

Subject: Cost Calculation for Power and Gas Loss- Motor Driven Compressors

SUPPLY, INSTALLATION, TESTING, COMMISSIONING OF ELECTRIC MOTOR DRIVEN CNG COMPRESSOR PACKAGES/ COMPRESSORS INCLUDING COMPREHENSIVE OPERATION & MAINTENANCE SERVICES			
Cost Calculation for Power and Gas Loss per Compressor Package / Compressor			
400 SCM _H	Bidder-1 @ 3 barg	Bidder-2 @ 3 barg	Remarks
For Guaranteed Power			
Guaranteed Power Consumption in KWH	75	74	To be entered by Bidder
Annual Power consumption (365 x 12 x Guaranteed KWH) (Considering 12 Hrs running per day)	3,28,500	3,24,120	Formula
Electricity Distribution Company charges = RS. 8.10 /unit	8.1	8.1	Fixed Value
Total Power Cost	26,60,850	26,25,372	Formula
Output in SCM _H	400	400	Fixed Value-variable as per Capacity of the Compressor Package / Compressor
Annual sales (Kg.) (365 x 12 x output in Kg.) (Considering 12 Hrs running per day)	13,17,293	13,17,293	Formula
Power Cost per Kg.-Rs.	2.02	1.99	Formula
Power Cost / Compressor [for Ten years] (In Rs.)	2,66,08,500	2,62,53,720	Formula
For Guaranteed Gas Loss			
Gas Vent mass flow meter reading (In Kg) for month measured through vent meter installed in Compressor considering accuracy of meter. (Considering 12 Hrs running per day) (Vent mass flow meter reading in kg. per hour * 12 * 30)	28.42	32.00	To be entered by Bidder
Suction mass flow meter reading (In Kg) for month (Considering 12 Hrs running per day)	1,08,299	1,08,303	Formula

Guaranteed Monthly Gas Loss in % that will be vented through the vent meter installed in Compressor considering accuracy of meter.	Open e tender 296383 0.02624%	0.02955%	Formula
Retail Selling Price (RSP) (per Kg)	80.26	80.26	Fixed Value
Dealer Commission (A)	3.42	3.42	Fixed Value
Gas Price Without dealer Commission (b)=RSP-A	76.84	76.84	Formula
Applicable VAT (c) =B - (B / (1+VAT/100)) (5%)	3.66	3.66	Formula
Gas price in Rs. without VAT (D) = B - C	73.18	73.18	Formula
Applicable Excise Duty in Rs. (E) = D - (D / (1+ED/100)) (14%)	8.9871	8.9871	Formula
Gas price in Rs. without ED (F) = D – E (per kg)	64.19	64.19	Formula
Gas loss in Rs per year per compressor	22,191	24,985	Formula
Gas loss in Rs for 10 years per compressor	2,21,909	2,49,854	Formula
Total cost including Guaranteed KWH and Gas Loss	2,68,30,409	2,65,03,574	Formula

Per package * No. of Compressors

SUPPLY, INSTALLATION, TESTING, COMMISSIONING OF ELECTRIC MOTOR DRIVEN CNG COMPRESSOR PACKAGES/ COMPRESSORS INCLUDING COMPREHENSIVE OPERATION & MAINTENANCE SERVICES			
Cost Calculation for Power and Gas Loss per Compressor Package / Compressor			
650 SCMH	Bidder-1 @ 19 barg	Bidder-2 @ 19 barg	Remarks
For Guaranteed Power			
Guaranteed Power Consumption in KWH	75	74	To be entered by Bidder
Annual Power consumption (365 x 12 x Guaranteed KWH) (Considering 12 Hrs running per day)	3,28,500	3,24,120	Formula
Electricity Distribution Company charges = RS. 8.10 /unit	8.1	8.1	Fixed Value
Total Power Cost	26,60,850	26,25,372	Formula
Output in SCMH	650	650	Fixed Value-variable as per Capacity of the Compressor Package / Compressor
Annual sales (Kg.) (365 x 12 x output in Kg.) (Considering 12 Hrs running per day)	21,40,602	21,40,602	Formula
Power Cost per Kg.-Rs.	1.24	1.23	Formula
Power Cost / Compressor [for Ten years] (In Rs.)	2,66,08,500	2,62,53,720	Formula
For Guaranteed Gas Loss			

