



Liquefied Petroleum Gas
Safety Association of
Southern Africa

LPGas “Exceptional Energy” SANEA Lecture JHB



Overview

- *LPGas Safety Association*
- *South Africa's Energy Demand and Usage*
- *South Africa's LPGas Consumption*
- *LPGas Exceptional Energy*
- *Conclusion*
- *Questions*

Our vision is “to ensure the sustainable growth of the LPGas industry through safety and compliance with best business practices ”

- *Non profit organisation based in JHB*
- *Dedicated to the safe use of LPG*
- *Represent companies involved in the refining, distribution, retail and installation of LPG*
- *Work closely with government*
- *Promote safe usage and benefits of LPG*
- *Provide training and skills development to the industry*
- *Promote safety through an number of schemes e.g (Safe Appliance Scheme)*

To promote the **safe, efficient** use of **LPGas** as a **modern fuel** to enrich the lives of all.

Main source of energy used by households, by province

Statistics South Africa

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P0318

12. Source of energy

12.2 Main source of energy used by households, by province

12.2.1 For cooking

| Energy for cooking | N(1000) | | | | | | | | | |
|----------------------------|---------------|--------------|--------------|---------------|------------|---------------|------------|--------------|------------|--------------|
| | South Africa | Western Cape | Eastern Cape | Northern Cape | Free State | KwaZulu-Natal | North West | Gauteng | Mpumalanga | Limpopo |
| Total | 13 812 | 1 478 | 1 738 | 311 | 861 | 2 615 | 954 | 3 531 | 978 | 1 346 |
| Electricity from mains | 9 822 | 1 293 | 936 | 247 | 678 | 1 792 | 654 | 3 040 | 586 | 596 |
| Electricity from generator | * | * | * | * | * | * | * | * | * | * |
| Gas | 311 | 80 | 67 | 13 | 25 | 49 | 24 | 36 | * | * |
| Paraffin | 1 298 | 79 | 313 | 15 | 89 | 171 | 136 | 372 | 47 | 76 |
| Wood | 2 129 | 17 | 395 | 34 | 44 | 572 | 133 | 39 | 238 | 657 |
| Coal | 182 | * | * | * | 23 | 17 | * | 36 | 94 | * |
| Animal dung | 39 | * | 22 | * | * | 11 | * | * | * | * |
| Solar energy | * | * | * | * | * | * | * | * | * | * |
| Other | * | * | * | * | * | * | * | * | * | * |
| None | * | * | * | * | * | * | * | * | * | * |

* For all values of 10 000 or lower the sample size is too small for reliable estimates.
Due to rounding, numbers do not necessarily add up to totals.

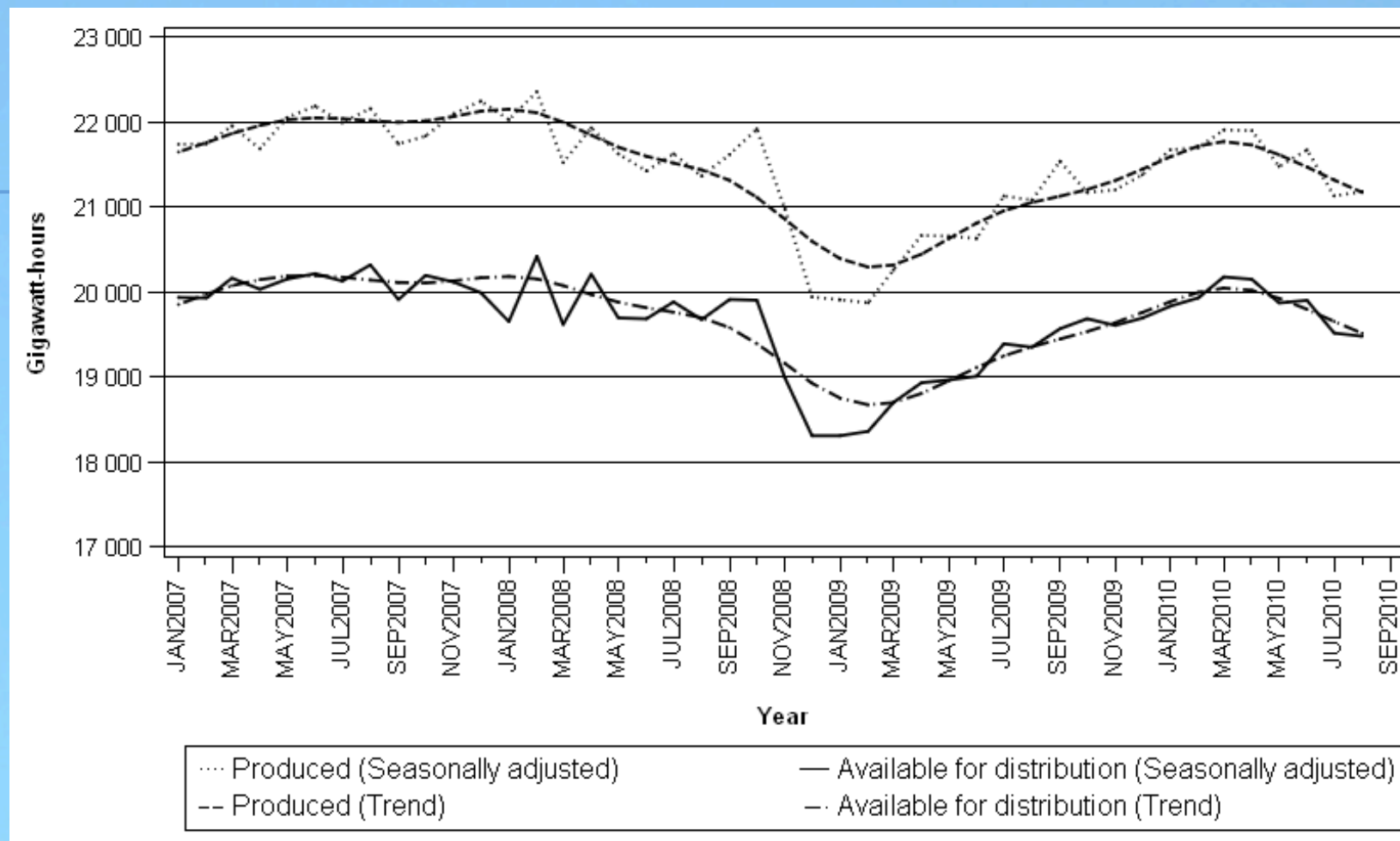
Statistics South Africa - General household survey 2009

