


GAS UTILITIES

SECTOR OVERVIEW

June 2019

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.

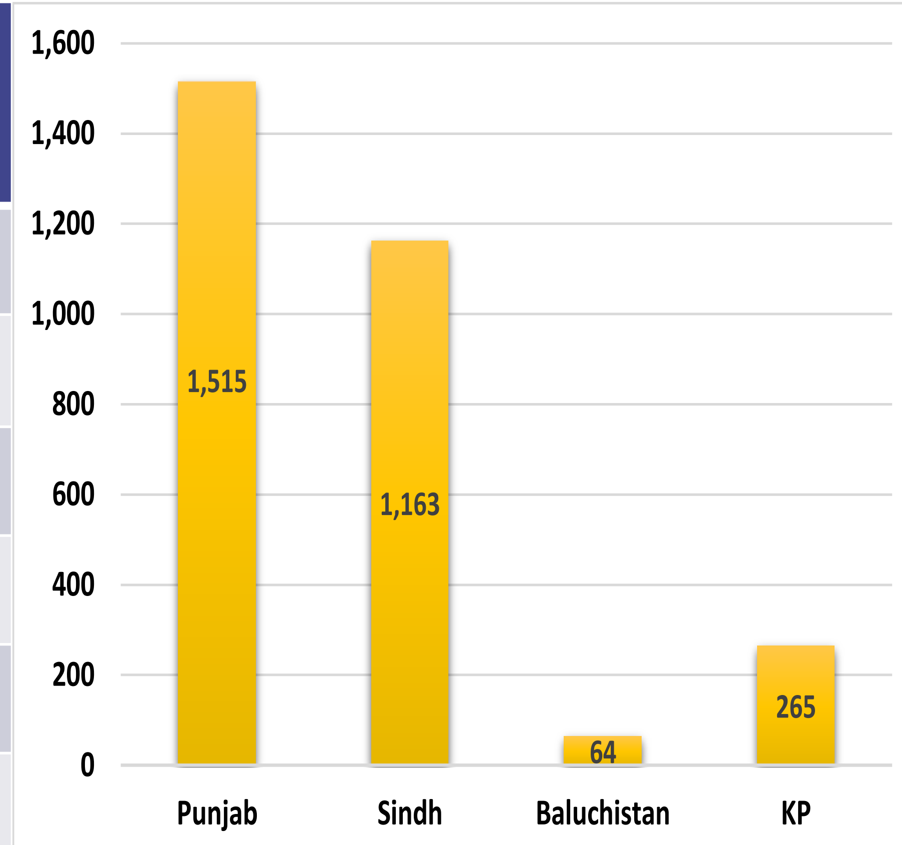
- Two gas distribution companies [SNGPL & SSGC] operate in Pakistan with a cumulative transmission and distribution network of 181,467KMs (end-Jun18) and serve ~9.2mln customers.

- 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.

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

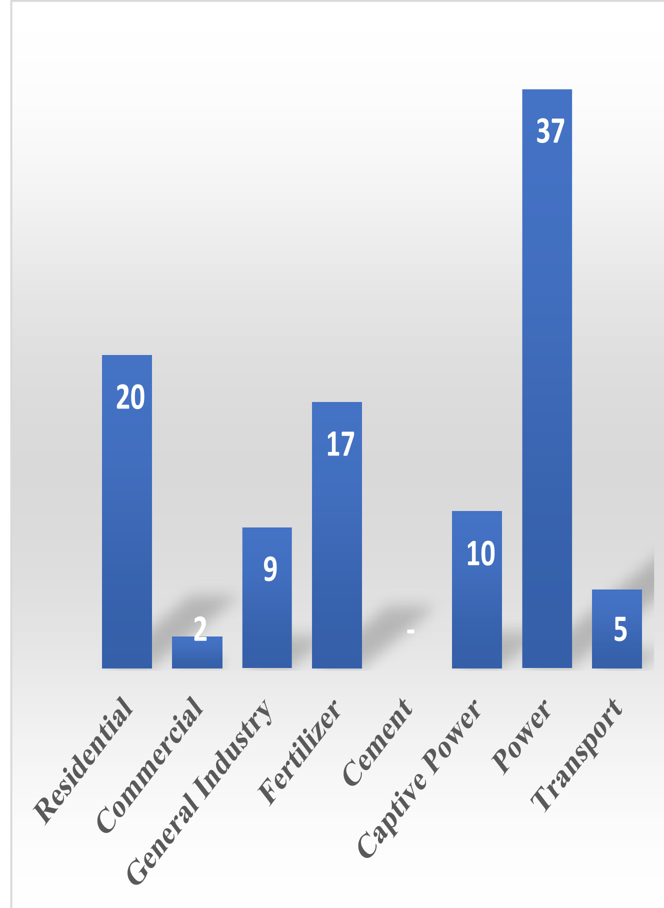


- Punjab and Sindh are major consumers of SSGC and SNGPL System's supply; ~53% and 41% respectively

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

PACRA

Gas Utilities | Transmission & Distribution Network

Kilometers

	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	FY17	FY16	FY15	FY14	FY13	FY12
Gas Purchased (MMCF)	680,712	609,753	526,905	587,116	646,156	682,689
Sales Volume (MMCF)	615,003	535,061	463,393	506,355	552,272	597,272
UFG Volume – Actual (MMCF)	39,547	46,652	57,229	61,510	71,252	68,842
UFG – OGRA Benchmark	4.5%	4.5%	4.5%	4.5%	4.5%	7.0%
UFG – Actual	8.1%	9.2%	11.0%	10.6%	11.2%	10.2%
UFG Disallowance (*PKR in mln*)	5,448	7,518	11,639	12,262	13,917	6,269
SSGC						
Gas Purchased (MMCF)	436,509	468,299	434,613	423,665	419,275	406,551
Sales Volume (MMCF)	362,313	404,020	362,510	356,628	373,645	364,409
UFG Volume (MMCF)	58,010	64,279	59,063	58,417	35,254	43,821
UFG - OGRA Benchmark	4.5%	4.5%	7.0%	7.0%	7.0%	7.0%
UFG – Actual	13.29%	13.7%	13.6%	13.8%	8.4%	10.8%
UFG Disallowance (*PKR in mln*)	38,367	14,100	10,282	9,944	1,920	4,469
Total						
Gas Purchased (MMCF)	1,117,221	1,078,052	961,518	1,010,781	1,065,431	1,089,240
Sales Volume (MMCF)	977,316	939,081	825,903	862,983	925,917	961,681
Internal Consumption & Others (MMCF)	58,010	28,040	19,323	27,871	33,008	14,896
UFG Volume (MMCF)	97,558	110,931	116,292	119,927	106,506	112,663
UFG Disallowance (*PKR in mln*)	43,815	21,618	21,921	22,206	15,837	10,738

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

**updated data not available.*

Gas Utilities | UFG Benchmark Calculation

UFG Allowance = Volume x (Rate1 + Rate2 x *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.

Key Risks | Sector

Key Risks:

- Indigenous gas production going down
- 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
- Unaccounted for Gas (UFG) Volume | Theft and Leakage
- Poor Law and Order & Pilfered Volume by Non-Consumer
- Delays in decisions
- Old distribution Infrastructure | Heavy capex requirement for replacement

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