



PERFORMANCE AUDIT REPORT
ON
VERACITY OF LOSSES CLAIMED BY
SUI NORTHERN GAS PIPELINES LIMITED
MINISTRY OF ENERGY (PETROLEUM DIVISION)

FOR THE PERIOD 2012-15
AUDIT YEAR 2015-16

AUDITOR GENERAL OF PAKISTAN

PREFACE

The Auditor General of Pakistan conducts audits subject to Articles 169 and 170 of the Constitution of the Islamic Republic of Pakistan 1973, read with Sections 8 and 12 of the Auditor General's (Functions, Powers and Terms & Conditions of Service) Ordinance 2001.

The Ministry of Energy (Petroleum Division) vide its letter dated January 15, 2016 requested the Auditor General of Pakistan to depute a team to carry out analysis regarding veracity of losses claimed by SNGPL.

Accordingly, the Directorate General Commercial Audit & Evaluation, Lahore conducted audit of the veracity of claim of losses from March 08, 2016 to May 26, 2016 for the years 2012-13 to 2014-15 with a view to report significant findings to stakeholders. Audit examined the economy, efficiency and effectiveness aspects of the claims of losses of SNGPL. In addition, audit also assessed, on test check basis whether the management complied with applicable laws, rules and regulations and the authenticity of the claims of losses. The Report indicates specific actions that, if taken, will help the management to realize its objectives. The observations included in this report have been finalized in the light of discussions in the Departmental Accounts Committee (DAC) meeting.

The Audit Report is submitted to the President of Pakistan in pursuance of the Article 171 of the Constitution of the Islamic Republic of Pakistan 1973, for causing it to be laid before both Houses of Majlis-e-Shoora (Parliament).

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(JAVOID JEHANGIR)
Auditor General of Pakistan

Islamabad

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ABBREVIATIONS AND ACRONYMS

APNS	All Pakistan Newspapers Society
BCF	Billion Cubic Feet
BoDs	Board of Directors
CMS	Consumers Meter Station
CPC	Civil Procedure Code
D&EC	Detection & Evaluation Committee
DAC	Departmental Accounts Committee
ECC	Economic Coordination Committee of the Cabinet
EOBI	Employees' Old Age Benefit Institute
ERR	Estimated Revenue Requirement
EVC	Electronic Volume Correctors
FG	Federal Government
FIR	First Information Report
FPR	Flow Proving Report
FRR	Final Revenue Requirement
FY	Financial Year
GDS	Gas Development Surcharge
GIDC	Gas Infrastructure Development Cess
GM	General Manager
GoP	Government of Pakistan
HM ³	Cubic Hecta Meter
HR	Human Resource
KMs	Kilometers
KW	Kilo Watt
LHC	Lahore High Court
MIR	Meter Inspection Report
MMCF	Million Metric Cubic Feet
MP&NR	Ministry of Petroleum & Natural Resources
NAB	National Accountability Bureau
NBP	National Bank of Pakistan
NGT	National Gas Tariff
NIT	National Investment Fund

OGRA	Oil and Gas Regulatory Authority
PAC	Public Accounts Committee
PASSCO	Pakistan Agricultural Supply and Storage Corporation
PESCO	Peshawar Electric Supply Company
PID	Press Information Department
PIDC	Pakistan Industrial Development Corporation
PPRA	Public Procurement Regulatory Authority
RERR	Revised Estimated Revenue Requirement
SLIC	State Life Insurance Corporation
SMS	Sales Meter Station
SNGPL	Sui Northern Gas Pipelines Limited
SSGC	Sui Southern Gas Company Limited
TBS	Town Border Station
UFG	Un-accounted for Gas

EXECUTIVE SUMMARY

Directorate General (Commercial Audit and Evaluation), (North) Lahore carried out the Performance and Efficiency Audit of the Veracity of Losses claimed by SNGPL from 2012-13 to 2014-15. The audit was conducted during March 07, 2016 to May 26, 2016 on the request of Ministry of Petroleum & Natural Resources.

Sui Northern Gas Pipelines Limited (SNGPL) was incorporated as a private limited Company in 1963 and converted into public limited company in January 1964 under the Companies Act 1913. The company is involved in the business of purchase, transmission, distribution and supply of natural gas.

The main objectives of the audit were, to confirm the genuineness of the losses claimed by the SNGPL, to evaluate the factors for the losses and to assess Management's losses reduction plan/strategies. UFG Losses of SNGPL were 11.17%, 10.57% and 10.97% in 2012-13, 2013-14 and 2014-15 respectively whereas OGRA allowed UFG losses of 4.5% in these years. The excessive percentage of UFG losses had adversely affected the financial position of the company as it sustained losses of Rs 9.749 billion, Rs 3.965 billion and Rs 2.495 billion in 2012-13, 2013-14 and 2014-15 respectively.

The audit was conducted in accordance with the INTOSAI Auditing Standards. During audit it was concluded that the claims of losses by SNGPL were not based on facts because reconciliation of Gas received and Gas sold was not properly done and claims of losses for non-consumers lacked credible/factual basis. There was lack of vigilance regarding suspected consumers. Moreover, concrete efforts to reduce UFG losses by a proper UFG reduction plan and replacement of obsolete distribution network were not undertaken effectively by the management.

Key Audit Findings

The main audit findings are summarized as under:

- i. The claims of theft charges were booked on extraordinarily higher side. The non-consumer volume valuing Rs 8.828 billion was claimed in 2012-13 to 2014-15 whereas management did not have any strong basis and it appeared that excessive volume had been claimed from OGRA.¹
- ii. For law affected areas of KP, the SNGPL claimed UFG losses of Rs 9.816 billion. However, OGRA provisionally allowed 75% of claimed volume and for rest of the amount the claim was pending with the government. OGRA entertained SNGPL claims with directions to take concrete steps with the help of government for laying of legal network and bring them under consumers network but no progress was noticed in that direction.²
- iii. The SNGPL failed to replace its old distribution network, which was a significant contributing factor in increase of UFG losses.³
- iv. The operational fixed assets were shown at higher side by SNGPL while taking claims from OGRA regarding determination of FRR in 2012-13, 2013-14 & 2014-15.⁴
- v. Audit observed that the reconciliation of the gas received in system and gas billed was not being done at TBS levels and many SMSs of Lahore, Rawalpindi, Peshawar and Multan Region were looped and therefore, exact locations of gas leakages/losses were difficult to identify.⁵

¹ Para 4.2.3, 4.2.4, 4.2.6, 4.4.3

² Para 4.2.1, 4.4.2

³ Para 4.3.3

⁴ Para 4.3.1, 4.3.2

⁵ Para 4.1.4, 4.1.5

- vi. Audit also observed that the management of SNGPL failed to properly undertake the vigilance activities to control the theft as a result of which volume of theft from the same areas were increased.⁶

Recommendations

- i. The claims of SNGPL for theft of gas by non-consumers needed to be accurate and based on facts supported by due evidence.
- ii. The SNGPL may take concrete steps with the help of government for laying of legal network in law affected areas and bring them under consumer network.
- iii. A plan for replacement of old distribution network may be prepared.
- iv. The non-operational fixed assets may be excluded from the list of operating fixed assets for calculating return thereon.
- v. Immediate steps for reconciliation of gas in/out at TBS levels and de-looping of SMSs may be done.
- vi. The vigilance activity by the regional offices of SNGPL may be enhanced in order to reduce the theft cases in future.

⁶Para 4.2.5, 4.4.4, 4.4.5

1. INTRODUCTION

1.1 Background

Sui Northern Gas Pipelines Limited (SNGPL) was incorporated as a private limited Company in 1963 and converted as public limited company in January 1964 under the Companies Act 1913. The company is involved in the business of purchase, transmission, distribution and supply of natural gas. Government of Pakistan (GoP) directly holds 31.68% shares of the company. Other major shareholders are MCB (9.63%), NBP (7.87%), PIDC (6.02%), SNGPL employees (4.32%), SLIC (4.33%), EOBI (3.57%), NIT (4.02%), PICIC (1.95%), SSGC (0.38%) and other institutions & General Public (26.23%). Direct and indirect shareholding of GoP is 64.14%.

SNGPL is the largest gas company serving more than 4.900 million consumers for supply of gas in Northern and Central Pakistan through an extensive network in Punjab and Khyber Pakhtunkhwa whereas in the provinces of Sindh and Baluchistan, a sister company namely Sui Southern Gas Company Limited (SSGC) is providing the same service.

In order to understand the operations of the company, it is necessary to know about the role of OGRA in relation to operations of gas utility Companies. The role of OGRA is explained briefly as under.

