2019/2020					
	All WCG offices	All leased buildings	All owned buildings	CBD offices	Non-CBD offices	Private sector	All WCG offices	All leased buildings	All owned buildings	CBD offices	Non-CBD offices	Public sector
WC portfolio net area	214 506	69 580	144 926	148 118	66 388	-	208 658	69 468	139 190	144 571	64 087	-
WC portfolio performance data	211 037	69 580	141 457	144 649	66 388	-	205 388	69 468	135 920	143 203	62 185	-
Accommodated office staff	11 168	3 633	7 535	7 902	3 266	-	9 139	3 070	6 069	6 633	2 506	-
Cost/m²	3 037	2 842	3 222	3 205	2 861	2 907	2 319	2 692	2 129	2 653	1 550	2 127
Cost/FTE	59 716	55 187	61 921	58 669	62 437	-	52 119	60 915	47 669	57 283	38 451	
m²/FTE	19	19	19	18	22	-	22	23	22	21	25	-
m²/Desk	17	17	17	16	20	15	19	20	19	18	22	16
Energy kWh consumed per FTE/pa	2 893	3 619	2 520	3 237	1 647	-	2 749	3 988	2 940	3 809	1 923	-
Water kL consumed per FTE/pa	11	14	9	10	14	-	12	13	11	11	12	-
Energy kWh/m²/pa	150	186	131	177	90	231	146	176	131	176	77	222
Water kL/m²/pa	0.63	0.73	0.47	0.54	0.76	0.94	0.54	0.64	0.50	0.53	0.56	0.84

Total electricity consumption per kWh/m²/pa decreased by 2.6% from 150 to 146 kWh/m²/pa over the 2019/2020 reporting period.

- Despite a decrease in electricity consumption, the final portfolio target of 139.7 kWh/m²/pa was not met. **We remain committed to reducing our energy consumption.**
- **The portfolio currently out-performs the industry benchmark for electricity consumption by more than 34%.** The private sector benchmark stands at 222 kWh/m²/pa.
- **For the first time we are also able to benchmark the WCG's energy efficiency performance** against 32 selected buildings of the City of Cape Town's (CoCT) office building portfolio. The CoCT's office portfolio consumption stands at 110 kWh/m²/pa. This trumps our performance by approximately 24%.
- **Solar PV-generated electricity accounts for 3% of the total energy consumption** in the portfolio of 37 buildings.

Water consumption decreased from 0.63 to 0.54 kL/m²/pa, a 14% decrease, during the 2019/2020 reporting period.

- **The portfolio continues to outperform the private sector** water consumption benchmark of 0.84 kL/m²/pa for the same period.
- **9 Dorp Street is the only building in the portfolio actively utilising its groundwater in the basement** and 47% of the water consumed comes from this alternative water source. The building showed a reduction of approximately 41% in its use of municipal water over a three-year period, having moved from 0.34 kL/m²/pa to 0.20 kL/m²/pa over this period.

The portfolio achieved an average desk space of 19 m², an increase from 17 m² compared to the same period last year.

- **This represents an 11% decline in desk space** efficiency, taking us back to 2017/2018 levels. The Department is currently busy with an investigation to verify and analyse the timing and reasons for the wide-ranging movement of staff that led to this decline in efficiency.
- **The All buildings portfolio showed an increase in square metre per FTE** [full-time equivalent] from 19 m²/FTE to 22 m²/FTE. The density of combined non-CBD buildings decreased by more than 13% over the reporting period.

Extensive analysis has been done on the portfolio's total occupancy cost per square metre, and we are delighted to report that the total cost has decreased by nearly 25% over the 2019/2020 reporting period from R3 097 to R2 319/m².

- **The private sector benchmark dropped by 26%** from R2 907 to R2 127/m² over the same period.
- Rental for **leased buildings accounts for 72%** of occupancy cost and **electricity accounts for 13%.**
- **The operating cost for the portfolio under review is R70/m²**, which is 6% higher than the SAPOA benchmark of R66/m².
- At R85/m², **Cape Town CBD buildings cost 28% more than SAPOA's R66/m² benchmark** and are 10% above the MSCI benchmark of R77/m².
- **Municipal charges** are the largest category in the operating costs group. For the buildings covered in this report, they account for **41% of total operating costs.** This is 21% below the SAPOA benchmark.

Chapter 1:

Environmental performance

Environmental sustainability remains a critical concern for all government departments, and the efficient use of natural resources remains high on the WCG's priority list. In striving for this, the WCG has implemented targets to reduce the portfolio's carbon footprint and to increase the utilisation of renewable energy sources.

As part of the WCG's environmental performance, we continue to monitor and report on energy and water consumption across the portfolio. This is a team effort with various departments involved in the process. This 9th edition of the Property Efficiency Report highlights our continued transition from relying solely on municipal bills to collecting this data from our own remote meters.

Our analysis of the energy consumption is based on data received from meter readings, which accounts for 77% of the data, 18% is based on monthly bills received from various municipalities, while only 5% of the portfolio data had to be excluded from this exercise due to it being fundamentally inaccurate or unavailable.

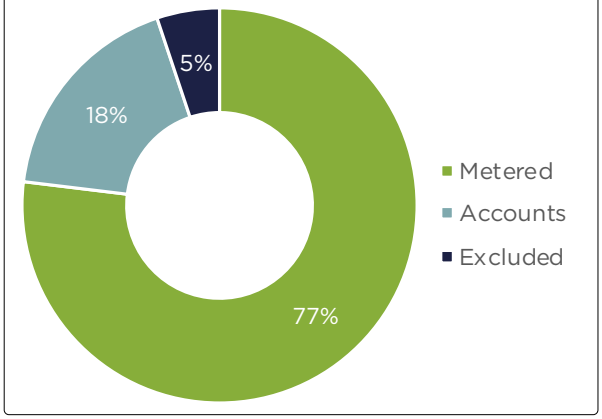
64% of the water consumption analysis is from the portfolio's remote meters, 28% is from the monthly bills received from the local municipalities, and 8% of the portfolio was excluded due to inaccurate or unavailable data.

The changeover to meter readings remains a technical process and individual building audits remain part of the process as some buildings present site-specific challenges. We continue to identify buildings with variances where bills received from the local municipality or the landlord differ from our meter readings. These discrepancies are investigated, rectified and the findings reported.

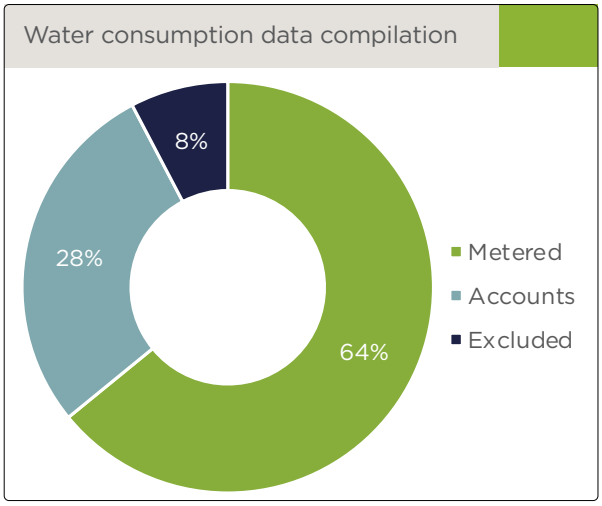
Analysing the data has once again highlighted the crucial role that remote metering plays in obtaining accurate and timeous information used to monitor usage. In line with our reporting rationale, we need these meters to measure the consumption, so that we can monitor the performance, manage the performance outcomes, and improve outcomes over time. The value of this approach has been proven in the non-CBD leased buildings where water consumption has been reduced by more than 67% over the reporting period. Spikes in the data prompted investigations which led to fixing various slow leaks that would not otherwise have been noticed.

In the year under review, total electricity consumption (kWh/m²/pa) decreased by 2.6% from 150 to 146 kWh/m²/pa. The consumption of 3 Dorp Street has been included again in the analysis after the modernisation project at the building had been completed. As noted previously, the Western Cape Education Department Central Office has been excluded because of a lack of 12 months' reliable data.

Energy consumption data compilation

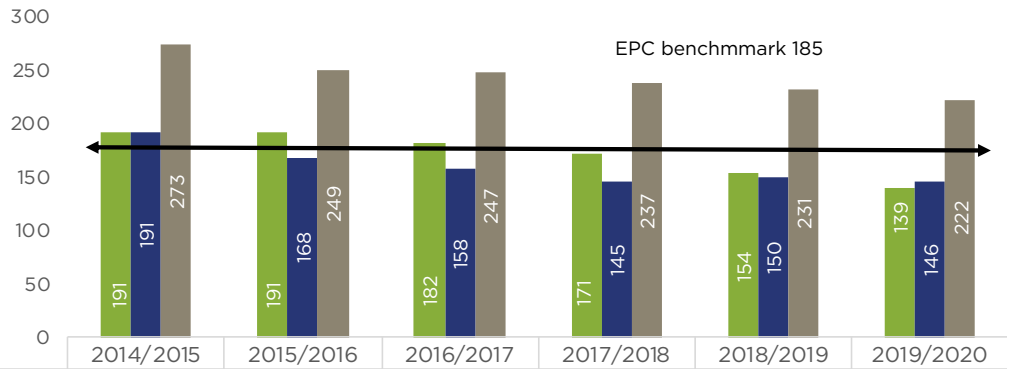


Water consumption data compilation



Some of the initiatives implemented and installations done by the WCG to reduce the consumption of water during the drought resulted in a less significant reduction in electricity consumption. As a result, the energy performance is slightly above the 5-year target of 139.7 kWh/m²/pa, albeit below the Energy Performance Certificate (EPC) benchmark.

Electricity performance per kWh/m² per annum



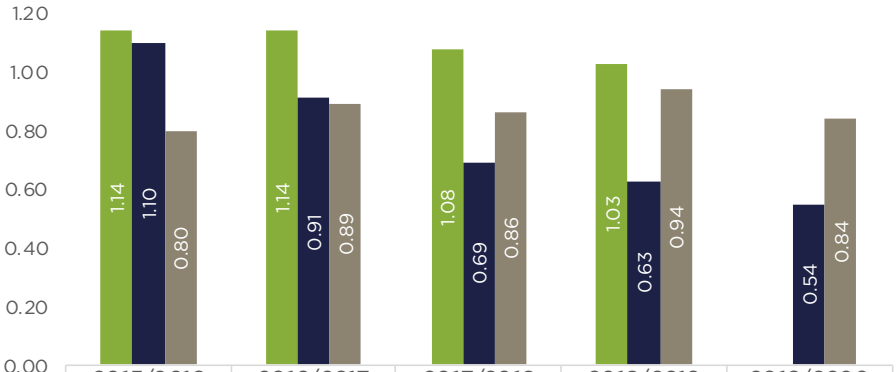
	2014/2015	2015/2016	2016/2017	2017/2018	2018/2019	2019/2020
Targeted	191	191	182	171	154	139
Actual	191	168	158	145	150	146
Private sector	273	249	247	237	231	222

Although the final portfolio target of 139.7 kWh/m²/pa was not met, we remain committed to reducing our energy consumption.

A substantial achievement is a reduction of approximately 14% in water consumption from the previous period to the current period, which now stands at 0.54 kL/m²/pa.

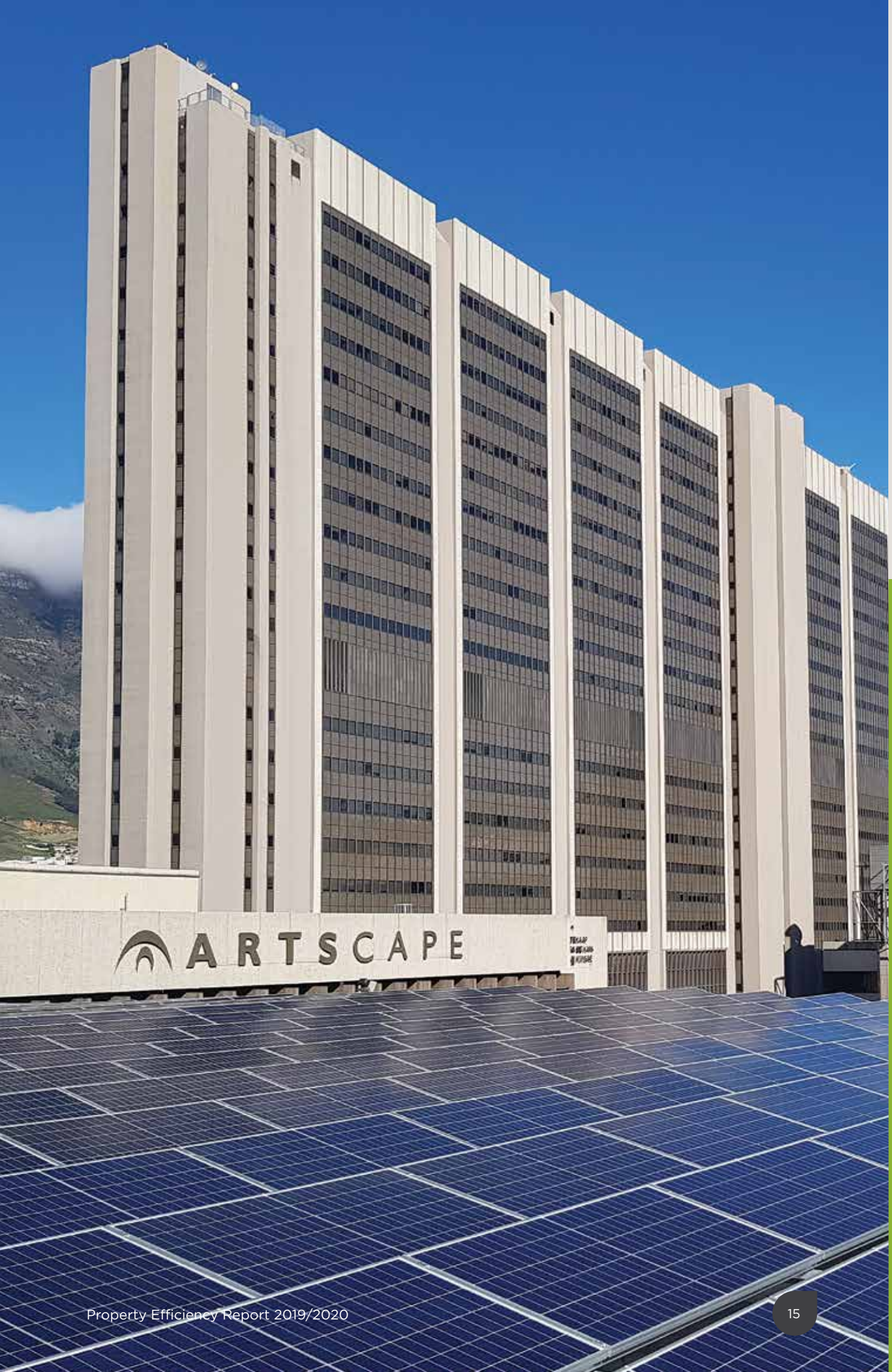
Strict water restrictions imposed by local authorities due to the drought, various water-saving initiatives throughout the portfolio, and improved user behaviour all contributed to this outstanding result. No water target was set for the 2019/2020 period.

