

Electricity Frequently Asked Questions

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How can I monitor my electricity costs?

Calculate your monthly consumption, and start recording it over time to see if you are making progress. Whether you use credit metering or a prepaid meter, it is important to know your tariff and keep track of how much electricity you use month to month. Remember that there are usually seasonal differences e.g. electricity use goes up in winter for heating. See the <u>resources section</u> for more tools and help on this.

Switch to prepaid electricity. Prepaid metering allows you to monitor how much electricity you are using at any time, thereby revealing which appliances use the most. Studies have shown that greater 'real-time' awareness of electricity usage encourages people to drop their consumption by about 10-12%.

To switch to prepaid electricity, call:

City of Cape Town Electricity Services general enquiries: 0860 103 089 Eskom serviced areas: 0860 037 566. See more information <u>here</u>.

For questions about an incorrect electricity bill/charge, please call:

Account enquiries/non-payment disconnections: 0800 220 440 Meter reading consumption queries: 0860 103 089 If supplied by Eskom: 0860 037 566

Do people use more electricity in winter, and how can I reduce this?

Winter is usually an expensive time of the year for most households when it comes to using electricity for heating, especially with tariff increases which kick in from 1st July for City of Cape Town customers (or earlier for Eskom customers). Most households tend to spend at least about 20% more on electricity in winter months for their electric heating. The good news is that there are plenty of ways to save in winter. See this downloadable PDF: <u>Ways to Save Electricity in Winter</u>.



What is the City of Cape Town doing about saving electricity?

The City is hard at work finding ways to help residents and businesses minimise the impact of constrained supply, and move towards more affordable, secure and sustainable energy.

Here are some of the programmes implemented by the City:

- Assist low-income residents e.g. installing ceilings in older subsidy homes;
- Motivate high-income residents to use less e.g. electricity saving campaign;
- Help the commercial sector become more efficient e.g. the Energy Efficiency Forum (now the Energy Water Waste Forum);
- Generate electricity from alternative and renewable sources;
- Enable residents and businesses to sell excess electricity back to the grid;
- Train teachers, school children, businesses and community groups on energy efficiency;
- Set up curtailment schemes.

The City is doing its best to lead by example with energy efficiency and renewable energy in our own buildings and operations. To date it has:

- Retrofitted many inefficient buildings to be more energy efficient;
- Upgraded traffic lights and streetlights e.g. all traffic intersections across Cape Town now have efficient LED lights;
- Trained facilities' managers in energy management and installed smart meters on many City buildings;
- Trained hundreds of employees in energy efficiency and smart living;
- Installed over 200 kWp rooftop PV systems on City buildings.

These projects continue to be implemented, extending the reach and benefits. From 2009 to 2016 these programmes have saved over 49 000 MWh, which translates into savings of R20 million per annum and 101 000 metric tonnes CO2e. This means more money freed up for service delivery.

How is the City of Cape Town helping businesses save electricity?

Since about 2009, the City of Cape Town has been actively helping the commercial sector save electricity and save money, while doing something positive for the environment. There are useful forums and resources the City has delivered to help you save at work:

Energy Water Waste Forum for Commercial Sector: The Forum was established in 2009 (as the Energy Efficiency Forum) by the City of Cape Town in collaboration with Eskom and South African Property Owners' Association (SAPOA). This Forum provides a platform for practical knowledge sharing to help businesses lower costs and increase the competitive potential of commercial buildings and operations. Members meet three times a year where case studies, panel discussions and presentations are shared. Annual Energy Efficiency Awards recognise excellence and leadership among local businesses. Membership is free. To join, go to www.capetown.gov.za/EnergyEfficiencyForum



Smart Office Toolkit: Download this free publication for tips and guidelines to help any business run their office in a more resource-efficient way. Important knowledge for managers, administrators and employees alike. See <u>www.capetown.gov.za/smartoffice</u>

Smart Building Handbook: Download this free authoritative guide to building with electricity and resource-efficiency in mind, from construction through to operations and management. An essential tool for any company looking to build, renovate or retrofit. See <u>here</u> on the City's website.

Smart Events Handbook: Download this free guide, developed specifically for Cape Town, with advice for planning and hosting a resource-efficient event, from an office party to an international-scale expo. See <u>here</u> on the City's website.