1.2 Role of OGRA for operation of Gas Companies

The Company operates under a regulatory regime governed by Oil and Gas Regulatory Authority (OGRA) which was established by GoP vide OGRA Ordinance 2002. OGRA as a regulator regulates / fixes Gas sales prices and cost of gas after every six months. Under Section-6(2)(b) of the OGRA Ordinance, the Authority in consultation with licensees, specifies performance / service standards and other conditions for undertaking any regulated activity. Further as per condition No.5.2 of the license granted to SNGPL, the Authority (OGRA) determines total revenue requirement of the licensee to ensure that SNGPL gets 17.5% return on its average net fixed assets in operations for each financial year, subject to the efficiency related benchmark adjustments.

OGRA also fixes benchmarks regarding UFG losses, Human Resource costs, and project costs for effective and efficient operation of the company and applies certain cuts on revenue requirements in case of failure of the company to meet the said benchmarks. The Authority fixes the UFG benchmarks on the base of international / regional standards, while giving major discounts for ground realities and operational constraints prevalent in the country. Accordingly, OGRA after giving due weight-age to all the relevant factors, including the contentions of SNGPL as well as SSGCL, fixed the UFG benchmark of 4.5% for the years 2011-12 to 2014-15.

1.3 Company Sales

SNGPL has over 53 years of experience in operation and maintenance of high pressure gas transmission and distribution systems. Sector-wise break up of gas sales (volume) is as under:

Sector	2014-15	2013-14	2012-13	2011-12	2010-11	2009-10
Total Gas sales volume (MMCF)	467,449	506,355	552,272	597,056	581,935	586,741
Power	8%	8%	9%	26.06%	20.0%	16%
Captive power	16%	14%	13%		8.5%	11%
Fertilizer	4%	3%	2%	5.62%	7.5%	8%
Cement	0%	0%	0%	0.17%	0.1%	0%
General industries	19%	21%	25%	18.48%	18.9%	22%
Commercial and domestic	45%	43%	38%	34.53%	30.5%	30%
CNG	8%	11%	13%	15.14%	14.5%	13%
Total	100%	100%	100%	100%	100%	100%

Source: Annual Accounts of SNGPL

1.4 Definition of UFG

According to Natural Gas Tariff (NGT) Rules, "Unaccounted for Natural Gas means, the difference between the total volume of metered gas received by a licensee during that financial year and the volume of natural gas metered as having been delivered by the licensee to its consumers excluding there-from metered natural gas used for self-consumption by the licensee for the purpose of its regulated activity; and such other quantity as may be allowed by the Authority for use by the licensee in the operation and maintenance of its regulated activity."

1.5 International Standards of UFG

According to Stone & Webster formula, the prevailing policy for accounting UFG in percentage is as follows:

$\text{UFG} = \text{Total Purchase} - \text{Total Sale}$

$\text{Gas available for Sale} = (\text{Gas sold} + \text{Metered gas Internally})$

$$\% \text{UFG Loss} = \frac{\text{UFG}}{\text{Gas available for Sale}} \times 100$$

1.6 Generally Accepted Industry Standards

There may be different standards used worldwide for UFG losses. OGRA e.g., has fixed 4.5% as allowable UFG losses for the years 2012-13 to 2014-15. SNGPL has itself mentioned a standard in its UFG Manual as detailed below:

Range of UFG	Position
1%-3%	IDEAL
3%-6%	REASONABLE
>6%	EXCESSIVE

Source: UFG Manual of SNGPL

1.7 Factors Responsible for UFG Losses

Unaccounted for Gas losses based on historical experience of gas industry is attributable to below noted factors:

- i. Transmission Losses
- ii. Underground leakages due to aging of pipelines
- iii. Overhead leakages due to thread joints
- iv. Measurement errors
- v. Theft of gas by consumers
- vi. Theft of gas by non-consumers
- vii. Non-application of pressure factor in domestic sector
- viii. Loss in law & order affected Areas

2. AUDIT OBJECTIVES

The main objectives of this audit were to:

- i. Assess and evaluate the veracity regarding claims of losses.
- ii. Assess and evaluate the working of the organization with regards to control over UFG losses.
- iii. Analyze whether there was wastage of resources due to poor managerial decisions or ineffective internal controls.
- iv. Find out the real causes of heavy Unaccounted for Gas losses and make necessary recommendations for its proper control to safeguard the interests of public exchequer as well as of stakeholders.
- v. Ascertain whether the grounds for claiming the losses from government were justified.
- vi. Review expenditure incurred for UFG control and its effectiveness.

3. AUDIT SCOPE AND METHODOLOGY

The scope of audit covered demanding, checking, verifying and analyzing all the relevant information/record in order to assess the validity and reasons/factors responsible for company losses (mainly UFG losses). This involved cross verifying volume of gas at all input and output points such as at custody points, SMS and TBS. Policies and procedures in place for gas theft, non-consumer cases, meter, pipeline replacement as well as their implementation was reviewed.

For the purpose of this audit, the Regional Offices of Faisalabad, Multan and Peshawar were sampled for data collection.

Audit scrutinized the monthly UFG reports, individual UFG cases alongwith UFG committees review proceedings, held discussions with the respective officers, studied UFG Reduction Plan and different presentations made to the BoDs in this regard.

4. AUDIT FINDINGS AND RECOMMENDATIONS

4.1 Organization and Management

4.1.1 Wasteful expenditure incurred on purchase of equipment for UFG reduction plan- Rs 1,442.194 million

As per Sub Para-5.3.1 & 5.3.2 of OGRA decision dated November 30, 2012 on Estimated Revenue Requirement for the year 2012-13, an amount of Rs 5,856 million was approved on provisional basis for three years regarding UFG reduction plan chalked out by the SNGPL. On implementation of the UFG Reduction Plan, it was expected that UFG would be reduced by almost 16-Billion Cubic Feet (BCF) (1 BCF=1,000 MMCF) on annual basis.

During performance audit of veracity of losses claimed by SNGPL for the period 2012-15, it was observed that the management of SNGPL undertook UFG control activities including leakages, ratifications, domestic, commercial and industrial vigilance, capacity enhancement of meter workshop, installation of GPRS based systems and meters with EVC's on commercial and industrial consumer premises, etc. In order to reduce the UFG volume, the management purchased material worth Rs 1,442.194 million during 2012-13 to 2014-15 as under:

(Rs. in million)	
Year	Amount of Material Purchased
2012-13	533.440
2013-14	884.493
2014-15	24.261
Total	1,442.194

However, even after incurring heavy expenditure, the UFG could not be reduced as the actual UFG stood at 11.17%, 10.57% and 10.97% for the years 2012-13, 2013-14 and 2014-15 and SNGPL sustained losses of Rs 9.749 billion, Rs 3.965 billion and Rs 2.495 billion for the years 2012-13, 2013-14 and 2014-15 respectively.

Audit was of the view that as the UFG %age remained high even after implementation of UFG reduction plan, the expenditure incurred on the plan had gone waste.

The matter was reported to the management on May 31, 2016. Management replied that the items purchased were of non-consumable nature and would have perpetual effect in improving the operational efficiency of system and thus would help in reducing UFG in coming years. Reply of the management was not tenable as the management failed to get substantial reduction in UFG losses despite incurring heavy expenditure according to the UFG reduction plan.

DAC in its meeting dated October 21, 2016 directed the management to get verified from audit the equipment / parts purchased under UFG reduction plan, their utilization and their impact at micro and macro levels.

Audit recommends implementation of the decision of DAC, besides investigating the reasons for non-reduction in UFG figures despite incurring huge expense on UFG reduction plan.

4.1.2 Unauthorized Human Resource Cost in excess of OGRA benchmark- Rs 332.000 million

OGRA fixed a benchmark in its Final Revenue Requirement (FRR) determinations for the year 2012-13 and 2013-14 for the incurrence of human resource cost for the SNGPL up to certain limit and advised the management to maintain its HR costs within the limit fixed.

During the performance audit of veracity of losses claimed by SNGPL for the period 2012-15, it was observed that management did not observe the benchmark fixed by OGRA for HR cost and incurred excess HR cost of Rs 332.000 million as detailed below:

(Rs in million)			
Year	HR Cost incurred by SNGPL	Benchmark fixed by OGRA	Excessive HR cost
2012-13	8,631.000	8,323.000	308.000
2013-14	10,511.000	10,487.000	24.000
Total	19,142.000	18,810.000	332.000

As OGRA did not allow HR costs beyond its benchmark, management had to bear the excessive HR costs from its revenue portion which resulted in loss to this extent.

Audit was of the view that the management of SNGPL should have curtailed its HR cost within the limits fixed by OGRA.

The matter was reported to the management on May 31, 2016. Management in its reply informed that excess HR costs were adjusted against GDS. The reply was not tenable as the expenditure on human resource was incurred in excess of OGRA benchmark. DAC in its meeting dated October 21, 2016 directed that management should curtail its unnecessary /avoidable HR cost and keep these costs within the benchmark fixed by OGRA.

Audit recommends implementation of the decision of DAC, besides providing details on amount of GDS adjusted during years 2012-15 and the authority under which such adjustments were made.

