INTRODUCTION

This is the City's first Emissions Reduction Strategy.

The approach of the Emissions Reduction Strategy (ERS) is to take a deeper dive into the City's emissions profile and discuss the implications of addressing these emissions. The ERS will target the City's highest emitting sources and assets. The ERS will support informed decision making.

In priority order, the best way to reduce emissions is by:

Avoidance	Eliminate activities or practices that generate greenhouse gases
Reduction	Implement energy efficiencies
Substitution	Transition from fossil fuels to renewable energy sources
Offsetting	Compensate for residual emissions that cannot be avoided or reduced

By exploring the corporate emissions profile, this Strategy enables the City to make decisions about appropriate emissions reduction opportunities.

The ERS proposes **Recommendations** and emission reduction **Opportunities** for consideration. In some instances, several different opportunities are proposed for the same emissions source.

The intent of the ERS is to build on the City's Sustainability Action Plan (Sustainability in Action 2023), which details all of the actions the City is undertaking to work towards a more sustainable future. The focus of the ERS is to evaluate the City's current emissions and propose opportunities to reduce them.

If the City actioned all of the available emissions reduction opportunities outlined in the ERS, utilising the highest emissions reduction options in cases where multiple options are identified, emissions would drop from 4,500 tonnes of carbon dioxide equivalent (tCO_2-e) to 2,090 tCO_2-e (-54%) at an additional capital cost of $7.5M and with an overall annual energy cost reduction of $155,000.

This includes switching the City's non-contestable electricity consumption to renewable energy, reducing emissions by 20%. Powering the City's truck, ute and light fleet with renewable energy would reduce emissions by 15%, 7% and 3%, respectively. Heating the pool water at Leisure World with solar would reduce emissions by 8% and converting public lighting would reduce emissions by 1%.

Of the thirteen opportunities outlined in the ERS, only four show a financial return after a five year period. The remaining nine, for the most part, reduce annual energy costs but don't return the up-front capital costs. However, it is important to consider the broader benefits of emissions reduction, beyond financial savings.

*An **emissions profile** or inventory is a detailed record of greenhouse gasses being released into the air by different sources and activities*

***Greenhouse gases (GHG)** are a group of gases contributing to global warming and climate change*

***Carbon dioxide equivalent** is a measure used to compare emissions from various GHG based on their global warming potential*

*A **non-contestable** (under 50MWh per year) market is served by a single, regulated electricity provider*

The City's Sustainability Action Plan

The City's Sustainability Action Plan describes the City's corporate emissions profile, showing the total amount of greenhouse gas emissions that are produced by the City's operations. This includes the scope of the emissions, the source and associated asset and how the profile has changed over five years. The Plan highlights some quantifiable key actions that will (and have) reduced the City's emissions.

For more information on the City's sustainability priorities, a detailed view of the climate change context and how it impacts the City of Gosnells and the community, please see the City's Sustainability Action Plan – Sustainability in Action 2023.

Targets

An explanation of Federal and State Government emissions reduction targets is provided in **Appendix 1**, along with details about proposed changes to climate related financial disclosures. The City is not required to meet either government target or prepare disclosures at this stage but the information does provide an insight to the broader context.

