Women in LPG

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Liquefied Petroleum Gas (LPG)
LPG: A Modern, Efficient Fuel

- Used correctly, LPG is one of the safest, cleanest and most sustainable energy sources currently available.

- Reliable, clean, efficient and versatile, LPG has a wide variety of applications from cooking and heating in homes and businesses to industry, agriculture and mining.

- It is readily available, easily stored and transported and produces fewer Greenhouse Gases than any other fossil fuel.

- LPG produces none of the smoke and soot that can damage the lungs of families using coal or wood.

- An exceptional energy, LPG can be up to 5 times more efficient than traditional fuels.

LPG is readily available to provide a modern fuel to areas lacking grid infrastructures.
LPG: South Africa

- South Africa consumes 310,000t of LPG annually.

- LPG penetration for SA households sits below 10%.

- LPG penetration for SA households as primary energy for cooking averages at 2.9%, 2013 figures show 3.2%.

**Percentage distribution of households utilising LPG for cooking**

<table>
<thead>
<tr>
<th>Year</th>
<th>LPG Utilisation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1996</td>
<td>3.2%</td>
</tr>
<tr>
<td>2001</td>
<td>2.6%</td>
</tr>
<tr>
<td>2007</td>
<td>2.0%</td>
</tr>
<tr>
<td>2011</td>
<td>3.5%</td>
</tr>
<tr>
<td>2013</td>
<td>3.2%</td>
</tr>
</tbody>
</table>

Source: Stats SA
LPG: South African Challenges

Background

- SA LPG market remains the same for years in size and customer categories. Complacent with status quo.
- SA LPG market currently locked in supply.
- Local production expected to decrease.

How to revitalize the market?

- Unlock supply through imports.
- Review current price formula.
- Explore innovative opportunities along the value chain.
- Create demand through making the product accessible (affordability, availability and awareness).
- Immediate and strict enforcement of all existing pieces of legislation in order to safeguard asset integrity.

Make LPG widely known as an “Exceptional Energy” that improves health and quality of life.
Cost of electricity expected to rise (≥8% for the next 4 years), coupled with expected service delivery interruptions.

Large portion of the SA population (over 15.8M) are expected to be on social grants within 2015.

14% of households have no electricity supply.

32.3% of population live in informal dwellings, utilising primarily solid fuels and paraffin as energy sources.

UN Sustainable Energy for All (SE4All) initiative - identifies the use of household solid fuels (wood, charcoal, dung, and agricultural residues) for cooking and heating as an indicator of energy poverty.
Progressive Changes Required

• The UN SE4All initiative, have identified for the first time - access to cooking and heating energy, as the most important energy need for poor women (treated on an equal footing with access to electricity).

• In developing rural communities, LPG can provide a first modern alternative to traditional cooking fuels (e.g. firewood, charcoal, dung).

• Contributing to a better quality of life and importantly, liberating women and children from time spent collecting fuel, thus enabling them to pursue education or value-added economic activities within the community.
If we stop to consider a few pointers:

• Majority of 14% of SA households lacking electrical supply are - rural, traditional, female-headed households.

• Energy poverty affects mid to lower end of the market - again, majority of these households are female-headed households.

• The LPG passport platform is cooking, and it is traditionally a female who performs cooking rituals in the home.

• **Who is better positioned to find innovative solutions to eradicate energy poverty in this market, than females themselves?**
Here you see a female representative of the LPG industry, it took for this female to visit other females in their homes in rural KZN to explicitly understand her challenges.

Invested interactions with females, invested discussions with females – made us understand exactly what it is we as an industry needed to offer.

An affordable and accessible energy source.
- Affordable in terms of absolute price point
- Accessible in terms of location and relevance

Oryx Energies utilised this insight to develop the concept of container units, coupled with 3kg cylinder/cooker top packs.
• While women are the biggest users of LPG for cooking, they are generally not involved in the LPG supply chain.

• Supply of LPG represents an important employment sector with growth potential – directly and indirectly.

• Engaging women in the LPG supply chain is an effective strategy for gender equality as well as for LPG promotion.

• Investing in women’s economic empowerment sets a direct path towards gender equality, poverty eradication and inclusive economic growth.

• With women being the main consumers, women might logically be successful and effective LPG energy entrepreneurs.
Conclusion

We see a myriad of white papers, green papers…

We see a myriad of legislation of sophisticated governing laws…

But do we see enough action, enough enforcement?

Perhaps it is time for us to change the approach, through a conduit of collective, female action.

Women are the main consumers of LPG – they should therefore be capable of being successful, effective energy entrepreneurs in all aspects of the LPG supply chain.
1. Contact the LPGSASA's Training Department on 087 330 0419
2. Request application form for the Domestic Installer course
3. Complete the application form and send it back to LPGSASA, include a covering letter explaining why you wish to become an installer and what previous technical skills / experience you may have
4. Attend and pass the 5 day training course at LPGSASA's national training facility in JHB
5. Apply for your temporary installer registration card
6. Complete three installations under the supervision of a mentor (LPGSASA can provide assistance)
7. Take photographs of these installations and submit them to LPGSASA by way of a Portfolio of Evidence
8. Once you are assessed as competent based on your Portfolio of Evidence, apply for your full installer license
9. You are now a registered and licensed domestic LPG Gas installer registered on SAQCC-Gas' national database
1. Identify an AREA with the potential for the highest density of users
2. Perform RESEARCH within that area
   - Market pricing
   - Volumes
3. Prepare BUSINESS PLAN
   - Required margins
   - Business costings: financing, staffing, storage, working capital, rental … etc
4. Approach LPG marketer / company with AREA and associated findings in point 2
5. LPG marketer will then provide assistance for site identification, through providing you with basic LPG prerequisites for land
6. Credit application process will be performed and will determine credit terms
7. Final contract negotiated and signed
8. LPG marketer will provide you and your staff with necessary safety and / or filling training, along with associated equipment dependent on contractual agreement

Initial investment of approximately R250,000 – depending on LPG marketer, storage capacity, equipment agreement, working stock, cylinder deposits and your business plan.
Thank you

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Sources:
wlpga.org; cooking-for-life.org; engineeringtoolbox.com/co2-emission-fuels-d_1085.html; urbanearth.co.za/articles/eskom-announces-unchanged-electricity-emission-factor-2012;
and Comparative Greenhouse Gas Emission Levels graph depicts “coal” further described as “bituminous/anthracite”.

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