Eskom's Advisors can help businesses with assessments and advice on energyefficient technologies, energy management opportunities and available funding. Applicable to both Eskom and City of Cape Town electricity customers. Call 086 003 7566, and ask to be contacted by an IDM Energy Advisor. The Eskom website also contains cost-reduction advice for businesses, see www.eskom.co.za/sites/idm

What help is available for industrial businesses if they want to become more energy efficient?

The City of Cape Town does not have a programme directed at industry specifically. However, Eskom's Advisors can help with assessments, and advice on energyefficient technologies, energy management opportunities and available funding. Applicable to both Eskom and City of Cape Town electricity customers. Call 08600 37566, and ask to be contacted by an IDM Energy Advisor. The Eskom website also contains cost-reduction advice for businesses, see <u>www.eskom.co.za/sites/idm</u>

There are also some national support programmes for the industrial sector:

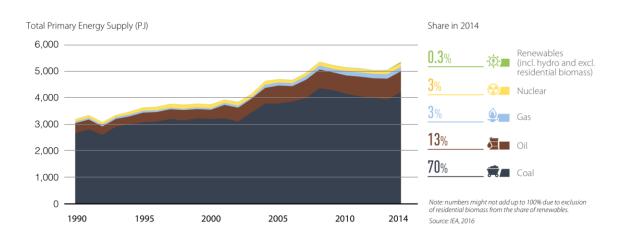
- CSIR's 'Industrial Energy Efficiency Project'. See <u>www.iee.csir.co.za</u>
- National Cleaner Production Centre RECP Assessments.
 See <u>www.ncpc.co.za/ncpc-services/recp-assessments</u>
- National Business Initiative's 'Energy Efficiency Leadership Network'.
 See <u>www.nbi.org.za</u>
- The Private Sector Energy Efficiency Project. See <u>www.psee.org.za</u>

Where does our electricity come from?

Cape Town buys most of its electricity from Eskom, who generates 95% of the power in South Africa, the vast majority of this currently produced by burning coal. Eskom operates about 27 power stations with a nominal capacity of 41 919 MW. The percentage of electricity in South Africa is breakdown is as follows:



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Source: EIA 2016 in Climate Transparency (2017). Brown to Green: the G20 Transition to a Low- Carbon Economy.

In recent years, private renewable energy generation has been introduced, using a competitive bidding process (the REIPPP programme). The national target is to have 10 000 GWh of renewable source electricity as part of the overall supply mix. By January 2015 the Department of Energy announced that the total MWs of renewable energy (through the REIPPP programme) actually connected to the grid to date is 1 915 MW, and a further 1 512 MW have reached commercial operation stage. So it is still a very small part of the mix, but is set to grow over time.

What is the cost to the environment of using mainly coalfired power?

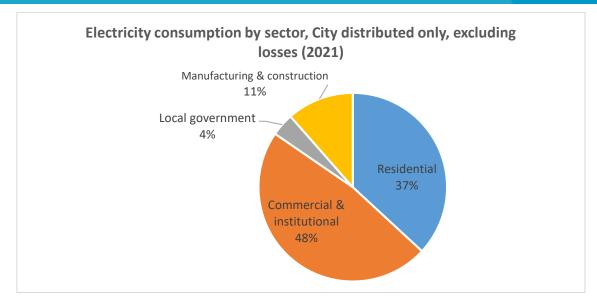
Coal-fired power stations and the burning of coal produces carbon dioxide (CO2) and other emissions which cause climate change and other pollutants such as sulphur dioxide, which causes acid rain. At the same time, coal mining damages the environment by degrading land and depleting our water supply. For every 1 kWh of electricity consumed, approximately 1kg of CO2 is produced and 1,26 litres of water is used.

Where is our electricity being used?

In Cape Town, the residential sector uses almost as much as the commercial sector, and much more than the industrial sector. Residents are collectively the second biggest users, which is why residential saving can make such a big difference.



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Electricity consumption by sector in Cape Town 2021 Source: Cape Town State of Energy 2021

Within middle and high-income homes, the biggest user of electricity is usually the geyser. A geyser is typically responsible for 40-60% of an average home's electricity costs.