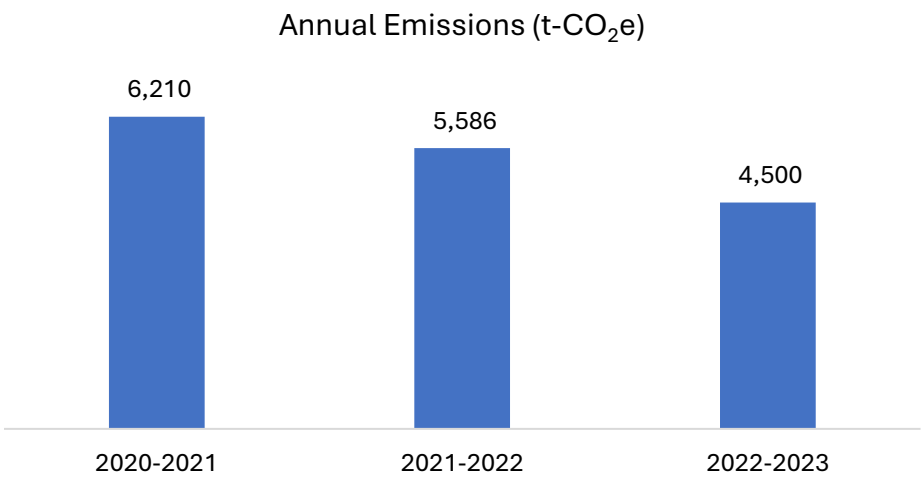
Emissions Factors

The City collects water, fuel, electricity and gas billing data, which is processed through energy management software called Azility. The emissions module and carbon accounting used by Azility is based on the National Greenhouse and Energy Reporting Scheme (NGERS) Measurement Definition (Scope 1 and 2), and the National Carbon Offset Standard and Greenhouse Gas Protocol – Corporate Standard. Scope 3 emissions factors are taken from the National Greenhouse Accounts Factors.

EMISSIONS PROFILE

Over the last ten years, City emissions have reduced from 7,600 tCO_2-e to 4,500 tCO_2-e (-41%), despite growth of the community and the organisation. For context, the City served 112,400 people at the 2011 Census. As of the 2021 Census, the population had grown by 18,900 people (17%), to 131,300.

A significant proportion of the City's emissions reduction has occurred over the past three financial years, as shown below.



Emissions factors *are used to convert a unit of activity into its emissions equivalent*

NGERS *is a single national framework for reporting greenhouse gas emissions, energy production and energy consumption*

Greenhouse Gas Protocol *is an international accounting tool used to understand, quantify and manage GHG emissions*

Scope *refers to the source of the emissions and identifies the level of operational control*

Scope 1 (direct) emissions *result directly from the activities of the City*

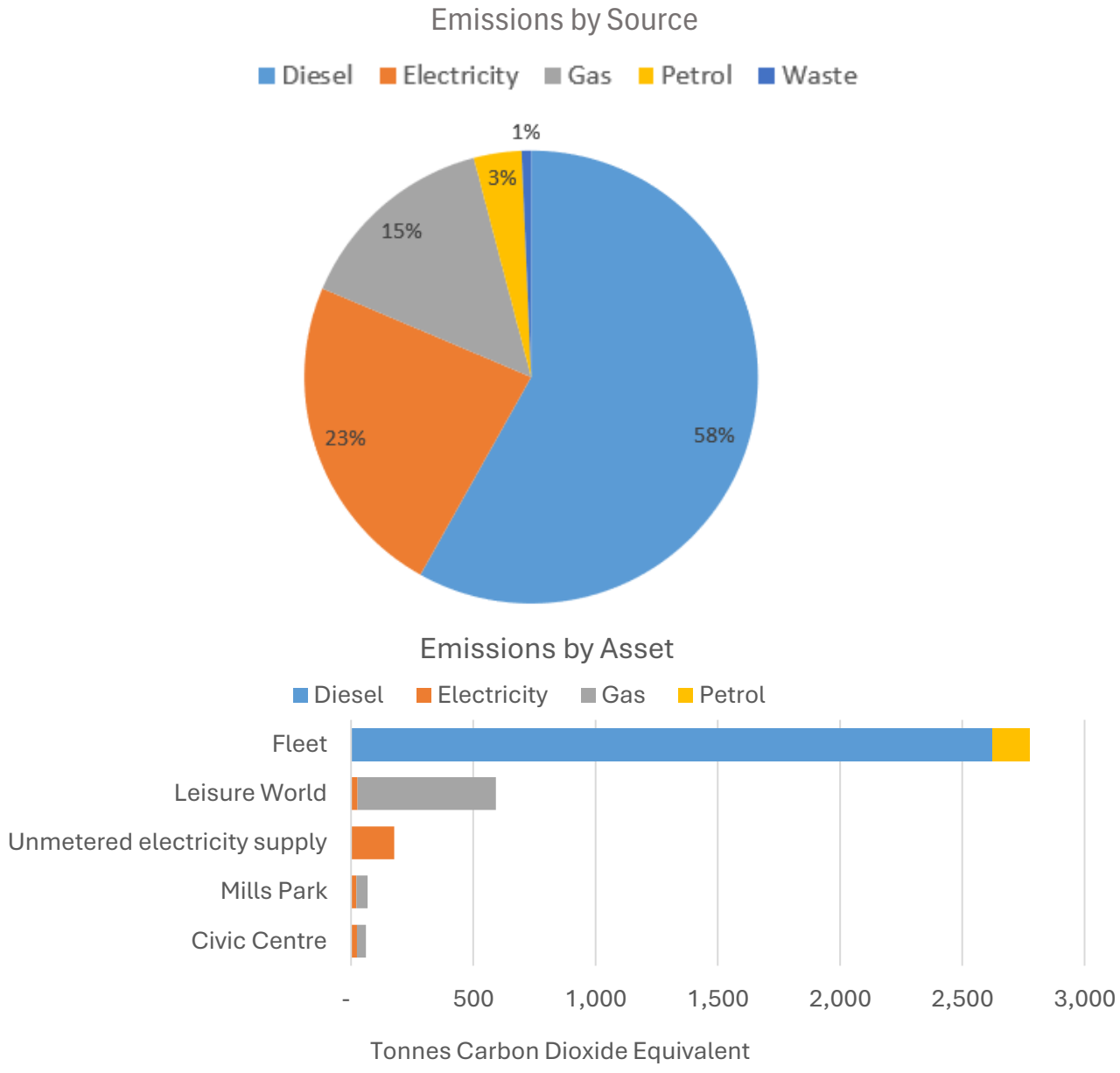
Scope 2 (indirect) emissions *are created in the production of electricity purchased by the City*