Water performance per kL/m² per annum



	2015/2016	2016/2017	2017/2018	2018/2019	2019/2020
Targeted	1.14	1.14	1.08	1.03	
Actual	1.10	0.91	0.69	0.63	0.54
Private sector	0.80	0.89	0.86	0.94	0.84

2019/2020	Electricity benchmarks		Water benchmarks	
Types of buildings	**kWh/m²/pa**		**kL/m²/pa**	
	WCG portfolio	**Private sector**	**WCG portfolio**	**Private sector**
CBD owned	167	224	0.46	0.81
CBD leased	189	214	0.65	0.74
CBD all buildings	**176**	**220**	**0.53**	**0.78**
Non-CBD owned	79	225	0.56	0.90
Non-CBD leased	68	218	0.59	0.97
Non-CBD all buildings	**77**	**224**	**0.56**	**0.91**
All owned	131	224	0.50	0.86
All leased	176	216	0.64	0.81
All buildings	**146**	**222**	**0.54**	**0.84**


ARTSCAPE

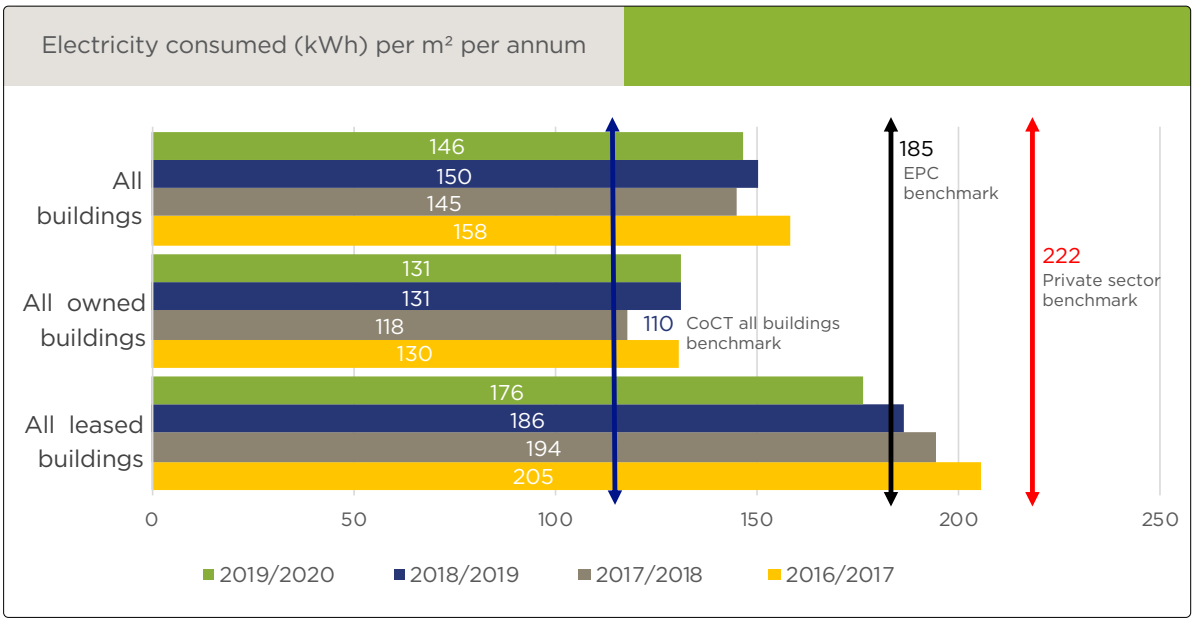
Electricity

Electricity consumption decreased by 8% over the last four years from 158 kWh/m²/pa in 2016/2017 to 146 kWh/m²/pa in 2019/2020.

The owned WCG portfolio outperformed the EPC benchmark of 185 kWh/m²/pa. Due the weak economic conditions in South Africa, the majority of private landlords remain under pressure, leading them to focus on retaining tenants and limiting operational expenses and capital expenditure. The drought forced them to incur additional capital expenses to ensure they complied with strict water restrictions.

For the first time, we will also be able to benchmark the WCG's energy efficiency performance against 32 buildings of the City of Cape Town's (CoCT) office building portfolio. DTPW looks forward to working more closely with the CoCT to build a public sector office benchmark in the future.

For the fourth successive year, the WCG portfolio outperformed the private sector's electricity consumption benchmark of 222 kWh/m²/pa, and this year by approximately 34%.

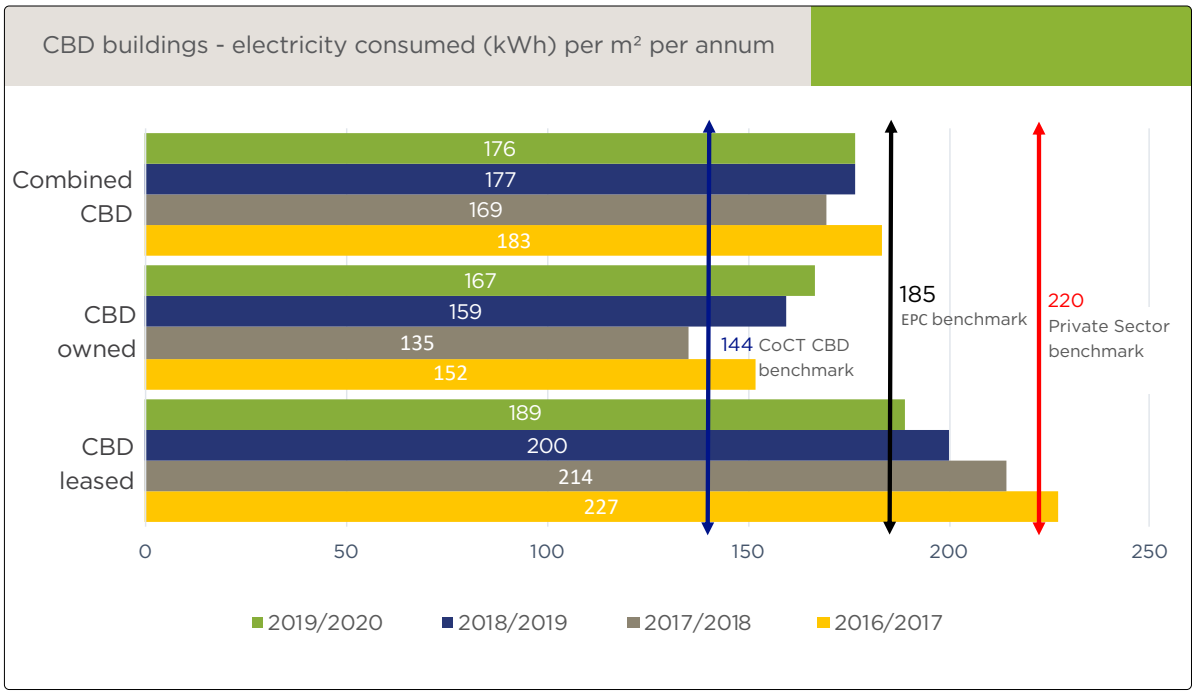


The graph indicates that WCG-owned buildings outperformed leased buildings in the portfolio. Consumption in all the owned buildings remained steady over the reporting period, while all leased buildings reduced their consumption from 186 kWh/m²/pa to 176 kWh/m²/pa, a reduction of 5% compared to the previous reporting period.

The owned buildings' consumption of 131 kWh/m²/pa is 25% better than the leased buildings' consumption of 176 kWh/m²/pa.

The CoCT's office portfolio consumption stands at 110 kWh/m²/pa. This trumps our performance by approximately 24%. Significant contributing factors to the CoCT's remarkable performance are the inclusion of one five and one four Green Star SA-rated buildings in the portfolio of 32 buildings and various efficiency projects, including but not limited to T5 lighting retrofits, behaviour change training, solar water heaters, and power factor corrections.

CBD electricity consumption



The combined CoCT benchmark is approximately 13% more efficient than the WCG portfolio at 144 kWh/m²/pa, with CBD owned buildings being 18% more efficient. The WCG's CBD owned buildings outperformed the EPC benchmark by 10%.

Leased buildings in the CBD continued to improve energy efficiency – the efficiency gain has been over 5% in 2019/2020 compared to the previous period. Over the last four years, the CBD leased buildings reduced consumption by more than 16%.

CBD owned buildings had a 5% reduction in efficiency resulting from an increase in consumption from 159 kWh/m²/pa in 2018/2019 to 167 kWh/m²/pa in 2019/2020. The main reason for this consumption increase is the implementation of initiatives to ensure that the portfolio meets the strict water restrictions imposed by local municipalities. Some of the initiatives include increasing the number of dry coolers, replacing diesel boilers with heat pumps, installing circulation pumps for grey and potable water systems, and installing more efficient chiller plants. This was an unavoidable consequence of steps taken to reduce water consumption over the period.

The CBD portfolio (176 kWh/m²/pa) outperformed the private sector benchmark (220 kWh/m²/pa) by more than 20%.

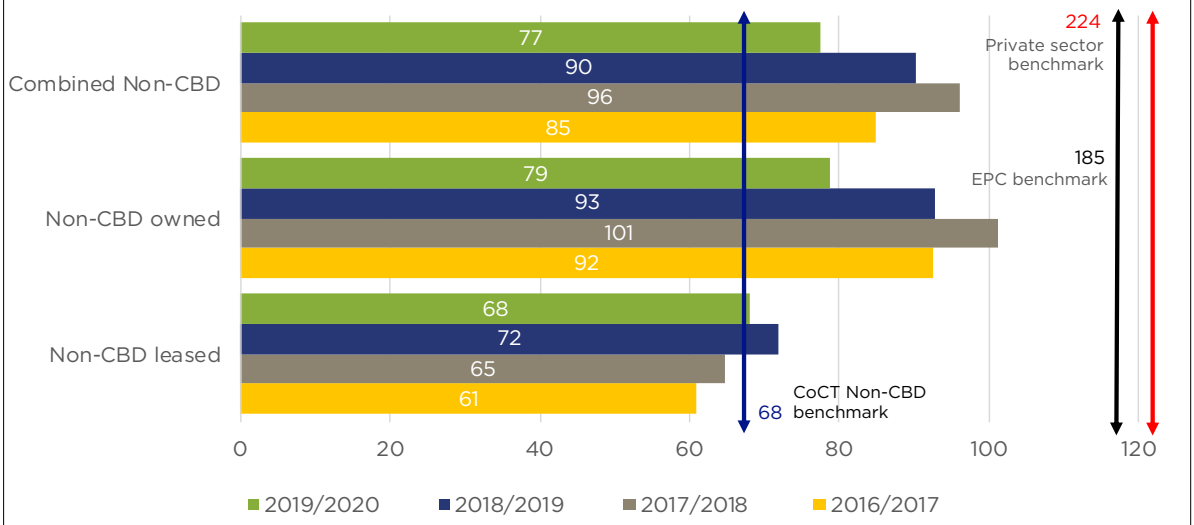
Non-CBD electricity

WCG-leased buildings (68 kWh/m²/pa) are outperforming non-CBD owned buildings (79 kWh/m²/pa). The CoCT non-CBD buildings benchmark is 68 kWh/m²/pa, which means that this portfolio is approximately 11% more efficient over the same reporting period. On average, Global Green Star rated buildings demonstrate energy savings of 40 – 50% and water savings of 20 – 30% when compared to unrated conventional buildings.

In respect of year-on-year performance, non-CBD owned buildings improved efficiency over the reporting period by 15%.

On average, the non-CBD buildings are outperforming both the private sector benchmark of 224 kWh/m²/pa and the EPC benchmark of 185 kWh/m²/pa.

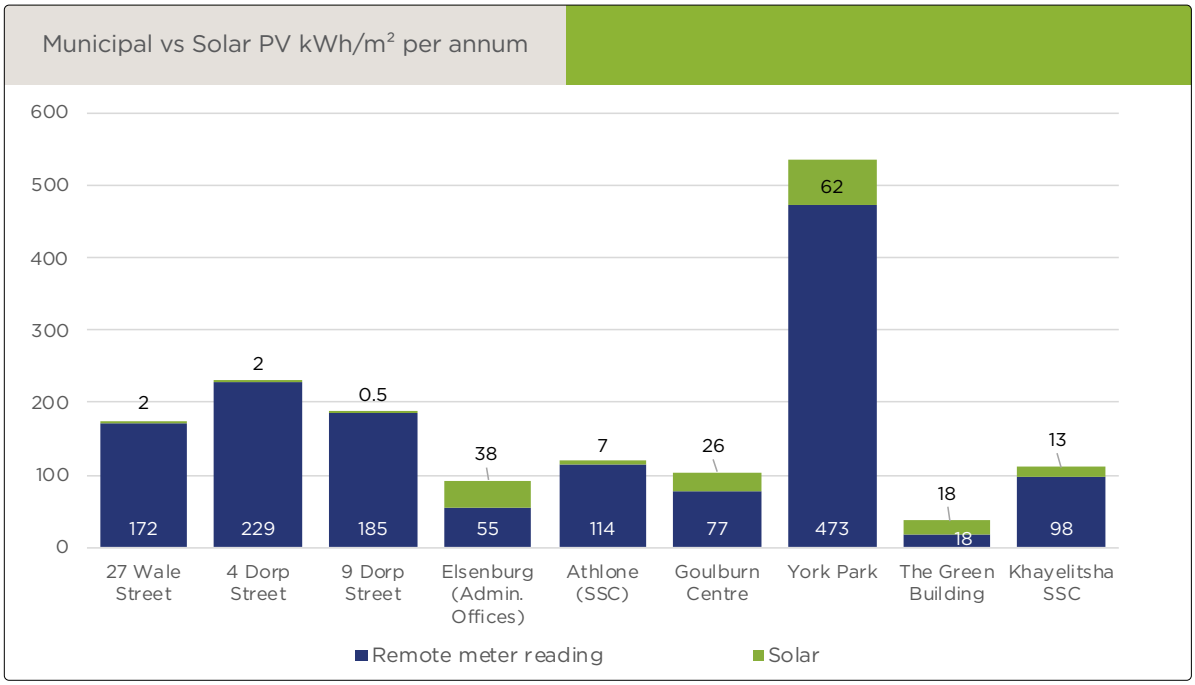
Non-CBD buildings - electricity consumed (kWh) per m² per annum



Energy consumption – solar photovoltaic and municipal electricity consumption

Please note that 9 Dorp Street includes only six months of PV data due to on-site construction work. **The Green Building** (next to Karl Bremer Hospital) **is the best performer with 50% of its electricity consumption coming from solar PV**, followed by Elsenburg (Admin Building) with 41%, and Goulburn Centre with 26%.