4.1.3 Incurrence of legal expenses without concurrence of OGRA- Rs 98.00 million

OGRA while determining the FRR for 2012-13, 2013-14 & 2014-15 disallowed certain professional and legal charges incurred beyond prescribed limits.

During the performance audit of veracity of losses claimed by SNGPL for the period 2012-15, it was observed that heavy legal fee was paid to legal counsels. OGRA, however, disallowed most part of the claims of SNGPL for legal and professional charges while determining the FRR for 2012-13, 2013-14 & 2014-15 as detailed below:

(Rs in million)

Year	Legal and Professional charges claimed	Legal & Professional charges agreed by OGRA	Legal & professional charges not allowed by OGRA
2014-15	175.000	108.000	67.000
2013-14	117.000	102.000	15.000
2012-13	100.000	84.000	16.000
Total	392.000	294.000	98.000

(Source: OGRA FRR Decision-years)

Audit was of the view that the management of SNGPL should have incurred legal expenses according to OGRA FRR instructions. The major portion of legal expenses which OGRA disallowed were the legal expenses paid to firm M/s Minto & Mirza Advocates and Solicitors. One of the directors of BoD was partner in this law firm, that probably was the cause of favor to this firm.

The matter was reported to the management on May 31, 2016 and management vide its reply dated June 16, 2016 stated that the Company as per instructions of BoD approached three eminent lawyers to represent the Company and Minto & Mirza being the lowest was approved by BoD during 2010-11 to 2015-16 for Rs 50.556 million. The reply of the management was not tenable as the legal expenses were incurred without following instructions of OGRA.

DAC in its meeting dated October 21, 2016 directed the management to strictly keep its legal expenses as per advice of OGRA.

Audit recommends implementing the decision of DAC and thoroughly probe into the reasons for excessive payment against instructions of OGRA and fix responsibility.

4.1.4 Non-reconciliation of gas TBS / DRS wise and wasteful expenditure on EVC meters

Transmission Department of SNGPL received gas from different sources and supplied the same to Distribution System after compression. The gas in Distribution System was measured at Sales Meter Station (SMS) and then transferred to Town Border Stations (TBSs), from where the gas was provided to end consumers (Consumer Meter Stations). Reconciliation at each stage was required to know the actual point of leakage, misuse / loss of gas.

During the performance audit of veracity of losses claimed by SNGPL for the period 2012-15, it was observed that the network of the company comprised of 300 SMSs and 4,058 TBSs as on July 16, 2016. Presently 2,212 TBS / DRS were isolated (i.e. independently measureable) whereas remaining 1,846 TBS / DRSs were looped with each other and reconciliation of gas sale was not possible

on looped TBS / DRSs'. Out of 4,058 TBS / DRSs, 370 had been equipped with EVCs (measurement facility) but the reconciliation of these TBSs was not carried out periodically even though these EVC meters were installed five to six years ago.

Audit was of the view that due to looping of 1,846 TBS / DRSs and non-installation of EVC meters on these sites, the purpose of installation of TBS / DRSs facility could not be achieved as the gas in/out (volume) could not be measured. Investment on TBSs without equipping them with measurement facilities and coding/mapping indicated significant inefficiency.

The matter was reported to the management on May 31, 2016. The management vide its reply dated June 16, 2016 stated that the company had taken initiative to install measurement facility in first phase at 1,000 Nos. of existing TBSs for measurement of losses in different segments of distribution network and so far 370 Nos. TBSs had been equipped with measurement facility, whereas work on remaining was under progress, which would be completed in due course of time after material procurement. Reply of the management was not tenable as most of the TBSs have no such proficiency for the measurement of out flow of the gas.

In DAC meeting held on October 21, 2016 management explained that the reconciliation at TBS level was not possible and EVC meters were for multi-purposes and not only for reconciliation. DAC directed the management to submit the revised reply to Audit for verification. Audit after examining the reply of the management would revise the action required, if any. No progress was reported so far.

Audit recommends to take initiatives for arranging isolation of each TBS / DRS with metering facility and reconciliation at TBS / DRS level, so that accurate reconciliation of gas flow may be observed at each level.

4.1.5 Huge UFG losses at Sales Meter Stations (SMSs) of different Area Offices

Rule-9 of UFG Manual states that compilation of monthly gas sales reconciliation reports SMS/Regions wise to ensure action in case of identified gray areas was the responsibility of UFG control Department.

During the performance audit of veracity of losses claimed by SNGPL for the period 2012-15, it was found that huge UFG losses against some SMSs were shown in the reconciliation reports of Regional Offices for the years 2012-13, 2013-14 & 2014-15. Most of these SMSs were looped (i.e. interconnected) but no action either for isolation or otherwise for investigating the causes for the losses was taken, despite continuously sustaining huge financial loss by the company. The detail of such SMSs was as under:

(Volume in MMCF)

Regional office	SMS	2012-13		2013-14		2014-15	
		UFG Volume	% of UFG	UFG Volume	% of UFG	UFG Volume	% of UFG
Bahawalpur	B10-Rahim Yar Khan	896	25.22	619	19.85	779	25.04
	B25-Bhawalpur	826	18.67	568	13.61	727	22.11
Multan	A47-DG Khan	990.7	45.12	750.54	41.95	477.26	37.63
	A01, 106, A02, A51 & A14 Multan city(I-IV-V) Ind. Est. & Jahangirabad	6,507.6	33.78	5,409.4	33.11	3,744.62	30.74
	A21&A18 Khanewal & Kabirwala	723	25.52	778.94	29.90	564.05	27.47
Faisalabad	C18,C19,C20,C21,C14,C23,C29,C26	4,586	12.82	2,876	9.55	2,280	9.76
Lahore	B-III / LHR-II	8,524	11.72	10,114	15.23	9,774	16.29
Sheikhupura	Farooqabad	454	42.3	344.3	35.8	344.3	35.8
	EMCO	772.3	18.3	1,056	33	731	33.9
	Muridke	0	0	624	21.9	415	20
	Shahdra	890.3	11.4	542	7.91	1,114.0	19.4
Rawalpindi	G-40 Renial+Rawat+Naughazi	6,788	16.2	6,160	16.38	4,556	14.32

(Source: SMS wise reconciliation statement)

The above table showed that most of the SMSs, TBSs / DRSs were looped and huge volume of gas was being lost in the shape of UFG continuously and no concrete steps for de-looping of these SMSs was taken by management.

Audit was of the view that due to looping of SMSs/ DRSs management was unable to reconcile gas utilization at SMS level and thereby accurately track UFG in a looped area. It showed poor operational management by the company.

The matter was reported to the management on May 31, 2016. Management in its reply stated that distribution network downstream of different SMSs and TBSs had been looped /inter-linked to meet pressure and flow requirements of different segments / areas and UFG losses had been reduced. Reply of the management was not tenable as the UFG losses could not be reduced substantially. The non-reconciliation of monthly gas received and sold showed poor performance of SMS.

DAC in its meeting held on October 21, 2016 settled the para subject to verification of improvement in UFG position and steps taken for de-looping of SMS / TBSs / DRSs. No progress was reported so far.

Audit recommends implementation of the decision of the DAC.

4.2 Financial Management

4.2.1 *Huge UFG losses claims in law affected area of KP - Rs 9,816 million*

According to Rule-5(5)(a) of the Public Sector Companies (Corporate Governance) Rules, 2013, the principle of probity and propriety entails that company's assets and resources are not used for private advantage and due economy is exercised so as to reduce wastage. The principle shall be adhered to, especially with respect to handling of public funds, assets, resources and confidential information by directors, executives and employees and for claiming of expenses.

During performance audit of veracity of losses claimed by SNGPL for the period 2012-13 to 2014-15, it was observed that SNGPL lodged its claims with OGRA on account of UFG pertaining to law affected areas of KP. Out of the claimed losses, OGRA allowed 75% claims provisionally as in table:

Year	Theft volume claimed (MMCF)	Theft volume accepted by OGRA (MMCF)	Theft volume not accepted (MMCF)	Rate per MMCF	(Rs in million) Value of UFG losses claims in law effected area of KPK
	A	B	C	D	E = A X D
2012-13	8,124	6,093	2,031	320.240	2,601.630
2013-14	10,803	8,102	2,701	347.140	3,750.153
2014-15	10,048	7,536	2,548	344.750	3,464.048
	28,975	21,731	7,280		9,815.831

(Source OGRA decision for finalization of FRR of SNGPL 2012-13 to 2013-14)

Audit was of the view that the management of SNGPL should have made concrete efforts to establish its legal and proper pipeline network in law affected area and replace the illegal network to avoid loss of gas. However, SNGPL management only forwarded the matter to the government and pursued for remaining 25% of UFG volume.

