

High Case

(Financial Analyses with In house Installation)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	resid 2021	
329 LPG bottle repurchase (mil Rp)			1,200	2,185	3,992	4,222	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	0
330 In house pipeline installation			2,400	4,371	7,985	8,445	7,999	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	0
331 Before tax cash flow			-40,843	-42,327	-48,330	-36,783	-2,253	8,774	17,036	28,549	33,362	44,359	55,249	69,100	88,367	118,954	132,473	183,128	178,909	213,548	262,346	241,115	312,105	348,050	369,869	478,238	2,080,913	
332 IRR of before tax cash flow																												23.0%
333 NPV as of 10% (financial) (mil Rp)			612,581																									
334 NPV as of 15% (financial) (mil Rp)			204,832																									

(Down Side Sensitivity Analysis)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	resid 2021	
335 Before tax cash flow (mil Rp)	0	0	-44,334	-46,662	-54,183	-44,001	-8,352	1,363	8,417	18,805	22,497	32,073	41,251	52,901	69,341	96,985	106,940	152,580	138,520	165,986	208,314	179,372	242,935	265,927	273,649	375,822	1,909,614	
336 IRR of before tax cash flow																												19.7%
337 NPV as of 10% (mil Rp)			445,143																									
338 NPV as of 15% (mil Rp)			117,839																									

Case 4 Residential Distribution Pipeline Invested by Government when Gas Sales Price to Residential Sector goes up to 800Rp in ten years.

(Financial Feasibility Analysis)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	resid 2021	
339 Sales Residential (mil Rp)			1,023	2,079	4,210	8,504	13,764	19,565	26,141	33,507	41,683	50,741	60,667	67,837	75,134	82,562	90,004	97,590	105,230	113,018	120,918	128,957	137,118	145,402	153,810	162,346		
340 Commercial Cooking (mil Rp)			1,553	1,819	2,085	2,351	2,746	3,269	3,921	4,702	5,611	6,576	7,603	8,694	9,854	11,089	12,415	13,840	15,373	17,021	18,794	20,702	22,756	24,967	27,348	29,912		
341 Commercial Boiler+AC (mil Rp)			2,607	3,597	4,975	6,943	10,430	14,948	20,496	27,075	34,685	42,749	51,300	60,371	69,997	80,218	91,174	102,923	115,532	129,069	143,608	159,230	176,021	194,075	213,490	234,375		
342 Commercial Total (mil Rp)			4,360	5,416	7,060	9,294	13,176	18,217	24,417	31,777	40,295	49,325	58,902	69,064	79,852	91,307	103,589	116,764	130,905	146,089	162,402	179,932	198,777	219,042	240,838	264,288		
343 Industrial (mil Rp)			302,529	331,194	371,199	436,089	499,719	562,883	612,559	665,636	698,220	753,720	815,397	886,845	1,008,451	1,152,006	1,266,022	1,481,371	1,728,768	2,036,600	2,406,193	2,639,492	3,134,086	3,731,205	4,377,477	5,089,339		
344 Total (mil Rp)			307,913	338,689	382,470	453,887	526,659	600,656	663,116	730,920	780,158	853,786	934,966	1,033,746	1,163,438	1,325,875	1,459,615	1,695,695	1,964,903	2,295,705	2,689,513	2,948,381	3,469,980	4,095,648	4,772,125	5,515,973		
345 Gas material cost (mil Rp)			158,550	181,500	213,923	266,067	323,798	382,086	430,183	482,031	517,906	573,153	633,970	711,607	814,672	944,674	1,050,952	1,228,320	1,451,037	1,735,326	2,088,343	2,336,430	2,810,971	3,389,981	4,032,417	4,755,247		
346 Gross profit (mil Rp)			149,363	157,190	168,547	187,820	202,861	218,580	222,934	248,889	262,292	280,633	300,997	322,139	348,766	381,200	408,663	467,374	513,867	560,379	601,169	611,951	659,010	705,667	739,709	760,726		
347 Gross profit (incremental)MMRp (mil Rp)			0	7,827	19,184	38,457	53,499	69,217	83,571	99,527	112,930	131,270	151,634	172,776	199,403	231,838	259,300	318,012	364,504	411,016	451,807	462,589	509,847	556,304	590,346	611,363	2,199,148	
348 Property Tax (mil Rp)			31	59	90	117	118	119	119	119	121	124	130	137	142	154	169	221	272	306	358	378	400	425	372			
349 Labor cost (incremental) Staffs (mil Rp)			1,196	2,649	4,765	6,217	7,540	7,605	7,792	7,793	7,605	7,336	7,012	6,651	6,267	5,873	5,479	4,732	4,311	4,027	3,697	3,388	3,097	2,873	2,673			
350 Workers (mil Rp)			1,557	3,530	6,527	8,788	10,287	11,474	12,383	13,064	13,560	13,909	14,134	14,260	14,303	14,273	14,187	14,057	13,913	13,739	13,513	13,270	12,998	12,711	12,410	11,443		
351 Pensions (mil Rp)			275	618	1,129	1,501	1,731	1,901	2,019	2,094	2,135	2,151	2,147	2,127	2,095	2,054	2,006	1,954	1,901	1,846	1,788	1,730	1,670	1,610	1,551	1,412		
352 Total (mil Rp)			3,029	6,797	12,421	16,506	19,043	20,916	22,205	23,030	23,489	23,665	23,617	23,399	23,050	22,594	22,066	21,490	20,916	20,311	19,673	19,027	18,365	17,708	17,059	15,527	55,854	
353 Administrative expenses (mil Rp)			909	2,039	3,726	4,952	5,713	6,275	6,661	6,909	7,047	7,099	7,085	7,020	6,915	6,778	6,620	6,447	6,275	6,093	5,902	5,708	5,509	5,312	5,118	4,858	16,756	
354 Maintenance & other expenses (mil Rp)			763	1,626	2,717	3,814	4,392	4,949	5,511	6,044	6,624	7,218	7,856	8,554	9,315	10,031	10,940	11,925	13,817	15,838	17,594	19,874	21,570	23,373	25,307	27,307	91,032	
355 Total investment (mil Rp)			34,912	37,231	43,773	43,431	18,117	16,996	17,300	15,847	18,206	18,869	21,094	24,111	27,234	24,962	34,669	38,414	83,805	90,207	76,994	103,194	74,020	29,370	23,307	25,307	91,032	
356 Before tax cash flow (financial) (mil Rp)			-39,643	-39,926	-43,544	-30,362	6,115	19,964	31,775	47,580	57,445	74,299	91,858	109,562	132,752	167,331	184,851	239,567	239,471	278,294	331,339	314,429	389,805	430,203	458,542	565,499	2,035,506	
357 IRR of before tax cash flow (financial) (mil Rp)																												27.8%
358 NPV as of 10% (financial) (mil Rp)			830,235																									
359 NPV as of 15% (financial) (mil Rp)			324,729																									

(Down Side sensitivity Analyses)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	resid 2021	
360 2% contingency sales VcGross profit (mil Rp)			0	7,211	17,693	35,538	49,124	63,362	76,467	91,067	103,484	120,353	139,093	158,259	182,293	211,478	236,266	290,256	331,364	371,260	404,175	409,779	446,406	480,549	501,062	507,202	2,087,251	
361 10% contingency total investment (mil Rp)			38,403	40,954	48,150	47,774	19,929	18,695	19,030	17,431	20,027	20,755	23,204	26,523	29,957	27,458	38,136	42,255	92,186	99,228	84,693	113,513	81,422	87,239	94,485	0		
362 Before tax cash flow (mil Rp)			-43,134	-44,264	-49,412	-37,624	-72	12,410	22,941	37,535	46,178	61,495	77,207	92,634	112,918	144,475	158,350	207,970	197,950	229,517	276,008	251,300	319,162	346,517	358,668	461,338	1,900,039	
363 IRR of before tax cash flow (mil Rp)																												24.3%
364 NPV as of 10% (mil Rp)			662,301																									
365 NPV as of 15% (mil Rp)			236,837																									

(Financial Analyses with In house Installation)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	resid 2021
366 LPG bottle repurchase (mil Rp)			1,200																								

Master Plan Economic and Financial Analyses (Low Case)

(Gas Demand)			1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	resid 2021
1 Residential		(1000m3)	2,490	2,274	2,766	4,654	8,189	15,854	24,381	31,751	40,001	47,910	54,965	64,699	72,893	81,168	89,526	97,966	106,376	112,747	119,010	125,292	131,594	137,704	144,035	150,385	156,769	163,020	
2 Commercial	Cooking	(1000m3)	3,331	4,564	4,706	5,512	6,319	7,128	8,294	9,824	11,716	13,970	16,586	19,344	22,250	25,315	28,547	31,955	35,527	39,270	43,191	47,299	51,603	56,112	60,834	65,781	70,961	76,385	
3	Boiler+Air Con.	(1000m3)	4,138	5,670	8,506	10,899	15,076	21,038	31,383	44,630	60,777	79,825	101,773	124,854	149,134	174,680	201,567	229,872	259,485	290,468	322,885	356,802	392,288	429,414	468,257	508,893	551,404	595,875	
4	Total	(1000m3)	7,469	10,234	13,212	16,411	21,395	28,163	39,677	54,454	72,493	93,795	118,360	144,198	171,334	199,995	230,114	261,827	295,012	329,738	366,077	404,102	443,891	485,526	529,091	574,674	622,365	672,260	
5 Industrial		(1000m3)	750,734	877,599	960,411	1,015,011	1,091,211	1,214,811	1,336,011	1,456,323	1,550,943	1,652,043	1,801,922	1,908,575	2,051,015	2,228,307	2,443,336	2,634,638	2,701,717	2,931,294	3,160,738	3,430,736	3,725,819	3,759,481	4,086,722	4,445,598	4,782,446	5,111,025	
6 Total		(1000m3)	760,693	890,107	976,389	1,036,534	1,121,975	1,261,021	1,401,848	1,545,072	1,655,889	1,796,471	1,979,118	2,118,038	2,294,161	2,507,209	2,760,219	2,992,187	3,099,717	3,371,819	3,645,973	3,962,982	4,307,506	4,391,049	4,770,580	5,184,269	5,578,575	5,967,386	