Solar PV consumption accounts for 3% of the total consumption in the portfolio of 37 buildings.



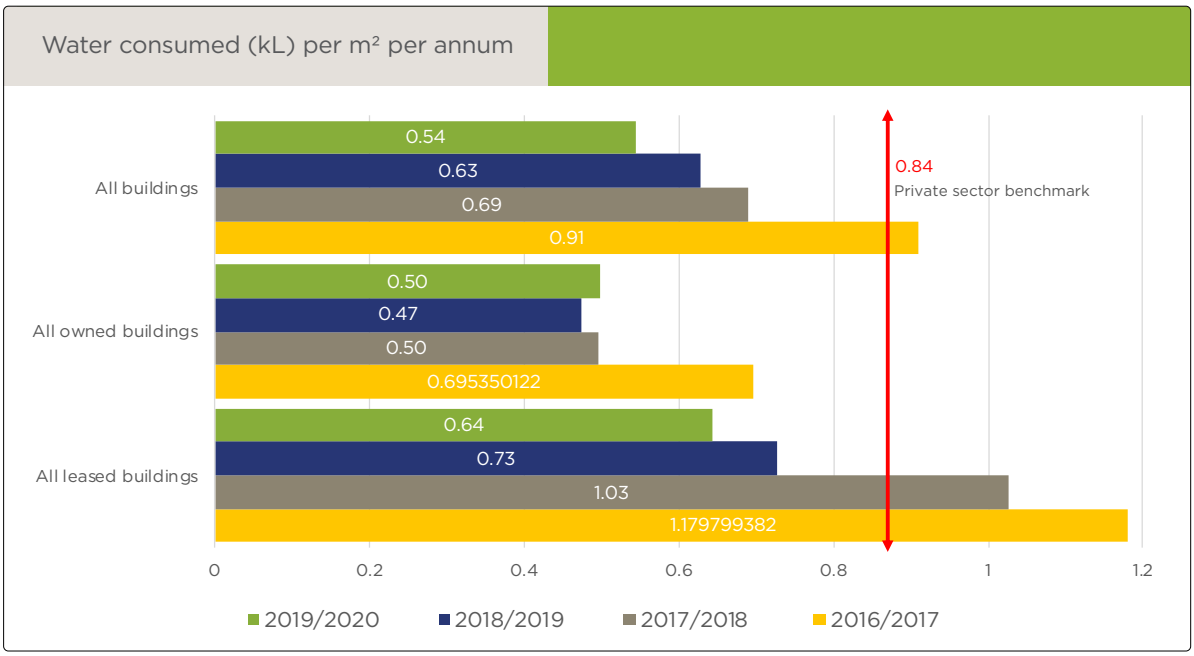
Water

The Western Cape suffered its worse water crisis in a century and Cape Town nearly became the world's first major city to run out of water in 2018. Though rainfall increased in September 2018, the region continued to endure moderate drought conditions, and urban water restrictions remained in place, although less strict than before. During this period, the WCG continued to install remote water meters throughout its vast property portfolio to ensure that whenever consumption in specific buildings exceeded the applicable parameters, the problem could receive prompt attention.

The performance of the portfolio over the 2019/2020 period indicates the WCG's continued commitment to reducing the consumption of water as a very scarce natural resource. Water consumption in the portfolio has steadily decreased by 41% over the last four years.

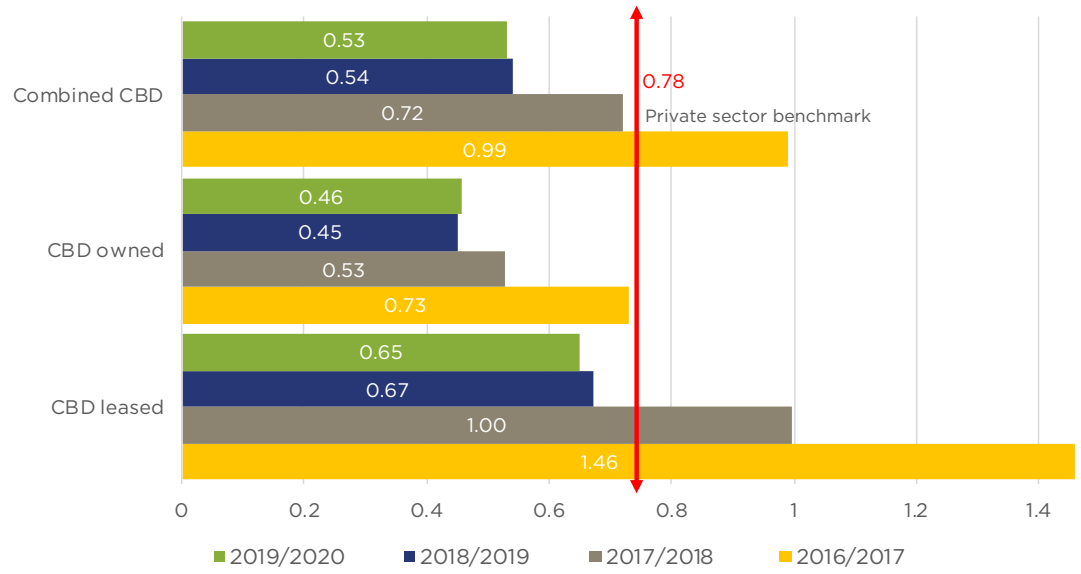
The portfolio continues to outperform the private sector benchmark of 0.84 kL/m²/pa for the same period.

Water consumption decreased from 0.63 to 0.54 kL/m²/pa during the 2019/2020 reporting period, a 14% decrease.



CBD water

CBD buildings - water consumed (kL) per m² per annum

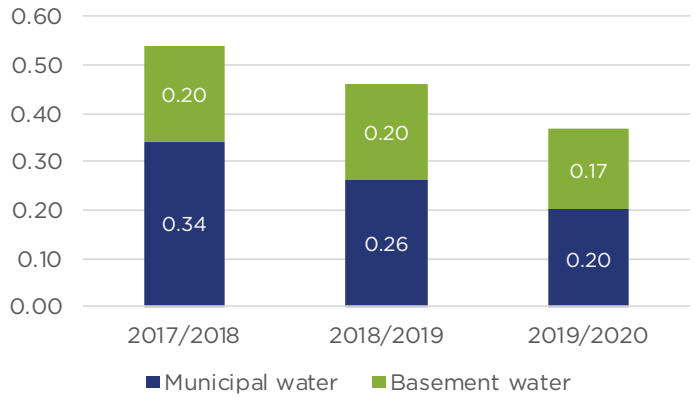


Leased buildings showed a reduction of 55% over the last four years from 1.46 kL/m²/pa to 0.65 kL/m²/pa. This is a remarkable achievement. The CBD buildings showed a combined reduction of 2% to 0.53 kL/m²/pa over the reporting period. Water consumption in CBD owned buildings remained stable at 0.45 kL/m²/pa. The combined CBD buildings are currently outperforming the private sector benchmark of 0.78 kL/m²/pa.

The 9 Dorp Street building is the only one in the portfolio actively utilising its groundwater source in the basement, and 47% of the water it consumes comes from this alternative water source. The basement water is used effectively to reduce the buildings' dependency on potable municipal water.

The building showed a reduction of approximately 41% in its use of municipal water over the three-year period 2017/2018 to 2019/2020, from 0.34 kL/m²/pa to 0.20 kL/m²/pa.

9 Dorp Street municipal vs. basement water (kL/m²/pa)

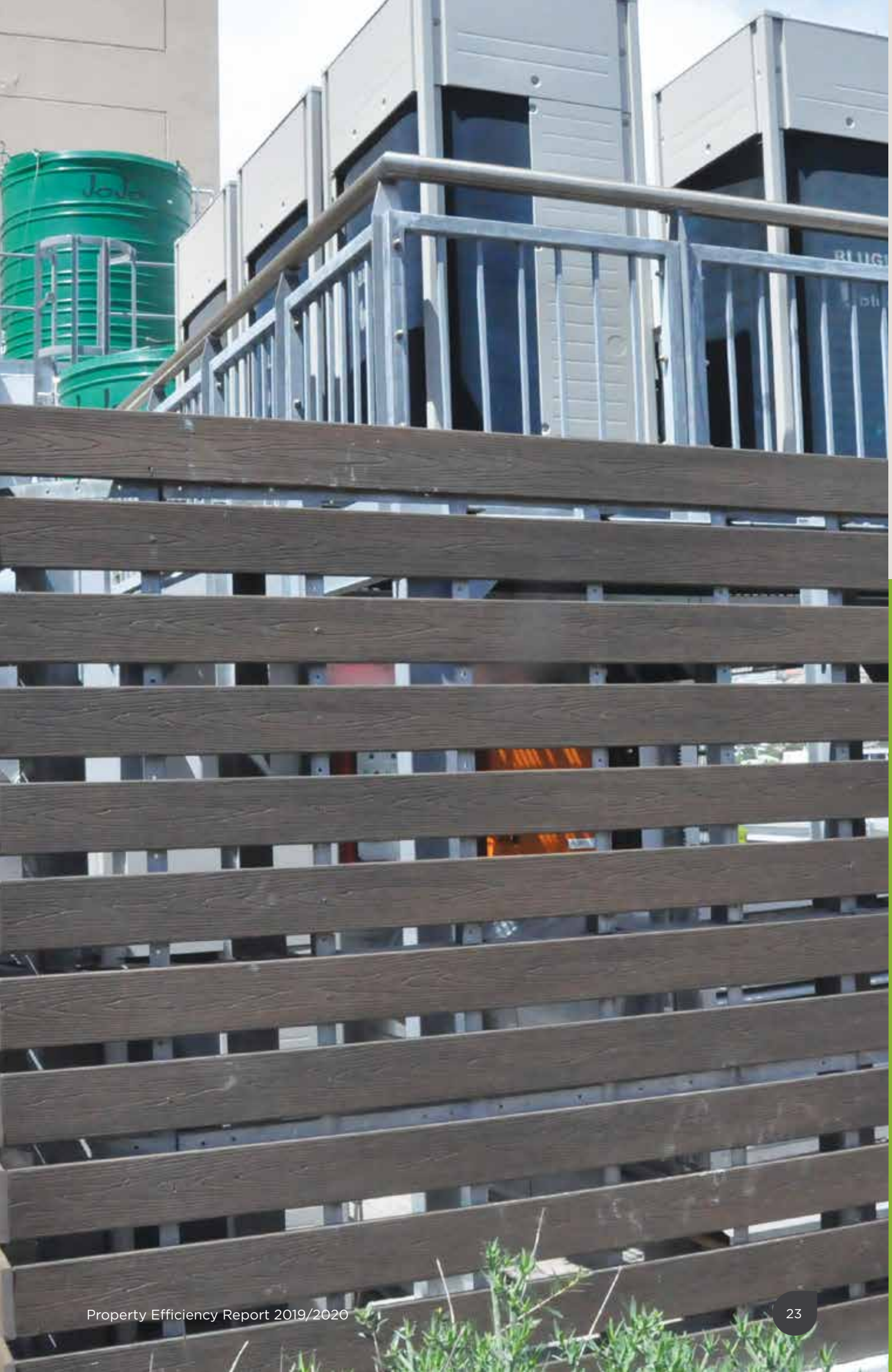


Non-CBD water

Non-CBD leased buildings are the star performer of the portfolio under review with a water consumption reduction of more than 67% over the period 2016/2017 to 2019/2020.

The decrease was due to the hard work of the portfolio managers and the Department's resource champion who continued to investigate the high consumption at individual buildings in George and Oudtshoorn. They were able to eliminate various slow leaks that were extremely difficult to find. Non-CBD buildings are performing well below the industry benchmark at 0.59 kL/m²/pa. York Park and Elsenburg make use of groundwater which is treated on site to reduce potable municipal demand. More use of these alternative water sources are planned in the future.

The non-CBD owned buildings are currently outperforming the industry benchmark of 0.90 kL/m²/pa with consumption of 0.56 kL/m²/pa over the reporting period.



CASE STUDY

Rooftop solar photovoltaic (PV) systems

The Western Cape Government, through its Energy Security Game Changer programme, aims to contribute an effective 10% to the Western Cape's electricity needs by 2020 by reducing our province's dependency on Eskom. Households, businesses and the government can be contributors through low carbon supply and energy efficiency measures that include the investment in energy efficiency solutions, solar water heaters, and rooftop solar PV.

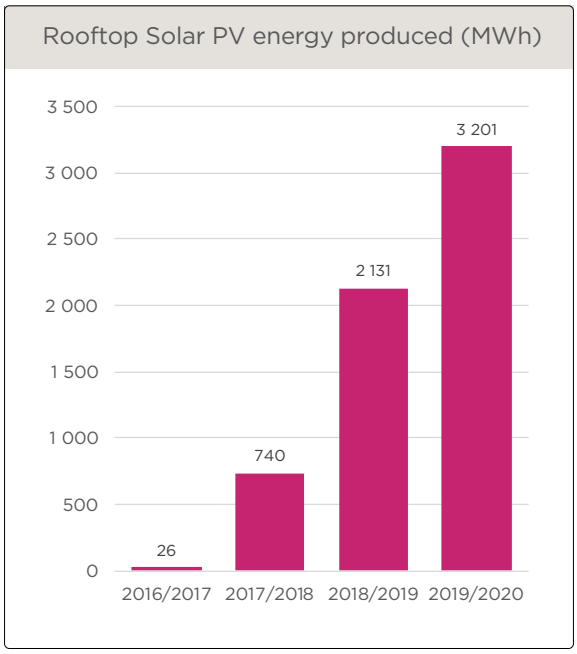
The DTPW, in its capacity as custodian and manager of the provincial government's immovable asset portfolio, actively promotes the use of renewable energy in public buildings. The availability of abundant sunshine across South Africa means that the utilisation of solar energy is perfectly aligned with the objectives of the programme.