The matter was reported to the management on May 31, 2016 and management vide its reply dated June 16, 2016 stated that the SNGPL had raised the issue of huge losses in law affected areas of KP at every available forum. Reply of the management was not tenable as no concrete efforts were seemed to be made as management failed to establish its legal and proper pipeline network in law affected areas despite laps of considerable period.

DAC in its meeting dated October 21, 2016 directed the management to take all possible steps to reduce the UFG losses in law affected areas of KP. It also directed that the matter should be taken up with Federal/Provincial Governments to find a solution.

Audit recommends implementation of the decision of DAC and taking immediate remedial measures to progressively curtail the gas losses on this account.

4.2.2 Non-recovery of theft volume booked against consumers -Rs 8,162.000 million

OGRA in its FRR 2014-15 vide para 8.2.7 stressed SNGPL to take concrete measures against gas pilferage. According to this “it is the obligation of petitioner (SNGPL) to take all possible steps to cope up with the problems effecting its business including initiation of legal proceedings under Pakistan Penal Code and recovery proceedings before the court of competent jurisdiction to recover the value of pilfered or stolen gas/losses”.

During the performance audit of veracity of losses claimed by SNGPL for the period 2012-15, it was observed that the management of SNGPL failed to recover the theft volume booked against consumers and a loss of Rs 8,162.000 million was borne by SNGPL on this account. It was apparent that due to poor management the company was unable to recover theft amounts from its consumers. The year wise detail of theft volume booked and recovery made against it is given in table below:

(Rs in million)

Period	Booked			Recovered Amount	Un-recovered Amount
	Nos. of cases	Volume (MMCF)	Cost		
2012-13	26,602	7,196	4,370.000	1,824.000	2,546.000
2013-14	29,520	10,712	6,071.000	1,454.000	4,617.000
2014-15	39,173	3,028	1,793.000	794.000	999.000
Total	95,295	20,936	12,234.000	4,072.000	8,162.000

(Source: OGRA FRR Decisions for the year)

Audit was of the view that theft by consumers was adversely affecting profitability of the company and reflects management’s failure to address the issue.

The matter was reported to the management on May 31, 2016 and management vide its reply dated June 16, 2016 stated that the non-recovery of theft charges was due to pending litigation cases in the court of law.

DAC in its meeting October 21, 2016 directed the management to strengthen its legal wing and pursue the court cases vigorously. The progress of recovery be intimated to audit accordingly.

Audit recommends implementation of the decision of DAC and provision of updated progress report on the issue.

**4.2.3 Excess and unjustified claim of pilferage of gas by non-consumers
– Rs 6,522.132 million**

As per clause(e) of OGRA letter No. OGRA-9(2)/2005 dated August 16, 2005 regarding procedure for dealing with theft of gas, the direct tapping including 'Self reconnecting / connection cases shall be checked by company's vigilance team on receipt of any information, preferably in association with a Magistrate or judicial officer and Police/ Army /Paramilitary personnel'. The physical evidence shall be documented and photographs of means of direct tapping or self-reconnection / connection of disconnected premises shall be taken.

During the performance audit on veracity of losses claimed by SNGPL for the period 2012-15, it was found that task force teams of SNGPL Regional Offices Peshawar, Faisalabad and Multan conducted raids in different localities and 21,238 gas pilferers' connections were disconnected. These illegal connections were using the gas through direct by-passes. An amount of Rs 6,522.132 million was booked against gas theft (474,011.83HM3) as detailed in Annex-A

However, the charges were booked without proper evidence and FIRs were lodged against only a few persons. Inflated charges were booked in respect of each case and following major discrepancies were noticed:

- i) No Physical evidence of documents/photographs/videos of houses were available in relevant files regarding extension of gas to 21,238 houses.

- ii) No witness of 1,459 Nos. generators of 5-KVA and 759 Nos. generator of 15-KVA were found available on record.
- iii) FIRs were lodged against in few cases out of 21,238 detected.
- iv) The number of generators were not mentioned in the FIRs.

Audit was of the view that the charges of Rs 6,522.132 million had been booked to non-consumers at an excessively higher side because from the available evidence, it appeared that the gas was stolen by few houses. Moreover, the FIRs were lodged against only one or two person in each case and even the names and ID numbers of remaining houses were not known by the management. In light of available facts, it was obvious that major percentage of the amount claimed under theft of non-consumers was bogus/ unauthentic.

The matter was reported to the management on May 31, 2016. The management in its reply stated that OGRA procedures for dealing of theft cases was being observed. Due to large number of houses involved in theft through extension of rubber pipes form roof to roof, it was not possible to take photograph of all houses as it might lead to aggressive behavior of locals. Reply of the management was not convincing because claim theft volume of gas in the absence of evidence was not justified.

In DAC meeting held on October 21, 2016, directions were given to the Ministry to forward the cases to OGRA to link the approval of FRR of SNGPL with finalization of the Third Party Audit as decided by OGRA in its previous decisions.

Audit further recommends that OGRA may further strengthen and review the parameters set by it to consider UFG w.r.t. non-consumers, as it had been found that exaggerated claims were being made by management. This was imperative to protect the interest of the public in the subject matter.

4.2.4 Irregular and unjustified booking of theft charges to non-consumer- Rs 32.680 million

As per clause(e) of OGRA letter No. OGRA-9(2)/2005 dated August 16, 2005 regarding procedure for dealing with theft of gas, the direct tapping including 'Self reconnecting / connection cases shall be checked by company's vigilance team on receipt of any information, preferably in association with a Magistrate or judicial officer and Police/ Army /Paramilitary personnel'. The physical evidence shall be documented and photographs of means of direct tapping or self-reconnection / connection of disconnected premises shall be taken.

During performance audit of veracity of losses claimed by SNGPL for the period 2012-15, it was found that a consumer had sublet his premises to other residents who built an illegal Glass Factory in it. Persons had pilfered gas by tapping in the 4" main line and installing ¾" Dia Mueller-Tee from where 1" Dia pipe was extended inside the glass factory at a line pressure of 35 pounds per square inch gauge (psig) for glass melting furnace. The theft was detected during a raid conducted on December 31, 2012. Resultantly Regional Detection & Evaluation Committee calculated pilferage charges for a recoverable volume of 17,077.56 HM3 amounting to Rs 32.680 million. However, requisite evidence of the case such as pictures of the illegal tapping were not present in SNGPL record. SNGPL only lodged an FIR against the consumer and no further efforts were made to make good the company loss.

Audit was of the view that the charges were excessively booked and case not pursued diligently. The owner of the premises should have also been involved in the FIR because it was not possible to run glass factory without collaboration of the landlord.

The matter was reported to the management on May 31, 2016. DAC was held on October 21, 2016 and management explained that all possible actions had been taken including lodging of FIR. Further, the case was taken up with OGRA. DAC directed the Ministry to refer matter to OGRA to link the approval of FRR of SNGPL with finalization of Third Party Audit as decided by OGRA in its earlier decisions.

Audit recommends implementation of decision of the DAC besides investigating whether any favor had been given to the landlord by excluding his name from the case.

4.2.5 *Non-booking of gas theft charges and increase in debt due to poor management-Rs 5.638 million*

As per UFG Control Operations Manual clause 5.4.4 “implementation of schedule replacement program of installed meters will be carried out to ensure measurement accuracy. In this regard, industrial, bulk supply and high-pressure commercial meters shall be replaced once a year”.

As per clauses 5.5.1 & 5.5.3 (of above cited manual) Physical vigilance of active industrial/bulk supply meters shall be carried out monthly. However, in case of suspected consumers especially of industrial/commercial category the surprise inspections shall be done more than once a month.

As per clause F-1 of OGRA procedure for dealing with theft of gas cases, the assessed volume / BTUs shall be compatible with highest consumption of correspondence month in previous three years or on subsequent replaced meters consumption, provided that the suspected period shall not exceed twelve months.

During performance audit of veracity of losses claimed by SNGPL for the period 2012-15, it was observed that an industrial meter for M/s B K CNG having consumer No.5383283000, was installed on October 05, 2012 and replaced on April 22, 2014 i.e. after 18 months. The consumer was found involved in theft of gas and Rs 11.275 million for volume of 2,643.04 HM3 was booked for the period of twelve months from April 08, 2013 to April 22, 2014 as per OGRA Policy. Thus, the management sustained a loss of Rs 5.638 million $(11.275 / 12 \times 6)$ of six months above one year in the shape of UFG loss.

Moreover, the consumer was billed Rs 58.911 million (Rs 50.979 million arrears + Rs 7.294 Current) in April 2016 against which the consumer paid Rs 2.403 million only. Receivables from him increased from Rs. 0.451 million in November 2012 to Rs. 58.911 million in April 2016, due to non-disconnection of

the consumer on proper time, which indicated poor vigilance and receivable management.

Audit was of the view that even though the consumer was found involved in meter tempering, management neither adopted proper vigilance activities nor got the meter replaced periodically all of which resulted in loss to the company and increase in UFG.

