

RESIDENTIAL EFFICIENT LIGHTING ROLLOUT PROGRAM IN SOUTH AFRICA



Theo Covary



Stephane de la Rue du Can

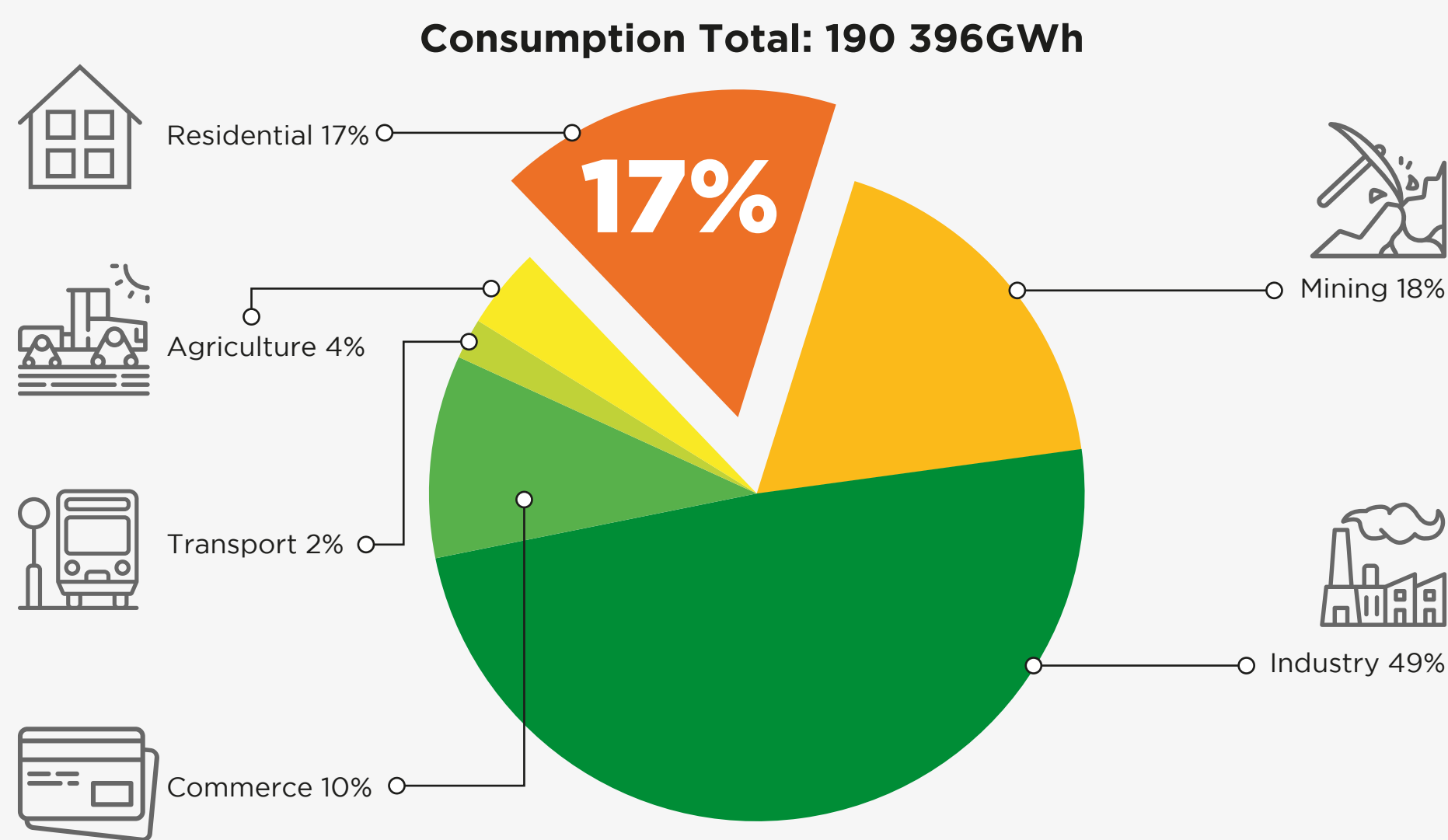


Mercy Shuma-Iwisi

From 2006, electricity demand exceeded supply and the country started experiencing rolling blackouts

