



CITY OF CAPE TOWN
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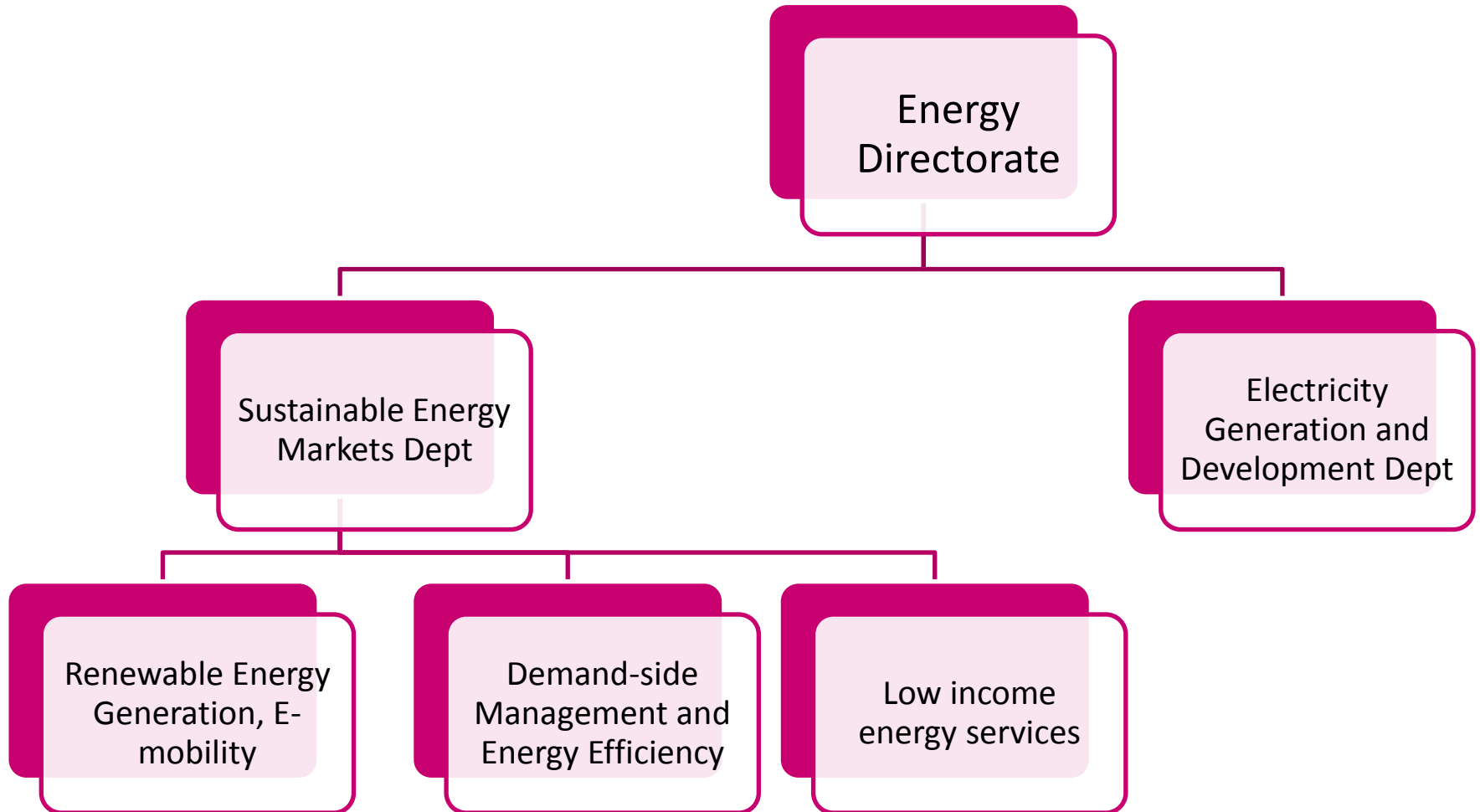
City's Energy update

