



UNACCOUNTED FOR GAS (UFG)
REPORT
FY 2021-22 (1 & 2 Q)

ABSTRACT

UFG is phenomenon of gas loss which is contingent upon occurrence of various technical factors when gas flows from fields to end consumers. Progress report of Sui Northern Gas Pipeline Limited and Sui Southern Gas Company Limited against three year UFG Reduction Plan approved by the ECC of the Cabinet.

Government of Pakistan
Ministry of Energy
(Petroleum Division)

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1. Introduction:

The two public sector gas utility companies i.e. M/s Sui Southern Gas Company Limited (SSGC) and M/s Sui Northern Gas Pipelines Limited (SNGPL) under licence granted by Oil and Gas Regulatory Authority (OGRA) for transmission and distribution/sale of natural gas in the country are operating on cost plus return on assets formula. OGRA Ordinance, 2002 empowers the Authority (OGRA) to determine total revenue requirement of the gas companies. OGRA introduced tariff regime for regulated natural gas sector in Pakistan for determining the annual revenue requirement of the both gas companies which is effective from 1st June, 2018. This annual revenue requirement also takes into account the determination of Unaccounted For Gas (UFG) allowance and disallowance to the gas companies.

Unaccounted For Gas is phenomenon of gas loss which is contingent upon occurrence of various technical factors when gas flows from fields to end consumers. It is calculated as the difference between metered gas volume injected into the transmission and distribution network (Point of Dispatch/Delivery) and the metered gas delivered to the end consumers (Consumer Meter Station) during a financial year. Adjustments on account of self-consumption etc. in the operations of gas utilities are also accounted for. OGRA being the regulator, determine and fix UFG benchmark of the both Sui Companies. Pursuant to UFG determination by OGRA for each year any percentage / value of UFG above the fixed benchmark treated as disallowance and deducted from the revenue of the gas utility companies. In 2017, OGRA under took a UFG study through independent consultant for determining UFG benchmarks which accounted for the inherent gas loss in the system, local challenging conditions and performance factor i.e. Key Monitoring Indicators.

2. Approved Targets Vs Achievements

The Government decided to take corrective measures in the reduction of UFG since UFG disallowances has a significant impact on the revenues of the company which in turn has a compounding impact on the revenue shortfall of the gas utility companies. In this regard, a three year UFG Reduction Plan for both Sui Companies was approved by the Economic Coordination Committee (ECC) of the Cabinet and

same was ratified by the Federal Cabinet in FY-2019-20. The ECC approved three year UFG reduction targets of both Sui Companies are given below:

SNGPL

Component	Description	Expected Contribution in UFG Reduction							
		FY 2019-20		FY 2020-21		FY 2021-22		Total	
		UFG Reduction Target		UFG Reduction Target		UFG Reduction Target			
		% age	Volume (MMCF)	% age	Volume (MMCF)	% age	Volume (MMCF)	% age	Volume (MMCF)
1	Accumulated reduction to be collectively achieved by 16 Nos. Distribution Regions through execution of 30 No. Key Monitoring Indicators (KMIs) advised by OGRA, subsequent to approval of UFG Study Report prepared by Consultants.	0.75%	3,420	0.50%	2,280	0.50%	2,280	1.75%	7,980
2*	Reduction in Transmission & Distribution Losses in High UFG Areas of KPK through close liaison and essentially required administrative support of law enforcement agencies.	0.75%	3,420	0.75%	3,420	0.75%	3,420	2.25%	10,260
Total		1.50%	6,840	1.25%	5,700	1.25%	5,700	4.00%	18,240

SSGCL

Component	Description	Expected Contribution in UFG Reduction							
		FY 2019-20		FY 2020-21		FY 2021-22		Total	
		UFG Reduction Target		UFG Reduction Target		UFG Reduction Target			
		% age	Volume (MMCF)	% age	Volume (MMCF)	% age	Volume (MMCF)	% age	Volume (MMCF)
1	Reduction of UFG against physical activities and OGRA's 30 KMIs.	1.87%	7,965	2.46%	10,462	2.87%	12,202	7.20%	30,629
2*	Savings by implementation of fixed billing tariff at Balochistan.	-	-	-	-	2.4%	10,000	2.35%	10,000
Total (Approx.)		1.87%	7,965	2.46%	10,462	5.22%	22,202	9.55%	40,629

*This component is yet to be approved by the Government being a separate proposal. In case it is not considered by the Government then the same will stand excluded from the three-year plan of SSGC.