Scope 3 (broader indirect) emissions *occur in the City's value chain*

The principal reason for this reduction is the City's participation in WALGA's Sustainable Energy Project, originally referred to as a Power Purchase Agreement, which began in April 2022. The project resulted in the City sourcing renewable energy for 25 contestable sites.

Prior to the Sustainable Energy Project, electricity accounted for 57% of the City's total emissions. According to 2022/23 data, electricity now accounts for 23% of emissions (3,500 tCO_2-e prior to the project compared to 1,050 tCO_2-e now).

A breakdown of City emissions by both source and asset follows:



EVALUATING EMISSIONS REDUCTION OPPORTUNITIES

A total of 14 key emission reduction opportunities have been identified for the City and are outlined in the following 'Summary of Opportunities' table. The detailed assessments of these opportunities follows, under four key headings (diesel, electricity, gas and petrol). One of these opportunities, the Hyzon hydrogen fuel cell electric waste truck is currently under trial and not commercially available. Thus, while identified as one of the biggest emissions sources, this opportunity cannot be taken up at present and is not numbered in the table.

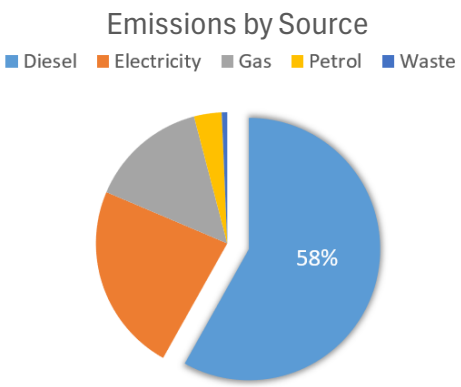
SUMMARY OF OPPORTUNITIES

Ref	Initiative	Capital Cost Variance	Annual Operating Cost Variance	Emissions Source	Emissions Asset	Current Emissions	Emissions Reduction	Percent of total emissions
-	Hyzon Rubbish truck replacement	$7,000,000	-$311,774	Diesel	Fleet	1,040	1,040	23.1%
1	Truck replacement (electric)	$2,950,000	-$175,000	Diesel	Fleet	675	675	15.0%
2	Truck replacement (hybrid)	$1,450,000	-$65,000	Diesel	Fleet	675	135	3.0%
3	Ute replacement (electric)	$2,372,500	-$90,000	Diesel	Fleet	310	310	6.9%
4	Ute replacement (hybrid)	$1,462,500	-$40,000	Diesel	Fleet	310	155	3.4%
5	Civic Centre increased solar	$144,656	-$39,683	Electricity	Civic Centre	330	88	
6	Civic Centre increased solar + battery	$344,746	-$42,924	Electricity	Civic Centre	330	95	
7	Civic Centre decrease HVAC times		-$1,660	Electricity	Civic Centre	330	4	
8	Civic Centre lighting	$177,289	-$6,919	Electricity	Civic Centre	330	15	
9	Green energy non-contestable		$295,500	Electricity	Facilities	906	906	20.1%
10	Public lighting	$1,540,000	-$47,800	Electricity	Facilities	128	32	0.7%
11	Leisure World pool hot water	$230,000	-$80,000	Gas	Leisure World	630	375	8.3%
12	Light fleet replacement (electric)	$406,000	-$59,166	Petrol	Fleet	126	126	2.8%
13	Light fleet replacement (hybrid)	$146,000	-$36,280	Petrol	Fleet	126	55	1.2%

Figures in **orange**, relating to the Civic Centre, have been included for information. However, as the site is sourcing electricity from renewable energy, it is not currently accruing emissions for electricity and, consequently, emissions reductions do not count towards the overall total emissions figures.

