



# PETROLEUM PRODUCTS LOSS VARIANCE

Product loss is the decrease in product volumes at various stages (storage, transportation, and loading) of product handling. These losses are caused by evaporation, difference in accuracy of measurement instruments, and unauthorized activities such as vandalism.

## 0.07%

In 2023, the Kenya Pipeline Company (KPC) reported an average product loss of 0.07%, compared to the internal threshold of 0.10%.

### TYPES OF PRODUCT LOSSES AND THEIR CAUSES

- i. Real/Actual and
- ii. Apparent losses

Causes of Losses	Types of losses
Interface sloping (Product mixing during transport)	Apparent Losses
Measuring Equipment accuracy levels	
Temperature fluctuations	
Leakages/Spillages	Real Losses
Pilferage & Theft	

### GAIN LOSS COMPARISON GLOBALLY AND LOCALLY IN KENYA

## 0.25%

The Transport and Storage Agreement (TSA) that KPC has signed with the Oil Marketing Companies (OMC's) provides for a 0.25% threshold for gain or loss. This is in accordance with global best practices guided by the accuracy of measurement equipment and applicable technologies.

The operational loss performances of some other pipeline operators globally, are as shown in table below.

Country	Allowable Gain Loss Variance (%)
Transnet Pipeline South Africa	0.10%
Thai Pipeline Thailand	0.15%
Other European Countries (As per the ChannOil Forensic report of 2018/2019)	0.10%

Locally, the OMCs' Depots allowable gain/loss variance are as shown below.

OMC Depot	Allowable Gain Loss Variance (%)
1. Ola Energy	0.250
2. Oilcom	0.275
3. NOCK	0.275
4. Lake Oil	0.275
5. Gulf Energy Holding	0.300
6. Petrocity	0.225
7. Vivo Energy	0.150

### EPRA COMPENSATION FOR PRODUCT LOSS IN PRICE BUILD- UP

EPRA, the regulator, provides for operational loss variance in fuel pricing. OMCs are compensated at the pump price for variances of 0.5% for petrol, 0.3% for kerosene/jet fuel and diesel products respectively. However, for pipeline losses EPRA adopts the actual numbers as advised monthly by KPC. For the period 2021/2022 and 2022/2023 KPC advised on average a loss variance of 0.06% and 0.04% respectively.

Product	Pipeline ( $L_p$ )	Depots ( $L_d$ )
Super Petrol	0.25%	0.50%
Regular Petrol	0.25%	0.50%
Kerosene	0.25%	0.30%
Automotive Diesel	0.25%	0.30%