
**IMPROVEMENT OF LIQUEFIED PETROLEUM GAS (LPG)
CYLINDER INTER-CHANGE MODEL (LPG CYLINDER
EXCHANGE POOL) FOR EAC**

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IMPROVEMENT OF LIQUEFIED PETROLEUM GAS (LPG) CYLINDER INTER-CHANGE MODEL (LPG CYLINDER EXCHANGE POOL)

1. Abstract

One of the significant inhibitors to trade in LPG at the retail level is the management of returnable containers (cylinders). It is possible to reduce the unit cost of returning an empty cylinder to the brand owner by pooling of transport resources. The cylinder exchange pool as practised in Kenya from the year 2009 to 2018 has been credited with successful penetration of LPG in rural areas and increase in the uptake of LPG in Kenya.

An LPG Cylinder Exchange system facilitates the exchange of cylinders amongst LPG marketing companies. The system is based on the concept that LPG cylinders are returnable containers and are owned by the brand owner. As such, the consumer pays a deposit on the initial acquisition of the cylinder.

2. Introduction

Where an Interchange happens when a consumer presents an empty LPG cylinder of one brand and obtains a filled cylinder of another brand.

Once the interchange occurs, the brand owner of the filled cylinder is then tasked with handing over the empty cylinder collected to the rightful brand owner within an agreed period. Deficits in exchanged cylinder numbers are then billed as debts and invoiced between LPG Marketing Company

a. Mandatory exchange system

In this type of system, the exchange of LPG cylinders is mandatory and is defined in law. All cylinder brand owners are required by law to participate in the LPG Cylinder exchange process. The government actively engages in the regulation of the exchange process.

Cylinder brand owners are required to draw an agreement to govern the exchangeability of cylinders among themselves. The agreement must be ratified by the sector regulator and must define the following:

- i. Criteria for joining the LPG cylinder exchange system, e.g. the minimum number of LPG cylinders for a new entrant;
- ii. The obligations and warranties of the cylinder brand owners, e.g. cylinder collection and payment of invoiced amounts;
- iii. Prohibition against unfair trade practices, e.g. filling of LPG cylinders without the authority of the brand owner;
- iv. Penalties for breach of the terms of the agreement;
- v. Provisions for withdrawal of members from the cylinder exchange system; and
- vi. Signature page for cylinder brand owners or their authorized representatives.

For a seamless operation of the mandatory cylinder exchange, there is a need to put the following in place:

- i. A security bond system: Cylinder brand owners should be obligated to provide a security bond in the form of bank guarantee or insurance as a guarantee of debt settlement in case of insolvency;
- ii. Mechanisms of take-over of insolvent competitors – reduce consumer exposure; and
- iii. Highly controlled cylinder central collection points where all empty cylinders of competing brands shall be temporarily stored before collection by the various brand owners.

The mandatory exchange system has the following advantages:

- i. High consumer convenience due to a wide choice of cylinder brands;
- ii. Better prices due to competition among cylinder brand owners;
- iii. Improved service delivery and innovation by LPG marketing companies due to stiff competition; and
- iv. Due to convenience and improved accessibility to the lower market end, there is likely to be more LPG consumption.

The mandatory exchange system has the following disadvantages:

- i. Increased cases of illegal cylinder refilling due to wide access of other cylinder brands by LPG marketing companies;
- ii. Reduced levels of safety due to increased cases of illegal cylinder filling;
- iii. Reduced investor confidence due to increased instances of illegal refilling;
- iv. High financial exposure to brand owners in case of dissolution of particular cylinder brand owners; and
- v. Increased cases of anti-competitive practices, e.g. hoarding of competitor cylinders.

b. The mutual cylinder exchange system

In this type of system, the exchange of LPG cylinders is voluntary and is based on mutual trust between exchanging parties. The exchange is contractual between the parties, and the Government does not actively regulate the exchange process.

The mutual exchange system has the following advantages:

- i. The system is self-regulating and strict controls are put in place by the exchanging parties;
- ii. Ease of enforcement especially when it comes to illegal cylinder filling;
- iii. Improved investor confidence due to reduced illegal refilling and hence continual investment in the LPG sector; and
- iv. Improved consumer safety due to reduced cases of illegal refilling.

The mandatory exchange system has the following disadvantages:

- i. Reduced consumer choice at the retail level; and
- ii. Competition at the retail level is reduced, and hence the quantum of price reduction decreases.

3. Recommendations

It is recommended that:

- i. NRIs should adopt LPG cylinder exchange systems to enhance the usage of LPG in East Africa;
- ii. NRIs to put in place strict control procedures to ensure proper working of the adopted LPG cylinder exchange system;

- iii. To prevent illegal cylinder refilling, it is recommended that in addition to the cylinder exchange pool, a common user central clearing house should be developed hand in hand with the implementation.

4. Conclusions

The advantages of an LPG cylinder exchange system has far more benefits to consumers than the disadvantages. It is the key to increasing cylinder exchange and growth of competition in the LPG cylinder business.