(Number of Customers)			1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	resid 2021
7 Residential		(1000)	9.06	9.67	11.14	17.09	28.03	45.13	67.13	86.03	107.10	127.19	144.98	169.14	189.14	209.14	229.14	249.14	269.14	283.92	298.31	312.64	326.89	340.58	354.70	368.76	382.78	396.36	
8 Commercial	Cooking	(1000)	0.18	0.16	0.16	0.18	0.21	0.24	0.28	0.35	0.43	0.54	0.66	0.79	0.93	1.07	1.23	1.39	1.56	1.75	1.94	2.14	2.35	2.57	2.81	3.05	3.31	3.58	
9	Boiler+Air Con.	(1000)	0.01	0.01	0.01	0.01	0.02	0.04	0.06	0.10	0.14	0.19	0.25	0.32	0.39	0.46	0.54	0.62	0.71	0.80	0.89	0.99	1.09	1.20	1.32	1.44	1.56	1.70	
10	Total	(1000)	0.19	0.17	0.16	0.20	0.23	0.27	0.34	0.44	0.57	0.73	0.91	1.11	1.32	1.53	1.77	2.01	2.27	2.54	2.83	3.13	3.44	3.78	4.12	4.49	4.87	5.27	
11 Industrial		(1000)	0.19	0.21	0.22	0.23	0.24	0.27	0.30	0.33	0.35	0.37	0.40	0.43	0.46	0.50	0.55	0.59	0.60	0.66	0.71	0.77	0.83	0.84	0.91	1.00	1.07	1.14	
12 Total		(1000)	9.43	10.05	11.51	17.51	28.50	45.67	67.78	86.80	108.02	128.29	146.29	170.67	190.91	211.17	231.45	251.74	272.01	287.12	301.85	316.53	331.17	345.20	359.74	374.24	388.72	402.78	

(Sales Volume per Customer)			1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	resid 2021
13 Residential		(1000m3)	0.27	0.24	0.25	0.27	0.29	0.35	0.36	0.37	0.37	0.38	0.38	0.38	0.39	0.39	0.39	0.39	0.40	0.40	0.40	0.40	0.40	0.40	0.41	0.41	0.41	0.41	
14 Commercial	Cooking	(1000m3)	18.40	28.00	29.98	30.02	30.05	30.08	29.32	28.23	27.10	26.08	25.18	24.52	24.00	23.59	23.24	22.95	22.70	22.48	22.29	22.12	21.96	21.82	21.68	21.55	21.45	21.35	
15	Boiler+Air Con.	(1000m3)	827.60	1134.00	1701.14	905.00	671.17	580.23	507.29	453.10	434.91	415.82	400.60	390.93	383.84	378.44	374.12	370.56	367.53	364.90	362.58	360.51	358.64	356.94	355.37	353.93	352.58	351.33	
16	Total	(1000m3)	40.16	60.92	81.56	83.87	91.93	103.11	115.11	122.55	126.72	128.89	129.69	130.09	130.27	130.30	130.23	130.10	129.91	129.69	129.44	129.17	128.89	128.61	128.32	128.04	127.75	127.47	
17 Industrial		(1000m3)	4,038.20	4,159.24	4,487.03	4,467.03	4,467.03	4,467.03	4,467.03	4,467.03	4,467.03	4,467.03	4,467.03	4,467.03	4,467.03	4,467.03	4,467.03	4,467.03	4,467.03	4,467.03	4,467.03	4,467.03	4,467.03	4,467.03	4,467.03	4,467.03	4,467.03	4,467.03	
18 Total		(1000m3)	80.68	88.58	84.81	59.18	39.36	27.61	20.68	17.80	15.42	14.00	13.53	12.41	12.02	11.87	11.93	11.89	11.40	11.74	12.08	12.52	13.01	12.72	13.26	13.85	14.35	14.82	

(Investment Plan)			1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	resid 2021
19 Pipeline installation	Residential distribution			59.56	109.37	171.02	220.03	189.00	210.70	200.85	177.91	241.57	200.01	199.99	200.01	199.99	200.01	147.83	143.93	143.24	142.54	136.93	141.20	140.53	140.20	135.87	0.00	0.00	
20 (Km)	Commercial distribution			10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	0
21	Industrial distribution			0.91	1.27	2.06	2.02	2.01	1.59	1.69	2.50	1.78	2.38	2.96	3.59	3.19	1.12	3.83	3.83	4.51	4.92	0.56	5.46	5.99	5.62	5.48			
22	Industrial transmission			36.13	36.13	36.13	36.13	36.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
23	resid & Comm. transmission			10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	0
24 Cumulative pipeline	Residential distribution			59.56	168.93	339.95	559.98	748.98	959.68	1,160.53	1,338.44	1,580.00	1,780.01	1,980.00	2,180.01	2,380.00	2,580.01	2,727.84	2,871.77	3,015.00	3,157.54	3,294.47	3,435.68	3,576.20	3,716.40	3,852.27	3,852.27		
25 (Km)	Commercial distribution			10.00	20.00	30.00	40.00	50.00	60.00	70.00	80.00	90.00	100.00	110.00	120.00	130.00	140.00	150.00	160.00	170.00	180.00	190.00	200.00	210.00	220.00	230.00	230.00		
26	Industrial distribution			0.91	2.18	4.25	6.27	8.28	9.85	11.54	14.04	15.82	18.20	21.16	24.75	27.94	29.06	32.89	36.72	41.22	46.15	46.71	52.17	58.16	63.78	69.26	69.26		
27	Industrial transmission			36.13	72.25	108.38	144.50	144.50	144.50	144.50	144.50	144.50	144.50	144.50	144.50	144.50	144.50	144.50	144.50	144.50	144.50	144.50	144.50	144.50	144.50	144.50	144.50	144.50	144.50
28	resid & Comm. transmission			10.00	20.00	30.00	40.00	50.00	60.00	70.00	80.00	90.00	100.00	110.00	120.00	130.00	140.00	150.00	160.00	170.00	180.00	190.00	200.00	210.00	220.00	230.00	230.00		
29 Cumulative meter	Residential			5,956	16,893	33,995	55,998	74,898	95,968	116,053	133,844	158,000	178,001	198,000	218,001	238,000	258,001	272,784	287,177	301,500	315,754	329,447	343,568	357,620	371,640	385,227	385,227		
30 (Units)	Commercial cooking			27	53	80	126	191	275	379	502	632	770	916	1,071	1,235	1,408	1,590	1,781	1,982	2,193	2,415	2,648	2,894	3,151	3,421	3,421		
31	Commercial air con.			7	17	31	57	91	135	187	249	314	384	457	534	615	701	791	886	985	1,089	1,198	1,313	1,433	1,559	1,691	1,691		
32	Industrial			12	29	57	84	111	132	155	188	212	244	284	332	375	390	441	493	553	619	627	700	780	856	929	929		
33 Cumulative offtaker		(Units)		2	6	12	18	24	29	35	42	48	56	65	76	86	90	102	114	127	142	145	162	179	196	213	213		
34 Cumulative governor	Medium A	(Units)		0	1	3	5	7	9	11	13	15	17	19	21	23	25	27	28	30	31	32	34	35	37	38	38		
35	Medium B	(Units)		5	16	33	55	74	95	116	133	158	178	198	218	238	258	272	287	301	315	329	343	357	371	385	385		

(Imported facilities in Dollar term)			1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	resid 2021
36 Residential HR meter		(1000\$)		319	586	917	1,180	1,013	1,130	1,077	954	1,295	1,072	1,072	1,072	1,072	1,072	793	772	768	764	734	757	753	752	728			
37 Commercial cooking meter+HR		(1000\$)		39	39	39	66	94	122	150	178	189	200	212	224	237	250	263	277	291	306	321	338	355	372	391			
38 commercial AC valve		(1000\$)		2	3	4	8	11	13	16	19	20	21	22	24	25	26	28	29	30	32	34	35	37	39</				