The matter was reported to the management on May 31, 2016 and management vide its reply dated June 16, 2016 stated that physical inspections of consumer were performed on monthly basis. The seal condition and the flow proving results were all ok. The meter was declared tampered on the basis of scratches on meter base plate and gas kit which resulted due to fiddling with driving dog of the EVC and Meter. These scratches were only detectable at Metering Work Shop and not by the field teams. The consumer meter was replaced on April 22, 2014 and sent to Central Metering Shop, where it was declared tampered and accordingly pilferage charges were booked against the consumer. Reply of the management was not tenable. Had the meter replaced as per meter replacement policy, the loss of six months could have been avoided.

DAC in its meeting dated October 21, 2016 directed the management to provide the copies of MIRs of all previous meters replaced, decisions of detection committees for verification. DAC further directed the management to implement the company meter replacement and monitoring policies in letter and spirit. The progress report regarding implementation of company policies may also be shared with audit for verification.

Audit recommends implementation of the decision of DAC, besides fixing of responsibility for non-following of meter replacement and vigilance instructions due to which SNGPL suffered losses.

4.2.6 Recovery of theft detection charges of non-consumers from OGRA against 64 cases where FIRs yet not registered

As per clause(e) of OGRA letter No. OGRA-9(2)/2005 dated August 16, 2005 regarding procedure for dealing with theft of gas, the direct tapping including 'Self reconnecting / connection cases shall be checked by company's vigilance team on receipt of any information, preferably in association with a Magistrate or judicial officer and Police/ Army /Paramilitary personnel'. The physical evidence shall be documented and photographs of means of direct tapping or self-reconnection / connection of disconnected premises shall be taken.

During performance audit of veracity of losses claimed by SNGPL for the period 2012-15, it was observed that the regional management of SNGPL Faisalabad detected gas theft cases in raids conducted during in 2012-13. However, in 64 cases the FIRs were not registered even after lapse of 3 to 4 years. The details are at Annex-B. Meanwhile, the SNGPL had claimed allowances from OGRA in lieu of non-consumer theft cases.

The matter was reported to the management on May 31, 2016 and management vide its reply dated June 16, 2016 stated that FIRs had been registered against 3 cases and Session Courts had directed the Police authorities to lodge FIRs in eight cases. For remaining 53 cases, the management stated that they were pursuing the respective session courts and police stations. DAC in its meeting held on October 21, 2016 directed the management to pursue the cases vigorously and progress thereto be intimated to audit. No further progress was reported till finalization of this report.

Audit recommends pursuing the cases vigorously.

4.3 Asset Management

4.3.1 *Unjustified inclusion of non-operative compression stations in the list of operating fixed assets for taking 17.5% return thereon-Rs 2,041.000 million*

As per clause 5.2 of license issued by OGRA to SNGPL, OGRA shall determine total revenue requirement of Licensee (SNGPL) to ensure it achieves 17.5% return on the value of its average net fixed asset in operation for each financial year.

During performance audit of veracity of losses claimed by SNGPL for the period 2012-15, it was observed that out of 11 compressor stations, 5 compressor stations were lying idle. Due to discovery of gas wells in the north, services of compressor stations at north side were not required for the gas transmission and resultantly the five stations were lying idle since last many years. Detail is given below:

Compression Stations Faisalabad/Wah Area	
Station	Station lying Idle since
CC-1	04-04-2009
CC-3	27-04-2009
AC-8	19-08-2010
BC-1	29-08-2011
FC-1	13-06-2013

Staff & executives comprising 60 to 70 persons were deputed on these compression stations since dates mentioned against each. The In-charge compression department Faisalabad also informed that the employees deputed there were idle and waiting the decision of higher management of SNGPL. As per annual accounts the closing net book value of the 11-compression stations was Rs 4,490 million as on June 30, 2015 accordingly, the proportionate value of 5-compression station came to Rs 2,041 million approximately (Rs 4,490 million x 5/11). The complete value of all stations was included in the FRR prepared by management.

Audit was of the view that the management of SNGPL should have taken appropriate action about these compression stations and the staff deputed there. Moreover, the cost of these non-operational assets should have been excluded from the list of operating fixed assets for working out the return on assets in FRR. Not doing so was considered irregular action of management.

The matter was reported to the management on May 31, 2016. Management in its reply stated that these stations were ready for operation in case of any emergency on the Transmission system for the sustained gas supply to all categories of consumers in all regions.

DAC in its meeting dated October 21, 2016 directed the management to refer the matter to OGRA regarding determination of return on non-operating assets with a view to make necessary adjustments in next FRR.

Audit recommends implementation of the decision of DAC.

4.3.2 *Unjustified inclusion of the value of allocated vehicles in the operating fixed assets for guaranteed return-Rs 674.102 million*

According to SNGPL Administration Manual, the vehicles of SNGPL were categorized in four categories i.e. operational vehicles, pool vehicles, allocated vehicles and hired vehicles. Allocated vehicles were purchased by the Administration / Store Department and delivered to respective executives as per their entitlement. Executives having such vehicles were allowed to use the same for self and private use.

Further, as per clause 5.2 of license issued by OGRA to SNGPL, OGRA shall determine total revenue requirement of Licensee (SNGPL) to ensure that it achieves 17.5% return on the value of its average net fixed asset in operation for each financial year.

During performance audit of veracity of losses claimed by SNGPL for the period 2012-15, it was observed that OGRA in its FRR determination for the 2014-15, assessed the value of vehicles of the company at Rs 2,022.306 million

as on June 30, 2015. The value of the (i) operational, (ii) pool and (iii) allocated vehicles was Rs 2,022.306 million as on June 30, 2015, and on the equal proportionate basis value of each category worked out to Rs 674.102 million. The cost of "allocated vehicles" was included in the list of operational assets which was unjustified as the said vehicles were not part of any kind of operational activity.

Audit was of the view that the value of allocated vehicles did not come under the definition of operating assets as these were for benefit of officers only and were in their private use. The action of the management for accounting for the value of allocated vehicles in the category of operating fixed assets for working out the guaranteed return of 17.5% was considered irregular.

The matter was reported to the management on May 31, 2016 and management vide its reply dated June 16, 2016 stated that the allocated vehicles were part of the perks of the Company's executives, which were strictly in accordance with terms of service rules.

DAC was held on October 21, 2016 directed the management to refer the case to OGRA to seek its clarification.

Audit recommends implementation of the decision of DAC.

4.3.3 *Non-replacement of old distribution network resulting in UFG losses*

The annual accounts of SNGPL for 2014-15 showed a depreciation rate of 6% per annum for the distribution network.

During performance audit of veracity of losses claimed by SNGPL for the period 2012-15, it was observed that the SNGPL had a distribution network of 99,378 Kilometers length as on June 30, 2015. The distribution network replacement during the last three years was as per table:

Years	Distribution network (Kms)	Target for replacement (Kms)	Pipelines replaced (Kms)	%age replaced as Per target (Kms)	%age of network replaced total (Kms)
2012-13	93,646	139.294	102.489	73.58%	0.11%
2013-14	96,589	131.100	107.350	81.88%	0.11%
2014-15	99,378	162.900	109.251	67.07%	0.11%
Total	99,378	433.294	319.09	73.64%	0.32%

(Source: Network Replacement under System Rehabilitation Program)

The above data illustrated that management could only replace a minor percentage of distribution line. As on June 30, 2015 distribution network of 21,782 Km was more than 20 years old. Whereas taking average of last five years the annual pipeline replacement was only 135 Kms. At this rate, it would take 161 years to replace over 20 years old network keeping all other variables constant, which meant that the replacement was unpractical. The old network was a cause for gas leakage.

It was further observed from annual accounts of SNGPL for 2014-15 that depreciation rate of 6% per annum was mentioned and charged on distribution network which implied that life of the distribution network was 16 to 17 years. Hence, the distribution network was outdated and needed replacement which was not being done.

Audit was of the view that the management should have made a concrete plan for replacement of old distribution network instead of relying on minor repairs or leak detection tools. Due to absence of a standardized network replacement policy, the percentage of UFG losses was difficult to control.

The matter was reported to the management on May 31, 2016. Management in its reply stated that the actual life of pipeline was much more than the depreciated life of the assets i.e. 17 years and the company was pleading its instance with OGRA to increase the depreciable life of assets. Further, the company in 2010 acquired leak detectors to pinpoint underground leakage.

DAC in its meeting held on October 21, 2016 directed the ministry to consult OGRA to lay down a policy /procedure to replace distribution network to avoid its UFG losses.

Audit recommends implementation of the decision of DAC.

4.4 Monitoring and Evaluation

4.4.1 Loss due to measuring errors-Rs 8,528.88 million

OGRA allowed the percentage of losses which were caused due to unavoidable circumstances, however, the losses which can be controlled by the licensee were disallowed by the authority.