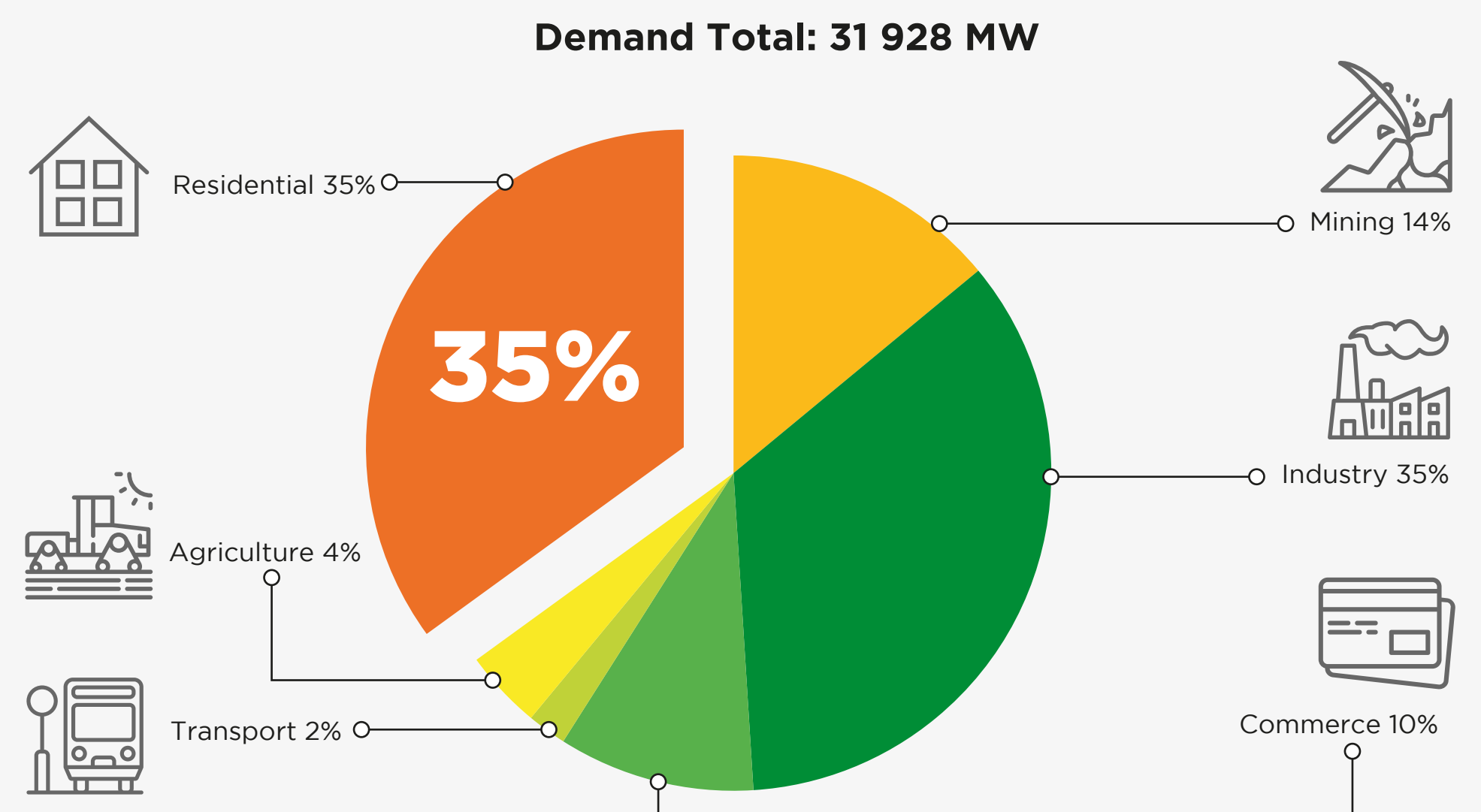
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The residential sector constitutes 17% of total demand