Low Case

67 Commercial AC meter (mil Rp)		80	118	156	200	391	491	592	702	741	783	828	874	924	971	1,019	1,070	1,124	1,179	1,237	1,298	1,362	1,428	1,497
68 Industrial SP (mil Rp)		23	32	51	50	50	39	42	62	44	59	74	90	60	28	96	96	112	123	14	136	149	140	137
69 Industrial valve (mil Rp)		52	72	118	115	114	90	96	143	101	135	169	205	182	64	218	218	257	281	32	311	341	320	313
70 Industrial meter (mil Rp)		138	193	313	307	305	240	256	380	270	361	450	545	485	170	582	582	685	748	85	830	910	854	833
71 A governor (mil Rp)		0	119	238	238	238	238	238	238	238	238	238	238	238	238	238	238	238	238	119	119	119	238	119
72 B governor (mil Rp)		294	646	998	1,292	1,116	1,233	1,233	998	1,468	1,175	1,175	1,175	1,175	1,175	822	822	822	822	822	822	822	822	822
73 Offtake (mil Rp)		1,128	2,256	3,384	3,384	3,384	2,820	3,384	3,948	3,384	4,512	5,076	6,204	5,640	2,256	6,768	6,768	7,332	8,460	1,692	9,588	9,588	9,588	9,588
74 Other investment (mil Rp)		200	200	400	400	200	200	200	0	200	0	0	0	0	0	0	0	-200	0	0	-200	0	0	-200
75 Total investment (mil Rp)		36,692	42,301	49,190	53,485	25,271	26,535	26,604	25,531	30,314	28,090	28,979	30,460	29,842	25,734	27,079	26,628	27,783	29,025	20,011	30,637	30,813	30,702	30,544
76 Cumulative investment (mil Rp)		36,692	78,994	128,184	181,670	206,941	233,476	260,080	285,611	315,925	344,015	372,994	403,454	433,297	453,030	486,109	512,737	540,520	569,544	589,556	620,193	651,006	681,708	712,252
77 Depreciation (mil Rp)		4,587	9,301	14,287	19,187	19,947	20,771	21,500	22,004	23,043	24,337	25,102	25,695	25,700	25,872	25,966	26,194	26,547	25,730	26,344	26,902	27,377	27,773	24,277
78 Cumulative depreciation (mil Rp)		4,587	13,887	28,175	47,361	67,309	88,080	109,580	131,584	154,626	178,963	202,637	227,739	253,434	279,133	305,005	330,972	357,165	383,713	409,443	435,787	462,689	490,066	517,840
79 Net property (mil Rp)		32,106	65,106	100,010	134,308	139,632	145,396	150,500	154,028	161,299	165,715	170,357	175,115	179,863	179,897	181,104	181,165	183,355	185,832	180,113	184,407	188,317	191,641	194,412

(Total investment for PGN in case 3 and 4)

		1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	resid 2021
80 PGN investment for residential customer (mil Rp)				1,346	2,472	3,865	4,973	4,271	4,762	4,539	4,021	5,459	4,520	4,520	4,520	4,520	4,520	3,341	3,253	3,237	3,221	3,095	3,191	3,176	3,168	3,071		
81 Total investment for PGN (mil Rp)				33,473	36,390	39,946	41,592	15,056	15,146	15,748	15,915	12,256	17,279	18,169	19,649	19,032	14,922	19,088	18,848	20,041	21,320	12,610	23,005	23,217	23,124	23,200	-200	
82 Cumulative investment (mil Rp)				33,473	69,863	109,809	151,401	166,456	181,603	197,350	213,265	230,521	247,800	265,970	285,618	304,651	319,573	338,662	357,510	377,550	398,870	411,480	434,455	451,702	480,825	504,025	503,825	
83 Depreciation (mil Rp)				4,184	8,210	12,177	15,854	15,754	15,678	15,687	15,715	15,908	16,079	16,340	16,754	17,039	16,774	17,064	17,287	17,631	18,092	17,407	18,107	18,745	19,293	19,781	17,283	
84 Cumulative depreciation (mil Rp)				4,184	12,394	24,571	40,425	56,179	71,857	87,543	103,259	119,166	135,246	151,586	168,340	185,379	202,153	219,217	236,503	254,134	272,226	289,633	307,739	326,485	345,777	365,558	382,842	
85 Net property (mil Rp)				29,289	57,469	85,238	110,976	110,278	109,746	109,807	110,007	111,355	112,555	114,383	117,278	119,272	117,420	119,445	121,006	123,416	126,644	121,847	126,746	131,217	135,048	138,467	120,984	

(Total investment for PGN in case 5)

		1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	resid 2021
86 PGN investment for residential customer (mil Rp)				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
87 PGN investment for commercial distribution (mil Rp)				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
88 PGN investment for cooling HR+SP+met (mil Rp)				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
89 PGN investment for AC SP+meter+valve (mil Rp)				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
90 Separate utility meter (mil Rp)				11	23	23	23	34	23	34	23	34	34	23	34	23	34	23	11	23	23	23	11	23	23	23	23	23
91 PGN investment for B governor (mil Rp)				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
92 Total investment for PGN (mil Rp)				29,450	31,052	32,815	32,599	6,933	6,186	6,605	7,482	6,842	8,008	8,792	10,183	9,450	5,250	10,832	10,501	11,665	12,841	4,334	14,291	14,194	14,366	14,192	0	
93 Cumulative investment (mil Rp)				29,450	60,503	93,117	125,716	132,649	138,835	145,440	152,922	159,764	167,771	176,564	186,747	196,196	201,447	212,279	222,780	234,446	247,287	251,621	265,912	280,105	294,471	308,663	308,663	
94 Depreciation (mil Rp)				3,681	7,103	10,292	13,080	12,312	11,546	10,928	10,458	10,041	9,786	9,652	9,727	9,693	9,377	9,349	9,493	9,765	10,149	9,422	10,031	10,551	11,028	11,424	9,996	
95 Cumulative depreciation (mil Rp)				3,681	10,784	21,076	34,156	46,467	58,013	68,942	79,439	89,480	99,266	108,928	118,656	128,348	137,466	146,835	156,328	166,093	176,242	185,664	195,695	206,246	217,275	228,698	238,694	
96 Net property (mil Rp)				25,769	49,719	72,042	91,560	86,181	80,822	76,498	73,483	70,284	68,505	67,636	68,091	67,848	63,961	65,444	66,452	68,353	71,045	65,556	70,216	73,859	77,197	79,965	69,969	

(Total investment for separate utility in case 5)

		1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	resid 2021
97 Residential distribution (mil Rp)		4,565	8,383	13,109	16,856	14,487	16,151	15,395	13,637	18,517	15,331	15,330	15,331	15,330	15,331	11,331	11,033	10,980	10,926	10,496	10,824	10,772	10,746	10,415	0			
98 Commercial distribution (mil Rp)		2,000	2,004	2,007	2,038	2,065	2,093	2,120	2,149	2,160	2,171	2,183	2,196	2,209	2,221	2,235	2,248	2,263	2,278	2,293	2,310	2,327	2,344	2,363	0			
99 Commercial cooking meter (mil Rp)		91	91	91	156	222	287	352	418	443	459	497	527	558	587	618	650	683	719	755	793	833	875	918	0			
100 Commercial AC meter (mil Rp)		80	118	156	200	391	491	592	702	741	783	828	874	924	971	1,019	1,070	1,124	1,179	1,237	1,298	1,362	1,428	1,497	0			
101 B governor (mil Rp)		294	646	998	1,292	1,116	1,233	1,233	998	1,468	1,175	1,175	1,175	1,175	1,175	822	822	822	822	822	822	822	822	822	822	0		
102 Other investments (mil Rp)		200	0	200	200	0	200	0	0	0	0	200	0	0	0	-200	0	0	0	0	0	0	0	0	-200	0		
103 Total investment (mil Rp)		7,230	11,242	16,562	20,842	18,281	20,455	19,692	17,905	23,329	19,929	20,212	20,102	20,195	20,285	15,825	15,882	15,871	15,924	15,604	16,047	16,115	16,216	15,815	0			
104 Cumulative investment (mil Rp)		7,230	18,471	35,033	55,875	74,156	94,611	114,303	132,208	155,537	175,467	195,679	215,781	235,976	256,261	272,086	287,968	303,839	319,763	335,367	351,414	367,529	383,745	399,560	399,560			
105 Depreciation (mil Rp)		904	2,196	3,992	6,098	7,621	9,225	10,534	11,455	12,939	13,813	14,613	15,299	15,911	16,458	16,379	16,317	16,261	16,219	16,142	16,130	16,128	16,139	16,099	14,086			
106 Cumulative depreciation (mil Rp)		904	3,100	7,091	13,189	20,810	30,035	40,569	52,02																			

