

GAS UTILITIES

SECTOR OVERVIEW

Gas Utilities | Sector Snapshot

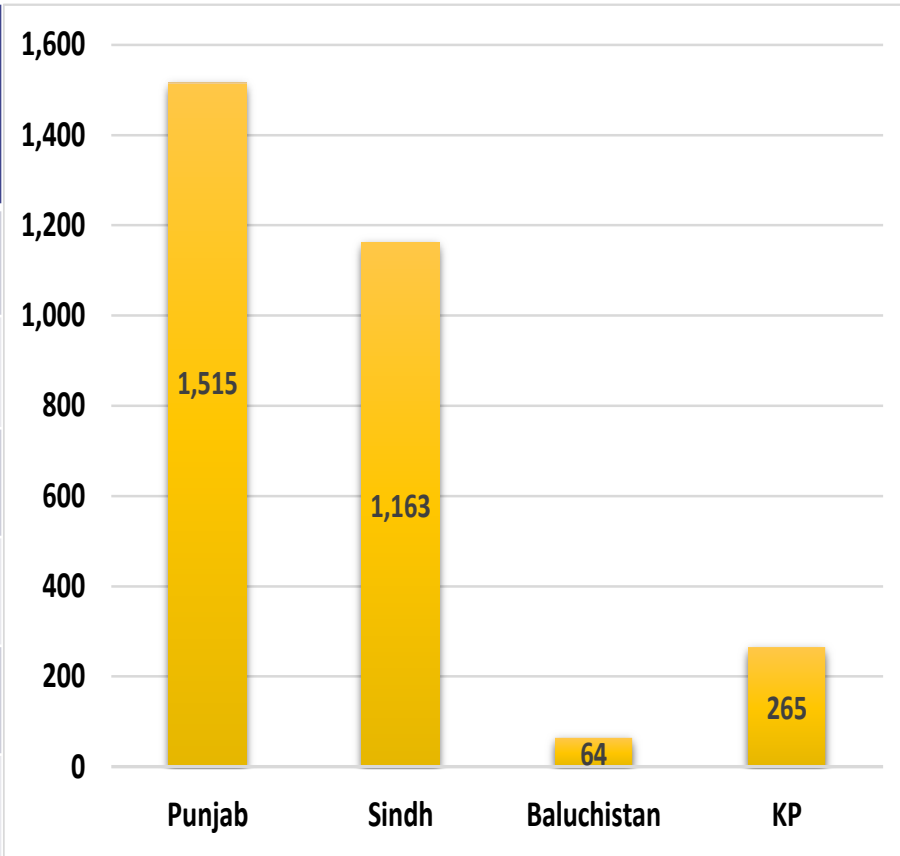
- During the FY 2017-18, total supply of natural gas in the country, including imported RLNG, has reached 4,357 MMCFD. The share of Re-gasified LNG, in the overall gas supply has increased to 23% in FY18.
- Currently, there exists a supply gap which is presently managed through load shedding and load management by gas utilities companies.
- Pakistan has an extensive gas network of over 12,971 Km Transmission 139,827 KM Distribution and 37,058 Services gas pipelines to cater the requirement of more than 9.6 Million consumers across the country.
- At present, the capacity of two Floating Storage and Regasification Unit (FRSU) to Re-gasified Liquefied Natural Gas (RLNG) is 1,200 MMCFD and accordingly RLNG is being imported to mitigate gas demand-supply shortfall.
- Gas Distribution – a regulated sector | OGRA – the regulator – determines annual tariff.
- Guaranteed annual return on average operating assets | All costs and CAPEX are subject to approval.

Gas Utilities | Sector Snapshot

- The average natural gas consumption was about 3,865 Million Cubic Feet per day (MMCFD) including 785 MMCFD volume of RLNG during July 2018 to February 2019.
- During July 2018 to February 2019, the two Gas utility companies (SNGPL & SSGCL) have laid 69 Km Gas Transmission network, 3,232 Km Distribution and 1,366 Km Services lines and connected 165 villages/towns to gas network. During this period, 428,305 additional gas connections including 425,404 Domestic, 2,770 Commercial and 131 Industrial were provided across the country.
- It is expected that Gas will be supplied to approximately 430,695 new consumers during the fiscal year 2019-20. Gas utility companies have planned to invest Rs. 7,161 Million on Transmission Projects, Rs. 48,288 Million on Distribution Projects and Rs. 18,556 Million on other projects bringing the total investment around Rs. 74 billion during the fiscal year 2019-20.
- For viable growth of this sector, Government has approved provision of RLNG to this sector with fiscal incentives of gas infrastructure development cess (GIDC) at the rate of zero and Sales Tax at the rate of five percent.