Operating costs relate to energy consumption and do not include any additional maintenance or repair costs.

DETAILED OPPORTUNITIES



DIESEL

Diesel is currently the City's highest source of emissions by activity, equating to 58% (2,600 tCO_2-e) of overall emissions. As a result, Fleet is the City's highest emitting asset.

Diesel purchased in 2022/23 totalled 770,000L, costing $1.39M.

Waste followed by Engineering and Parks and Environment account for the majority of diesel fuel consumption, at about 80% combined.

Rubbish trucks account for about 40% of diesel consumption, followed by Utes (16%), Tippers (10%), Trucks (9%), Sweepers (7%) and Loaders (5%). The remaining 13% includes all other vehicle types, such as vans/busses, mowers, excavators, rollers, compactors etc.

To note, where an opportunity below references electric alternatives, it assumes that the electricity is sourced from renewable energy.

Solutions

Rubbish trucks and heavy commercial (40%)

1. **Recommendation – Maintain a watching brief for developments in hydrogen heavy commercial vehicles**

Hyzon has developed a hydrogen fuel cell electric waste truck in partnership with Superior Pak. It is estimated to cost 2-3 times more than a regular waste truck and is currently being trialled and not commercially available. It is also reliant on hydrogen refuelling. A timeline for reliable hydrogen refuelling is not confirmed in WA.

If hydrogen waste trucks were accessible, and a viable alternative, a 40% decrease in diesel emissions would reduce overall emissions by 23%.

Tippers, trucks and sweeper (26%)

2. **Recommendation – Review the introduction of the Hino hybrid truck and research further opportunities to utilise alternatives to diesel**
3. **Recommendation – Based on the outcome of the review, plan an appropriate timeline to transition away from diesel trucks**

Opportunity 1. Transition to electric trucks
Opportunity 2. Transition to hybrid trucks

Combined, tippers, trucks and sweepers account for 26% of diesel consumption.

Hyundai has an electric truck with a loaded range of 200km, priced at $150,000. Adopting fully electric trucks, the City could reduce emissions by 675 tCO_2-e and fuel costs by $175,000 ($150,000 vs $325,000) per year. This would reduce diesel emissions by 26% and overall emissions by 15% (Opportunity 1 in summary table). With a fleet of 50 trucks, this

option would cost an additional $2.95m ($150,000 vs $91,000 per truck). To note, the City would need to also invest in the charging infrastructure to support a heavy fleet, the cost of which would be significant.

From a hybrid perspective, the City purchased a hybrid Hino 300 series truck in 2023. Hino states that this vehicle can reduce fuel and emissions by 20%.

Based on that assumption, the City could reduce emissions by 135 tCO_2-e and fuel costs by $65,000 per year ($260,000 vs $325,000). This would reduce diesel emissions by 5% and overall emissions by 3% (Opportunity 2). With a fleet of 50 trucks, this option would cost an additional $1.45m ($120,000 vs $91,000 per truck).

Utes (16%)

4. **Recommendation – Formalise a heavy fleet utilisation and transition plan**
5. **Recommendation – Review the operational requirement for utes**

Opportunity 3. Transition to electric utes
Opportunity 4. Transition to hybrid utes

Utes account for 16% of the City's diesel consumption.