Low Case

(Cumulative workers for separate utility in case 5)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	resid 2021
134 Administrative staff (persons)	4	11	19	28	32	35	37	37	38	38	36	35	33	31	29	26	24	22	20	18	16	14	13	11			
135 Administrative workers (persons)	9	23	38	53	56	57	56	53	50	47	41	38	33	29	25	21	18	15	13	11	9	7	6	5			
136 Sales (persons)	21	36	52	63	50	52	47	39	49	38	35	33	31	29	20	18	17	15	14	13	12	11	10				
137 Meter reading (persons)	0	3	8	16	24	30	37	41	45	49	52	54	55	56	57	56	55	54	53	52	50	49	48	46			
138 Collecting (persons)	0	5	13	26	40	50	60	67	73	80	84	87	90	92	93	92	90	88	86	84	82	79	77	74			
139 High-medium pressure (persons)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
140 Low pressure (persons)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
141 Meter administration (persons)	0	9	25	47	72	90	108	122	131	145	152	158	162	165	167	165	162	159	156	151	147	143	139	134			
142 Total (persons)	34	87	155	233	274	314	345	359	386	397	400	405	404	402	391	378	366	353	342	329	316	303	293	270			
143 Total white collar (persons)	4	11	19	28	32	35	37	37	38	38	36	35	33	31	29	26	24	22	20	18	16	14	13	11			
144 Total blue collar (persons)	30	76	136	205	242	279	308	322	348	359	364	370	371	371	362	352	342	331	322	311	300	289	280	259			
145 Salary per a white collar (1000Rp)	50,842	50,842	50,842	50,842	50,842	50,842	50,842	50,842	50,842	50,842	50,842	50,842	50,842	50,842	50,842	50,842	50,842	50,842	50,842	50,842	50,842	50,842	50,842	50,842	50,842	50,842	50,842
146 Salary per a blue collar (1000Rp)	9,829	9,829	9,829	9,829	9,829	9,829	9,829	9,829	9,829	9,829	9,829	9,829	9,829	9,829	9,829	9,829	9,829	9,829	9,829	9,829	9,829	9,829	9,829	9,829	9,829	9,829	9,829

(Social benefit & loss analyses in case 1 to 4)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	resid 2021
147 Social benefit for residential customers (Rp/m3)			800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800
148 Social benefit for commercial cooking (Rp/m3)			800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800
149 Social benefit for commercial AC (Rp/m3)			528	528	528	528	528	528	528	528	528	528	528	528	528	528	528	528	528	528	528	528	528	528	528	528	528
150 Social benefit for residential customers (Rp/m3)			308	308	308	308	308	308	308	308	308	308	308	308	308	308	308	308	308	308	308	308	308	308	308	308	308
151 Social benefit for residential customers (mil Rp)			2,213	3,723	6,551	12,683	19,505	25,401	32,001	38,228	43,972	51,759	58,314	64,934	71,621	78,373	85,101	90,198	95,208	100,234	105,275	110,163	115,228	120,308	125,415	130,416	135,416
152 Social benefit for commercial cooking (mil Rp)			3,165	4,410	5,955	7,700	9,635	11,716	13,269	15,475	17,800	20,252	22,838	25,564	28,422	31,416	34,553	37,840	41,283	44,890	48,658	52,625	56,768	61,108	65,730	70,416	
153 Social benefit for commercial AC (mil Rp)			4,491	5,754	7,960	11,108	16,570	23,564	32,090	42,147	53,736	65,923	78,743	92,231	106,428	121,372	137,008	153,367	170,483	188,392	207,128	226,731	247,240	268,696	291,141	314,622	340,146
154 Social benefit for commercial total (mil Rp)			8,256	10,164	13,015	16,808	23,205	31,424	41,463	53,324	67,005	81,398	96,543	112,483	129,265	146,907	165,430	184,783	205,036	226,231	248,411	271,620	295,907	321,320	347,910	375,730	404,862
155 Social benefit for industrial customers (mil Rp)			295,807	312,623	336,093	374,162	411,491	448,547	477,693	508,829	554,992	587,841	631,713	686,319	752,547	811,469	872,129	902,839	973,507	1,056,661	1,147,552	1,151,920	1,258,710	1,369,244	1,472,993	1,574,196	1,671,996
156 Total social benefit from gas sales (mil Rp)			306,275	326,511	355,659	403,653	454,201	505,372	551,154	600,481	665,969	720,998	785,570	863,736	953,433	1,036,778	1,082,660	1,177,820	1,273,751	1,383,131	1,501,238	1,539,703	1,659,845	1,810,872	1,946,319	2,080,342	2,211,996
157 Total loss for gas supplied (Rp/m3)			167	167	167	167	167	174	178	182	186	190	193	197	210	217	222	227	231	233	242	247	252	257	262	267	272
158 Total social loss from gas supplied (mil Rp)			163,057	173,101	187,370	210,591	234,109	268,842	296,528	326,958	368,116	402,427	442,773	493,920	579,646	649,305	688,137	765,403	842,220	935,264	1,042,417	1,084,589	1,202,186	1,332,357	1,461,587	1,593,292	1,728,592
159 Gross social benefit (mil Rp)			143,218	153,410	168,289	193,063	220,093	236,529	254,626	273,523	297,853	318,571	343,797	369,816	373,781	387,474	394,522	412,417	431,532	447,868	458,821	455,114	467,659	478,515	484,732	487,050	489,372
160 Incremental gross social benefit (mil Rp)			0	10,191	25,071	49,844	76,874	93,311	111,408	130,305	154,635	175,353	200,578	226,597	230,569	244,255	251,304	269,198	288,313	304,649	315,603	311,896	324,441	335,297	341,513	343,832	1,223,600
161 Total investment (mil Rp)			36,692	42,307	49,190	53,485	25,271	26,535	26,604	25,314	28,090	28,979	30,460	29,842	25,734	27,079	26,628	27,783	29,025	20,011	30,637	30,813	30,702	30,544		-200	
162 LPG bottle repurchase (residential) (mil Rp)			1,191	2,187	3,420	4,401	3,780	4,214	4,017	3,558	4,000	4,000	4,000	4,000	2,957	2,879	2,865	2,851	2,739	2,824	2,811	2,804	2,717				
163 In house pipeline installation (residential) (mil Rp)			2,382	4,375	6,841	8,801	7,560	8,428	8,034	7,116	9,663	8,000	8,000	8,000	8,000	5,913	5,757	5,729	5,702	5,477	5,648	5,621	5,608	5,435			
164 LPG bottle repurchase (cooking) (mil Rp)			5	5	5	9	13	17	21	25	26	28	29	31	33	35	36	38	40	42	44	47	49	51	54		
165 In house pipeline installation (cooking) (mil Rp)			94	94	94	162	230	298	366	435	461	488	517	547	580	610	642	676	711	747	785	825	866	910	955		
166 In house pipeline installation (AC) (mil Rp)			94	139	184	341	459	577	695	824	971	920	972	1,027	1,085	1,140	1,197	1,257	1,320	1,385	1,453	1,525	1,599	1,677	1,758		
167 Turbo chiller (mil Rp)			16,740	24,767	32,793	60,868	82,022	103,008	124,139	147,275	155,576	164,363	173,659	183,490	193,884	203,619	213,912	224,605	235,779	247,455	259,656	272,403	285,719	299,627	314,152		
168 Absorption chiller (mil Rp)			17,945	26,549	35,152	65,247	87,922	110,514	133,069	157,870	166,768	176,187	186,152	196,691	207,832	218,332	229,301	240,763	252,741	265,257	278,336	291,999	306,273	321,182	336,752		
169 FO tank installation (mil Rp)			856	1,194	1,937	1,899	1,885	1,483	1,584	2,349	1,671	2,232	2,778	3,370	2,998	3,598	3,595	4,231	4,624	5,128	5,128	5,128	5,128	5,128	5,128	5,128	5,128
170 In house pipeline (industrial) (mil Rp)			244	341	553	543	539	424	453	671	478	638	794	963	857	300	1,028	1,027	1,209	1,221	1,51	1,465	1,607	1,508	1,471		
171 Imported facilities (included) (mil Rp)			3,311	5,871	8,584	11,360	12,709	13,977	16,196	18,420	19,181	20,620	22,049	24,095	24,280	21,247	26,512	27,286	28,942	30,969	24,235	34,317	35,370	36,523	37,514		0
172 Imported tax (mil Rp)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
173 Net social loss for facilities (mil Rp)			38,659	45,645	53,859	61,402	34,282	37,965	39,459	39,241	46,449	43,700	44,947	46,797	47,281	45,352	44,658	44,991	46,577	48,464	43,247	51,698	52,577	53,825	54,843	-200	
174 Labor cost (incremental Staffs) (mil Rp)			1,186	2,639	4,375	6,038	6,737	7,395	7,664	7,605	7,822	7,585	7,316	6,992	6,626	6,241	5,714	5,234	4,783	4,361	3,959	3,596	3,259	2,950	2,662	2,399	0
175 Workers (mil Rp)			1,544	3,516	5,992	8,535	9,864	11,255	12,162	12,619	13,610	13,873	14,097	14,219	14,254	14,214	13,802	13,046	12,659	12,241	11,849	11,457	11,066	10,666	9,839	0	
176 Pensions (mil Rp)			273	615	1,037	1,457	1,660	1,865	1,983	2,022	2,143	2,146	2,141	2,121	2,088	2,045	1,952	1,866	1,783	1,702	1,620	1,544	1,472	1,402	1,333	1,214	0
177 Total (mil Rp)			3,004	6,770	11,403	16,030	18,260	20,515	21,809	22,246	23,574	23,604	23,555	23,332	22,971	22,500	21,467	20,527	19,612	18,722	17,820	16,989	16,187	15,418	14,660	13,952	47,515
178 Income tax (included) (mil Rp)			332	747	1,255	1,930	1,997	2,235	2,366	2,403	2,534	2,525	2,507	2,471	2,420	2,358	2,237	2,128	2,022	1,920	1,818	1,724	1,635	1,549	1,46		