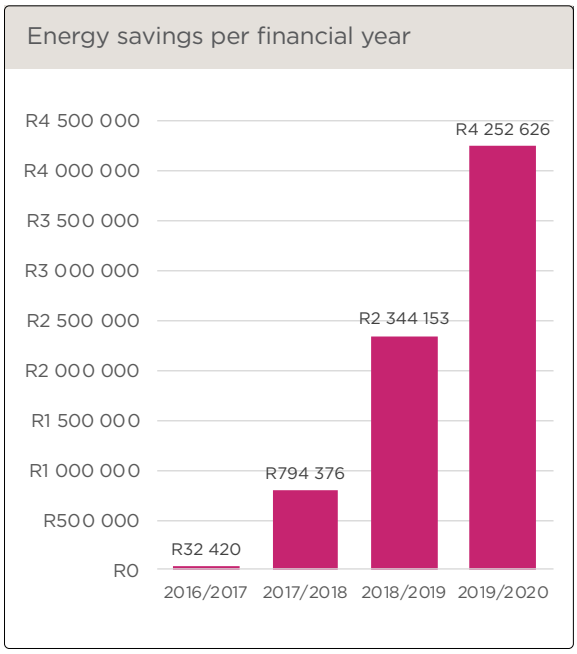
In 2016, a tender was issued to procure the services of a solar PV contractor for the Cape Town Metro Rooftop Solar PV Installation, Operation and Maintenance Term Service Agreement. Shared Energy Management (Pty) Ltd was awarded a three-year contract to the end of June 2019, and the Term Service Agreement has subsequently been extended by 12 months to 1 July 2020. The DTPW committed expenditure of approximately R54.8 million to the installation of rooftop solar PV systems at 16 government-owned properties. At the date of publication, an additional eight sites were being considered for the continued implementation of solar PV with an approximate value of R17 million.

The current cumulative energy saving for the financial year 2019/2020 is approximately 3 201 MWh.

Rooftop Solar PV - capacity and energy produced						
Project/ building	**Capacity (kWp)**	**2016/ 2017 (MWh)**	**2017/ 2018 (MWh)**	**2018/ 2019 (MWh)**	**2019/ 2020 (MWh)**	**Grand total (MWh)**
9 Dorp Street	52	9	74	61	9	153
Athlone VSSC	109	15	164	177	172	528
27 Wale Street	16	2	24	23	23	72
Alfred Street - Library & CMD	285	0	197	465	440	1 101
Karl Bremer Admin Building	75	0	195	125	122	441
Khayelitsha KSSO	21	0	24	25	34	83
New GMT Building	72	0	45	108	94	247
Goulburn	22	0	17	36	25	78
CTLI	425	0	0	449	719	1 168
Kromme Rhee	131	0	0	185	222	406
Gene Louw	54	0	0	69	84	153
Elsenburg	367	0	0	376	615	992
Dassen Island	15	0	0	3	7	10
4 Dorp Street	29	0	0	15	37	51
York Park Building, George	120	0	0	15	154	169
Artscape Building	372	0	0	0	444	444
	2 164	**26**	**740**	**2 131**	**3 201**	**6 098**

During the reporting period, Cape Teaching and Learning Institution's (CTLI) capacity had to be cut down to 425 kWp once the detailed design of the project was completed. This was due to restricted suitable roof space and to limit the amount of exported energy. The capacity installation at Artscape was also adjusted after the structural engineer's report highlighted that the Opera foyer roof was not able to carry the envisaged load and the system had to be downsized to 372 kWp.





The solar energy yield has increased from 26 MWh in 2016/2017 to 3 201 MWh in 2019/2020, and the cost savings increased over the corresponding period from R32 000 per annum to R4 252 626 pa.

Rooftop Solar PV - capacity and cost savings per financial year

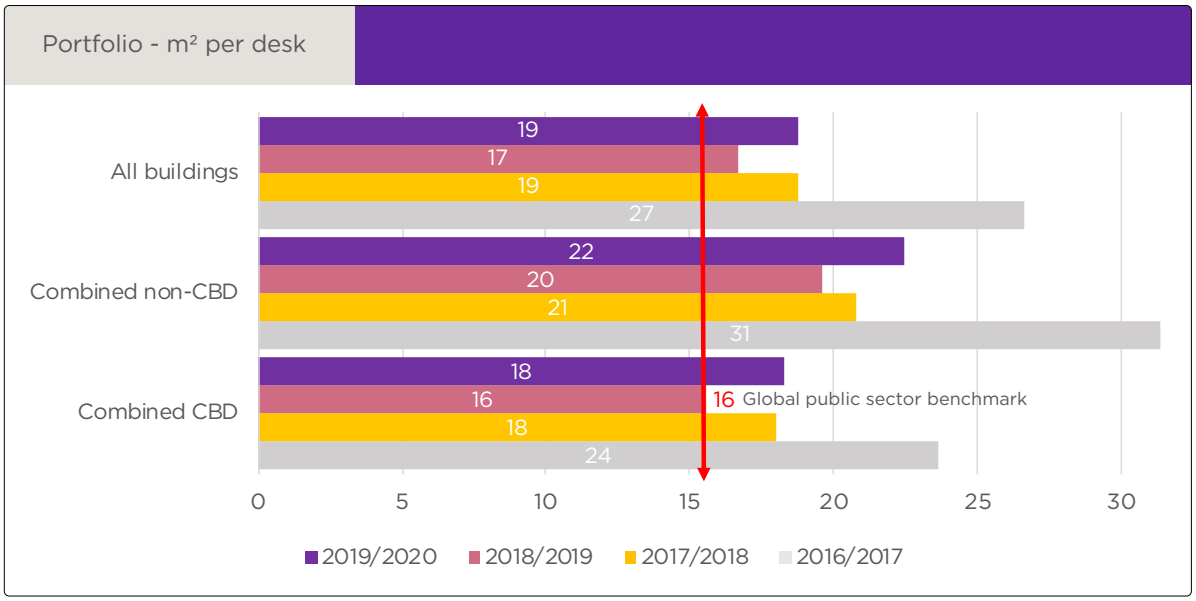
Project/ building	Capacity (kWp)	2016/ 2017	2017/ 2018	2018/ 2019	2019/ 2020	Grand total
9 Dorp Street	52	R12 047	R108 497	R103 855	R15 265	R239 664
Athlone VSSC	109	R16 884	R179 888	R221 276	R250 141	R668 188
27 Wale Street	16	R3 488	R35 935	R39 268	R44 528	R123 220
Alfred Street - Library & CMD	285	R0	R191 145	R511 790	R564 626	R1 267 561
Karl Bremer Admin Building	75	R0	R187 320	R180 346	R203 755	R571 421
Khayelitsha KSSO	21	R0	R32 535	R38 854	R64 052	R135 441
New GMT Building	72	R0	R45 953	R125 543	R159 717	R331 213
Goulburn	22	R0	R13 103	R50 785	R47 895	R111 783
CTLI	425	R0	R0	R409 640	R939 481	R1 349 121
Kromme Rhee	131	R0	R0	R160 881	R255 145	R416 025
Gene Louw	54	R0	R0	R68 129	R104 282	R172 412
Elsenburg	367	R0	R0	R354 289	R707 743	R1 062 032
Dassen Island	15	R0	R0	R27 450	R72 221	R99 671
4 Dorp Street	29	R0	R0	R22 717	R63 775	R86 492
York Park Building, George	120	R0	R0	R29 330	R201 500	R230 830
Artscape Building	372	R0	R0	R0	R558 500	R558 500
	2 164	**R32 420**	**R794 376**	**R2 344 153**	**R4 252 626**	**R7 423 574**

Chapter 2:

Space utilisation

Square metre per desk - The continued development of and improvement in technology is transforming workplaces around the world, allowing business and public sector leaders to formulate corporate real estate strategies that provide environments that better suit their organisations' culture and nature of business. When strategising about their space utilisation, they take the nature and age of the buildings they occupy into account. Globally, more and more organisations are querying whether the square metre per desk method is the most effective way of measuring space efficiency, as various industries have differing space requirements, including for example, the size and number of meeting rooms, storage requirements, shared offices, and the various extents of executive offices.

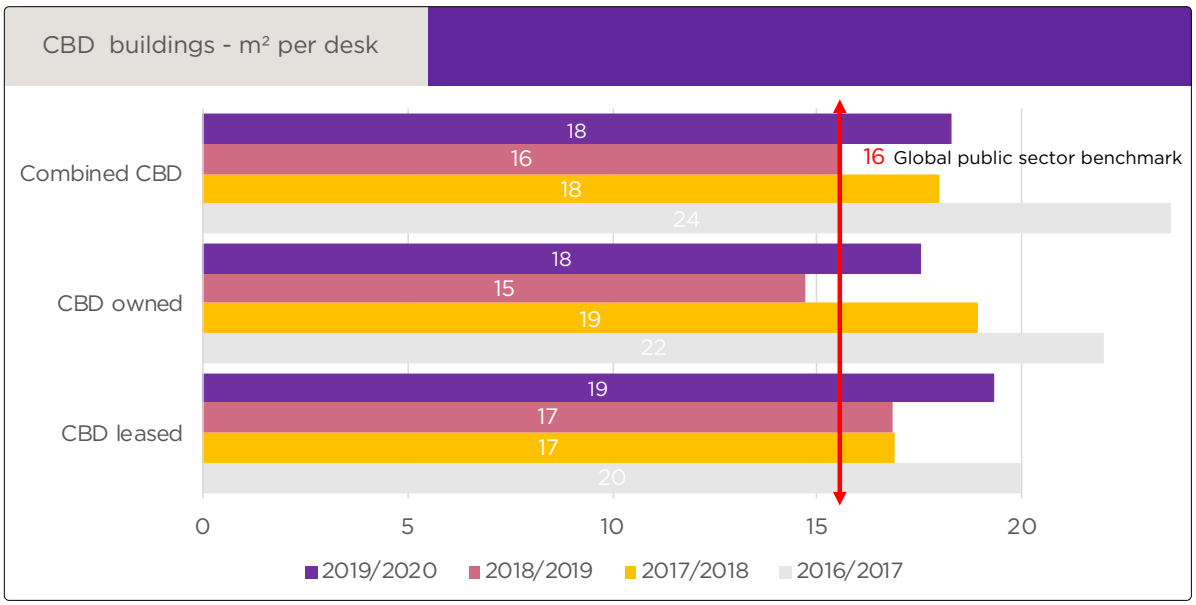
According to research published by JLL during 2019 it pointed out that the average density in most countries ranges from 14 m^2 to 23 m^2 per desk/person. High-density offices achieve an average of 14m^2, while moderate density offices achieve 23 m^2. Public sectors globally come in at an average 16.3 m^2 per desk/person. It is our opinion that the WCG can be classified as a moderate to high-density user and we have accordingly adjusted our benchmarking figure to 16 m^2 to compare our performance against global public sector occupiers.



The portfolio achieved an average desk space of 19 m², an increase from 17 m² in the same period last year. This represents an 11% decline in desk space efficiency, taking us back to 2017/2018 levels. This is mainly due to the relocation of various departments to other buildings for a variety of reasons, including the consolidation of departments, space utilisation projects, and refurbishments of several floors within buildings. The Department is currently busy with an investigation to verify and analyse the timing and reasons for the wide-ranging movement of staff.

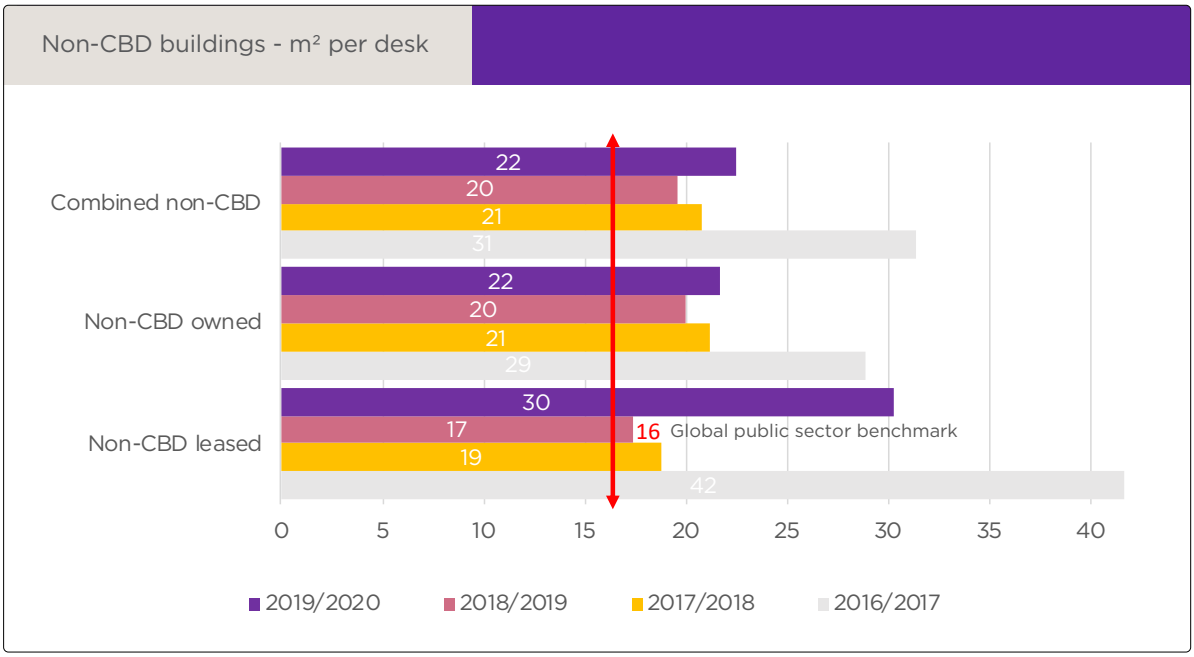
CBD buildings

Though the CBD buildings are back to 2017/2018 levels of 18 m²/desk, they remain the most space-efficient section of the overall WCG portfolio, outperforming non-CBD buildings by 18%. CBD owned buildings showed a decline in space efficiency from 15 m²/desk in 2018/2019 to 18 m²/desk in 2019/2020, while CBD leased buildings are at 19 m²/desk.