Energy, Water and Waste Forum

Energy Directorate
19 Oct 2017

Making progress possible. **Together.**

City's new Energy Directorate

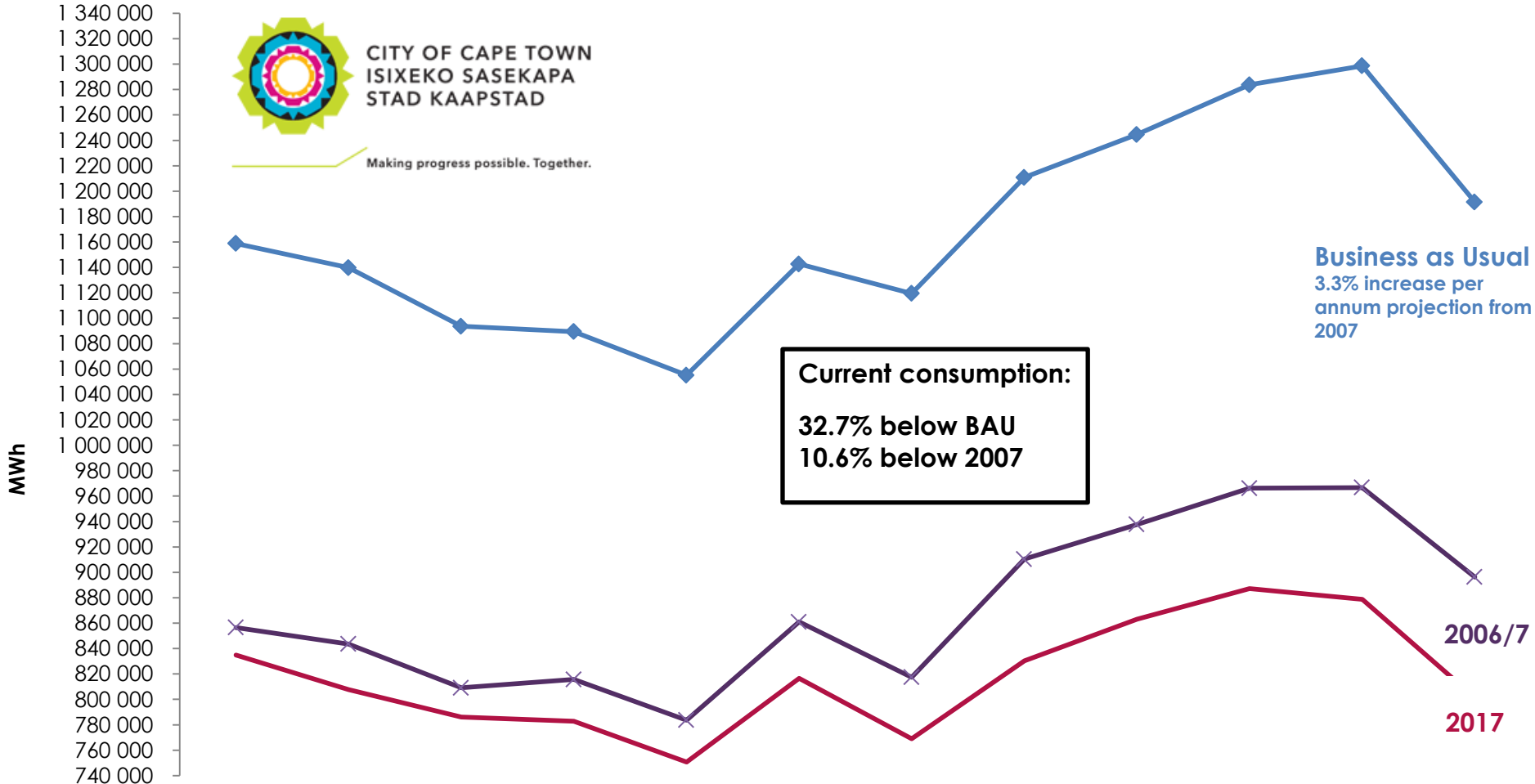


City of Cape Town actual electricity consumption compared to the baseline and percentage electricity saving achieved