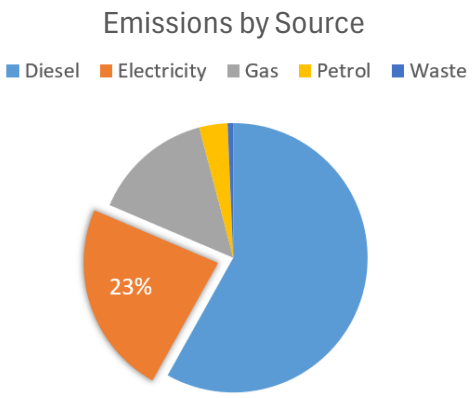
LDV eT60 is an all electric ute currently available in Australia but is not considered a viable fleet option because it does not have the required safety rating or provide suitable range for operational demand when loaded. More viable fully electric options are expected to be available by 2025/26. When available, a fully electric ute fleet would reduce emissions by 310 tCO_2-e and fuel costs by $90,000 ($75,000 vs $165,000) per year. This would result in a reduction in diesel emissions of 12% and a 6.9% reduction in overall emissions (Opportunity 3). With a fleet of 65 utes, the additional capital purchase cost is estimated at $2.37M ($74,000 vs $37,500 per truck).

From a hybrid perspective, BYD is set to release a plug-in hybrid electric vehicle (PHEV) ute, anticipated for late 2024. The price is not yet confirmed but likely to be competitive ($60,000-70,000 at best guess). Ford is also expected to release a PHEV Ranger in 2025 with fully electric options to follow from other brands.

On an assumption of 50% reliance on fuel and 50% reliance on electricity with a hybrid ute, the City could reduce its emissions by 155 tCO_2-e and combined diesel/electricity costs would be approximately 25% less per year ($125,000 v $165,000). Diesel emissions would drop by 6% and the City's overall emissions would reduce by 3.4% (Opportunity 4). For a fleet of 65 hybrid utes, the additional capital purchase cost would be $1.46M ($60,000 vs $37,500).

To note, the City would need to also invest in the charging infrastructure to support a fleet of plug-in hybrid or electric vehicles, the cost of which would be significant.

ELECTRICITY



Electricity consumption by the City accounts for 23% of the emissions profile (1,050 tCO_2-e). Prior to April 2022 and the introduction of the WALGA Sustainable Energy Project, electricity emissions were 70% higher (3,500 tCO_2-e) and accounted for 57% of total emissions. This project has seen all the City's contestable sites use electricity from renewable sources.

The current contract term is ending in March 2025. WALGA drafted a 'beyond 2025' strategy paper for the Sustainable Energy Project and the City has participated in consultation regarding the future of the project. The City has signed an MOU providing consent for WALGA to represent the City's electricity consumption in aggregate sector consumption to the market for pricing. WALGA intends to conclude the request for quotation process by December 2024, at which point the City will be able to consider whether to remain with the project or seek an alternative option.

Although the City is currently purchasing renewable energy for contestable sites, this section includes information on electricity consumption and emissions for consideration because it is not in perpetuity (as a reminder, the hierarchy is to reduce energy consumption prior to replacing it).

In 2022/23, the City's electricity consumption was 11,101,000 kWh, at a cost of $4.07M. This includes 5,860,000 kWh (56%) consumed by Western Power streetlighting at a cost of $2.66M. This is out of scope because the asset is owned and controlled by Western Power.

Of the 5,241,000 kWh consumed by City owned assets, Leisure World is the highest user (12%), followed by the Civic Centre (11%), the Agonis (11%), Mills Park (10%), an unmetered group account of streetlighting, irrigation and illuminated street signs (6%) and the Operations Centre (3%). To note, the cost per kWh has been increasing year on year.

Additional electricity could be generated through solar covered car parks. Based on a report prepared for the Australian Capital Territory Government (Installation of covered car parks with solar powered vehicle charging stations, 2020), costs range from $275,000 for a 102kW system to $2.3m for a 1,075kW system.

A location such as the Civic Centre could likely accommodate two 100kW systems, requiring approximately 1,000m2 and covering 80 car parking spaces. This could cost somewhere in the region of $500,000. A 100kW system can generate about 420kWh a day in Perth so two systems would produce roughly 840kW. With an electricity cost of 22c/kWh and presuming the energy could all be utilised, it would save $185 a day ($67,500 a year).

Car park solar could be particularly relevant at sites without buildings; facilities that cannot accommodate solar panels on the roof or have reached capacity; or where buildings are reaching the end of useful life. Solar car parks also come with the added benefit of providing much needed shade.