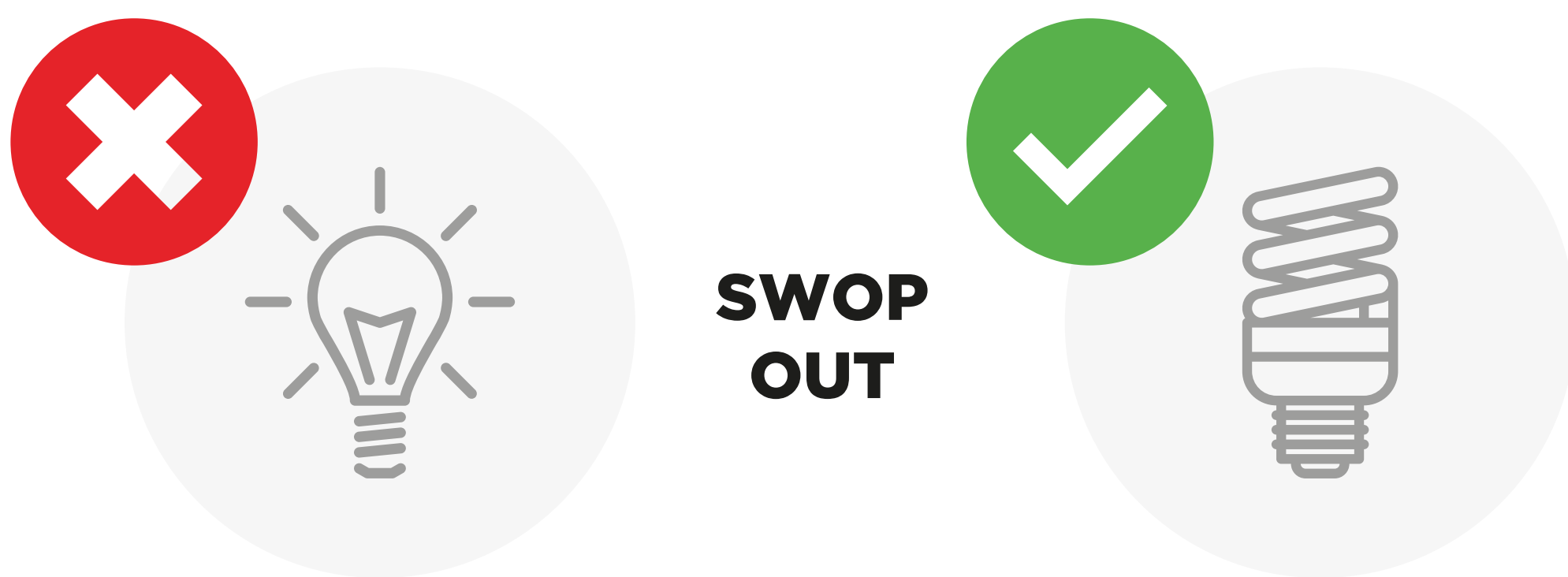


2

BUT accounts for 35% of total demand - straining the grid during peak periods



3 Eskom, the national utility, implemented a residential CFL rollout campaign to reduce peak demand. By the end of the programme in 2015 more than 70 million CFL had been distributed