Space efficiency of the CBD buildings is 12% less efficient than the public sector benchmark of 16 m²/desk.

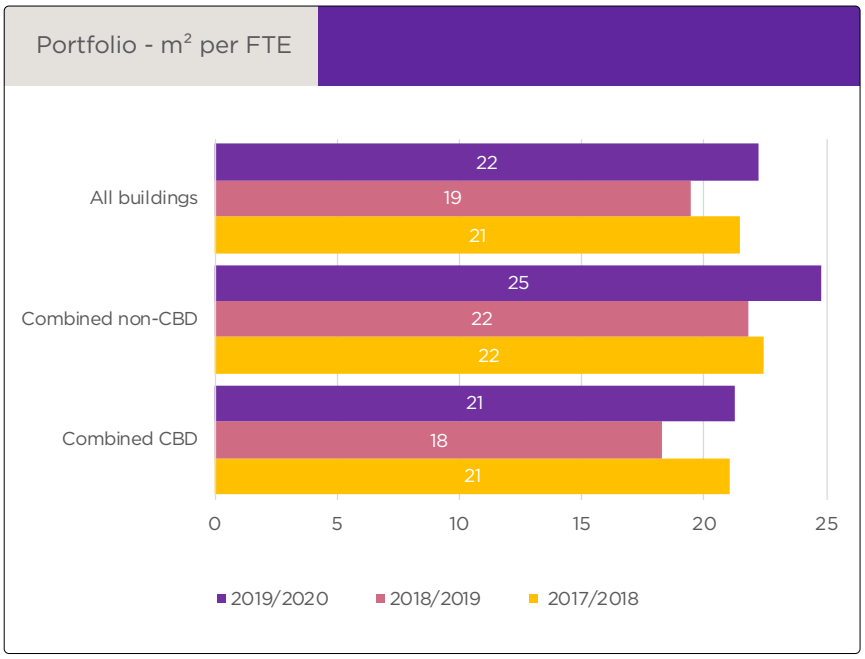
Non-CBD buildings



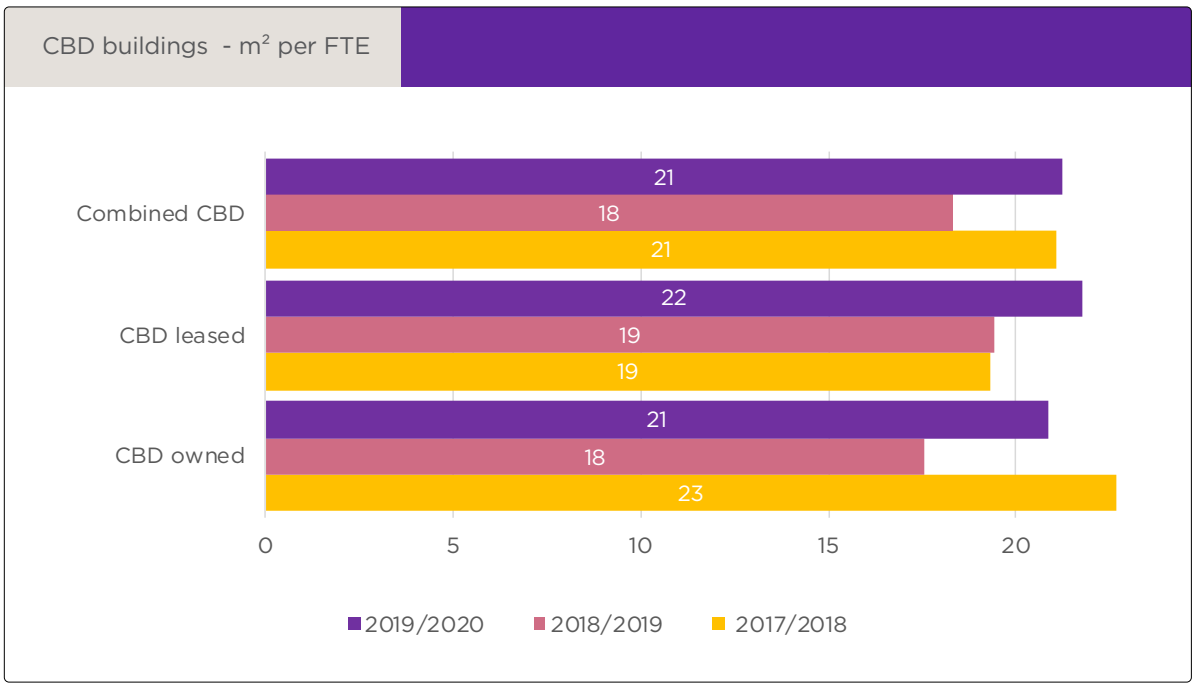
Both the non-CBD buildings combined portfolio and the non-CBD owned buildings portfolio achieved a space per desk of 22 m². The most significant drop in space utilisation efficiency was in non-CBD leased properties where square metrage per desk increased from 17 m² to 30 m², 87% above the public sector benchmark of 16 m²/desk. This reduction of more than 180 desks in the non-CBD leased buildings is mainly due to a relocation of staff to other WCG-owned buildings in the portfolio. An exercise to verify and analyse the timing and reasons for the wide-ranging movement of staff is underway.

Square metre per FTE

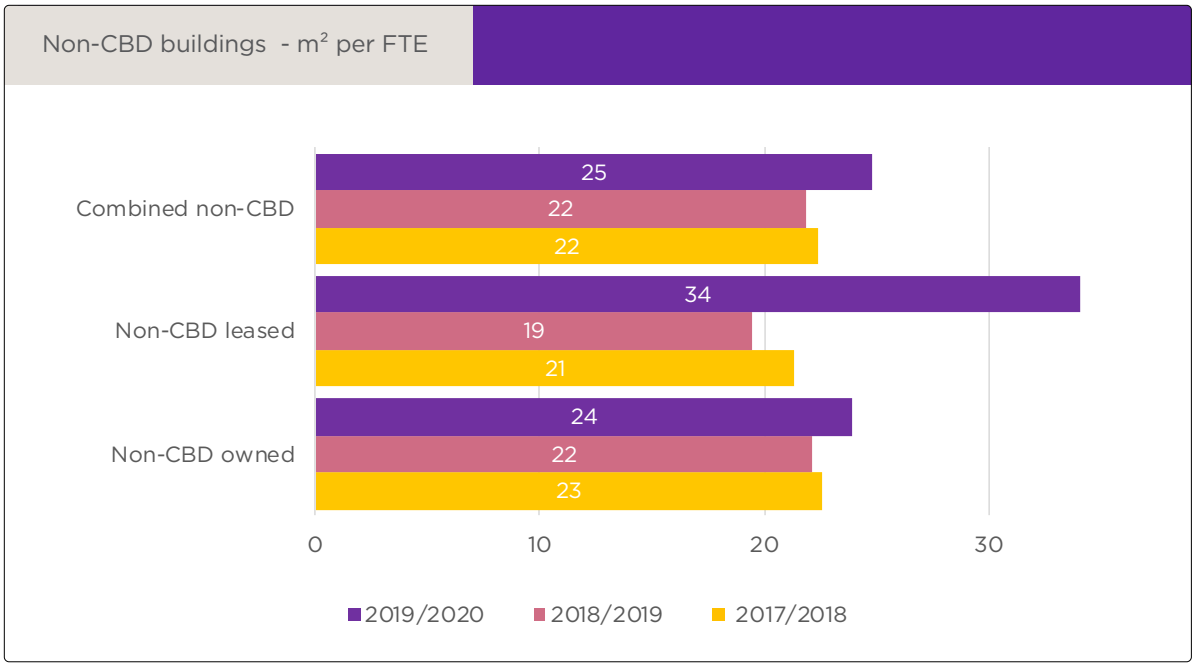
FTE stands for full-time equivalent and in this report represents the number of desks minus the vacant desks. Measuring density per employee per square metre provides an opportunity to evaluate the levels of workstation occupation by comparing FTE staff numbers with the number of workstations in the workplace.



The All buildings portfolio showed an increase in square metrage per FTE from 19 m²/FTE to 22 m²/FTE. The density of combined non-CBD buildings decreased by more than 13% over the reporting period, while combined CBD buildings decreased their m²/FTE density by 14%.



The density of all CBD building types decreased in density from 2018/2019 to 2019/2020. Combined CBD buildings had an increase in square metrage per FTE from 18 m²/FTE to 21 m²/FTE. CBD leased space reduced in density from 19 m²/FTE to 22 m²/FTE. CBD owned properties displayed a similar trend – from 18 m²/FTE to 21 m²/FTE.



Non-CBD leased premises increased their space per person from 19 m²/FTE to 34 m²/FTE. This is an increase of more than 78% which is directly related to decanting operations and movements required to facilitate office modernisation. An analysis of these changes is underway.

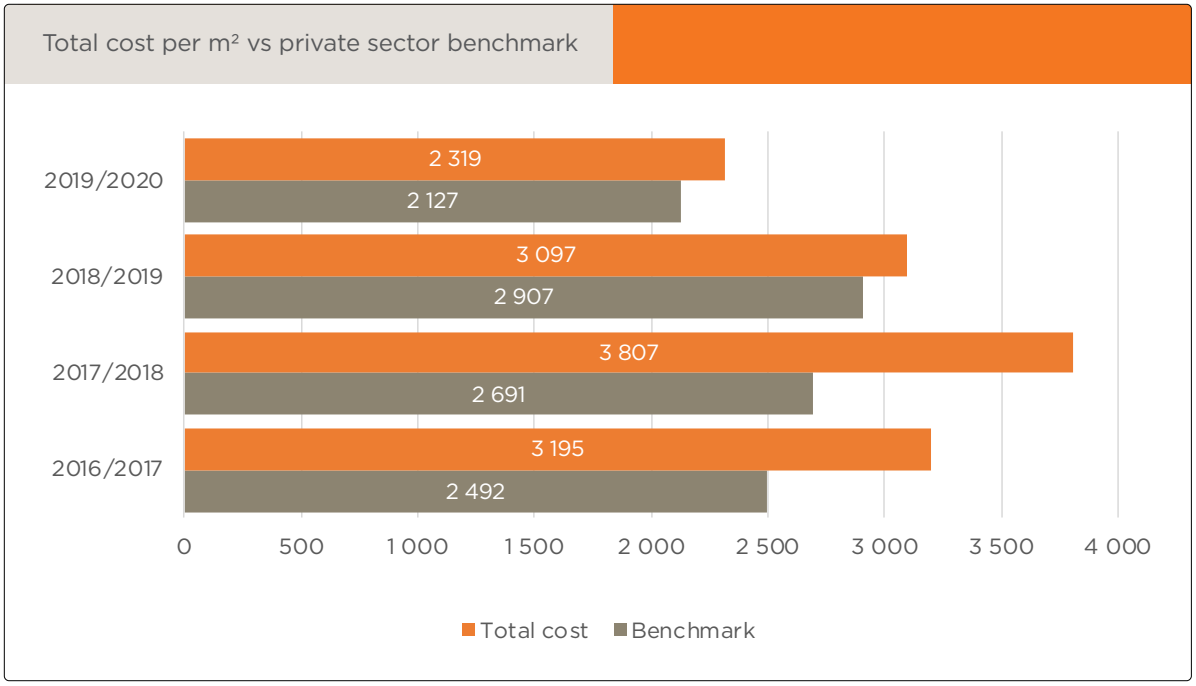
Chapter 3:

Performance measurement cost

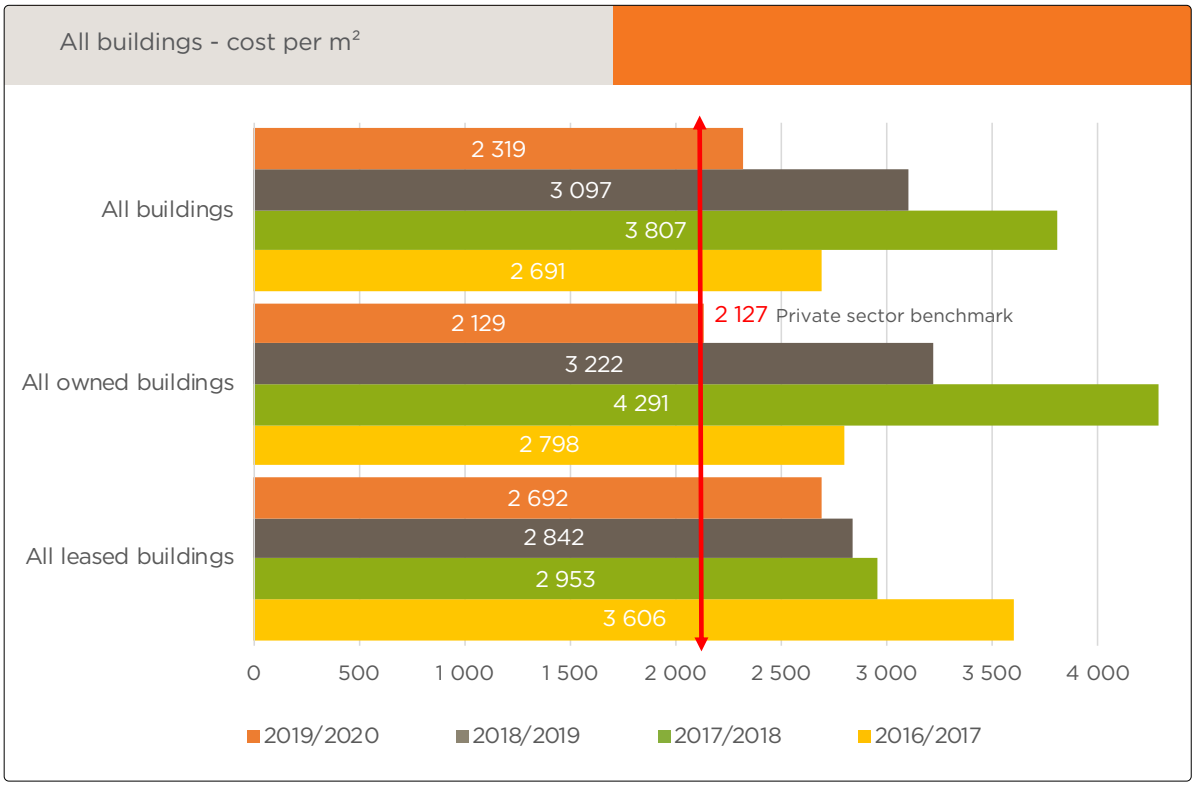
Extensive analysis has been done on the portfolio's total occupancy cost per square metre, and we are delighted to report that the total cost has decreased by nearly 25% over the reporting period from R3 097 to R2 319/m². Research done by Serendipityremix shows that the private sector benchmark also dropped by 26% from R2 907 to R2 127/m² over the same period.

