

Past and Current Energy Initiatives (Energy Action Plans)

- ✔ Annual monitoring and reporting of the City's energy use, cost and carbon emissions.
- ✔ Completion of energy audits for the City 5 largest facilities and implementation of a wide range of recommendations to improve energy efficiency.
- ✔ Set up of the City's Green Taskforce to oversee a whole of organisation staff behaviour change program.
- ✔ Installation of a geothermal system at the Geographe Leisure Centre.
- ✔ Purchase of a bike fleet for use by City staff.
- ✔ Installation of solar hot water systems at the Busselton Jetty Park and Winderlup Court units (Aged person homes).
- ✔ Upgrade of all lighting to LED at the Geographe Leisure Centre.
- ✔ Installation of more energy efficient public lighting, including LED, solar and wind powered on the Busselton and Dunsborough foreshores, public boat ramps and Busselton Jetty.
- ✔ Provision of teleconferencing capabilities to reduce car-based travel for meetings.
- ✔ Installation of 100kW solar system on the new City of Busselton Administration Building.



Energy Strategy 2020/2025



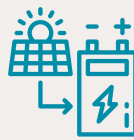
Energy Profile



Electricity
\$825,612 3,416,864 kWh



Streetlights
5000+ \$838,872



Solar Panels
3343 KW 391,864 kWh
11% Total electricity use



Gas
\$21,443 613,521 MJ



117 Cars
\$236,884 369,139 L



89 Trucks and Major Plants
\$714,816 187,335 L



Annual Sustainability Reserve
\$100,000

Vision

Minimised energy costs and greenhouse gas emissions, through using energy as efficiently as possible and optimising our approach to generation and use of renewable energy, and to maximise returns to ratepayers through becoming a net energy generator.

Targets

To generate 100% of the City of Busselton electricity needs from renewable sources by 2030.

To reduce City of Busselton corporate carbon emissions per capita to 50% on 2017/18 levels by 2030.

Develop efficiency targets for fleet and plant by 2025.

Scope

- Stationary use (electricity and gas)
- Street lighting
- Waste (restricted to landfill gas emissions and waste-related energy generation)
- Fleet and plant

Focus Areas

- ✓ Monitoring and Reporting
- ✓ Efficiency upgrades to facilities
- ✓ Leased sites
- ✓ Design/Procurement for new facilities
- ✓ Public lighting
- ✓ Rooftop solar
- ✓ Mid-scale solar
- ✓ Waste
- ✓ Fleet and Plant
- ✓ Behaviour and organisational change

Key Proposed Strategic Actions

- 1 An integrated energy monitoring and reporting system, which allows us to dynamically and proactively manage energy use from the City's facilities, public lighting and water pumping and renewable energy generation including solar energy across the organisation.
- 2 208kW of solar PV Systems, including 100kW at the Geographe Leisure Centre, 40kW at the Naturaliste Community Centre, 40kW at the Busselton Library and 28kW at the Depot and installation of batteries when financially viable.
- 3 A mid-scale solar farm at Lot 27 Rendezvous Road, to allow the City to reach its 100% renewables target.
- 4 Strategic energy efficiency upgrades at large facilities as recommended by the Energy Opportunities Analysis and Prioritisation report (Yeoman 2018).
- 5 A Design for New Buildings Policy, which specifies minimum energy efficiency and renewable energy generations for all new City's facilities.
- 6 LED upgrades of high priority City-owned streetlighting, sporting facilities and Public Open Space.
- 7 Investigations into multiple resources recovery systems through the South West Regional Waste Group.
- 8 Move towards more more electrically operated fleet, plant and equipment as technologies mature and the price of energy storage decreases, starting with the purchase of a plug-in hybrid electric vehicle (EV).
- 9 Viability assessments of alternative fuel sources to power the City's fleet, plant and equipment.
- 10 A watching brief of new and innovative technologies including microgrids, virtual net metering and peer to peer energy trading.