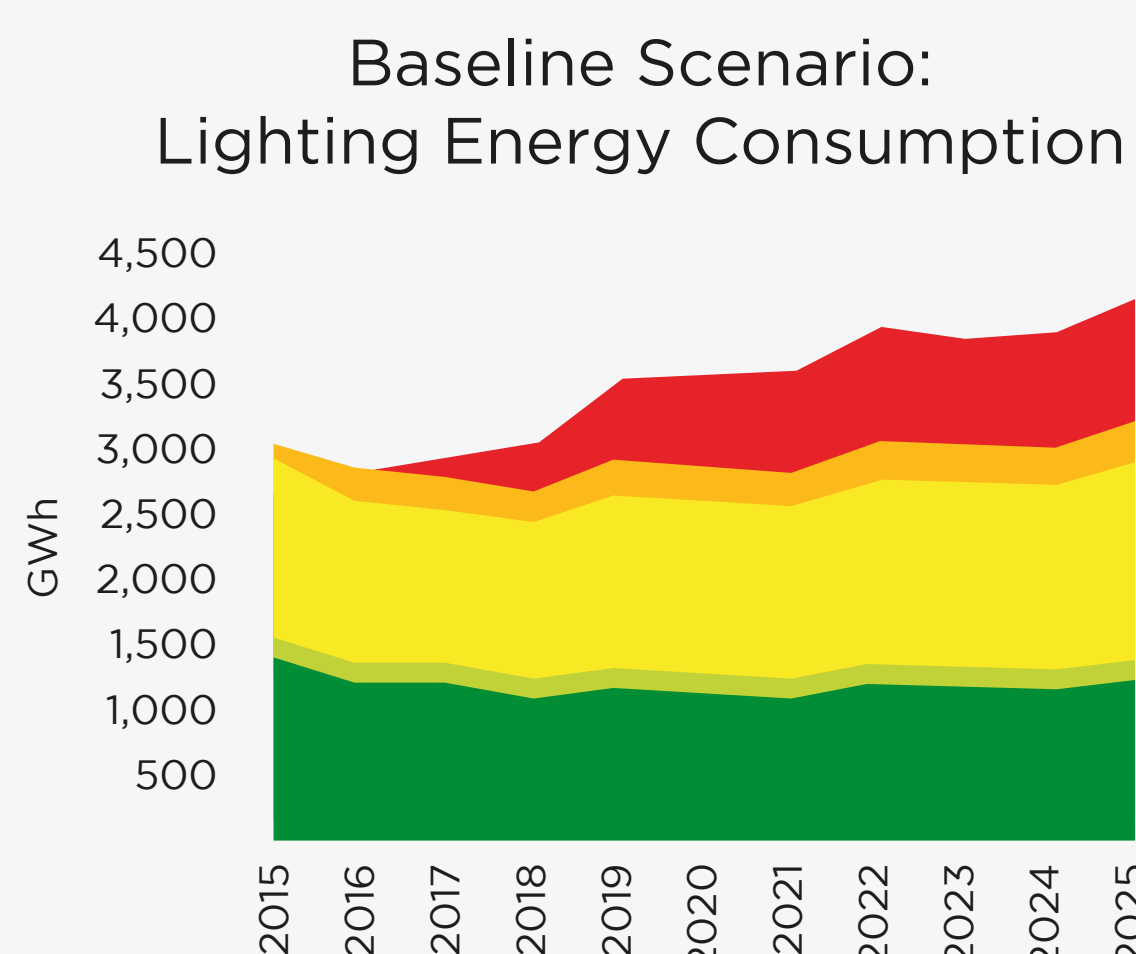
By 2012 2.1 GW peak reduction
Or 4 786 GWh of savings had been achieved

4

- When free CFL's were no longer available, consumers returned to the stores
- For most South Africans, CFL's were now the de facto energy saving technology to the detriment of LED lighting
- For low income households, many reverted back to illegally imported incandescent lightbulbs
- To compete, most LED's sold have lower technical specifications - compromising user experience