The total cost has decreased by nearly 25% over the reporting period from R3 097 to R2 319/m²

The WCG continues to make investments in its assets to ensure more sustainable operation of these assets in the future. Still, with the current weak economic conditions, the budget for infrastructure investment is limited and, as a result, priority will be given to urgent projects. The private sector has a similar outlook.



During the 2019/2020 reporting period, the highest total cost was in respect of all-leased buildings (R2 692/m²), while the cost in the all-owned buildings portfolio was R2 129/m².



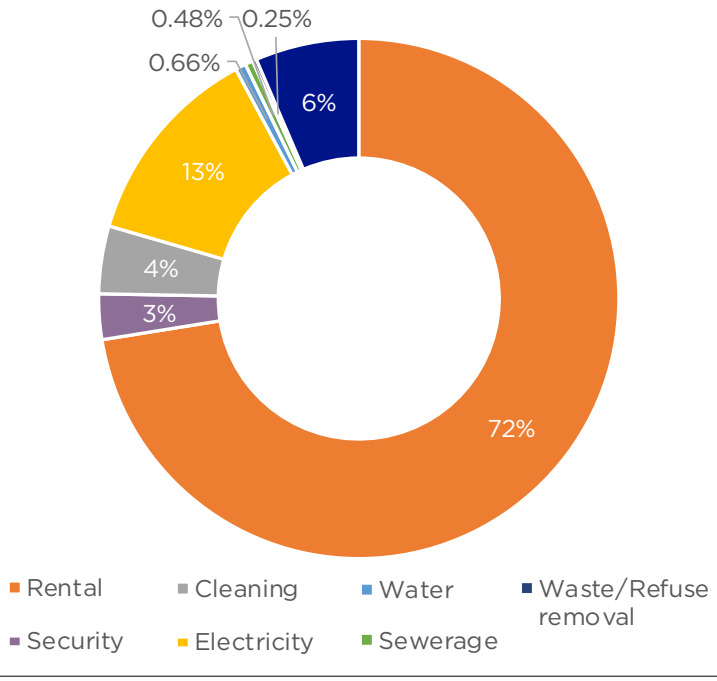
The total occupancy costs for leased buildings are made up of annual operating expenses, such as rent and local real estate taxes, repairs and maintenance, service charges and support services, as well as management fees. Annualised capital expenses, such as adaptation and equipment, information technology (IT) infrastructure and hardware reflect capital costs. The rental component comprises of net rental, all rates and taxes and CID levies charged by the landlord.

Rental for leased buildings accounts for 72% of occupancy cost and electricity accounts for 13%.

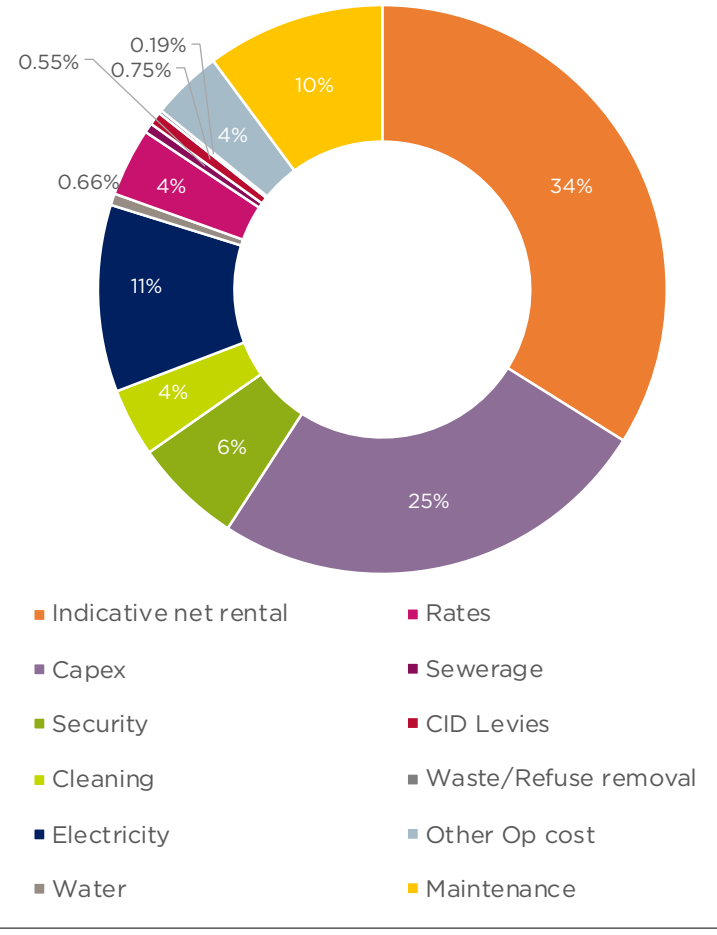
To calculate the total occupancy costs for owned buildings, we included an approximate market rental rate to facilitate a direct comparison with leased space. Annual operating expenses include rates and taxes, support services, repairs and maintenance, as well as management fees.

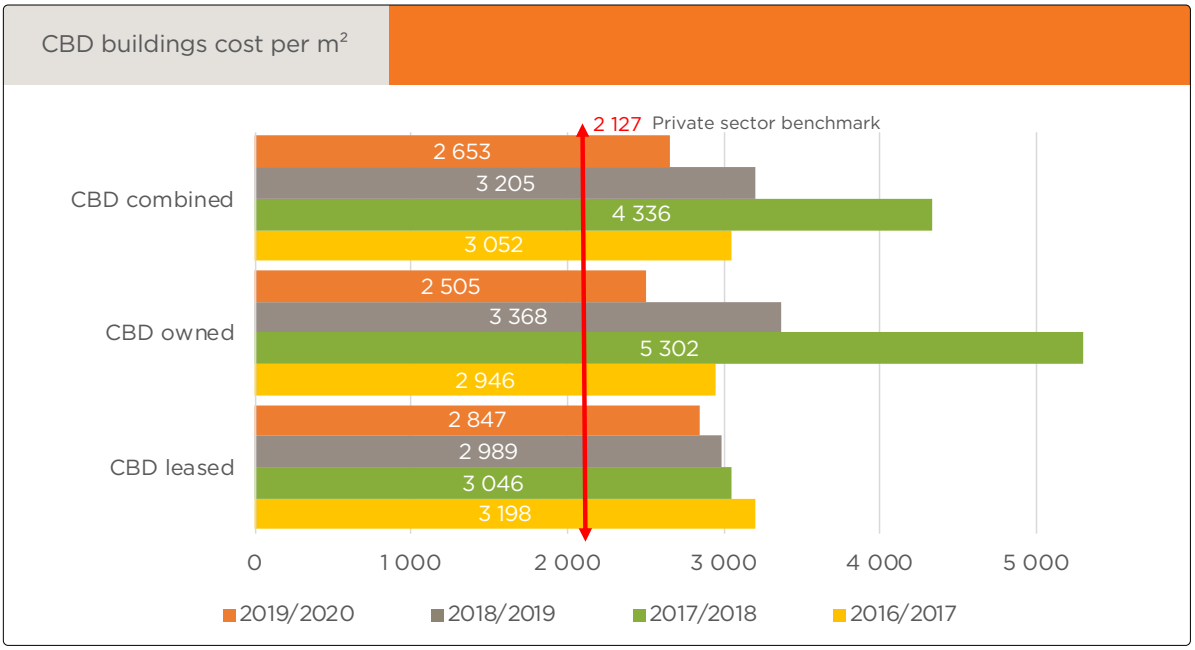
Annualised capital expenses include the adaptation of equipment, IT infrastructure and hardware installations. Internal, mechanical, electrical, external and structural repairs and maintenance, as well as minor improvements, security, cleaning, waste disposal, water, sewerage and electricity are also included. The data was sourced from within the various occupying departments and from DTPW Provincial Public Works as asset manager.

Occupancy cost breakdown all leased buildings



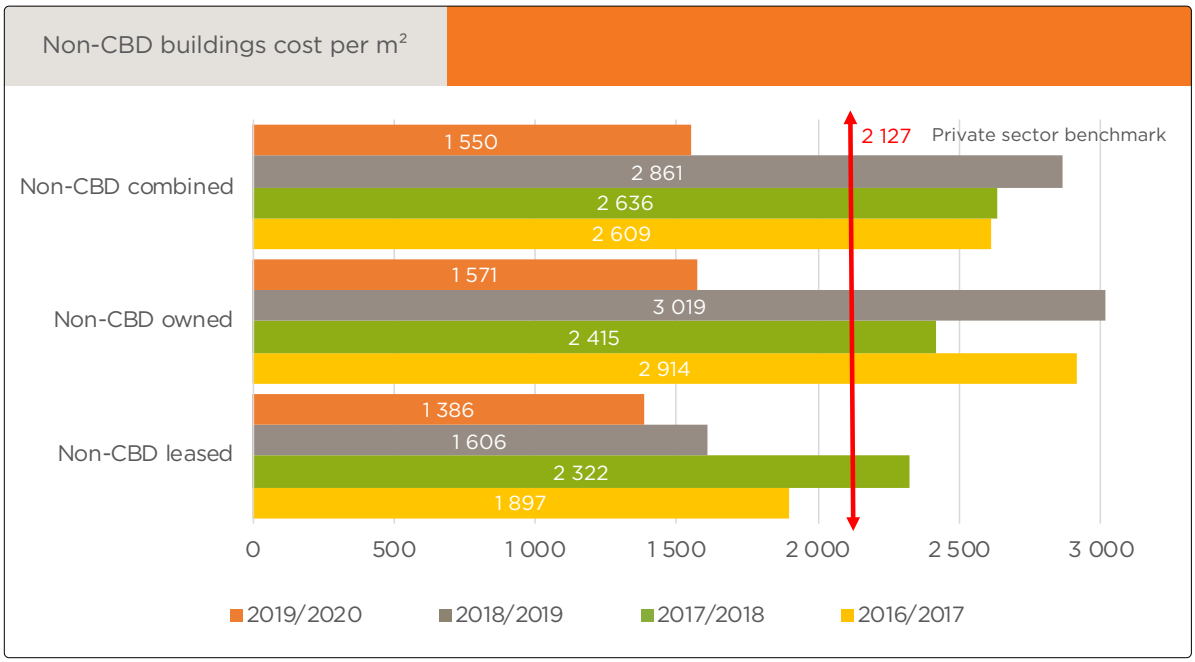
Occupancy cost breakdown all owned buildings





Spending on all CBD properties dropped from R3 205 to R2 653/m² in 2019/2020, which is a decrease of 17%. CBD owned buildings show a collective 52% reduction since 2017/2018. The drop in costs is largely because the space utilisation and refurbishment projects at 3 Dorp Street have been completed. Spending on CBD leased properties decreased by nearly 4% over the reporting period.

Spending on all CBD properties dropped from R3 205 to R2 653/m² in 2019/2020



Non-CBD leased premises showed a decrease of 13% in costs, while non-CBD owned properties had a substantial reduction of 47% due to various modernisation projects being concluded in the 2018/2019 period.

Non-CBD combined properties reduced their costs from R2 861 to R1 550/m² in 2019/2020.

Operating cost analysis

Operating costs have become a crucial concern for commercial property owners and tenants throughout the world. Analysing the various components that make up operating costs assists both tenants and landlords to identify those components that have the most influence on the cost of occupying a space.

Being in possession of this information allows companies to pinpoint the areas that demand special consideration when completing their budgets and planning for future years. It also allows them to take realistic actions aimed at minimising such costs.

For this report, we have made a detailed analysis of the portfolio's expenses. For the first time, we can compare the operating costs of the 37 selected buildings in this report to those of SAPOA's and MSCI's operating cost benchmarks. This is an opportunity to compare the chosen portfolios' performance against that of the private sector. We broke down the operational costs into the following classifications: municipal charges, repairs and maintenance, soft services, and other operating costs.

Operating costs

Municipal charges

- Electricity
- Municipal charges
- Rates and taxes
- City Improvement District (CID) levies where applicable

Repairs and maintenance

- Air conditioning
- Building fabric
- Elevators / escalators
- Tenant installtion costs

Soft services

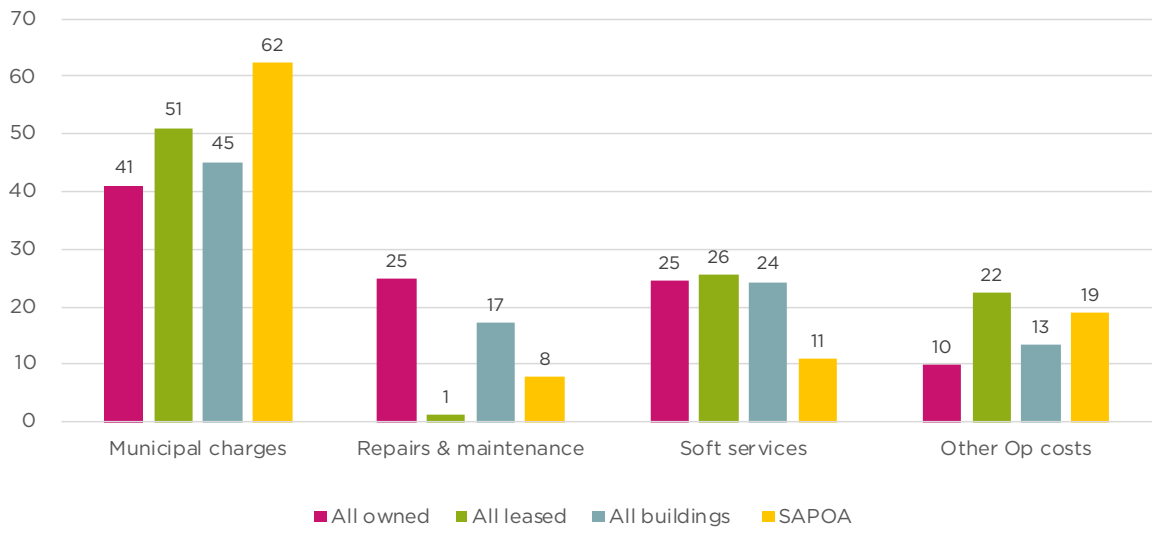
- Cleaning
- Gardens / landscaping
- Security

Other operating costs

- Property management fees
- Facilities management fees
- Leasing fees and commissions
- Insurance, bad debts and other

Municipal charges make up the largest percentage of overall operating costs. From 2010 to 2019, municipal charges grew faster than any other operating cost. This is visible from the graph below.