Low Case

(Price of gas in case 2)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	resid 2021	
208 Gas Sales Price Residential (Rp/m3)			370	413	456	499	542	585	628	671	714	757	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800
209 Commercial (Cooking) (Rp/m3)			330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330
210 Commercial (Boiler+AC) (Rp/m3)			330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330
211 Industrial (Rp/m3)			315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315
212 Gas Purchase Price (Rp/m3)			162	167	172	179	187	194	199	203	208	212	216	219	223	226	232	237	241	246	252	257	262	267	272	277	277	

(Price of gas in case 3)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	resid 2021	
213 Gas Sales Price Residential (Rp/m3)			370	370	370	370	370	370	370	370	370	370	370	370	370	370	370	370	370	370	370	370	370	370	370	370	370	370
214 Commercial (Cooking) (Rp/m3)			330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330
215 Commercial (Boiler+AC) (Rp/m3)			330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330
216 Industrial (Rp/m3)			315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315
217 Gas Purchase Price (Rp/m3)			162	167	172	179	187	194	199	203	208	212	216	219	223	226	232	237	241	246	252	257	262	267	272	277	277	

(Price of gas in case 4)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	resid 2021
218 Gas Sales Price Residential (Rp/m3)			370	413	456	499	542	585	628	671	714	757	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800
219 Commercial (Cooking) (Rp/m3)			330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330
220 Commercial (Boiler+AC) (Rp/m3)			330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330
221 Industrial (Rp/m3)			315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315
222 Gas Purchase Price (Rp/m3)			162	167	172	179	187	194	199	203	208	212	216	219	223	226	232	237	241	246	252	257	262	267	272	277	277

(Price of gas of PGN for separate utility in case 5)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	resid 2021
223 Gas Sales Price Residential (Rp/m3)			315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315
224 Commercial (Cooking) (Rp/m3)			315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315
225 Commercial (Boiler+AC) (Rp/m3)			315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315
226 Industrial (Rp/m3)			315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315
227 Gas Purchase Price (Rp/m3)			162	167	172	179	187	194	199	203	208	212	216	219	223	226	232	237	241	246	252	257	262	267	272	277	277

Case 1: PGN operates, when Gas Sales Price of Residential Sector remained the same as now. (Financial Feasibility Analysis)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	resid 2021
228 Sales Residential (mil Rp)			1,023	1,722	3,030	5,866	9,021	11,748	14,800	17,727	20,337	23,939	26,970	30,032	33,125	35,247	39,359	41,716	44,034	46,358	48,690	50,950	53,293	55,642	58,005	60,318	60,318
229 Commercial Cooking (mil Rp)			1,553	1,819	2,085	2,351	2,737	3,242	3,866	4,610	5,473	6,383	7,343	8,354	9,420	10,545	11,724	12,959	14,253	15,609	17,029	18,517	20,075	21,708	23,417	25,207	25,207
230 Commercial Boiler+AC (mil Rp)			2,807	3,597	4,975	6,943	10,357	14,728	20,056	26,342	33,585	41,202	49,214	57,644	66,517	75,858	85,630	95,855	106,552	117,745	129,455	141,707	154,525	167,935	181,963	196,639	196,639
231 Commercial Total (mil Rp)			4,360	5,416	7,060	9,294	13,093	17,970	23,923	30,952	39,059	47,585	56,557	65,998	75,938	86,403	97,354	108,814	120,805	133,354	146,484	160,224	174,600	189,642	205,360	221,846	221,846
232 Industrial (mil Rp)			302,529	319,728	343,731	382,665	420,843	458,742	488,547	520,394	561,605	601,201	646,070	701,917	769,651	829,911	851,041	923,358	995,632	1,080,682	1,173,633	1,184,237	1,287,317	1,400,363	1,506,470	1,609,973	1,609,973
233 Total (mil Rp)			307,913	326,866	353,821	397,825	442,958	488,459	527,270	569,073	627,001	672,725	729,597	797,947	878,713	952,561	987,754	1,073,888	1,160,471	1,260,393	1,368,807	1,395,411	1,515,210	1,645,848	1,769,855	1,892,136	1,892,136
234 Gas material cost (mil Rp)			158,550	172,784	193,005	225,911	262,526	299,765	331,177	365,128	412,617	448,736	494,528	549,920	615,703	676,015	703,972	799,121	878,679	974,894	1,085,492	1,128,500	1,249,892	1,384,200	1,517,373	1,652,966	1,652,966
235 Gross profit (mil Rp)			149,363	154,082	160,817	171,914	180,431	188,695	196,093	203,944	214,384	223,989	235,069	248,027	263,010	276,547	283,782	274,767	281,792	285,500	283,315	266,911	265,319	261,448	252,483	239,170	239,170
236 Gross profit (incremental MMRp) (mil Rp)			0	4,719	11,454	22,551	31,069	39,332	46,730	54,581	65,022	74,627	85,706	98,664	113,648	127,184	134,419	125,404	132,429	136,137	133,953	117,548	115,956	112,068	103,120	89,808	863,536
237 Property Tax (mil Rp)			32	65	100	134	140	145	151	154	161	166	170	176	180	180	181	182	183	186	180	184	188	192	194	170	170
238 Labor cost (incremental Staffs) (mil Rp)			1,186	2,639	4,375	6,038	6,737	7,395	7,664	7,605	7,822	7,585	7,316	6,992	6,628	6,241	5,714	5,234	4,783	4,361	3,959	3,596	3,259	2,950	2,662	2,299	2,299
239 Workers (mil Rp)			1,544	3,516	5,992	8,535	9,864	11,255	12,162	12,619	13,610	13,873	14,097	14,219	14,254	14,214	13,802	13,427	13,046	12,659	12,241	11,849	11,457	11,066	10,666	9,839	9,839
240 Pensions (mil Rp)			273	615	1,037	1,457	1,680	1,855	1,983	2,022	2,143	2,146	2,141	2,121	2,088	2,045	1,952	1,866	1,783	1,702	1,620	1,544	1,472	1,402	1,333	1,214	1,214
241 Total (mil Rp)			3,004	6,770	11,403	16,030	18,260	20,515	21,809	22,246	23,574	23,604	23,555	23,332	22,971	22,500	21,467	20,527	19,612	18,722	17,820	16,989	16,187	15,418	14,660	13,352	128,383
242 Administrative expenses (mil Rp)			901	2,031	3,421	4,809	5,478	6,154	6,543	6,674	7,072	7,081	7,066	6,999	6,891	6,750	6,440	6,158	5,884	5,617	5,346	5,097	4,856	4,625	4,398	4,006	38,515
243 Maintenance & other expenses (mil Rp)			734	1,550	2,564	3,633	4,139	4,670	5,202	5,712	6,319	6,880	7,460	8,069	8,666	9,181	9,722										