Gas Vent mass flow meter reading (In Kg) for month measured through vent meter installed in Compressor considering accuracy of meter. (Considering 12 Hrs running per day) (Vent mass flow meter reading in kg. per hour * 12 * 30)	Open e tender 296383 28.42	32.00	To be entered by Bidder
Suction mass flow meter reading (In Kg) for month (Considering 12 Hrs running per day)	1,75,968	1,75,972	Formula
Guaranteed Monthly Gas Loss in % that will be vented through the vent meter installed in Compressor considering accuracy of meter.	0.01615%	0.01818%	Formula
Retail Selling Price (RSP) (per Kg)	80.26	80.26	Fixed Value
Dealer Commission (A)	3.42	3.42	Fixed Value
Gas Price Without dealer Commission (b)=RSP-A	76.84	76.84	Formula
Applicable VAT (c) =B - (B / (1+VAT/100)) (5%)	3.66	3.66	Formula
Gas price in Rs. without VAT (D) = B - C	73.18	73.18	Formula
Applicable Excise Duty in Rs. (E) = D - (D / (1+ED/100)) (14%)	8.9871	8.9871	Formula
Gas price in Rs. without ED (F) = D – E (per kg)	64.19	64.19	Formula
Gas loss in Rs per year per compressor	22,193	24,988	Formula
Gas loss in Rs for 10 years per compressor	2,21,931	2,49,882	Formula
Total cost including Guaranteed KWH and Gas Loss	2,68,30,431	2,65,03,602	Formula

Per package * No. of Compressors

SUPPLY, INSTALLATION, TESTING, COMMISSIONING OF ELECTRIC MOTOR DRIVEN CNG COMPRESSOR PACKAGES/ COMPRESSORS INCLUDING COMPREHENSIVE OPERATION & MAINTENANCE SERVICES			
Cost Calculation for Power and Gas Loss per Compressor Package / Compressor			
1000 SCMh	Bidder-1 @ 19 barg	Bidder-2 @ 19 barg	Remarks
For Guaranteed Power			
Guaranteed Power Consumption in KWH	109	110	To be entered by Bidder
Annual Power consumption (365 x 12 x Guaranteed KWH) (Considering 12 Hrs running per day)	4,77,420	4,81,800	Formula
Electricity Distribution Company charges = RS. 8.10 /unit	8.1	8.1	Fixed Value
Total Power Cost	38,67,102	39,02,580	Formula
Output in SCMh	1000	1000	Fixed Value-variable as per Capacity of the Compressor Package / Compressor
Annual sales (Kg.) (365 x 12 x output in Kg.) (Considering 12 Hrs running per day)	32,93,233	32,93,233	Formula
Power Cost per Kg.-Rs.	1.17	1.19	Formula

Power Cost / Compressor [for Ten years] (In Rs.)	Open tender 296383 3,86,71,020	3,90,25,800	Formula
For Guaranteed Gas Loss			
Gas Vent mass flow meter reading (In Kg) for month measured through vent meter installed in Compressor considering accuracy of meter. (Considering 12 Hrs running per day) (Vent mass flow meter reading in kg. per hour * 12 * 30)	28.42	32.00	To be entered by Bidder
Suction mass flow meter reading (In Kg) for month (Considering 12 Hrs running per day)	2,70,705	2,70,709	Formula
Guaranteed Monthly Gas Loss in % that will be vented through the vent meter installed in Compressor considering accuracy of meter.	0.01050%	0.01182%	Formula
Retail Selling Price (RSP) (per Kg)	80.26	80.26	Fixed Value
Dealer Commission (A)	3.42	3.42	Fixed Value
Gas Price Without dealer Commission (b)=RSP-A	76.84	76.84	Formula
Applicable VAT (c) =B - (B / (1+VAT/100)) (5%)	3.66	3.66	Formula
Gas price in Rs. without VAT (D) = B - C	73.18	73.18	Formula
Applicable Excise Duty in Rs. (E) = D - (D / (1+ED/100)) (14%)	8.9871	8.9871	Formula
Gas price in Rs. without ED (F) = D – E (per kg)	64.19	64.19	Formula
Gas loss in Rs per year per compressor	22,194	24,990	Formula
Gas loss in Rs for 10 years per compressor	2,21,944	2,49,898	Formula
Total cost including Guaranteed KWH and Gas Loss	3,88,92,964	3,92,75,698	Formula

Per package * No. of Compressors

SUPPLY, INSTALLATION, TESTING, COMMISSIONING OF ELECTRIC MOTOR DRIVEN CNG COMPRESSOR PACKAGES/ COMPRESSORS INCLUDING COMPREHENSIVE OPERATION & MAINTENANCE SERVICES			
Cost Calculation for Power and Gas Loss per Compressor Package / Compressor			
1200 SCMH	Bidder-1 @ 19 barg	Bidder-2 @ 19 barg	Remarks
For Guaranteed Power			
Guaranteed Power Consumption in KWH	131	132	To be entered by Bidder
Annual Power consumption (365 x 12 x Guaranteed KWH) (Considering 12 Hrs running per day)	5,73,780	5,78,160	Formula
Electricity Distribution Company charges = RS. 8.10 /unit	8.1	8.1	Fixed Value
Total Power Cost	46,47,618	46,83,096	Formula
Output in SCMH	1200	1200	Fixed Value-variable as per Capacity of the Compressor Package / Compressor