Solutions

6. **Recommendation – Complete energy audits at all of the City's energy consuming sites (approximately $15,000 per large site)**
7. **Recommendation – Formalise a solar pv transition plan for all remaining sites**
8. **Recommendations – Explore the feasibility of commercial batteries**
9. **Recommendation – Explore the feasibility of energy generating solar car parks**

Civic Centre

Opportunity 5. Increase solar at the Civic Centre
Opportunity 6. Increase solar and add a battery at the Civic Centre
Opportunity 7. Reduce operating hours of HVAC at the Civic Centre
Opportunity 8. Refit Civic Centre lighting

Electricity consumption at the Civic Centre was 597,305kWh in 2022/23, costing $128,000. If not using renewable energy, the emissions would be 330 tCO_2-e a year.

Powerlyt was recently engaged to complete an energy audit of the Civic Centre. By installing 118.8 kW solar pv in addition to the existing 30kW system, at a cost of $144,700, the City could reduce consumption by 165,345 kWh (28% of total) and reduce costs by $39,700 per year (88 tCO_2-e) (Opportunity 5).

Additional solar with a battery would cost $344,700 and would reduce consumption by 178,850 kWh (30% of total) and costs by $42,924 per year (95 tCO_2-e) (Opportunity 6).

Delaying the start time of the HVAC system by one hour could reduce annual consumption by 6,919 kWh (1.1% of total) and costs by $1,660 (3.7 tCO_2-e) (Opportunity 7).

Some of the lighting in the Civic Centre is installed in air conditioning vents, making the conversion to LED more challenging. Converting this lighting would cost $177,289 and could reduce consumption by 27,746 kWh (5% of total) and costs by $6,919 per year (15 tCO_2-e) (Opportunity 8).

Non-contestable sites (86%)

Opportunity 9. Purchase renewable energy for the City's non-contestable sites

Of the 5,241,000 kWh consumed by City owned assets, 1,640,000 kWh (31%) is from non-contestable sites (sites using less than 50 MWh per year) at a cost of $593,000 in 2022/23 (average cost of 36c/kWh).

The City could purchase renewable energy for the non-contestable sites. This would increase the annual cost of electricity by $295,500 (to $888,500) and reduce the City's emissions by 900 tCO_2-e. This would be an 86% reduction in electricity emissions and a 20% reduction in overall emissions (Opportunity 9).

According to Synergy's published commercial green energy price, the City could expect to pay 54c/kWh, 50% more than the average contestable costs of 36c/kWh in 2022/23.

Public lighting

10. **Recommendation – Develop a public lighting LED transition program**
11. **Recommendation – Maintain a watching brief for smart lighting integration**

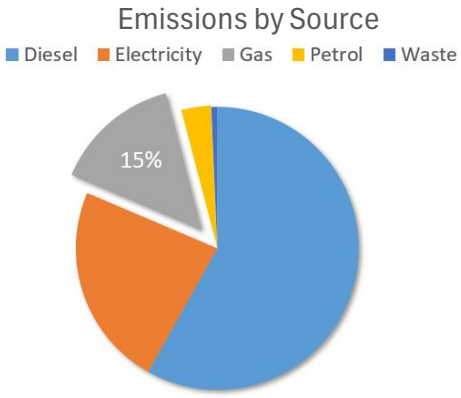
12. **Recommendation – Trial the use of solar powered public lighting and use the results to consider future viability (potential to reduce total emissions by 3%)**

Opportunity 10. Transition all of the City's remaining public lighting to LED

The City has been converting its own public lighting (this includes City owned lights in streetscapes, car park and parks) to energy efficient alternatives (LED) over a number of years. To date, approximately 550 lights have been converted. There are still approximately 1,200 lights remaining. In some instances, conversions require upgrades to just the luminaire; in others the poles also need to be changed.

Converting all remaining lights is estimated to cost $1.54m. This would reduce electricity consumption by 116,000 kWh and costs by $47,800 per year. A decrease of 32 tCO_2-e (96 tCO_2-e vs 128 tCO_2-e) is a 9% reduction in electricity emissions and a 0.7% reduction in overall emissions (Opportunity 10). It would also significantly reduce maintenance costs (currently in the range of $250,000-$300,000 a year).

GAS



Gas consumption by the City accounts for 15% of the emissions profile (655 tCO_2-e). The biggest users of gas are Leisure World at 87%, followed by Mills Park and the Civic Centre at 7% and 6% respectively. The remaining 8 facilities with a gas connection are under 1% combined.

The cost of gas in 2022/23 was $152,000 for 11,800,000 MJ, with an average of 0.013c per MJ. It should be noted that the price per unit has increased in 2023/24 and is expected to continue to increase.