Electricity usage by households, by province

- *Nationally, the percentage of households that were connected to the mains electricity supply increased steadily from 76,8% in 2002 to 82,6% in 2009.*
- *Eastern Cape has experienced a significant increase in the percentage of households connected to the mains electricity supply from 55,6% in 2002 to 69,8% in 2009.*
- *Despite this increase, it still remains the province with the lowest percentage of households with a connection to the mains electricity supply (69,8%).*
- *The percentage of households connected to the mains electricity supply in Gauteng decreased from 87,1% in 2002 to 86,1% in 2009.*

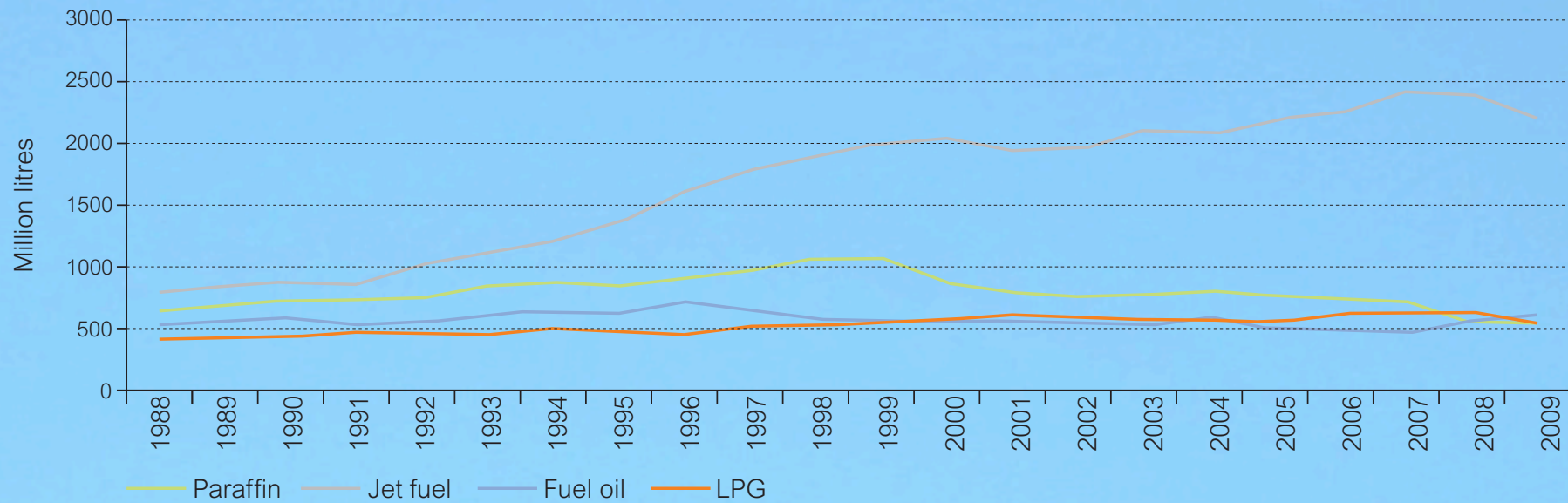
Statistics South Africa - General household survey 2009