Low Case

Case 2 PGN operates when Gas Sales Price of Residential Sector goes up to 800Rp in ten years.
(Financial Feasibility Analysis)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	resid 2021	
265 Sales Residential (mil Rp)			1,023	1,922	3,734	7,911	13,215	18,574	25,121	32,148	39,245	48,977	58,314	64,934	71,621	78,373	85,101	90,198	95,208	100,234	105,275	110,163	115,228	120,308	125,415	130,416		
266 Commercial Cooking (mil Rp)			1,553	1,819	2,085	2,351	2,737	3,242	3,866	4,610	5,473	6,383	7,343	8,354	9,420	10,545	11,724	12,959	14,253	15,609	17,029	18,517	20,075	21,708	23,417	25,207		
267 Commercial Boiler+AC (mil Rp)			2,807	3,597	4,975	6,943	10,357	14,728	20,056	26,342	33,585	41,202	49,214	57,644	66,517	75,858	85,630	95,855	106,552	117,745	129,455	141,707	154,525	167,935	181,963	196,639		
268 Commercial Total (mil Rp)			4,360	5,416	7,060	9,294	13,093	17,970	23,923	30,952	39,059	47,585	56,557	65,998	75,938	86,403	97,354	108,814	120,805	133,354	146,484	160,224	174,600	189,642	205,380	221,846		
269 Industrial (mil Rp)			302,529	319,728	343,731	382,665	420,843	458,742	488,547	520,394	567,605	601,201	646,070	701,917	769,651	829,911	851,041	923,358	995,632	1,080,682	1,173,633	1,284,237	1,400,363	1,506,470	1,609,973	1,652,966		
270 Total (mil Rp)			307,913	327,066	354,526	399,870	447,151	495,288	537,590	583,493	645,909	697,764	760,941	832,850	917,209	994,687	1,033,496	1,122,369	1,211,645	1,314,269	1,425,392	1,544,623	1,671,145	1,806,314	1,949,892	2,092,266	2,243,813	
271 Gas material cost (mil Rp)			158,550	172,784	193,005	225,911	262,526	299,765	331,177	365,128	412,617	448,736	494,528	549,920	615,703	676,015	703,972	799,121	878,679	974,894	1,085,492	1,208,500	1,349,892	1,499,892	1,659,892	1,829,892	1,999,892	
272 Gross profit (mil Rp)			149,363	154,282	161,521	173,959	184,625	195,521	206,413	218,365	233,292	249,028	266,413	282,929	301,506	318,672	329,523	323,248	332,966	339,375	339,901	326,123	327,253	326,114	319,894	309,269	299,269	
273 Gross profit (incremental MMRp) (mil Rp)			0	4,919	12,158	24,596	35,262	46,158	57,051	69,002	83,930	99,665	117,050	135,566	152,144	169,310	180,161	173,885	183,603	190,013	190,538	176,761	177,891	176,751	170,531	159,906	993,208	
274 Property Tax (mil Rp)			32	65	100	134	140	145	151	154	161	166	170	176	180	180	181	182	183	186	186	184	188	192	194	194	170	
275 Labor cost (incremental Staffs) (mil Rp)			1,186	2,639	4,375	6,038	6,737	7,395	7,664	7,605	7,822	7,585	7,316	6,992	6,628	6,241	5,714	5,234	4,783	4,361	3,959	3,596	3,259	2,950	2,662	2,299	1,933	
276 Workers (mil Rp)			1,544	3,516	5,992	8,535	9,864	11,255	12,162	12,619	13,610	13,873	14,097	14,219	14,254	14,214	13,802	13,427	13,046	12,659	12,241	11,849	11,457	11,066	10,666	9,839	8,839	
277 Pensions (mil Rp)			273	615	1,037	1,457	1,660	1,865	1,983	2,022	2,143	2,146	2,141	2,121	2,088	2,045	1,952	1,866	1,783	1,702	1,620	1,544	1,472	1,402	1,333	1,214		
278 Total (mil Rp)			3,004	6,770	11,403	16,030	18,260	20,515	21,809	22,246	23,574	23,604	23,555	23,332	22,971	22,500	21,467	20,527	19,612	18,722	17,820	16,989	16,187	15,418	14,660	13,352	100,390	
279 Administrative expenses (mil Rp)			901	2,031	3,421	4,809	5,478	6,154	6,543	6,674	7,072	7,081	7,066	6,999	6,891	6,750	6,440	6,158	5,884	5,617	5,346	5,097	4,856	4,625	4,398	4,006	3,117	
280 Maintenance & other expenses (mil Rp)			734	1,580	2,564	3,633	4,139	4,670	5,202	5,712	6,319	6,880	7,460	8,069	8,666	9,181	9,722	10,255	10,810	11,391	11,991	12,404	13,020	13,634	14,245	14,241	88,454	
281 Total investment (mil Rp)			36,692	42,301	49,190	53,485	55,211	56,535	56,604	55,531	53,314	50,000	48,979	48,919	48,459	47,593	46,531	45,353	44,065	42,673	41,184	39,595	37,903	36,114	34,224	32,234	30,144	
282 Before tax cash flow (financial) (mil Rp)			-41,363	-47,828	-54,520	-53,496	-53,026	-51,861	-50,256	-48,189	-45,639	-42,584	-38,844	-34,419	-29,282	-23,533	-17,171	-10,136	-2,531	11,933	25,073	35,369	41,449	42,826	42,181	40,669	38,338	796,944
283 IRR of before tax cash flow (financial) (mil Rp)																												
284 NPV as of 10% (financial) (mil Rp)					203,656																							
285 NPV as of 15% (financial) (mil Rp)					20,803																							

(Down Side sensitivity Analyses)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	resid 2021	
286 2% contingency sales Vc Gross profit (mil Rp)			0	4,536	11,226	22,757	32,478	42,411	52,457	63,491	77,170	91,868	107,990	123,068	139,958	155,574	165,649	157,596	165,529	169,886	168,188	153,827	152,506	148,703	139,944	126,820	968,092	
287 10% contingency total investment (mil Rp)			40,361	45,532	54,109	58,834	57,799	59,189	59,264	58,084	56,345	53,899	51,871	50,506	48,827	46,807	44,327	41,397	37,927	33,701	29,013	24,701	20,824	17,394	14,394	11,824	9,224	
288 Before tax cash flow (mil Rp)			-45,032	-52,441	-60,372	-60,683	-62,338	-62,262	-60,510	-58,260	-55,544	-52,238	-48,361	-43,919	-38,842	-33,133	-26,886	-20,051	-11,884	8,478	20,043	31,039	38,452	42,360	42,053	40,848	38,722	726,883
289 IRR of before tax cash flow (mil Rp)																												
290 NPV as of 10% (mil Rp)																												
291 NPV as of 15% (mil Rp)																												

(Financial Analyses with In house Installation)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	resid 2021	
292 LPG bottle repurchase (mil Rp)			1,191	2,187	3,420	4,401	3,780	4,214	4,017	3,558	4,831	4,000	4,000	4,000	4,000	4,000	2,957	2,879	2,865	2,851	2,739	2,824	2,811	2,804	2,717	0		
293 In house pipeline installation (mil Rp)			2,382	4,375	6,841	8,801	7,560	8,428	8,034	7,116	9,663	8,000	8,000	8,000	8,000	8,000	5,913	5,757	5,729	5,702	5,477	5,648	5,621	5,608	5,435	0		
294 Before tax cash flow (mil Rp)			-42,554	-50,016	-57,941	-57,896	-51,806	-46,075	-42,773	-35,127	-21,658	-12,843	-4,820	6,530	19,593	100,965	112,314	107,257	116,466	122,222	132,651	138,625	140,016	139,377	133,772	128,338	849,722	
295 IRR of before tax cash flow (financial) (mil Rp)																												
296 NPV as of 10% (financial) (mil Rp)																												
297 NPV as of 15% (financial) (mil Rp)																												

(Down Side Sensitivity Analysis)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	resid 2021	
298 Before tax cash flow (mil Rp)			0	-46,223	-54,629	-63,792	-65,044	-62,118	-57,476	-45,527	-23,938	1,867	19,237	33,861	46,986	64,423	84,656	95,095	88,305	95,613	99,193	108,300	82,627	81,550	78,259	70,130	95,272	780,505
299 IRR of before tax cash flow (mil Rp)																												
300 NPV as of 10% (mil Rp)																												
301 NPV as of 15% (mil Rp)																												

Case 3 Residential Distribution Pipeline Invested by Government when gas Sales Price remained the same as now.
(Financial Feasibility Analysis)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	resid 2021
302 Sales Residential (mil Rp)			1,023	1,922	3,030																						

Low Case

(Financial Analyses with In house Installation)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	resid 2021
329 LPG bottle repurchase (mil Rp)			1,191	2,187	3,420	4,401	3,780	4,214	4,017	3,558	4,831	4,000	4,000	4,000	4,000	4,000	2,957	2,879	2,865	2,851	2,739	2,824	2,811	2,804	2,717	0	
330 In house pipeline installation			2,382	4,375	6,841	8,801	7,560	8,428	8,034	7,116	9,663	8,000	8,000	8,000	8,000	8,000	5,913	5,757	5,729	5,702	5,477	5,648	5,621	5,608	5,435	0	
331 Before tax cash flow			-39,332	-44,296	-49,386	-48,025	-15,754	-11,477	-6,697	366	5,857	15,669	25,342	36,498	51,968	69,713	74,625	66,616	73,094	76,111	83,525	57,103	55,734	52,346	43,761	58,288	481,068
332 IRR of before tax cash flow			12.1%																								
333 NPV as of 10% (financial) (mil Rp)			52,475																								
334 NPV as of 15% (financial) (mil Rp)			-44,336																								

(Down Side Sensitivity Analysis)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	resid 2021
335 Before tax cash flow (mil Rp)	0	0	-42,679	-48,314	-54,299	-53,982	-19,961	-16,602	-12,659	-6,449	-2,250	6,645	15,091	24,732	38,649	55,328	59,119	49,412	54,039	54,929	61,046	33,053	29,266	23,279	12,202	26,624	331,560
336 IRR of before tax cash flow			8.0%																								
337 NPV as of 10% (mil Rp)			-45,269																								
338 NPV as of 15% (mil Rp)			-98,773																								

Case 4: Residential Distribution Pipeline Invested by Government when Gas Sales Price to Residential Sector goes up to 600Rp in ten years.