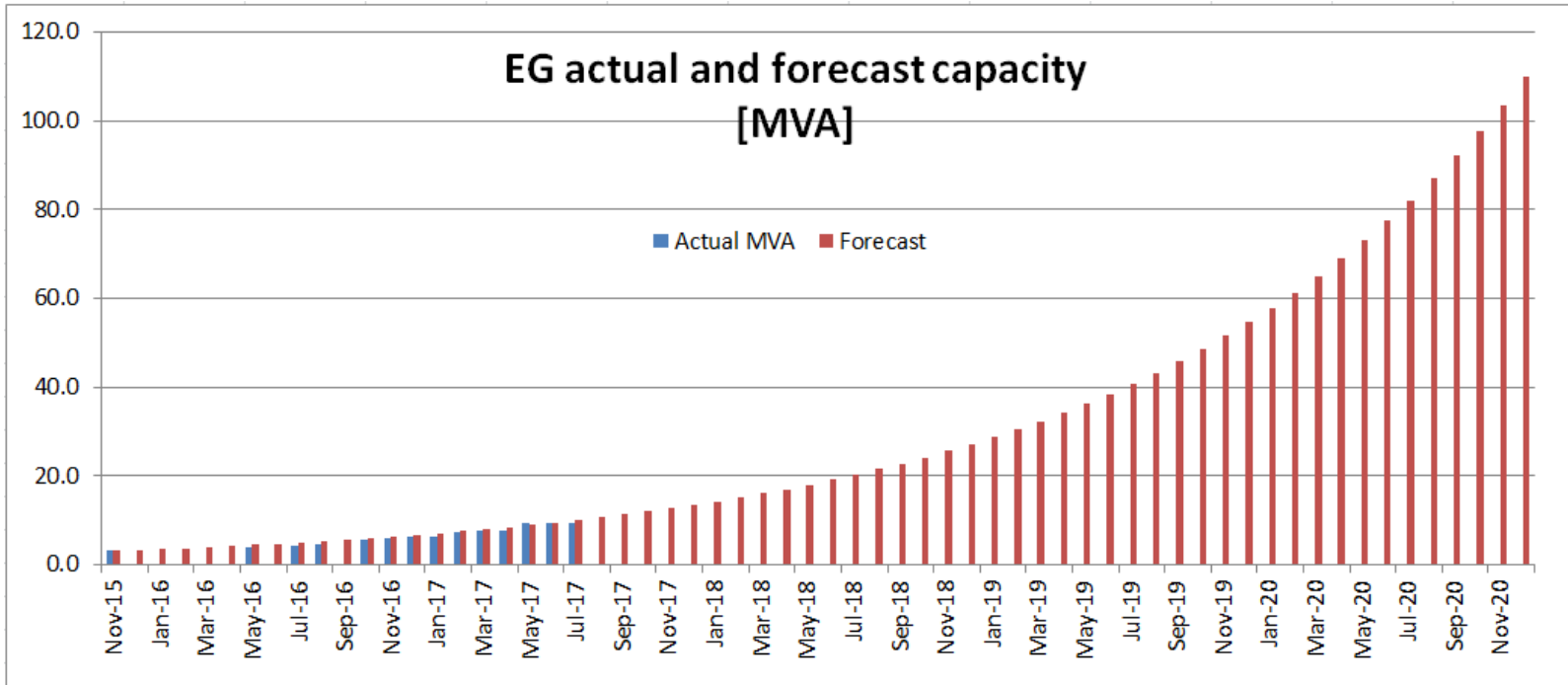
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	Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17
Actual	834 848	807 733	786 064	782 866	750 694	816 531	769 026	830 256	863 196	887 291	878 663	801 300
Baseline	1 158 827	1 139 746	1 093 710	1 089 487	1 055 164	1 142 677	1 119 523	1 210 871	1 244 603	1 283 739	1 298 671	1 191 516
2006/7	856 572	843 598	809 106	815 724	783 623	860 967	817 387	910 370	937 688	966 230	966 673	896 343
% Saving	28.0%	29.1%	28.1%	28.1%	28.9%	28.5%	31.3%	31.4%	30.6%	30.9%	32.3%	32.7%