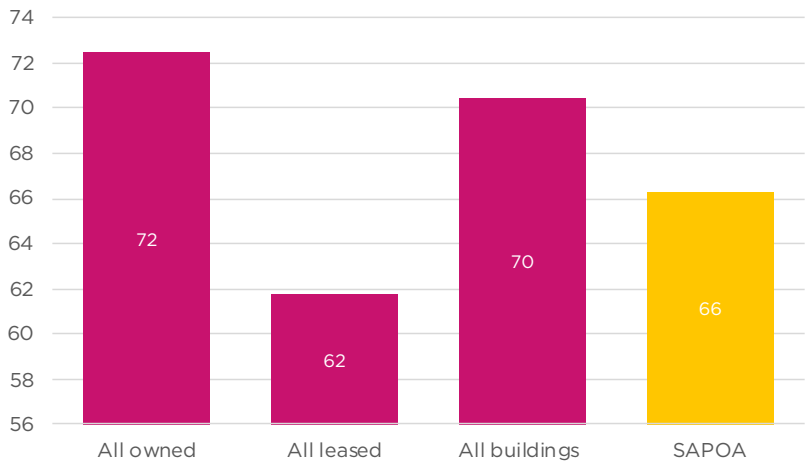
Operating cost by cost category (%)



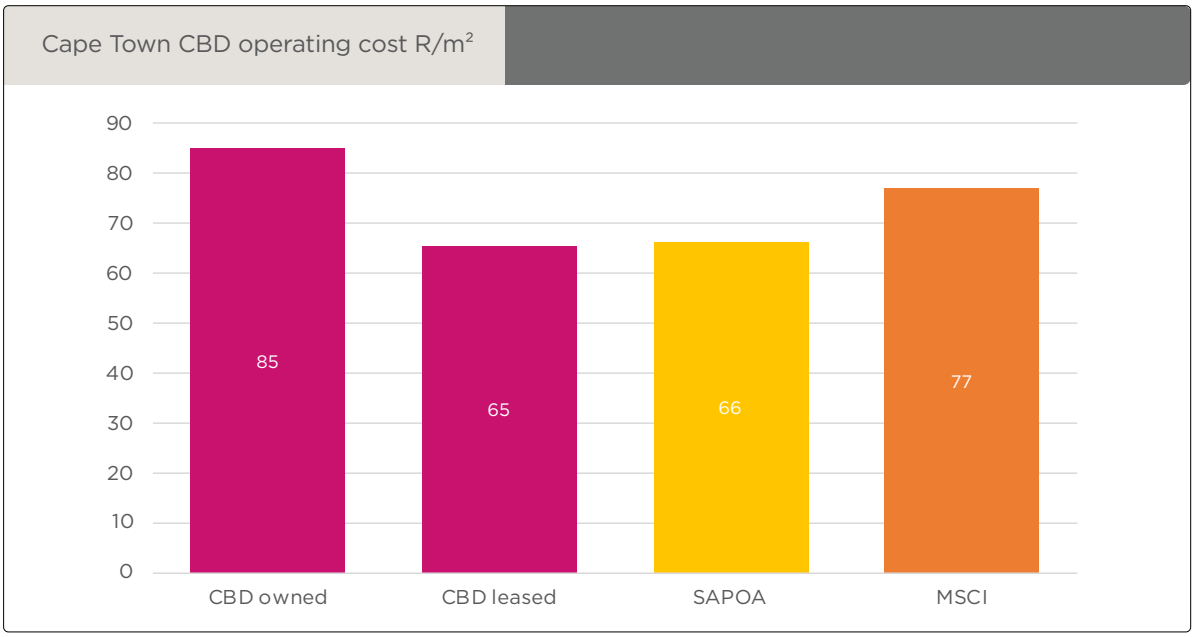
Municipal charges are indeed the largest category in the operating costs group, accounting for 41% of the total operating costs of the buildings referred to in this report. This is 21% below the SAPOA benchmark. The WCG portfolio's soft services account is 11% higher than that reported by SAPOA.

The operating cost for the portfolio under review is R70/m², which is 6% higher than the SAPOA benchmark of R66/m². Leased buildings in the portfolio outperform the SAPOA benchmark by 6% for the same period.

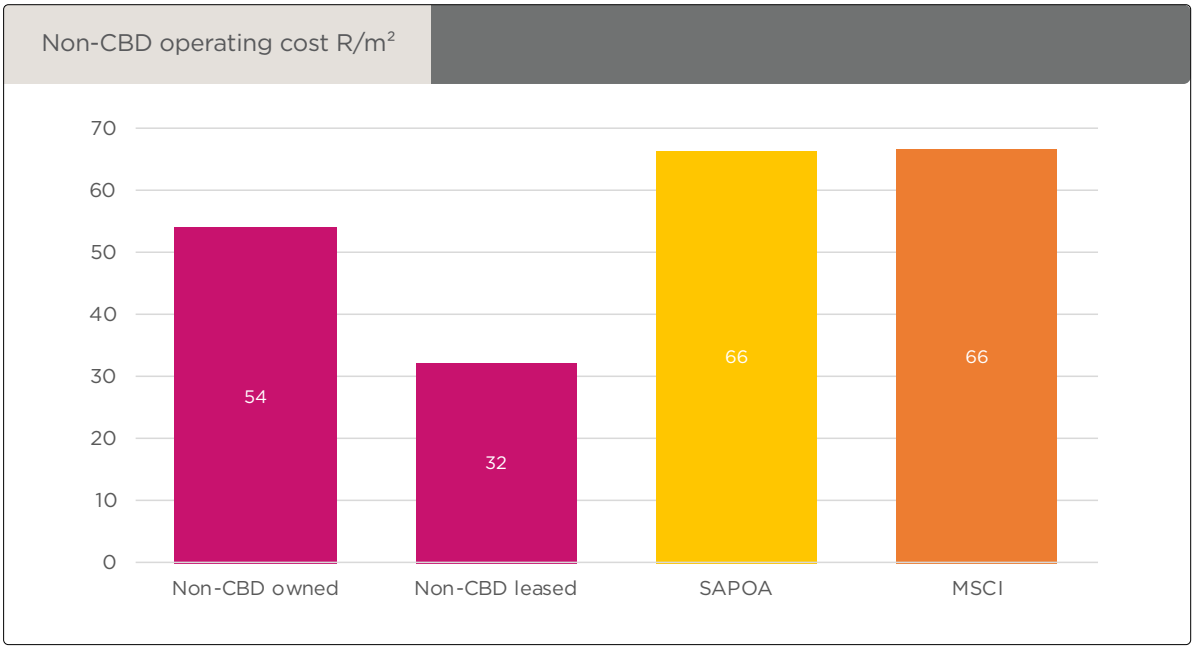
Operating cost R/m²



A more detailed analysis of the Cape Town CBD buildings indicated that the CBD owned buildings are 28% above SAPOA and 10% above the MSCI benchmark of R77/m².

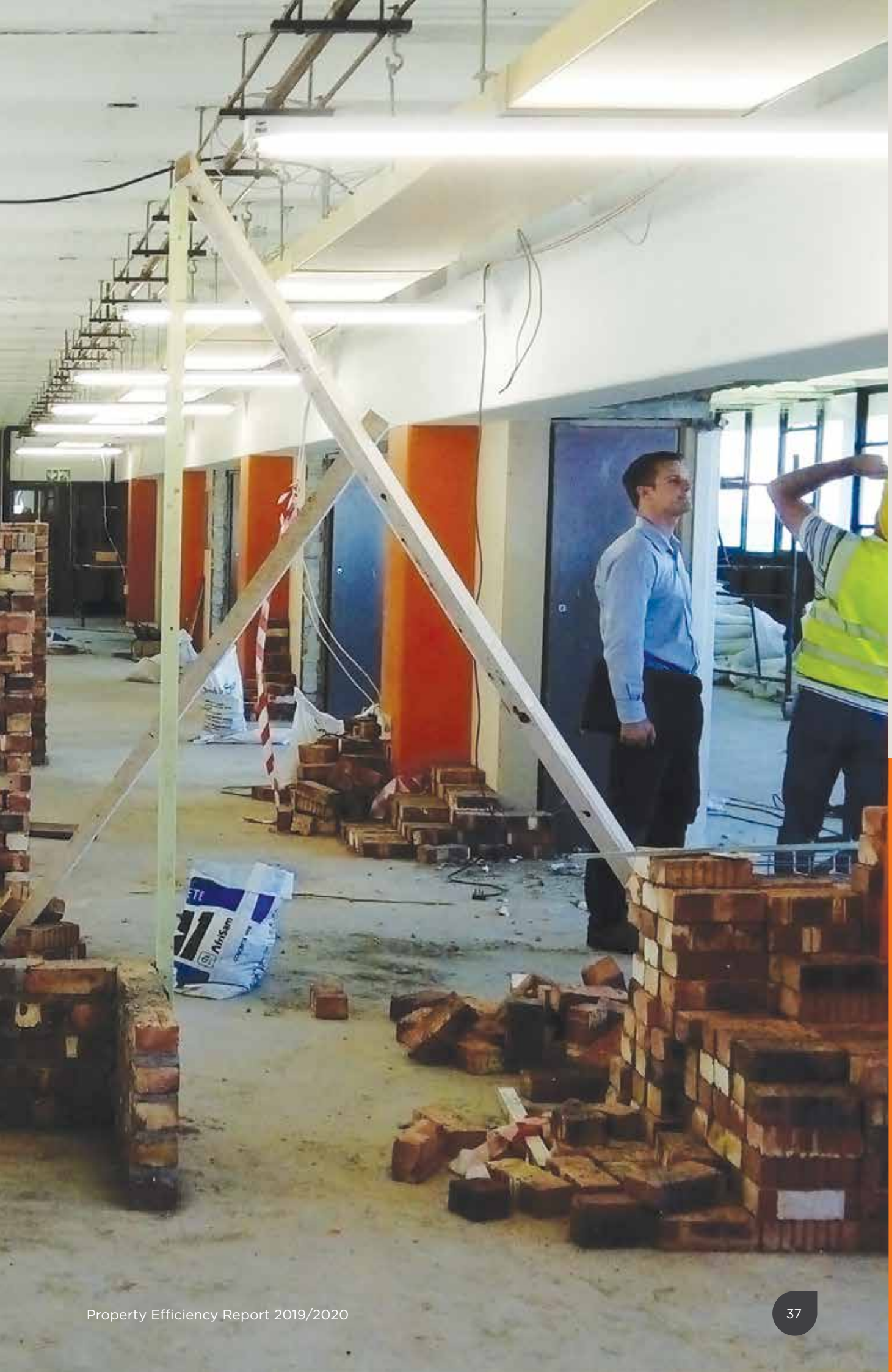


Non-CBD owned buildings outperformed both private sector benchmarks by 18% and non-CBD leased buildings by approximately 50%.



This analysis highlighted that WCG's portfolio under review is performing well when compared to the private sector. The life cycle of a building is similar to that of the human life cycle. Buildings are affected by age and suffer physical deterioration, which leads to functional and external obsolescence which then jeopardises buildings' usability. Therefore, long-term planning and maintenance management, including managing operating costs, are essential.

When taking the operational stage of the life cycle of the buildings in the selected portfolio into account, we believe the portfolio is performing well in respect of the management of operating costs.



Chapter 4:

Portfolio overview

Portfolio by location 2019/2020				
Location of building	**Ownership**	**Size m²**	**Number of buildings**	**m²/FTE**
CBD	Leased	62 111	8	22
CBD	Owned	81 092	11	21
Non-CBD	Leased	7 357	3	34
Non-CBD	Owned	54 828	15	24
Total		205 388	37	22
Exclusions 2019/2020		3 270	2	
Total All buildings		208 658	39	

Portfolio by ownership 2019/2020				
Ownership	**Size m²**	**Count**	**CBD**	**Non-CBD**
All leased	69 468	11	8	3
All owned	135 920	26	11	15
Total	205 388	37	19	18
Exclusions 2019/2020	3 270	2	1	1
Total All buildings	208 658	39	20	19