Utilities Production & Consumption for FY18 | Province Wise

Province	Consumption (MMCFD)	
	FY 2016-17	FY 2017-18
Punjab	1,372	1,515
Sindh	1,262	1,163
Baluchistan	69	64
KP	212	265
Total	2,915	2,864



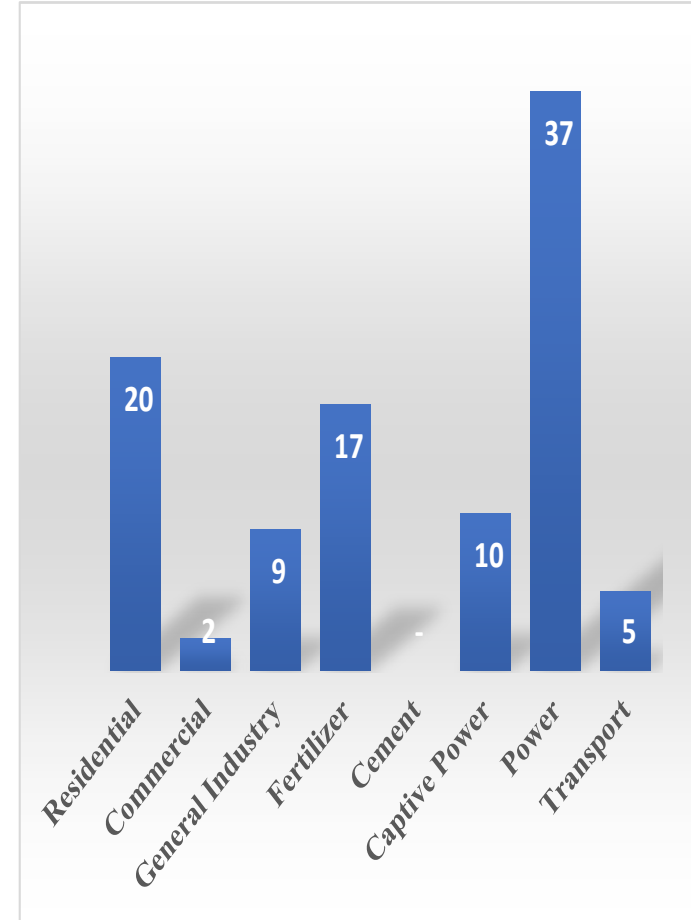
- Punjab and Sindh are major consumers of SSGC and SNGPL System's supply; ~53% and 41% respectively

**It excludes gas supplied by Mari Petroleum and Pakistan Petroleum Limited of 667mmcf and 615mmcf respectively.*



Gas | Production & Consumption for FY18 | Sector Wise

Sr. #	Sector	SNGPL System	SSGC System	Independent System	Total	%
						age Share
1	Power	650	197	623	1,470	37
2	Residential	507	272	-	779	20
3	Fertilizer	114	52	521	687	17
4	Captive Power	169	211	-	380	10
5	General Industry	210	163	-	373	9
6	Transport	126	67	-	193	5
7	Commercial	60	28	-	88	2
8	Cement	1	1	-	2	-
	Sub-Total	1,837	991	1,144	3,972	100
9	Own use	18	11	-	29	-
10	UFG, T&D and other losses	160	196	-	356	-
	Grand Total	2,015	1,198	1,144	4,357	-



Gas Utilities | Number of Consumers

Sr. #	Sector	SNGPL			SSGCL			
		Punjab	KPK	Total	Karachi	Sindh Interior	Baluchistan	Total
1	Domestic	5,460,534	812,838	6,273,372	1,807,559	813,107	265,556	2,886,222
2	Commercial	51,724	9,607	61,331	15,810	4,171	2,714	22,695
3	Industrial	5,978	827	6,805	3,503	646	58	4,207
	Grand Total	5,518,236	823,272	6,341,508	1,826,872	817,924	268,328	2,913,124

- SNGPL is more than double of SSGC in number of consumers.
- Larger chunk is secured by domestic consumers.