Current and projected growth of rooftop PV (SSEG)



CCT anticipates very rapid increase in rooftop PV in commercial, industrial and then residential sectors

Source: Electricity Generation and Development Department (CCT)

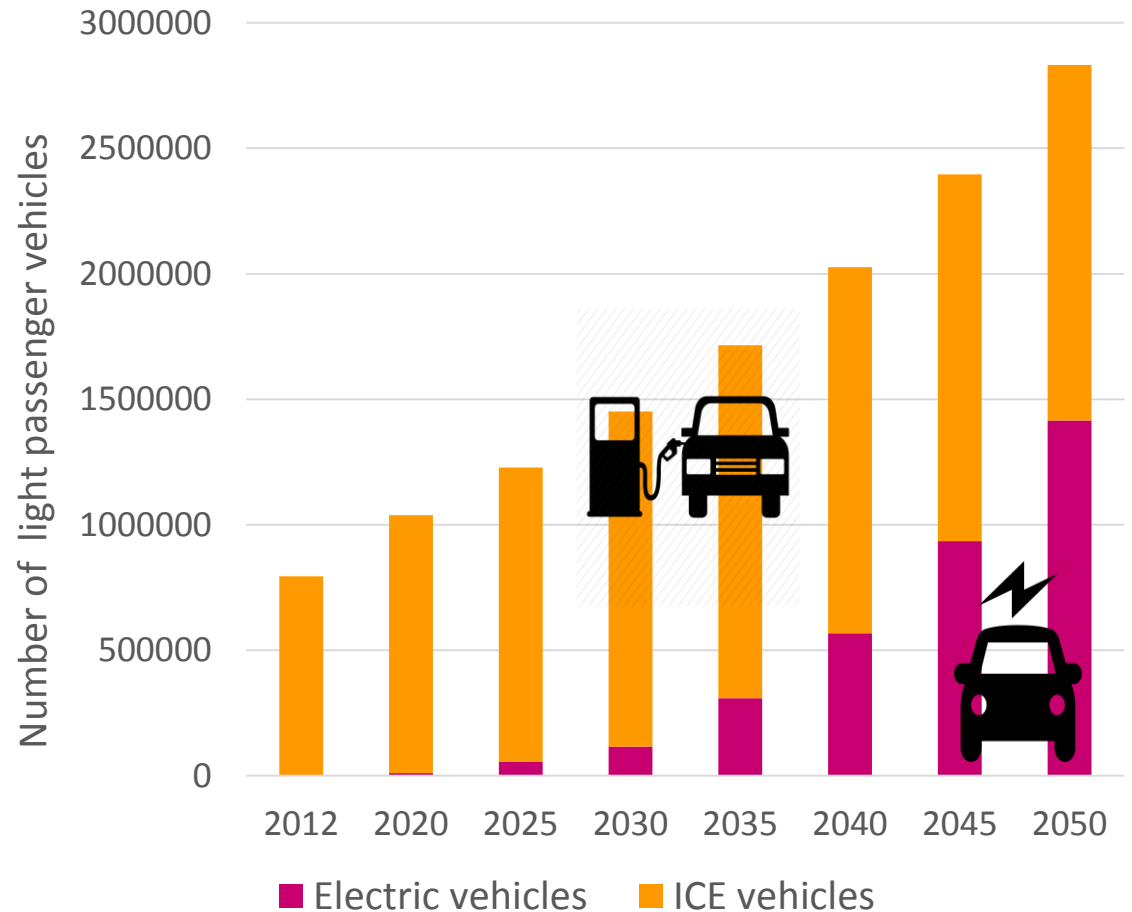
Renewable Energy Plan

- Mayoral target of 20% Renewable Energy supply target by 2022
- Court case – right for municipalities to own/ purchase large scale RE supply
- Active promotion of SSEG
 - Establish pool of accredited PV Installers through third party quality assurance programmes
 - Review SSEG tariff to assess potential for greater incentives while managing revenue
 - Be ready for opportunities: Storage , Electric vehicles etc!