Figure 1 – Electricity produced and available for distribution in South Africa from 2007 to 2010



Statistics South Africa - Electricity generated and available for distribution (preliminary), August 2010

Consumption of LPGas in South Africa



www.energy.go.za

The domestic LPG market

- *LPG Represents less than 5% of the total energy pool*
- *South African LPG consumption is currently 2.12kg/person*
- *No significant local reserves – dependence on refinery of imported crude*
- *LPG is more expensive than competing energy carriers – due to subsidies*
- *Rising electricity costs and supply interruptions increasing interest in LPG*
- *Recently regulated but not subsidised (LPG residential price)*
- *Strong government fuel-switching policies (to cleaner fuels) in South Africa*
- *Prices on safe and efficient appliances still barrier for low income sector*
- *Changing energy policies – environmental sustainability*
- *Market order and respect for branded cylinder ownership*

Market drivers for domestic LPG usage

- *LPG per capita consumption*
- *Relative value for money (price/benefit) competing energies*
- *Increasing demand for energy combined with population growth*
- *Economic growth (GDP), particularly personal income growth affordability and per capita GDP growth (economic growth)*
- *Population growth (if no diminishing GDP per capita) - or growth in disposable income*
- *Socio-economic factors*
- *Increasing price of electricity*

Market opportunities for growth in LPG usage

- *Low penetration, growing population and increasing, positive regulatory environments*
- *Generally improving business friendliness / business environment*
- *Peace and governance*
- *Government energy agenda and promotion of the product - the government's energy policy*
- *LPG is an “exceptional” energy*

“LPG is an exceptional energy source due to its origin, benefits, applications and its industry”



- *Immediate and global availability*
- *Clear environmental benefits*
- *Transportation flexibility*
- *Its natural by-product origin*
- *Diverse applications*

LPG plays a **key role** in the transition towards a **more secure, sustainable** and **competitive** energy model

“There are more than 1000 applications of LPG and it is also the most widely-used alternative to automotive fuel”

Recreational

Automotive

Cooking

Power generation

Heating

Agriculture



“LPG produces less air pollutants than diesel, oil, wood or coal”

- *Quality of air has serious impact on human health, plants, animals*
- *Sources of air pollution: transport, ‘stationary combustion’, power generation*
- *LPG is a **clean** conventional fuel*
- *LPG is **non-toxic** and has **no impact** on soil and water*
- *Autogas – **immediate solution** to improve air quality*
- *LPG **reduces** soot – also known as Black Carbon (BC)*

LPG industry is well placed to **provide solutions** to improving local air quality by:

- **Encouraging** uptake of autogas and hybrid engines
- **Helping developing** nations to switch from wood/kerosene to LPG for cooking and heating



“LPG emits about 20% less CO₂ than heating oil and 50% less than coal”

- LPG – *recognised* by governments for contribution to reduced greenhouse gas emissions
- LPG generates *fewer carbon emissions* than gasoline
- Carbon footprint of LPG is **20% lower** than fuel oil and **50% lower** than coal
- LPG is key to a **clean** and **sustainable** energy mix
- LPG has **limited impact** on the environment
- LPG helps **reduce CO₂ emissions** and combat climate change

LPG’s most common forms Propane and Butane **are not considered as greenhouse gases** by the International Panel on Climate Change (IPCC), the scientific body of the United Nations



“LPG helps to reduce emissions of a typical house by 1.5 tonnes (around 25%) of CO₂ per year”

- *LPG complements **renewable** energy sources*
- *LPG enables **decentralised generation** through small self-containing generators and micro combined heat and power*
- *LPG is **commonly used in agricultural** sector for crop-drying, fuel of farm vehicles and insect repellent*

As a **modern and environmentally friendly energy source**, LPG can play an integral role in the ongoing development of agriculture, replacing chemicals used in agricultural applications



“The LPG industry is equipped to immediately contribute to a sustainable energy mix anywhere and anytime. It is committed to meeting the world’s energy challenge and helping meet the world's energy needs while stabilising CO₂ emissions”

The LPG industry is characterised by its:

- *Diversity and competitiveness*
- *Commitment to the highest safety standards*
- *Commitment to improving people’s quality of life*





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www.exceptionalenergy.com

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Thank you