During performance audit of veracity of losses claimed by SNGPL for the period 2012-15, it was observed that the management of SNGPL claimed UFG loss on account of measurement error which occurred during distribution of gas to end users. However, OGRA rejected the claims of SNGPL stating that these factors could have been controlled. In this manner SNGPL sustained a loss of Rs 8,528.88 million as tabulated below: (Rs in million)

Year	Gas Volume claimed as measurement error	Cost price of gas per MMCF	Monetary loss (Rs)
2012-13	7,663	320.24	2,454.000
2013-14	8,238	347.14	2,859.400
2014-15	9,327	344.75	3,215.480
Total			8,528.880

(Source: FRR decisions)

SNGPL claimed a volume in respect of minimum consumption of domestic consumers which meters did not record due to low pressure. OGRA disallowed the petitioner's claim on the rationale that the same was due to SNGPL's own equipment fault, and was not justified to be allowed.

Audit was of the view that the management of SNGPL should have adopted remedial measures for the control of these gas losses because these were increasing year by year. The management also failed to provide the basis for working out these losses.

The matter was reported to management on May 31, 2016 and management vide its reply dated June 16, 2016 stated that the quality of domestic meter was a factor affecting the measurement accuracy in domestic sector. The company was bound to procure locally manufactured meters purchased from sister concern M/s SSGC. The bar was withdrawn by the Ministry vide its letter

dated March 12, 2013 and company was allowed to procure meters for domestic use from international market.

DAC in its meeting October 21, 2016 directed the management to find out the causes of measurement losses and make necessary arrangements to eliminate such losses.

Audit recommends implementation of the decision of DAC.

4.4.2 Loss due to enhancement of gas supplies to the law affected areas of KP -Rs 939.58 million

According to Rule-5(5)(a) of the Public Sector Companies (Corporate Governance) Rules, 2013, the principle of probity and propriety entails that company's assets and resources are not used for private advantage and due economy is exercised so as to reduce wastage. The principle shall be adhered to, especially with respect to handling of public funds, assets, resources and confidential information by directors, executives and employees and for claiming of expenses.

OGRA, while carrying out analyses for determining FRR for financial years 2012-15, decided to keep the level of UFG at 4.5% from financial year 2010-11.

During performance audit of veracity of losses claimed by SNGPL for the period 2012-15, it was observed that the volume of UFG in law affected areas of KP was 2,136 MMCF; 3,377 MMCF; 8,124 MMCF; 10,803 MMCF and 10,048 MMCF in 2010-11, 2011-12, 2012-13, 2013-14 and 2014-15 respectively. No revenue was received against this gas and UFG losses were almost 100%.

Furthermore, it was found that despite having almost 100% UFG, the gas supply in the specific areas of KP had increased from financial year 2012-13 to 2014-15. Details were:

Volume in MMCF)

Location	Gas supplied		Volume increased in 2014-15	Percentage of sale of 2012-13 increased in 2014-15	UFG %age
	2012-13	2014-15			
arkha Koi	398.87	920.81	521.94	230.86%	100%
Chokara	1058.89	1706.18	647.29	161.13%	96.41%
Landoki	512.50	791.48	278.99	154.44%	99.27%
Jhangiri	460.68	749.79	289.11	162.76%	100%
Zanaka	72.87	293.18	220.31	402.34%	100%
Lachi	21.05	788.80	767.76	3747.82%	100%
Total	2,524.84	5,250.24	2,725.39	207.94%	

(Source: Statement showing SMS wise losses in law affected area)

As illustrated above due to this increase in gas supply in the above law affected areas, management sustained a further loss of Rs 939.580 million (2,725.39 MMCF @ Rs 344.750 per MCF).

Audit was of the view that management should have vigilantly controlled the gas supply to the above highlighted areas by fixing a pre-defined level at SMS and TBS in the region. This could have enabled management to avoid increasing UFG.

The matter was reported to the management on May 31, 2016. The management vide its reply dated June 16, 2016 stated that the gas pressures (volume) were enhanced by the locals themselves. The SNGPL Peshawar region lodged more than 150 FIRs in these law affected areas.

DAC in its meeting dated October 21, 2016 directed the management to take all possible steps to reduce the UFG losses in law affected areas of KP. It was also directed that the matter should be taken-up with Federal/Provincial Governments to find out its solution.

Audit recommends implementation of the decision of DAC, remedial measures to stop enhancement of gas supplies in subject areas and investigation into the matter to ascertain whether local SNGPL management / contractors had any role in the illegal gas supply.

4.4.3 Pilferage of gas by non-consumers due to non-vigilance of the management -Rs 652.971 million

As per clause(e) of OGRA letter No. OGRA-9(2)/2005 dated August 16, 2005 regarding procedure for dealing with theft of gas, the direct tapping including 'Self reconnecting / connection cases shall be checked by company's vigilance team on receipt of any information, preferably in association with a Magistrate or judicial officer and Police/ Army /Paramilitary personnel'. The physical evidence shall be documented and photographs of means of direct tapping or self-reconnection / connection of disconnected premises shall be taken.

Moreover, as per clauses 5.5.1& 5.5.3 of UFG Control Operations Manual, physical vigilance of active industrial/bulk supply meters shall be carried out monthly. However, in case of suspected consumers especially of industrial/commercial category the surprise inspections shall be done more than once a month.

During performance audit of veracity of losses claimed by SNGPL for the period 2012-15, it was observed that as a result of three different raids in Badhabar and two raids in Skeem Chowk, Peshawar, the management of SNGPL claimed Rs 652.971 million to OGRA against allowances for non-consumers. Details were:

(Rs in million)

Area	Amount booked	Date of raid	Users	Volume booked HM3
Sheikhan Badhabar	104.343	16.12.13	440	42,629.40
Kanda Garhi Badhabar	140.217	23.09.14	480	59,046.00
Badhabar	126.369	10.07.15	563	58,937.69
Skeem Chowk	70.682	03.05.13	160	29,451.20
Skeem Chowk	211.360	09.09.15	942	98,801.42
Total	652.971		2,585	288,865.71

It was analyzed that in 2013 first raid in the Badhabar and Skeem Chowk area, as illustrated above, were conducted and theft amounting to Rs 104.343 million and Rs 70.682 million was identified. No remedial measures were taken. Due to non-vigilance increase in theft was noted in the same areas in subsequent raids.

Audit was of the view that theft volume claimed by SNGPL in subsequent raids in the gray areas as allowances was unjustified as the theft by non-consumer was done due to the negligence of SNGPL's staff.

The matter was reported to the management on May 31, 2016 and management in its reply dated June 16, 2016 stated that it was pursuing the case against non-consumers and third party audit was the responsibility of OGRA.

DAC in its meeting held on October 21, 2016 directed the ministry to refer the cases to OGRA to link the approval of FRR of SNGPL with finalization of Third Party Audit as decided by OGRA in its earlier decision.

Audit recommends fixing of responsibility for non-conducting vigilance activity which caused increase in theft of gas in same suspected area.

4.4.4 Non booking of theft charges-Rs 31.880 million and increase in receivables due to non-recovery-Rs 351.505 million

As per UFG Control Operations Manual clause 5.4.4, schedule replacement program of installed meters shall be carried out to ensure measurement accuracy. In this regard, Industrial, bulk supply and high-pressure commercial consumer meters shall be replaced once a year.

Moreover, as per clauses 5.5.1 & 5.5.3 of UFG Control Operations Manual, physical vigilance of active industrial/bulk supply meters shall be carried out monthly. However, in case of suspected consumers, especially of industrial/commercial category, the surprise inspections shall be done more than once a month.

During performance audit of veracity of losses claimed by SNGPL for the period 2012-15, it was observed that M/s A J Textile Mills Ltd., having industrial Consumer ID No. 31588930003 was billed for Rs 265.599 million (234.299 M arrear + 28.248 M) in April 2016, whereas the consumer paid only Rs 20.865 million. It was also found that meter of the subject consumer installed on October 12, 2011 was found tempered/faulty and replaced on May 16, 2013. Total

tempering charges for the 19-months were Rs 72.911 million but only Rs 46.049 million (i.e. for 12-months) could be billed as per OGRA policy on the matter. Instead of pursuing recovery, meter was again installed to the consumer on June 24, 2014. The consumer was again found faulty/tempered on December 29, 2015 and was replaced once more after eighteen months instead of twelve months. The company sustained a loss of Rs 26.862 million.

Similarly, M/s Al Muizz having industrial consumer No.9361493000 was billed for Rs 85.906 million (79.900 arrear + 4.914) in April 2016, whereas consumer paid Rs 2.938 million only. Further, the meter of the said consumer was installed on December 20, 2011 and replaced on June 20, 2013 i.e. after 18 months. The consumer was involved in theft of gas and Rs10.035 million for volume of 2,387.35 HM3 was booked for the period of one year from June 10, 2012 to June 20, 2013 as per OGRA Policy. Management could not recover an amount of Rs 5.018 million ($10.035/12 \times 6$) of six months above one year due to OGRA policy.