Cape Town and E-mobility

- Light passenger vehicles
 - 8% by 2030
 - 28% by 2040
 - 50% by 2050
- Fantastic potential for supporting rooftop solar – charging during the day and battery storage supply at peak electricity demand times

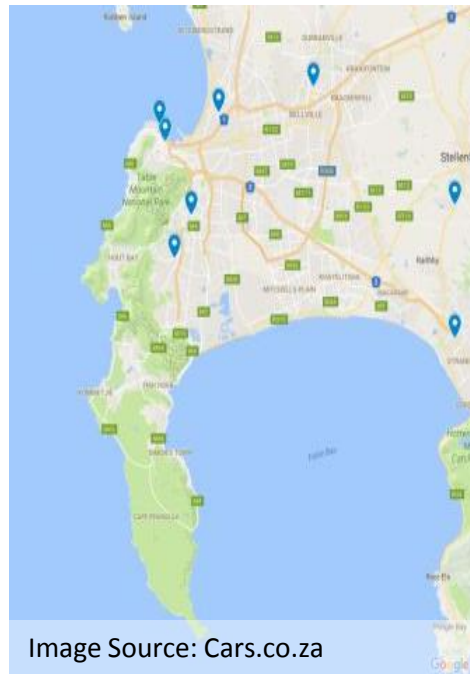
Projected EV uptake in Cape Town



Data Source: Cape Town State of Energy 2015; CSIR national EV projections

City's E-mobility strategy

- Investigate risks to distribution network and how to manage these
- Develop policies & regulations
- Develop EV charging tariff
- Work with partners on charging station roll out (currently 7 public charging stations)
- Pilot project: City vehicle fleets and public demonstration project



Advisory on safety of Solar Water Heaters during low water pressure scenarios

- Headline grabbing nonsense statements that SWHs will explode with low water pressures
- Check CCT advisory on www.savingelectricity.org.za

High pressure solar water heaters:

- High pressure solar water heaters are not at risk of damage from low water pressure for short periods of no pressure (water outages).
- In cases of low pressure, the geyser or storage tank will refill at a slower rate and the solar water heater will not be adversely affected.
- Even in cases of water outages or zero water pressure, high pressure solar water heaters that are installed correctly, can withstand short periods (a few days at a time) without water with no adverse effect on the panel, geyser or pump.

Advice:

If water outages are expected to last longer than a week, customers are advised to cover the panel with reflective sheeting (eg sisalation)

Advisory cont.

Low pressure solar water heaters:

- These systems can withstand low water pressure without adverse effects on the system components.
- In scenarios of water outages, flat-plate collector systems are not at risk. In certain circumstances, low pressure evacuated tube systems have a minor risk only when the geyser is completely emptied (i.e. from an extended water outage or an incorrectly installed system) and the tube experiences thermal shock when the water is turned back on.

Advice:

- In instances of extended water outages (a week or more), customers are advised to cover the panel with reflective sheeting and disconnect water to the geyser until the water service is reconnected and the panel has cooled (i.e. at night or early in the morning).
- If you have a low pressure evacuated tube system, contact the installer or supplier to determine whether you are at risk of damage from water outages.

ESCO Registration via SANEDI

- SANEDI in collaboration with the Department of Energy and GIZ is establishing a register for Energy Service Companies (**ESCo register**).
- Facilitate the market development and growth of ESCOs in South Africa; to be used by public and private sector to identify, plan, develop, finance or implement co-generation/ energy efficiency and demand side management projects in buildings, public lighting or water infrastructure.
- For ESCOs across all energy services, e.g. Auditing, Technology Installers, Consulting Engineers; full ESCOs that provide the energy services and financing



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Thank You

For queries contact Energy and Climate Change Unit, ERMD

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