Solutions

13. **Recommendations – Upgrade assets to gas alternatives at end of useful life**
14. **Recommendations – Investigate whether the use of gas at Mills Park and the Civic Centre can be eliminated (reducing emissions by 85 tCO_2-e per year – 13% of gas emissions and 1.9% overall emissions)**

To note: gas is used by the Heating, Ventilation and Airconditioning (HVAC) systems of both sites and would potentially require the entire systems to be replaced if the gas component was removed. Capital costs could be significant.

Leisure World (87%)

Opportunity 11. Install a new solar water heating system for the pools at Leisure World

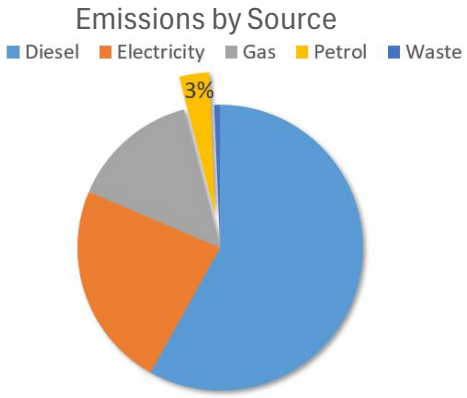
A solar water heating system at Leisure World is estimated to cost $230,000 and, based on a report by Green Star Solutions, would reduce emissions by 375 tCO_2-e (255 vs 630 tCO_2-e) and save 6,100,000 MJ of gas per year. This would be a 57% reduction in gas emissions

and an 8% reduction in overall emissions. The annual cost savings are estimated at $80,000 ($50,000 v $130,000), not factoring in cost increases for gas (Opportunity 11).

This would dramatically reduce, but not remove, reliance on gas.

In 2020/21, the City paid roughly $0.0105 per MJ of gas at Leisure World. That increased to $0.0126 in 2022/23, which is a variance of almost $22,000. The City has been quoted a cost of $0.0143 for 2025/26, which would increase costs by almost $16,000, to $146,000 a year. That's a 36% increase in price over a five year period.

PETROL



Petrol consumption by the City equates to 3% of total emissions (150 tCO_2-e).

The City consumed 53,000l of petrol in 2022/23 at a cost of $87,000. The annual average consumption and cost over the 3 previous years was 75,000l and $118,000. This decrease reflects, in part, the improved fuel efficiency of vehicles and increased fleet optimisation.

The City began introducing hybrid vehicles into the fleet last year and will incorporate electric vehicles into the fleet in 2024/25. For the purpose of comparison, the following scenarios assume the light fleet as a whole and not a combination of different vehicles.

Solutions

15. **Recommendation – Formalise a light fleet utilisation and transition plan**
16. **Recommendation – Investigate the demand requirements for electric charging infrastructure at the new Operations Centre, to support an electric fleet**

Opportunity 12. Replace all light vehicles with electric vehicles
Opportunity 13. Replace all light vehicles with hybrid vehicles

To replace the light fleet with an electric alternative, it would cost an additional $406,000 in capital ($35,000 vs $24,850). Fuel costs would drop by 68% a year ($27,350 vs $86,500) and emissions would reduce by 126 tCO_2-e. This would be an 84% reduction in petrol emissions and a 2.8% reduction in overall emissions (Opportunity 12).

To replace a light fleet of 40 vehicles with a hybrid alternative, it would cost an additional $146,000 in capital ($28,500 vs $24,850). Fuel costs would drop 46% ($50,250 vs $86,500) and emissions would reduce by 55 tCO_2-e a year. This would be a 37% reduction in petrol emission and a 1.2% reduction in overall emissions (Opportunity 13).

SUMMARY OF RECOMMENDATIONS

1. **Maintain a watching brief for developments in hydrogen heavy commercial vehicles**
2. **Review the introduction of the Hino hybrid truck and research further opportunities to utilise alternatives to diesel**
3. **Based on the outcome of the review, plan an appropriate timeline to transition away from diesel trucks**
4. **Formalise a heavy fleet utilisation and transition plan**
5. **Review the operational requirement for utes**
6. **Complete energy audits at all of the City's energy consuming sites (approximately $15,000 per large site)**
7. **Formalise a solar pv transition plan for all remaining sites**
8. **Explore the feasibility of commercial batteries**
9. **Explore the feasibility of energy generating solar car parks**
10. **Develop a public lighting LED transition program**
11. **Maintain a watching brief for smart lighting integration**
12. **Trial the use of solar powered public lighting and use the results to consider future viability (potential to reduce total emissions by 3%)**
13. **Upgrade assets to gas alternatives at end of useful life**
14. **Investigate whether the use of gas at Mills Park and the Civic Centre can be eliminated (reducing emissions by 85 tCO_2-e per year – 13% of gas emissions and 1.9% overall emissions)**
15. **Formalise a light fleet utilisation and transition plan**
16. **Investigate the demand requirements for electric charging infrastructure at the new Operations Centre, to support an electric fleet**