During the first and second quarter of current financial year i.e. last year of UFG reduction plan FY 2021-22, the volumetric loss of the SNGPL has decreased by 1,510 MMCF (-0.46 %) and 416 MMCF (-0.25 %) respectively against a target of 1,425 MMCF for each quarter. Similarly, for the same time period the volumetric loss of the SSGCL has decreased by 1,003 MMCF (however, percentage UFG increased by 0.25 %) and 1,270 MMCF (-0.23 %) against target of 12,348 MMCF and 16,962 MMCF respectively. The main reasons for SSGCL for not achieving hundred percent of their targets during first and second quarter of current financial year includes that in Balochistan, majority of population lives below the poverty line, whereas, extreme cold makes space heating a necessity for life. Since wood/coal are costly and inconvenient, majority of people depend on natural gas. High consumption results in very high gas bills. Resultantly, the population adopts practices like bypassing or tampering the meters and/or managing unauthorized connections. Further, in an attempt to curb down urbanization, the Sindh Building Control Authority has prohibited all relevant agencies/ authorities/ companies from extending utility services to any premises unless the relevant completion plan is approved by the Authority. Accordingly, SSGC is unable to provide gas connections to the users/ applicants which are residing in such non-regularized premises. As a result of above mentioned restriction, the number of potential customers/ applicants which are unable to get valid gas connections has been piling up and using unauthorized gas and thus increasing UFG of the Company.

3. Progress on UFG Reduction Activities 2021-22

Various initiatives and measures taken by the gas utility companies to achieve their targets are shown below:

SSGCL

Target Activities	Unit	UFG REDUCTION TARGETS AND ACHIEVEMENTS					
		1st Quarter		2nd Quarter		Jul- Dec 2021-22	
		Targets	Achieved	Targets	Achieved	Targets	Achieved
Network Segmentation	Nos.	18	21	36	27	54	48
Rehabilitation of old leaking Pipelines	KMs	105	47.323	149	120.758	254	168
Underground Leak Survey	KMs	3,692	3,917	5,878	5,200	9,570	9,116
Overhead Leak Survey & Repairs	Nos.	253,750	169,897	405,900	373,530	659,650	543,427
Defective Meter Replacement (Domestic)	Nos.	72,050	50,916	103,300	72,336	175,350	123,252
Theft Detection (Domestic)	Nos.	45,750	41,638	69,475	41,545	115,225	83,183
Theft Detection (Industrial & Commercial)	Nos.	185	339	236	410	421	749
Theft Detection (Unregistered)	Nos.	108	108	143	449	251	557
Detail survey (Industrial)	Nos.	156	92	278	158	434	250
Industrial Meters Proving	Nos.	273	430	546	501	819	931

UFG SAVINGS	MMCF	2,615	1,003	3,503	1,270	6,118	2,273
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SNGPL

Sr. No	Target Activities Under KMI's	Unit	UFG Reduction Activities Performed		
			Annual Target	July to September	July to December
1	Rehabilitation of old leaking Network	KM		3	103
2	Underground Leak Survey & Rectification of detected Underground Leakages	No.	As per Actual	3,183	12,074
3	Aboveground Leakage Survey & Rectification	No.	As per Actual	256,751	623,401
4	Industrial Meter Replacement & Flow Proving (Suspected / Tampered, Defective, Schedule etc)	No.	As per Actual	1,030	2,606
5	Commercial & Special Domestic Meter Replacement & Flow Proving, Suspected / Tampered, Defective, Schedule etc	No.	As per Actual	2,481	8,525
6	Domestic Meter Replacement & Flow Proving, Suspected / Tampered, Defective, Schedule etc	No.	As per Actual	216,725	567,409
7	Theft Detection-Industrial	No.	As per Actual	10	25
8	Theft Detection-Commercial	No.	As per Actual	619	1,336
9	Theft Detection-Domestic	No.	As per Actual	30,617	69,292
10	Theft Volume Booked-All Consumer Categories	MMCF	As per Actual	433	853
11	Theft Detection-Non Consumers (Unregistered)	No.	As per Actual	48	123
		MMCF	As per Actual	57	186
12	Industrial Vigilance-Detailed survey	No.	Once in a month	10,696	18,939
13	Commercial Vigilance-Detailed survey	No.	Once after each quarter of a year	61,492	117,787