Gas Utilities | Transmission & Distribution Network

	<i>Kilometers</i>			
	end-Jun17	end-Jun16	end-Jun15	end-Jun12
Punjab	100,752	93,965	87,544	70,990
Transmission	6,971	5,960	5,947	6,373
Distribution & Services	93,781	88,005	81,597	64,617
Sindh	38,274	37,622	38,519	32,740
* Transmission	593	546	2,798	2,645
Distribution & Services	37,681	37,076	35,721	30,095
KPK	17,699	16,773	15,331	12,248
Transmission	1,263	1,261	1,252	1,212
Distribution & Services	16,436	15,512	14,079	11,036
Balochistan	7,966	7,805	8,122	7,365
*Transmission	126	120	753	675
Distribution & Services	7,840	7,685	7,369	6,690
Total	164,691	156,166	149,516	123,343
Transmission	8,953	7,888	10,750	10,905
Distribution & Services	155,738	148,278	138,766	112,438
Growth in total network	5.5%	4.4%		

- Massive growth on YoY in network – transmission largely stagnant while growth witnessed in distribution and services
- Growth is tilted towards Punjab followed by Sindh and KPK

**updated data not available.*

Gas Utilities | UFG | Trend

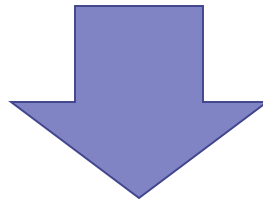
SNGPL					
	FY18	FY17	FY16	FY15	FY14
Gas Purchased (MMCF)	740,478	680,712	609,753	526,905	587,116
Sales Volume (MMCF)	670,643	615,003	535,061	463,393	506,355
Internal Consumption & Others (MMCF)			28,040	6,283	19,251
UFG Volume – Actual (MMCF)	49,882	39,547	46,652	57,229	61,510
UFG – OGRA Benchmark	6.99%	4.5%	4.5%	4.5%	4.5%
UFG – Actual	10.93%	8.07%	9.2%	11.0%	10.6%
UFG Disallowance (PKR in mln)	6,356	5,448	7,518	11,639	12,262
SSGCL					
	FY18*	FY17	FY16	FY15	FY14
Gas Purchased (MMCF)		436,509	468,299	434,613	423,665
Sales Volume (MMCF)		362,313	404,020	362,510	356,628
Internal Consumption & Others (MMCF)		16,186	-1	13,040	8,620
UFG Volume – Actual (MMCF)		58,010	64,280	59,063	58,417
UFG – OGRA Benchmark		4.5%	4.5%	7.0%	7.0%
UFG – Actual		13.3%	13.7%	13.6%	13.8%
UFG Disallowance (PKR in mln)		38,367	43,206	10,282	9,944
SSGCL					
	FY18	FY17	FY16	FY15	FY14
Gas Purchased (MMCF)		1,117,221	1,078,052	961,518	1,010,781
Sales Volume (MMCF)		977,316	939,081	825,903	862,983
Internal Consumption & Others (MMCF)		42,348	28,039	19,323	27,871
UFG Volume – Actual (MMCF)		97,557	110,932	116,292	119,927
UFG Disallowance (PKR in mln)		38,367	43,206	10,282	9,944

- The calculation of UFG benchmark is revised by the regulatory authority from July 1st, 2017.
- Among both utilities, the actual UFG is increasing for both gas utilities.

*updated data not available.

Gas Utilities | UFG Benchmark Calculation

$$\text{UFG Allowance} = \text{Volume} \times (\text{Rate1} + \text{Rate2} \times \text{Beta})$$



Total UFG Allowance in volume for a financial year

Volume of gas available for sale in a year

Rate 1 = Benchmark Rate based on international practices for technical losses usually inherent to a gas supply

Rate 2 = The study recognizes that Sui Companies have to operate under challenging conditions as compared to the world at large. Accordingly, additional allowance factor is suggested to cover impact of gas losses due to shift in the sales mix from bulk towards retail consumers expanding the network and making it prone to theft, leakages and data/meter errors. Similarly, impact of factors like non-recovery of gas bills from law and order affected areas is included.

Beta denotes the cumulative efficiency score as determined by OGRA of Key Monitoring Indicators based on a mutually agreed UFG control program for a financial year.

Sector Conclusion

- Indigenous gas production going down; RLNG requirement will be increasing in upcoming years
- Gas Utilities become part of circular debt – large payables and receivables standing on balance sheet of both utilities
- Large Amount of GDS receivable from government due to low consumer prices. Prescribed price has been enhanced recently but the gap remains.
- Unaccounted for Gas (UFG) Volume | Theft and Leakage is a challenge as the actual UFG number is going up
- Poor Law and Order & Pilfered Volume by Non-Consumer
- Delays in finalization of OGRA Annual reports and financial statements of gas utilities owing to pending petitions. Financial statements for both Suis are not published which is creating transparency challenges.
- Published figures have shown massive losses for SSGCL, further disclosures are to be made public in forty days.

Bibliography

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