SETTING TARGETS

There is no legislative requirement for local governments to report emissions and no single standardised accounting methodology for emissions in local government. Under the NGER Scheme, any facility or corporate group that meets a threshold of 25,000 tCO_2-e or 50,000 tCO_2-e respectively, may have reporting obligations. However, the City's total annual emissions in 2022/23 were well below these levels at 4,500 tCO_2-e.

The Commonwealth Government's Climate Change legislation outlines Australia's greenhouse gas emissions reduction targets of 43% reduction from 2005 levels by 2030 and net zero by 2050.

Net Zero means achieving an overall balance between greenhouse gasses produced and taken out of the atmosphere.

To meet the Commonwealth Government's 2030 target, the City would need to reach 3,790 tCO_2-e by 2030 (based on City emissions of 6,650 tCO_2-e in 2005/06).

Western Australia's interim target is to reduce emissions to 80% below 2020 by 2030 and achieve net zero by 2050.

To meet the State Government's 2030 target, the City would need to reach 1,242 tCO_2-e by 2030 (based on City emissions of 6,210 tCO_2-e in 2020/21).

Climate Related Disclosure

Climate-related financial disclosures will be mandated through amendments to the *Corporations Act 2001* and the *Australian Securities and Investments Act 2001*, to introduce requirements for large businesses and financial institutions to disclose their climate-related risks and opportunities. The amendments will empower the Australian Accounting Standards Board (AASB), an independent Australian Government agency, to develop Australian Sustainability Reporting Standards (ASRS).

The Standards will be aligned with International Financial Reporting Standards (IFRS). The IFRS Foundation is a not-for-profit responsible for developing global accounting and sustainability disclosure standards.

The IFRS S2 requires an entity to provide financial information about its exposure to climate-related risks and opportunities.

Treasury's draft exposure documents indicate that all entities preparing annual reports under Chapter 2M of the Corporations Act and meeting certain size thresholds, will need to prepare a sustainability report as part of their annual report. The thresholds are equivalent to the existing Large Proprietary Company definitions.

First annual reporting periods starting on or after	Entities that meet at least two of the below thresholds:			NGER Reporters	Asset Owners (eg. management investment schemes and superannuation funds)
	Consolidated revenue	EOFY consolidated gross assets	EOFY employees		
1 January 2025 Group 1	$500 million or more	$1 billion or more	500 or more	Above NGER publication threshold	N/A
1 July 2026 Group 2	$200 million or more	$500 million or more	250 or more	All other NGER reporters	$5 billion assets under management or more
1 July 2027 Group 3	$50 million or more	$25 million or more	100 or more	N/A	N/A

Entities may need to disclose Scope 3 emissions against 15 categories of upstream and downstream emissions aligned with the GHG Protocol. This will enable transparent reporting of value chain impacts. Entities will be given a number of years from the start of their reporting to include Scope 3 emissions, i.e. year 1 – no disclosure, years 2 and 3 – disclosure with limited assurance, year 4 – disclosure with reasonable assurance.

Upstream – purchased goods and services, transportation and distribution, employee commuting, waste generated in operations.

Downstream - end of life treatment of sold products, use of sold products, processing of sold products, investments.

The above timelines depend on the successful passage of legislative amendments and there being no requirement for further consultation on Standards.

Once legislated, large proprietary companies will start to follow new standards and there will be a flow on effect. The City will not have any direct, immediate obligation under climate related disclosure but an imminent change in standards has the potential to impact upstream and downstream businesses that the City works with.

The proposed timeframe of upcoming changes will provide the City with an opportunity to observe the release of guidance materials and gain a better understanding of robust climate-related financial reporting practices. It is expected that a variation of the Standards will be developed for government entities soon.