

Cost benefit of using piped natural gas (PNG) - domestic

Sl	Description	unit	Prevailing (LPG subsidy)	10% fuel increase	W/o LPG subsidy
1.1	Connection charges (PNG)	Rs.	5,000.00	5,000.00	5,000.00
1.2	Connection charges (LPG)	Rs.	2,000.00	2,000.00	2,000.00
1.3	Difference	Rs.	3,000.00	3,000.00	3,000.00
2.1	Average LPG consumption	Kg/month	12.33	14.00	12.33
2.2	Price of LPG	Rs/Kg	21.33	21.33	27.60
2.3	Monthly expenses (LPG)	Rs.	263.00	298.62	340.31
3.1	Equivalent NG consumption	M ³ /month	14.80	16.80	14.80
3.2	Price of PNG	Rs./M ³	16.69	16.69	21.60
3.3	Monthly expenses (PNG)	Rs.	246.99	280.44	319.59
4.1	Saving per month	Rs.	16.01	18.18	20.71
4.2	Annual savings	Rs.	192.10	218.12	248.57
4.3	Payback period (connection charges)	months	187.40	165.04	144.83

1 SCM of NG = 0.814 Kg. or 1.51 Litres of LPG (on energy equivalence)

A. Cost benefit of using piped natural gas (PNG) - Small commercial establishments (<1,000 SCM/day)

Sl	Description	unit	Prevailing	10% fuel consumption increase	
1	Connection charges (PNG)	Rs.	50,000.00	50,000.00	
1	Connection charges (LPG)	Rs.	4,000.00	4,000.00	
1	Difference	Rs.	46,000.00	46,000.00	
2	Average LPG consumption	Kg/month	500.00	550.00	
2	Price of LPG(packaged 19 Kg.cyl=Rs. 875)	Rs/Kg	46.00	46.00	
2	Monthly expenses (LPG)	Rs.	23,000.00	25,300.00	
3	Equivalent NG consumption	M ³ /month	600.00	660.00	
3	PNG Price(10% discount on packed LPG)	Rs./M ³	36.00	36.00	
3	Monthly expenses (PNG)	Rs.	21,600.00	23,760.00	
4	Saving per month	Rs.	1,400.00	1,540.00	
4	Annual savings	Rs.	16,800.00	18,480.00	
4	Payback period (connection charges)	Months	32.86	29.87	

1 SCM of NG = 0.814 Kg. or 1.51 Litres of LPG (on energy equivalence)

B. Cost benefit of using piped natural gas (PNG) - Large commercial establishments (>1,000 SCM/day)

Sl	Description	unit	Prevailing	10% fuel increase	
1	Connection charges (PNG)	Rs.	300,000.00	300,000.00	
1	Connection charges (LPG)	Rs.	4,000.00	4,000.00	
1	Difference	Rs.	296,000.00	296,000.00	
2	Average LPG consumption	Kg/month	2,000.00	2,200.00	
2	Price of LPG(packaged 19 Kg.cyl=Rs. 875)	Rs/Kg	46.00	46.00	
2	Monthly expenses (LPG)	Rs.	92,000.00	101,200.00	
3	Equivalent NG consumption	M ³ /month	2,400.00	2,640.00	
3	PNG Price(20% discount on packed LPG)	Rs./M ³	36.00	36.00	
3	Monthly expenses (PNG)	Rs.	86,400.00	95,040.00	
4	Saving per month	Rs.	5,600.00	6,160.00	
4	Annual savings	Rs.	67,200.00	73,920.00	
4	Payback period (connection charges)	Months	52.86	48.05	

1 SCM of NG = 0.814 Kg. or 1.51 Litres of LPG (on energy equivalence)

Cost benefit of using piped natural gas (PNG) - Small Industrial units - Example Case

Sl	Description	unit	LDO (basic-Rs.21045,after ED -Rs. 27,300+ST4%)	Furnace Oil (basic-16948), after ED- Rs. 19714+ST4%)	HSD (Depot price-Rs. 27130 + taxes)	LPG (Bulk) basic 27030, after ED-Rs. 31441 +ST@14%
1.1	Connection charges (PNG)	Rs.	500,000.00	500,000.00	500,000.00	500,000.00
1.2	Connection charges (existing)	Rs.	-	-	-	-
1.3	Difference	Rs.	500,000.00	500,000.00	500,000.00	500,000.00
2.1	Average consumption	L/month	5,550.00	5,550.00	5,550.00	5,550.00
2.2	Price of fuel	Rs/L	21.00	17.00	27.13	20.00
2.3	Monthly expenses	Rs.	116,550.00	94,350.00	150,571.50	111,000.00
3.1	Equivalent NG consumption	M ³ /month	5,550.00	5,550.00	5,418.55	3,675.50
3.2	Price of PNG (10% discount)	Rs./M ³	18.90	15.30	24.42	27.00
3.3	Monthly expenses (PNG)	Rs.	104,895.00	84,915.00	132,304.64	99,238.41
4.1	Saving per month	Rs.	11,655.00	9,435.00	18,266.86	11,761.59
4.2	Annual savings	Rs.	139,860.00	113,220.00	219,202.33	141,139.07
4.3	Payback period (connection charges)	Months	42.90	52.99	27.37	42.51

1 SCM of NG = 0.814 Kg. or 1.51 Litres of LPG (on energy equivalence)

1 SCM of NG = 1.024 Litres of diesel (on energy equivalence)

1 SCM of NG = 1 Litres of FO (on energy equivalence)