(Financial Feasibility Analysis)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	resid 2021
339 Sales Residential (mil Rp)			1,023	1,922	3,734	7,911	13,215	18,574	25,121	32,148	39,245	48,977	58,314	64,934	71,621	78,373	85,101	90,198	95,208	100,234	105,275	110,163	115,228	120,308	125,415	130,416	
340 Commercial Cooking (mil Rp)			1,553	1,819	2,085	2,351	2,737	3,242	3,866	4,610	5,473	6,383	7,343	8,354	9,420	10,545	11,724	12,959	14,253	15,609	17,029	18,517	20,075	21,708	23,417	25,207	
341 Commercial Boiler+AC (mil Rp)			2,807	3,597	4,975	6,943	10,357	14,728	20,056	26,342	33,585	41,202	49,214	57,644	66,517	75,858	85,630	95,855	106,552	117,745	129,455	141,707	154,525	167,935	181,963	196,639	
342 Commercial Total (mil Rp)			4,360	5,416	7,060	9,294	13,093	17,970	23,923	30,952	39,059	47,585	56,537	65,998	75,938	86,403	97,354	108,814	120,805	133,354	146,484	160,224	174,600	189,642	205,380	221,846	
343 Industrial (mil Rp)			302,529	319,728	343,731	382,665	420,843	458,742	488,547	520,394	567,605	601,201	646,070	701,917	769,651	829,911	851,041	923,358	995,632	1,080,682	1,173,633	1,184,237	1,287,317	1,400,363	1,506,470	1,609,973	
344 Total (mil Rp)			307,913	327,066	354,526	399,870	447,151	485,288	537,590	583,493	645,909	697,784	760,941	832,850	917,209	994,681	1,033,496	1,122,369	1,211,645	1,314,269	1,425,392	1,454,623	1,577,145	1,710,314	1,837,266	1,952,235	
345 Gas material cost (mil Rp)			158,550	172,784	193,005	225,911	262,526	299,765	331,177	365,128	412,617	448,736	494,528	549,920	615,700	676,015	703,972	799,121	878,679	974,894	1,085,492	1,128,500	1,249,892	1,384,200	1,517,373	1,652,966	
346 Gross profit (mil Rp)			149,363	154,282	161,521	173,959	184,625	195,521	208,413	218,365	233,292	249,028	266,413	282,929	301,506	318,672	329,523	323,248	332,966	339,375	339,901	326,123	327,253	326,114	319,894	309,269	
347 Gross profit (incremental MMRp) (mil Rp)			0	4,919	12,158	24,596	35,262	46,158	57,051	69,002	83,930	99,665	117,050	133,565	152,144	169,310	180,161	173,885	183,603	190,013	190,538	176,761	177,891	178,751	170,531	159,906	832,846
348 Property Tax (mil Rp)			29	57	85	111	110	110	110	111	111	113	114	117	119	119	121	123	127	122	122	127	131	135	138	121	
349 Labor cost (incremental) Staffs (mil Rp)			1,186	2,639	4,375	6,038	6,737	7,395	7,664	7,605	7,822	7,585	7,316	6,992	6,628	6,241	5,714	5,234	4,783	4,361	3,959	3,596	3,259	2,950	2,662	2,299	
350 Workers (mil Rp)			1,544	3,516	5,992	8,535	9,864	11,255	12,162	12,619	13,610	13,873	14,097	14,219	14,254	14,214	13,802	13,427	13,046	12,659	12,241	11,849	11,457	11,066	10,666	9,839	
351 Pensions (mil Rp)			273	615	1,037	1,457	1,660	1,865	1,983	2,022	2,143	2,146	2,141	2,121	2,088	2,045	1,952	1,866	1,783	1,702	1,620	1,544	1,472	1,402	1,333	1,214	
352 Total (mil Rp)			3,004	6,770	11,403	16,030	18,260	20,515	21,809	22,246	23,574	23,604	23,555	23,332	22,971	22,500	21,467	20,527	19,612	18,722	17,820	16,989	16,187	15,418	14,660	13,352	69,541
353 Administrative expenses (mil Rp)			901	2,031	3,421	4,809	5,478	6,154	6,543	6,674	7,072	7,081	7,066	6,999	6,891	6,750	6,440	6,158	5,884	5,677	5,346	5,097	4,856	4,625	4,398	4,006	20,862
354 Maintenance & other expenses (mil Rp)			734	1,580	2,554	3,633	4,139	4,670	5,202	5,712	6,319	6,880	7,460	8,069	8,666	9,181	9,722	10,255	10,810	11,391	11,791	12,404	13,020	13,634	14,245	14,241	74,172
355 Total investment (mil Rp)			33,473	36,390	39,946	41,592	45,056	48,146	50,748	52,915	55,617	57,929	60,849	64,389	67,556	70,377	72,854	74,987	76,778	78,222	79,327	80,000	80,343	80,363	80,000	79,500	78,800
356 Before tax cash flow (financial) (mil Rp)			-38,141	-41,909	-45,261	-41,579	-7,781	-436	7,640	18,345	29,597	44,708	60,686	75,400	94,464	115,839	123,323	117,976	127,133	132,837	142,849	119,140	120,479	119,816	113,889	128,387	668,271
357 IRR of before tax cash flow			19.2%																								
358 NPV as of 10% (financial) (mil Rp)			272,378																								
359 NPV as of 15% (financial) (mil Rp)			73,675																								

(Down Side sensitivity Analyses)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	resid 2021
360 2% contingency sales Vc Gross profit (mil Rp)			0	4,536	11,226	22,757	32,478	42,411	52,457	63,491	77,170	91,858	107,990	123,068	139,958	155,574	165,649	157,596	163,529	169,886	168,188	153,827	152,506	148,703	139,944	126,820	787,702
361 10% contingency total investment (mil Rp)			36,820	40,029	43,941	45,751	46,561	46,661	47,322	47,506	48,982	49,007	49,986	51,614	52,936	54,415	55,997	57,733	59,605	61,617	63,762	66,043	68,469	71,041	73,759	76,624	79,637
362 Before tax cash flow (mil Rp)			-41,488	-45,931	-50,188	-47,577	-12,071	-5,698	1,472	11,242	21,111	35,183	49,808	62,937	80,375	100,611	106,903	99,802	107,054	110,578	119,238	93,905	92,773	89,455	80,982	95,321	591,439
363 IRR of before tax cash flow			16.1%																								
364 NPV as of 10% (mil Rp)			177,882																								
365 NPV as of 15% (mil Rp)			19,618																								

(Financial Analyses with In house Installation)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	resid 2021
366 LPG bottle repurchase (mil Rp)			1,191	2,187	3,420	4,401	3,780	4,214	4,017	3,558	4,831	4,000	4,000	4,000	4,000	4,000	2,957	2,879									

Labor Efficiency Sensitivity

54	LPG bottle repurchase (cooking)	(mil Rp)	5	5	5	9	13	17	21	25	27	29	30	32	34	37	39	42	44	47	50	54	57	61	65
55	In house pipeline installation (cooking)	(mil Rp)	94	94	94	164	234	304	374	446	475	505	537	572	609	649	691	737	785	836	891	949	1,011	1,077	1,147
56	In house pipeline installation (AC)	(mil Rp)	94	139	184	344	466	589	711	845	897	952	1,010	1,072	1,139	1,211	1,287	1,369	1,456	1,549	1,647	1,752	1,864	1,982	2,108
57	Turbo chiller	(1000\$)	7,124	10,539	13,955	26,138	35,444	44,749	54,055	64,275	65,195	72,358	76,809	81,534	86,560	92,008	97,873	104,088	110,700	117,740	125,229	133,197	141,870	150,878	160,255
58		(mil Rp)	16,740	24,767	32,793	61,424	83,292	105,161	127,029	151,047	160,258	170,064	180,501	191,605	203,416	218,290	230,002	244,603	260,146	276,688	294,289	313,012	332,924	354,094	376,599
59	Absorption chiller	(1000\$)	7,636	11,297	14,958	28,018	37,993	47,969	57,944	68,659	73,101	77,574	82,334	87,400	92,787	98,659	104,914	111,574	118,684	126,210	134,238	142,779	151,881	161,518	171,784
60		(mil Rp)	17,045	26,549	35,152	65,843	89,284	112,726	136,168	161,913	171,786	182,298	193,458	205,389	218,050	231,849	246,548	262,199	278,881	296,593	315,460	335,530	356,874	379,588	403,692
61	FO tank installation	(mil Rp)	1,141	1,592	2,582	2,532	2,514	1,977	2,112	1,560	2,262	2,942	3,658	4,470	4,947	3,395	6,769	7,336	8,836	10,145	4,593	12,409	14,301	14,572	15,223
62	In house pipeline (industrial)	(mil Rp)	326	455	738	724	718	565	604	446	646	841	1,045	1,277	1,414	970	1,934	2,098	2,525	2,898	1,312	3,545	4,088	4,163	4,349
63	Imported facilities (included)	(mil Rp)	3,937	6,527	9,616	12,631	14,198	14,699	17,045	18,187	20,387	21,739	24,543	26,622	28,355	26,665	34,212	38,128	39,903	43,774	35,457	50,509	58,024	58,283	60,349
64	Imported tax	(mil Rp)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
65	Net social loss for facilities	(mil Rp)	39,114	48,353	57,073	61,840	38,665	37,478	40,192	41,146	44,128	44,714	47,263	49,043	50,659	49,701	55,887	57,449	60,620	64,196	58,741	109,413	114,174	118,519	114,950
66	Labor cost (Incremental Staffs)	(mil Rp)	1,250	2,994	5,746	8,054	9,744	11,203	12,425	13,368	14,263	14,903	15,408	15,782	16,039	16,190	16,253	16,241	16,024	15,822	15,614	15,369	15,090	14,627	13,537
67	Workers	(mil Rp)	1,611	3,898	7,563	10,732	13,157	15,345	17,280	18,897	20,510	21,821	22,990	24,017	24,915	25,691	26,365	26,951	27,454	27,882	28,227	28,558	28,844	29,074	28,947
68	Pensions	(mil Rp)	266	689	1,331	1,879	2,290	2,655	2,970	3,226	3,477	3,672	3,840	3,980	4,095	4,188	4,262	4,319	4,362	4,391	4,405	4,417	4,421	4,416	4,357
69	Total	(mil Rp)	3,147	7,561	14,639	20,664	25,191	29,203	32,675	35,491	38,251	40,398	42,238	43,778	45,050	46,069	46,869	47,512	47,977	48,297	48,460	48,590	48,635	48,581	47,931
70	Income tax (included)	(mil Rp)	349	839	1,618	2,281	2,777	3,215	3,592	3,895	4,190	4,413	4,610	4,769	4,897	4,998	5,074	5,131	5,170	5,192	5,198	5,196	5,190	5,171	5,089
71	Administrative expenses	(mil Rp)	944	2,274	4,392	6,199	7,557	8,761	9,802	10,647	11,475	12,119	12,671	13,134	13,515	13,821	14,064	14,253	14,393	14,489	14,538	14,577	14,591	14,574	14,379
72	Maintenance & other Expenses	(mil Rp)	747	1,613	2,659	3,749	4,304	4,833	5,308	5,908	6,483	7,066	7,694	8,351	9,028	9,642	10,407	11,187	12,028	12,932	13,819	14,701	15,581	16,457	17,329
73	Value tax (included)	(mil Rp)	154	353	641	904	1,078	1,238	1,381	1,505	1,633	1,744	1,851	1,953	2,049	2,133	2,225	2,313	2,402	2,493	2,560	2,725	2,897	3,067	3,217
74	Net social benefit	(mil Rp)	-43,449	-43,583	-44,460	-26,397	25,577	41,130	55,390	73,390	84,940	104,758	129,481	156,891	160,366	162,668	192,889	223,450	256,104	286,769	321,065	275,898	302,030	329,304	353,290
75	EIRR	(%)	31.0%																						
76	NSB as of 10%	(mil Rp)	848,771																						
77	NSB as of 15%	(mil Rp)	383,457																						