Due to poor vigilance and defective management of receivables, the company sustained a loss of Rs 31.880 million and could not recover Rs 351.505 million.

Audit was of the view that the theft of gas and huge arrears in the subject cases caused loss to the company. The recoverable volume of the consumers was increasing and they were found involved in the meter tempering. Management neither adopted proper vigilance activities nor got the meter replaced periodically all of which resulted in loss to the company and increase in UFG.

The matter was reported to the management on May 31, 2016. Management replied vide its reply dated June 16, 2016 that meter of M/s A J Textile Mills Ltd replaced on June 24, 2014 and December 29, 2015 had not caused any loss to the company since the meters were not categorized as tampered. In case of M/s Al Muizz, vigilance activity conducted in June, 2013 and it was found that the EVC installed at the consumer meter was not registering the gas pressure and accordingly theft charges for one year were booked. No such abnormality was observed during the previous visits and meter was changed within time after the detection of anomaly by vigilance engineers.

DAC in its meeting dated October 21, 2016 directed the management to provide the copies of MIRs of all previous meters replaced, decisions of detection committees for verification. DAC further directed the management to implement the company meter replacement and monitoring policies in letter and spirit. The progress report regarding implementation of company policies may also be shared with audit for verification.

Audit recommends implementation of the decision of DAC, besides fixing of responsibility for non-following of meter replacement and vigilance instructions.

4.4.5 Non booking of theft charges to a suspected consumer M/s Bismillah Corporation – Rs 187.752 million

As per UFG Control Operations Manual clause 5.4.4, schedule replacement program of installed meters shall be carried out to ensure measurement accuracy. In this regard, Industrial, bulk supply and high-pressure commercial consumer meters shall be replaced once a year.

Moreover, as per clauses 5.5.1 & 5.5.3 of UFG Control Operations Manual, physical vigilance of active industrial/bulk supply meters shall be carried out monthly. However, in case of suspected consumers especially of industrial/commercial category the surprise inspections shall be done more than once a month.

During performance audit of veracity of losses claimed by SNGPL for the period 2012-15, it was observed that industrial meter was installed for M/s Bismillah Corporation having consumer ID No.03908730009 on January 04, 2004 and replaced on September 07, 2013 after 9-years and 9-months. The consumer was found involved in theft of gas through tampering of meter. The regional committee charged the pilferage charges amounting to Rs 209.123 million. The case was forwarded to the Head Office Detection and Evaluation Committee, which charged Rs 21.371 million for one year only as per OGRA policy. Thus due to poor vigilance and non-following the meter replacement policy, SNGPL sustained the loss of Rs 187.752 million (Rs

209.123 – Rs 21.371 million) in form of UFG for the period of eight years and nine months.

Audit was of the view that consumer remained involved in pilfering of gas and management neither adopted proper vigilance activities nor implemented regular meter replacement policy resulting in increase in UFG losses.

The matter was reported to the management on May 31, 2016 and management vide its reply dated June 16, 2016 stated that the honorable court granted stay order for non-replacement of meter and consumer enjoyed meter tempering under the umbrella of stay. Further, after getting the court orders and police assistance the meter was finally replaced after heavy resistance from the consumer in September 2013. The same meter was declared 100% tempered by the Central Metering Shop. The case was referred to the NAB and was pending before the NAB authorities.

DAC in its meeting dated October 21, 2016 directed the management to provide the copies of MIRs of all previous meters replaced, decisions of detection committees for verification. DAC further directed the management to implement the company meter replacement and monitoring policies in letter and spirit. The progress report regarding implementation of company policies may also be shared with audit for verification.

Audit recommends implementation of the decision of DAC, besides fixing responsibility for non-following of meter replacement and vigilance instructions due to which SNGPL suffered losses.

5. OVERALL ANALYSIS

The overall analysis illustrated that SNGPL had to suffer loss of billions of rupees on account of UFG for which claims were made but OGRA did not allow as these were mostly due to inefficiency of the management. The details of UFG claimed and allowed were as under:-

Year	UFG Claimed MMCF	%age of UFG	UFG Allowed MMCF	UFG not Allowed MMCF	Rate per MMCF	Total Loss (Rs)
	A	B	C	D=(A-C)	E	F=(D X C)
2013	8,124	13.39%	6,093	2,031	320.02	650,326.200
2014	10,803	12.98%	8,102	2,701	320.02	864,374.020
2015	10,048	13.55%	7,536	2,612	320.02	835,892.240
	28,975	13.31%	21,731	7,344		2,350,592.460

The main reasons for increase in UFG losses were theft by consumers / non-consumers which could not be controlled by the management.

Further, as on June 30, 2015 21,782 KM distribution network was more than 20 years old which needed immediate replacement to reduce the UFG losses whereas, the management was presently replacing only 231 KMs per annum.

Out of total 97,300 KMs of network laid, 28% was of plastic pipelines which as per reports of National Transportation Safety Board were more exposed to cracks resulting in high volume of UFG.

Also, out of 4,058 TBSs / DRSs' 1,846 were looped due to which the actual area-wise calculation / detection of UFG losses was impossible hence, the management was calculating the UFG figures on estimated basis instead of actual basis.

As per SNGPL UFG manual the Industrial, Commercial and domestic meters were to be replaced after 1, 5 and 10 years respectively to reduce the UFG losses but it was noticed that 615 industrial meters and 75,569 special domestic /

domestic meters had not been replaced after the prescribed period causing excessive UFG losses.

It was also noticed that management had included some non-operative compression stations in operative assets to enhance the revenue requirement over 2,000 million each year.

The company had included an amount of over 3,000 million each year in its revenue requirement on account of measuring error without any supportive lists of consumers.

Lastly, the company had failed to keep suspected defaulters under observation due to which the pilferage of gas was on increasing trend in different areas.

6. CONCLUSION

Control over UFG had become a material issue for the sound performance and future financial viability of SNGPL. As illustrated in the Audit report presently the steps being taken by the company to manage UFG losses were unsatisfactory. Moreover, estimations were being used for calculation and onward submission of UFG claims. The company did not have the means to reconcile its gas in/out volume from its consumers, at SMS and TBS level which meant that accurate reconciliation of gas could not be made and UFG identified accordingly.

It was also observed that OGRA needed to revise the parameters it had in place to accept the losses claims of the company with regards to theft charges (both for consumer and non-consumers). Apparently, exaggerated charges were regularly being claimed by SNGPL from OGRA as it lacked documentary evidence to support its theft claims.

It could, therefore, be concluded that as SNGPL was able to get its UFG claims accepted from OGRA on estimated calculations/analysis basis, taking remedial measures for long-term solution of UFG problem was a relatively lesser issue.

ACKNOWLEDGEMENT

We wish to express our appreciation to management of Sui Northern Gas Pipelines Limited (SNGPL) Lahore and its staff for the assistance and co-operation extended to the audit during this assignment.

ANNEXES

ANNEX-A

Detail of unjustified claim of non-consumer's pilferage from OGRA

(Rs in million)

Sr. No	Area	Amount booked (Rs in million)	Users	Volume booked HM ³	Kitchen		5-KVA Generator		15-KVA Generators	
					Amount	No.	Amount	No.	Amount	No.
1	Kagawala	266.566	900	112,255.00	46.31	900	66.546	393	153.705	303
2	Khatako Pull Umar	245.736	1580	9,771.56	75.379	1480	46.091	340	39.783	170
3	Per Hoti Mardan	78.051	427	3,293.600	37.461	427	11.522	63	29.068	53
4	Pando Payyan	49.776	200	20,962.00	15.374	175	12.981	71	21.421	39
5	Ichini Bala	39.583	165	16,668.00	14.497	165	12.455	68	12.631	23
6	Shaheed Garhi	32.579	123	13,718.00	10.805	123	10.257	56	11.518	21
7	Garhi Atta Muhammad & Garhi Hayat Khan	199.816	843	80,296.22	77.661	843	122.155	153	177	0
8	Qazi Abad	156.468	540	80,901.00	29.604	540	24.714	135	102.15	186
9	Arif Town Shahalam Bridge Charsada Road	104.867	246	36,162.00	0	0	0	0	0	0
10	Suruzai Bala	104.424	416	42,668.00	37.690	416	66.734	180	0	0
11	Khurasan Camp Charsad Road	88.714	245	38,663.45	0	0	0	0	0	0
12	Chak No.71/GB, Garbana, Jaranwala	7.768	900	0	0	0	0	0	0	0
13	Bismillah Park Faisalabad	9.324	550	0	0	0	0	0	0	0
14	Ishaq di Basti	8.097	450	0	0	0	0	0	0	0
15	Elahi Abad and Karamat Abad	25.192	1,300	0	0	0	0	0	0	0
16	Peshawar	5,091	11,524	0	0	0	0	0	0	0
17	Mujtaba Kalan, Multan	14.171	829	18,653	0	0	0	0	0	0
Total		6,522.132	21,238	474,011.83	344.781	5069	373.455	1459	547.276	795