Building name	Useable area m² 2019/2020	Total cost	Total cost per FTE	Total cost per m²	Energy 2019/2020 kWh/m²/ annum	Water 2019/2020 kl/m²/ annum	Number of desks per m²	FTE 2019/2020
All buildings	**205 388**	**R476 314 416**	**R52 119**	**R2 319**	**146**	**0.54**	**19**	**9 139**
All leased buildings	**69 468**	**R187 008 333**	**R60 915**	**R2 953**	**176**	**0.64**	**20**	**3 070**
All owned buildings	**135 920**	**R289 306 083**	**R47 669**	**R4 291**	**131**	**0.50**	**19**	**6 069**
All CBD buildings	**143 203**	**R379 956 630**	**R57 283**	**R2 653**	**176**	**0.53**	**18**	**6 633**
CBD leased	**62 111**	**R176 808 356**	**R61 951**	**R2 847**	**189**	**0.65**	**19**	**2 854**
11 Leeuwen Street	1 726	R4 204 683	R37 880	R2 436	99	0.55	13	111
35 Wale Street	5 309	R14 061 156	R55 578	R2 649	128	0.00	18	253
Atterbury House	6 160	R17 748 494	R48 230	R2 881	162	0.71	15	368
Golden Acre	8 987	R19 456 380	R40 366	R2 165	201	0.56	18	482
Grand Central	18 722	R60 416 943	R85 335	R3 227	215	0.34	25	708
Norton Rose	4 978	R12 794 465	R74 821	R2 570	130	0.67	25	171
Protea Assurance	6 608	R19 501 083	R64 148	R2 951	91	1.29	22	304
Waldorf	9 621	R28 625 152	R62 637	R2 975	292	0.87	16	457
CBD owned	**81 092**	**R203 148 274**	**R53 757**	**R2 505**	**167**	**0.46**	**18**	**3 779**
1 Dorp Street	3 362	R6 940 060	R56 886	R2 064	172	0.42	22	122
27 Wale Street	10 844	R22 997 238	R42 985	R2 121	172	0.40	17	535
3 Dorp Street	1 800	R5 393 236	R94 618	R2 996	72	1.84	25	57
4 Dorp Street	18 365	R38 033 613	R36 257	R2 071	229	0.54	16	1 049
4 Leeuwen Street	1 791	R2 388 856	R24 884	R1 334	72	0.23	16	96
7 & 15 Wale Street	19 790	R28 776 192	R38 317	R1 454	127	0.28	24	751
9 Dorp Street	14 964	R61 015 146	R78 831	R4 077	185	0.20	15	774
Government Garage (Hope Street)	1 140	R4 473 148		R3 924	188	0.38		
Government Garage (Roeland Street)	1 192	R4 299 510		R3 607	190	1.08		
Hugenot	2 123	R18 491 581	R377 379	R8 710	29	0.24	29	49
Union House	5 721	R10 339 693	R29 884	R1 807	148	1.17	13	346
All Non-CBD buildings	**62 185**	**R96 357 785**	**R38 451**	**R1 550**	**77**	**0.56**	**22**	**2 506**
Non-CBD leased	**7 357**	**R10 199 977**	**R47 222**	**R1 386**	**68**	**0.59**	**30**	**216**
Eersterivier (Soc. Serv)	1 157	R1 408 549	R26 084	R1 217	132	0.68	21	54
George (Soc. Serv & WCED)	4 500	R8 017 225	R69 715	R1 782	69	0.42	35	115
Oudtshoorn (SSC)	1 700	R774 203	R16 472	R455	23	0.99	28	47
Non-CBD owned	**54 828**	**R86 157 808**	**R37 623**	**1 571**	**79**	**0.56**	**22**	**2 290**
Athlone (SSC)	6 557	R13 288 972	R52 319	R2 027	114	0.52	22	254
Bredasdorp (SSC)	2 894	R3 554 390	R107 709	R1 228	71	0.44	88	33
Elsenburg (Admin. Offices)	10 804	R6 830 106	R18 973	R632	55	0.40	29	360
Goulburn Centre	2 213	R5 292 899	R26 333	R2 392	77	0.43	11	201
Khayelitsha (SSC)	2 635	R3 217 145	R18 814	R1 221	98	0.65	12	171
Mossel Bay (SSC)	1 141	R967 809	R32 260	R848	27	0.34	37	30
Oudtshoorn (WCED & DTPW)	1 995	R3 818 521	R97 911	R1 914	30	2.04	51	39
Paarl (WCED)	2 632	R5 614 858	R47 990	R2 133	67	0.44	21	117
Swellendam (SSC)	1 621	R1 219 351	R50 806	R752	21	0.26	58	24
The Green Building	6 615	R6 113 279	R18 927	R924	18	0.08	18	323
WCED North Office	3 726	R3 696 563	R18 120	R992	75	0.25	18	204
Worcester (Soc. Serv)	1 150	R1 175 995	R13 674	R1 023	83	0.60	13	86
Worcester (WCED)	4 324	R5 245 786	R31 601	R1 213	39	0.45	24	166
Wynberg (Soc. Serv)	4 024	R5 908 161	R51 826	R1 468	50	0.81	31	114
York Park	2 497	R20 213 974	R120 321	R8 095	473	2.28	12	168

Chapter 5:

The way forward

GAVIN KODE

Deputy Director-General, Provincial Public Works

This Property Efficiency Report is, and always has been, a report on the performance of a portfolio of our properties and is a measure of our efficiency in managing them. It is a pursuit of efficiency of various worthy and significant indicators of performance – that is, of getting the most out with the least investment of time, energy and money. The portfolio performance results reflected in the report are outstanding and clearly demonstrate the sought-after efficiency gains.

With the recent onset of COVID-19 on our world, our perceptions and understanding of the concepts of what is "normal", "expected" and "usual" have been turned upside down. In confronting the then "new normal" of Al Qaeda in Iraq in 2003, the leader of the US Task Force General Stanley McChrystal said that "Adaptability, not efficiency, must become our central competency ... Efficiency remains important, but the ability to adapt to complexity and continual change has become an imperative." Although the main impact of COVID-19 was only experienced after the end of the current reporting period, for us too in the Public Works Branch, we have already shown incredible resilience by adapting to our "new normal" and will continue to do so as we adapt further and demonstrate efficiency gains in our management of the immovable assets under our care in this fundamentally changed environment.

Although the main impact of COVID-19 was only experienced after the end of the current reporting period, for us too in the Public Works Branch, we have already shown incredible resilience by adapting to our "new normal" and will continue to do so as we adapt further and demonstrate efficiency gains in our management of the immovable assets under our care in this fundamentally changed environment.

Historically, one of the key levers of efficiency at our disposal has been the WCG Office Modernisation Programme in which we have reconfigured our office accommodation to be more flexible and adaptable to change, with an emphasis on indoor environmental quality, levels of comfort for the health and productivity of occupants, inclusivity and universal accessibility, as well as to be fully compliant with all occupational health and safety and applicable building regulations.

The portfolio in our first PER for the 2011/2012 financial year revealed a 28m²/Full Time Equivalent (FTE) occupancy whereas we set 14m²/FTE as our target. Notwithstanding our shift from per FTE to a per desk metric to remove the effect of vacancy, the portfolio was at 17m²/desk in 2018/2019 and is now up at 19m²/desk in 2019/2020. The explanations for this upward shift are understood at this time and unpacked to some extent on page 27. In some of our recently modernised offices, space efficiencies of 11m²/desk have even been realised. While this is phenomenally efficient, when it comes to COVID-19 safe working environments, it turns out that densely occupied workspaces are not that safe anymore. New COVID-19 regulations and COVID-19 workplace plans require new dynamics, to which we have all had to adapt. As was noted by General McChrystal, efficiency remains important and we will continue to work this lever in our efforts to improve performance, but we will be required to become much more adaptable as we respond to this new office space normality.

The national lockdown in March of 2020 rendered most of office buildings devoid of usual office life and, as the lockdown levels of the risk-adjusted strategy progressed through 2020, more and more staff returned to some form of work-from-office normality and occupancy levels and associated variable costs increased. The 2020/2021 PER is necessarily therefore going to require us to adapt our reporting norm, and various anomalies will undoubtedly emerge.

We are already preparing to undertake the main occupancy audit in February of 2021 so that we have an occupancy indicator more analogous to previous years, but which also captures the essence of the new occupancy norm. We will also use other information such as turnstile access data and business continuity plans to determine occupancy levels more generally during the higher lockdown levels. This will supplement our reporting and understanding of how we will need to adapt further in this journey.

COVID-19 has had a fundamental impact on mobility requirements – which in turn, has impacted on our infrastructure plans as far as office accommodation is concerned.

We know we live in what has become known as a VUCA world – one which is volatile, uncertain, complex and ambiguous. As a Department, we repurposed ourselves to embrace and focus on creating an antidotal DTPW VUCA worldview; that is, **visionary, unitary, creative** and **agile**. We are trusting that these attributes will make us more adaptable to the evident complexity in our world and the continual change required of us.

I reported last year that the enterprise-wide property asset information management system, now known as the eMerge platform, had finally been launched. This platform has been designed to ensure the creation of a robust information base, with property management and management reporting systems that support management decision making and therefore provide a holistic approach to asset management through multi-disciplinary management teams. A three-step approach was adopted with eMerge, namely **stabilise, transform** and **disrupt**.

The first step involves the centralisation of all data sources onto a "data lake" from which all business units, systems and processes can draw. The second step involves a transformation of the numerous business systems to ensure efficiency and the use of single threads of audited information. The final step is the use of artificial intelligence and blockchain, and all things 4IR (fourth industrial revolution), to disrupt the way we work and to make ourselves truly fit-for-purpose as public sector immovable asset managers.

World renowned management guru Peter Drucker said that "Efficiency is doing things right; effectiveness is doing the right things".

Significant and exciting progress has been made in all three of these steps. The asset register (including leased assets) was deconstructed and reconstructed with the requisite layers of the financial asset hierarchy required for a comprehensive understanding of the construct of land parcels and values on the one hand, and the facilities and buildings and their users on the other hand. All previously disparate information and data, including historical and current facility condition assessment information and consumption metering data, is now housed in the data lake.

The Education Infrastructure component of Public Works was the first unit to commence operation of the Project Management and the Maintenance Management modules, and the entire Acquisitions Directorate is fully utilising the Acquisitions module. All modules include an app for mobile accessibility, reporting and capturing, which is fundamentally changing the way we work and our productivity and efficiency. Through collaborative work with stakeholders and service providers, we have two PER data and data-visualisation and analytics proofs-of-concept underway, one of which is using the EU government-funded Smart Cities platform developed in OpenSource. Due to the phenomenal progress being made with eMerge and these proofs-of-concept, we are confident that all of the data required for the next PER will be drawn out of eMerge.

World renowned management guru Peter Drucker said that "Efficiency is doing things right; effectiveness is doing the right things". We obviously need to be efficient in what we do but we need to be sure that we are also doing the right things efficiently. In this complex world, we will need to adapt and continually adapt to the ever-changing environment to ensure that we are also doing the right things. We continue therefore on our journey to ***do the right things right.***

Acknowledgements

This 9th edition of the Property Efficiency Report highlights the dedication and hard work of all stakeholders involved, most notably those in the Immovable Asset Management and General Infrastructure components of Provincial Public Works in the DTPW.

The efficiency results achieved underlines the positive impact of the innovations introduced by the DTPW during the reporting period. The metering programme is proving successful and the confidence in the data collected is growing. Data collection was expanded to include a more in-depth analysis of the portfolio's cost. This year we were able to benchmark the WCG's energy efficiency performance against a selected sample of the CoCT's office portfolio.

Personally, we would like to thank all who contributed to the good story which the report highlights. The WCG truly does work "Better Together", as this was made clear once again through the continuation of the good story told through the entire Property Efficiency Report series.

Shiehaam Noordien
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Immovable Asset Management
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Data Sources

Department of Transport and Public Works:

- Internal Communications
- Chief Directorate: Immovable Asset Management (Property Support Office, Operational Property Management, and Property Planning and Information)
- Chief Directorate: General Infrastructure (Technical Support, Programme / Projects Infrastructure Delivery)

Department of Community Safety
Resource Champion
Indawo
Green Building Council of South Africa
City of Cape Town
South African Property Owners' Association
MSCI
Jones Lang LaSalle Incorporated trading as JLL
Eris Property Group: Property Valuations

ACKNOWLEDGEMENTS

Glossary

Benchmark	In this report, the portfolio is benchmarked against a comprehensive database of office buildings in the same geographical area compiled by the Green Building Council of South Africa (GBCSA), a selected sample from the City of Cape Town's (CoCT) portfolio, and data received from MSCI, South Africa Property Owners Association (SAPOA) and Jones Lang LaSalle Incorporated (JLL).
Capital expenses	Includes capital and maintenance expenditure such as adaptation of equipment, IT infrastructure and hardware installations. For owned buildings it also includes internal, mechanical, electrical, external and structural repair and maintenance, as well as minor improvements, security, cleaning, waste disposal, water, sewerage and electricity.
CBD offices	The 2019/2020 report includes the 19 WCG offices located in the Cape Town Central Business District. The portfolio comprises around 143 203m^2 of occupied office space.
Cost / total costs	References in this report to cost and total costs represent the following: • Total occupancy costs for leased buildings are made up of annual operating expenses, such as rent and local real estate taxes, repairs and maintenance, service charges and support services, as well as management fees. • Annualised capital expenses include adaptation, equipment, information technology infrastructure and hardware installations as well as internal, mechanical, electrical, external and structural repair and maintenance, minor improvements, security, cleaning, waste disposal, water, sewerage and electricity. • The total occupancy costs for owned buildings include an approximate market rental rate to facilitate direct comparison with leased space. • Annual operating expenses include rates and taxes, support services, repairs and maintenance, as well as management fees.
CoCT	City of Cape Town
DTPW	Department of Transport and Public Works
Energy performance certificates (EPC)	EPCs benchmark the energy efficiency of a building against industry benchmarks or national norms. EPCs carry ratings on energy use and carbon dioxide emissions and applied through the application of a standard method defined in South African National Standard 1544. For EPC purposes, properties are classified into: Type of occupation, Climatic zone and Energy consumption in kWh/m^2. The properties in the PER 2019/2020 are classified in group G1, climatic zone 4 (Coastal) – 185 kWh/m^2.
GBCSA	Green Building Council of South Africa
JLL	Jones Lang LaSalle Incorporated, a US commercial real estate services company which provides investment management services worldwide.
kL	Kilolitre – 1 000 litres, a cubic metre
kWp	kWp is the peak power of a PV system or panel. Solar panel systems are given a rating in kilowatts peak (kWp) which is the rate at which they generate energy at peak performance, such as on a sunny day in the afternoon.
kWh	Kilowatt hour – a unit of energy equal to 1 000-watt hours. Average annual power consumption can be expressed in kilowatt hours per year, per square metre or per FTE user.
MSCI	MSCI Inc. is a US finance company which provides worldwide equity, fixed income, hedge fund stock market indexes, and multi-asset portfolio analysis tools. This report uses data extracted from the MSCI database for 2019/2020.
MWh	Megawatt hour – 1 000 kilowatts of electricity used continuously for one hour.

Non-CBD offices	In this report, this term refers to 18 WCG offices located outside the Cape Town Central Business District comprising 62 185m^2 of occupied office space.
Occupancy costs	Costs related to occupying a space, including rent, real estate taxes, property taxes, insurance on building and contents, depreciation, and amortisation expenses.
Occupied space (usable area)	The net internal area measured in square metres, using the SAPOA definition.
Operating costs	In this report operating costs refers to the expenses related to the operation and continued maintenance of office buildings. These are municipal charges, repairs and maintenance, soft services, and other operating costs.
Performance	Performance of the Western Cape Government office portfolio has been assessed using three standard metrics of property efficiency (cost per square metre, space per FTE, and cost per FTE) to report internal efficiencies and in comparison to a benchmark average of South African corporate occupiers. Additionally, sustainability performances have been assessed using data to develop energy and water consumption metrics.
Reporting period	The reporting period for the Property Efficiency Report 2019/2020 is from 1 April 2019 to 31 March 2020.
SAPOA	South African Property Owners' Association. SAPOA's Operating Cost Report: results for the 12 months ended December 2019 was used in this report.
Soc. Serv	Social Services
Solar PV	Rooftop solar photovoltaic systems
SSC	Shared Service Centre – an office building occupied by various WCG departments and often with shared facilities and a public interface.
WCG	Western Cape Government
WCED	Western Cape Education Department

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