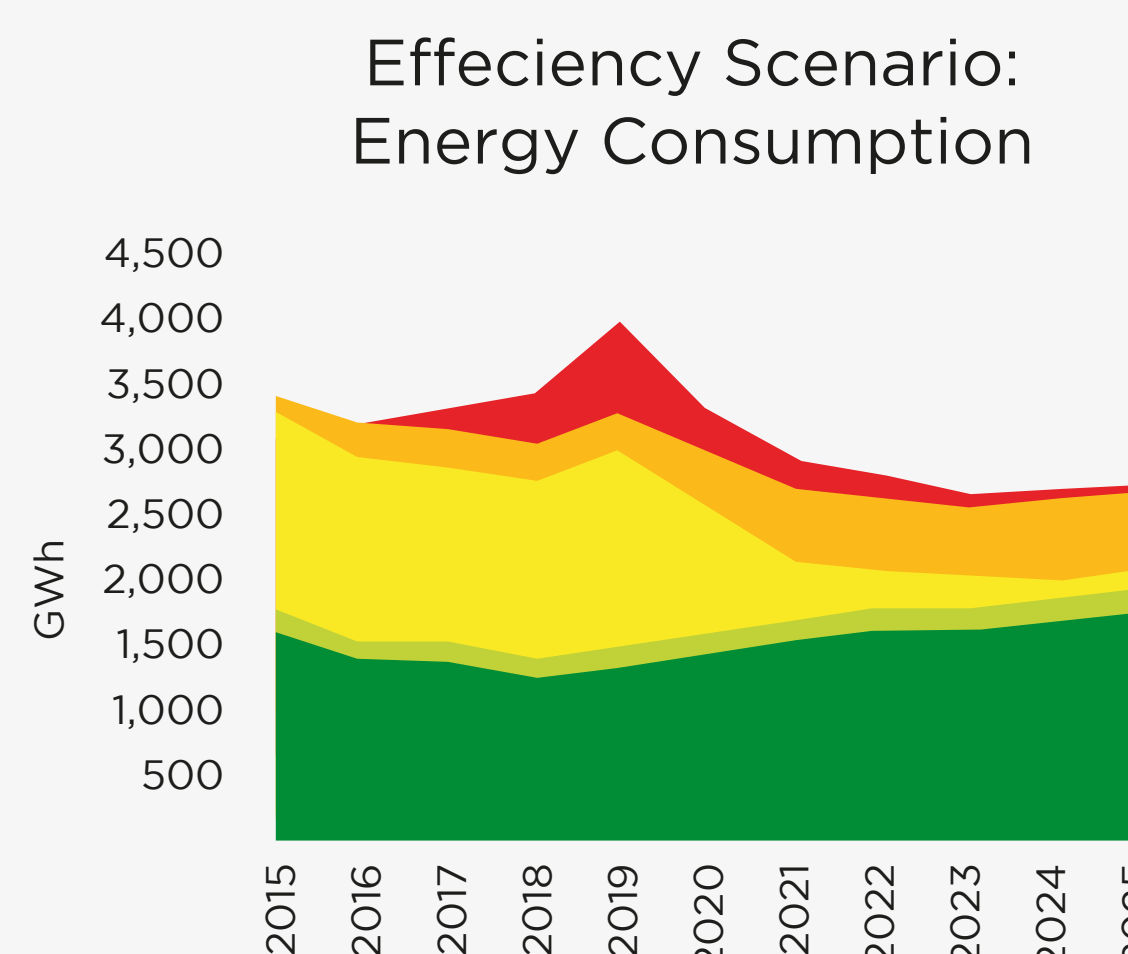
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Our modelling the following BAU scenario - ICL at 8% but its impact on total energy consumption is 23% of total lighting



6

In our efficiency scenario of 45 lumens per watt we see >40% of total lighting consumption saved, equalling ~5% of total residential electricity consumption



CFL Fluorescents Halogens LED Incandescent

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PLANNED ACTIVITIES IN 2019 BY SOUTH AFRICA'S STANDARDS AND LABELLING PROGRAMME

Technology neutral technical specifications for General Service Lamps (industry consultation phase) to:

- Align with international minimum quality standards;
- Eliminate ICL;
- Ban CFL's

Launch of Information Label to help consumers when buying new lamps



Higher watts uses more electricity

Lower watts uses less electricity