Para 4.2.3

ANNEX-B

Detail of 64 non-consumers theft volume claimed from OGRA without registering FIRs

Sr No	Date (YYMMDD)	Name & Address	Type of Case	FIR / APPLICATION	Police Station
1	20130306	M/S NADEEM GLASS WORKS, CANAL ROAD, JARRANWALA, FAISALABAD.	Direct use	Application	Sadar Jrw
2	20130204	KHUSHI TOWN, JARANWALA ROAD, FSD	Direct use / unauthorised extension	Application	Sadar Fsd
3	20130204	M/S GLASS FACTORY WORKS CHAK NO. 71/JB JARRANWALA FAISALABAD	Direct use	Application	Sadar Jrw
4	20130204	HAMAYUN TOWN, JARANWALA ROAD, FSD	Direct use / unauthorised extension	Application	Sadar Fsd
5	20130204	USMAN TOWN, JARANWALA ROAD, FSD	Direct use / unauthorised extension	Application	Sadar Fsd
6	20130204	CHAK NO.73/GB, FAISALABAD	Direct use / unauthorised extension	Application	Sadar JRW
7	20130204	ALEEM PARK, JHANG ROAD, FSD	Direct use / unauthorised extension	Application	Raza abad
8	20130204	GANDA SINGH WALA, FSD	Direct use / unauthorised extension	Application	Raza abad
9	20130204	CHAK NO.71/GB, GARBANA, JARANWALA	Direct use / unauthorised extension	Application	TKW
10	20130412	CHAK NO. 73/GB, FSD (DT: 03.10.2012)	Direct use / unauthorised extension	Application	Sadar Jrw
11	20130802	M/S AL HAMD WEAVING SAMUNDERI ROAD	Direct tapping	Application	D-Type
12	20130312	CHAK NO. 276/RB, FSD. (DT. 17.02.2012)	Unauthorized extension	Application	TKW
13	20130312	SHIP TOWN, FSD (DT 13.07.2012)	Unauthorized extension	Application	Raza abad
14	20130312	ISLAM PURA, FSD (DT: 02.10.2012)	Unauthorized extension	Application	TKW

15	20130312	CHAK NO. 80/JB, FSD (DT: 30.07.2012)	Unauthorized extension	Application	TKW
16	20130312	CHAK NO. 274/RB, FSD (DT: 19.07.2012)	Unauthorized extension	Application	TKW
17	20130312	AMIN PARK, FSD (DT: 20.09.2012)	Unauthorized extension	Application	Raza abad
18	20130312	JAMIL PARK, FSD (DT: 20.09.2012)	Unauthorized extension	Application	Raza abad
19	20130312	ODDAN WALI BASTI, FSD (DT: 09.08.2012)	Unauthorized extension	Application	TKW
20	20130312	TAHIR PURA, FSD (DT: 09.08.2012)	Unauthorized extension	Application	TKW
21	20130312	CHAK NO. 275/RB, FSD (DT: 23.07.2012)	Unauthorized extension	Application	TKW
22	20130312	RASHED ABAD, FSD	Unauthorized extension	Application	Jhang Bazar
23	20130312	TARIQ COLONY, FSD (DT: 09.07.2012)	Unauthorized extension	Application	Raza abad
24	20130312	MUHAMMAD ALI TOWN, FSD (DT: 09.07.2012)	Unauthorized extension	Application	Raza abad
25	20130312	RODA, FSD (DT: 01.10.2012)	Unauthorized extension	Application	Khurrianwala
26	20130312	HAMAYON NAGAR, FSD (DT: 31.08.2012)	Unauthorized extension	Application	Sadar
27	20130312	SULTAN TOWN, FSD (DT: 31.07.2012)	Unauthorized extension	Application	GM abad
28	20130312	CHAK NO. 109/RB, FSD	Unauthorized extension	Application	Khurrianwala
29	20130412	CHAK NO.218/RB, FSD (DT: 03.08.2012)	Direct use / unauthorised extension	Application	GM abad
30	20130412	USMAN GHANI TOWN, FSD (DT: 26.09.2012)	Direct use / unauthorised extension	Application	GM abad
31	20130412	RODA, FSD (DT: 12.07.2012)	Direct use / unauthorised extension	Application	Khurrianwala
32	20130412	NASIR NAGAR, FSD (DT: 28.09.2012)	Direct use / unauthorised extension	Application	Batala Cly

33	20130412	ISMAIL TOWN, FSD (DT: 23.08.2012)	Direct use / unauthorised extension	Application	Raza abad
34	20130412	KACHI ABDI MILAT ROAD, FSD (DT: 23.08.2012)	Direct use / unauthorised extension	Application	Millat Town
35	20130412	DATA DI NAGARY, FSD (DT: 13.09.2012)	Direct use / unauthorised extension	Application	TKW
36	20130412	BILAL NAGAR, FSD (DT: 18.09.2012)	Direct use / unauthorised extension	Application	Millat Town
37	20130412	NAIMAT ABAD, FSD (DT: 09.07.2012)	Direct use / unauthorised extension	Application	Raza abad
38	20130412	DATA COLONY, JHANG ROAD, FAISALABAD	Direct use / unauthorised extension	Application	Raza abad
39	20130412	BABAR COLONY, FSD (DT: 10.07.2012)	Direct use / unauthorised extension	Application	Raza abad
40	20130620	MUNSHI DILAWAR AND AMEEN TALIB ABAD FAISALABAD	Direct tapping	Application	TKW
41	20130620	SIRAJ DIN, IRFAN NAIMAT ABAD FAISALABAD	Direct tapping	Application	Jhang Bazar
42	20130620	SHAHBAZ, JAMIL PARK FAISALABAD	Direct tapping	Application	Jhang Bazar
43	20130620	GOGA AND BAO, IRSHAD CHAK NO. 8 FAISALABAD	Direct tapping	Application	Sargodha Road
44	20130620	AASHIQ AND IRSHAD TAHIR PURA FAISALBAD	Direct tapping	Application	TKW
45	20130620	IFTIKHAR MALIK AND NOORE GHOUS NAGAR FAISALABD	Direct tapping	Application	D-Type
46	20130620	MALIK SALAMAT AND IMRAN NASIR NAGAR FAISALABAD	Direct tapping	Application	Batala Cly
47	20130620	NAIMAT ALI AND MOUDA GUJAR ISHAQ DI BASTI FAISALABAD	Direct tapping	Application	Raza abad
48	20130620	DR.NDEEM MUNIR MUKHTAR COLONY FAISALBAD	Direct tapping	Application	Raza abad
49	20130620	M.ASLAM AND SHAREEF GUJJAR BAO WALA	Direct tapping	Application	Sadar

		FAISALABAD			
50	20130620	SIRAJ AND WASEEM SALAMAT PURA FAISALBAD	Direct tapping	Application	Raza abad
51	20130620	AZHAR, FAIZ WADDA SHER SINGH WALA FAISALBAD	Direct tapping	Application	Raza abad
52	20130620	ISMAIL AND MAQSOOD JAMIA COLONY FAISALABAD	Direct tapping	Application	Raza abad
53	20130620	HANIF AND IRSHAD SAFINA TOWN FAISALABAD	Direct tapping	Application	Raza abad
54	20130620	NADIR AWAIS ,BILAL TOWN FAISALABAD	Direct tapping	Application	Millat Town
55	20130620	ARIF AND GHULAAM RASOOL ILAH ABAD FAISALABAD	Direct tapping	Application	Sadar
56	20130620	YASIN AND ASAD KARAMAT ABAD FAISALABAD	Direct tapping	Application	Sadar
57	20130620	ALI KAMAL AND MUDDASSIR GHOUSIA ABAD FAISALABAD	Direct tapping	Application	D-Type
58	20130620	M.WAHEED AND LIAQAT TAJ COLONY FAISALABAD	Direct tapping	Application	TKW
59	20130730	ILYAS AND SHAHZAD, ISLAM PURA FSD	Direct /unauthorized extension	Application	TKW
60	20130730	FAQEER HUSSAIN AND BOOTA CHANCHAL WALA FSD	Direct /unauthorized extension	Application	TKW
61	20130730	SAKHAWAT AND CHAMAN ESAI DATA DI NAGRI FSD	Direct /unauthorized extension	Application	TKW
62	20130730	MANSHA AND DOSTT MUHAMMAD CHAK NO 71/GB	Direct /unauthorized extension	Application	Sadar Jrw
63	20130715	SAFDAR HUSSAIN AND TARIQ 73/GB FSD	Direct /unauthorized extension	Application	Sadar Jrw
64	20130715	MALIK IQBAL GREEN TOWN FSD	Direct /unauthorized extension	Application	Millat Town

Para 4.2.6