Annual sales (Kg.)	Open e tender 296383 39,51,880	39,51,880	Formula
(365 x 12 x output in Kg.)			
(Considering 12 Hrs running per day)			
Power Cost per Kg.-Rs.	1.18	1.19	Formula
Power Cost / Compressor [for Ten years] (In Rs.)	4,64,76,180	4,68,30,960	Formula
For Guaranteed Gas Loss			
Gas Vent mass flow meter reading (In Kg) for month measured through vent meter installed in Compressor considering accuracy of meter. (Considering 12 Hrs running per day) (Vent mass flow meter reading in kg. per hour * 12 * 30)	28.42	32.00	To be entered by Bidder
Suction mass flow meter reading (In Kg) for month (Considering 12 Hrs running per day)	3,24,840	3,24,844	Formula
Guaranteed Monthly Gas Loss in % that will be vented through the vent meter installed in Compressor considering accuracy of meter.	0.00875%	0.00985%	Formula
Retail Selling Price (RSP) (per Kg)	80.26	80.26	Fixed Value
Dealer Commission (A)	3.42	3.42	Fixed Value
Gas Price Without dealer Commission (b)=RSP-A	76.84	76.84	Formula
Applicable VAT (c) =B - (B / (1+VAT/100)) (5%)	3.66	3.66	Formula
Gas price in Rs. without VAT (D) = B - C	73.18	73.18	Formula
Applicable Excise Duty in Rs. (E) = D - (D / (1+ED/100)) (14%)	8.9871	8.9871	Formula
Gas price in Rs. without ED (F) = D – E (per kg)	64.19	64.19	Formula
Gas loss in Rs per year per compressor	22,195	24,990	Formula
Gas loss in Rs for 10 years per compressor	2,21,948	2,49,903	Formula
Total cost including Guaranteed KWH and Gas Loss	4,66,98,128	4,70,80,863	Formula

Per package * No. of Compressors

SUPPLY, INSTALLATION, TESTING, COMMISSIONING OF ELECTRIC MOTOR DRIVEN CNG COMPRESSOR PACKAGES/ COMPRESSORS INCLUDING COMPREHENSIVE OPERATION & MAINTENANCE SERVICES			
Cost Calculation for Power and Gas Loss per Compressor Package / Compressor			
1700 SCMH	Bidder-1	Bidder-2	Remarks
	@ 19 barg	@ 19 barg	
For Guaranteed Power			
Guaranteed Power Consumption in KWH	210	215	To be entered by Bidder
Annual Power consumption	9,19,800	9,41,700	Formula
(365 x 12 x Guaranteed KWH)			
(Considering 12 Hrs running per day)			

Electricity Distribution Company charges = RS. 8.10 /unit	Open e tender 296383	8.1	Fixed Value
Total Power Cost	74,50,380	76,27,770	Formula
Output in SCMH	1700	1700	Fixed Value-variable as per Capacity of the Compressor Package / Compressor
Annual sales (Kg.)	55,98,496	55,98,496	Formula
(365 x 12 x output in Kg.)			
(Considering 12 Hrs running per day)			
Power Cost per Kg.-Rs.	1.33	1.36	Formula
Power Cost / Compressor [for Ten years] (In Rs.)	7,45,03,800	7,62,77,700	Formula
For Guaranteed Gas Loss			
Gas Vent mass flow meter reading (In Kg) for month measured through vent meter installed in Compressor considering accuracy of meter. (Considering 12 Hrs running per day) (Vent mass flow meter reading in kg. per hour * 12 * 30)	28.42	32.00	To be entered by Bidder
Suction mass flow meter reading (In Kg) for month (Considering 12 Hrs running per day)	4,60,179	4,60,182	Formula
Guaranteed Monthly Gas Loss in % that will be vented through the vent meter installed in Compressor considering accuracy of meter.	0.00618%	0.00695%	Formula
Retail Selling Price (RSP) (per Kg)	80.26	80.26	Fixed Value
Dealer Commission (A)	3.42	3.42	Fixed Value
Gas Price Without dealer Commission (b)=RSP-A	76.84	76.84	Formula
Applicable VAT (c) =B - (B / (1+VAT/100)) (5%)	3.66	3.66	Formula
Gas price in Rs. without VAT (D) = B - C	73.18	73.18	Formula
Applicable Excise Duty in Rs. (E) = D - (D / (1+ED/100)) (14%)	8.9871	8.9871	Formula
Gas price in Rs. without ED (F) = D – E (per kg)	64.19	64.19	Formula
Gas loss in Rs per year per compressor	22,195	24,991	Formula
Gas loss in Rs for 10 years per compressor	2,21,954	2,49,911	Formula
Total cost including Guaranteed KWH and Gas Loss	7,47,25,754	7,65,27,611	Formula