[High Case]

(Cumulative Workers)		1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	resid 2021
158	Administrative staff	(persons)	17	39	78	106	128	147	163	178	187	198	202	207	211	213	214	214	214	213	212	210	207	204	200	198	182	
159	Administrative workers	(persons)	40	92	170	230	269	299	320	334	342	348	345	342	338	327	318	307	295	284	272	259	248	234	221	218		
160	Sales	(persons)	22	39	68	70	64	62	60	58	56	54	53	51	49	47	46	45	43	42	40	39	38	37	36			
161	Meter reading	(persons)		4	10	22	33	43	52	60	68	75	82	89	95	101	106	112	117	123	128	132	137	143	148	153		
162	Collecting	(persons)		6	16	33	50	65	78	91	103	114	124	134	142	150	157	164	170	175	180	184	188	192	195	197		
163	High-medium pressure	(persons)	9	18	26	34	38	40	41	42	44	45	46	48	49	50	51	56	61	64	68	70	72	74	71			
164	Low pressure	(persons)	28	77	163	247	321	390	454	513	587	617	683	705	743	778	810	839	865	888	908	926	942	956	987	934		
165	Meter administration	(persons)	11	23	61	93	120	146	170	192	213	232	249	265	280	293	305	316	327	338	344	351	357	363	368	355		
166	Total	(persons)	127	304	591	834	1,022	1,190	1,337	1,468	1,579	1,678	1,764	1,839	1,903	1,959	2,007	2,048	2,082	2,120	2,146	2,168	2,184	2,198	2,205			
167	Total white collar	(persons)	17	39	76	106	128	147	163	178	187	198	202	207	211	213	214	214	213	212	210	207	204	200	198			
168	Total blue collar	(persons)	110	264	515	728	894	1,042	1,174	1,290	1,392	1,482	1,591	1,631	1,693	1,746	1,793	1,834	1,870	1,908	1,936	1,960	1,980	1,988	2,009			
169	Salary per a white collar	(1000Rp/y)	76,282	76,282	76,282	76,282	76,282	76,282	76,282	76,282	76,282	76,282	76,282	76,282	76,282	76,282	76,282	76,282	76,282	76,282	76,282	76,282	76,282	76,282	76,282			
170	Salary per a blue collar	(1000Rp/y)	14,744	14,744	14,744	14,744	14,744	14,744	14,744	14,744	14,744	14,744	14,744	14,744	14,744	14,744	14,744	14,744	14,744	14,744	14,744	14,744	14,744	14,744	14,744			

(Financial Feasibility Analysis)

1	Sales Residential	(mil Rp)	1,023	2,079	4,210	8,504	13,764	19,565	26,141	33,507	41,633	50,741	60,687	72,837	87,134	103,562	121,004	139,562	159,230	179,016	199,918	220,918	242,018	263,218	284,518	305,918	327,418	349,018	370,718	392,518	414,418	436,418	458,518	480,718	503,018	525,418	547,918	570,518	593,218	616,018	638,918	661,918	685,018	708,218	731,618	755,118	778,718	802,418	826,218	850,118	874,118	898,218	922,418	946,718	971,118	995,618	1,020,218	1,044,918	1,069,718	1,094,618	1,119,618	1,144,718	1,169,918	1,195,218	1,220,618	1,246,118	1,271,718	1,297,418	1,323,218	1,349,118	1,375,118	1,401,218	1,427,418	1,453,718	1,480,118	1,506,618	1,533,218	1,559,918	1,586,718	1,613,618	1,640,618	1,667,718	1,694,918	1,722,218	1,749,618	1,777,118	1,804,718	1,832,418	1,860,218	1,888,118	1,916,118	1,944,218	1,972,418	2,000,718	2,029,118	2,057,618	2,086,218	2,114,918	2,143,718	2,172,618	2,201,618	2,230,718	2,260,018	2,289,418	2,318,918	2,348,518	2,378,218	2,408,018	2,437,918	2,467,918	2,498,018	2,528,218	2,558,518	2,588,918	2,619,418	2,649,918	2,680,518	2,711,218	2,742,018	2,772,918	2,803,918	2,835,018	2,866,218	2,897,518	2,928,918	2,960,418	2,992,018	3,023,718	3,055,518	3,087,418	3,119,418	3,151,518	3,183,718	3,216,018	3,248,418	3,280,918	3,313,518	3,346,218	3,379,018	3,411,918	3,444,918	3,478,018	3,511,218	3,544,518
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Labor Efficiency Sensitivity

(Down Side Sensitivity Analysis)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	resid 2021
34 Before tax cash flow (mil Rp)	0	0	-48,105	-54,202	-68,035	-60,306	-24,266	-14,363	-6,904	4,868	11,001	23,483	38,733	49,857	68,008	97,842	109,718	157,939	148,393	176,138	221,868	196,091	269,043	269,602	300,619	421,789	2,386,558
35 IRR of before tax cash flow			17.6%																								
36 NPV as of 10%			438,080																								
37 NPV as of 15%			82,458																								

(Social Benefit & Loss Analysis)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	resid 2021
38 Social benefit for residential customers (Rp/m3)	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800
39 Social benefit for commercial cooking (Rp/m3)	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800
40 Social benefit for commercial AC (Rp/m3)	528	528	528	528	528	528	528	528	528	528	528	528	528	528	528	528	528	528	528	528	528	528	528	528	528	528	528
41 Social benefit for industrial customers (Rp/m3)	308	308	308	308	308	308	308	308	308	308	308	308	308	308	308	308	308	308	308	308	308	308	308	308	308	308	308
42 Social benefit for residential customers (mil Rp)	2,213	4,027	7,386	13,634	20,316	28,756	33,300	39,949	46,704	53,623	60,687	67,837	75,134	82,562	90,004	97,560	105,230	113,016	120,918	128,957	137,118	145,402	153,810	162,346	171,016	179,819	188,754
43 Social benefit for commercial cooking (mil Rp)	3,765	4,410	5,055	5,700	6,345	6,990	7,635	8,280	8,925	9,570	10,215	10,860	11,505	12,150	12,795	13,440	14,085	14,730	15,375	16,020	16,665	17,310	17,955	18,600	19,245	19,890	
44 Social benefit for commercial AC (mil Rp)	4,431	5,754	7,078	8,401	9,724	11,047	12,370	13,693	15,016	16,339	17,662	18,985	20,308	21,631	22,954	24,277	25,600	26,923	28,246	29,569	30,892	32,215	33,538	34,861	36,184	37,507	
45 Social benefit for industrial customers (mil Rp)	8,258	10,164	13,070	16,008	18,946	21,884	24,822	27,760	30,698	33,636	36,574	39,512	42,450	45,388	48,326	51,264	54,202	57,140	60,078	63,016	65,954	68,892	71,830	74,768	77,706	80,644	
46 Social benefit for commercial total (mil Rp)	295,807	323,835	362,951	428,399	488,815	550,375	598,948	650,844	682,704	738,970	797,277	876,815	988,041	1,126,406	1,273,888	1,448,451	1,690,351	1,991,342	2,352,722	2,580,837	3,064,440	3,648,289	4,184,738	4,841,892	5,588,104	6,366,104	
47 Total social benefit from gas sales (mil Rp)	306,275	338,026	383,351	458,840	532,275	608,973	674,546	745,511	788,504	874,934	958,454	1,062,421	1,197,061	1,384,199	1,508,868	1,744,241	2,017,700	2,352,130	2,748,973	3,014,748	3,538,357	4,184,738	4,841,892	5,588,104	6,366,104	7,188,104	
48 Social loss for gas supplied (Rp/m3)	187	187	187	187	187	187	187	187	187	187	187	187	187	187	187	187	187	187	187	187	187	187	187	187	187	187	187
49 Total social loss from gas supplied (mil Rp)	163,057	179,251	202,131	238,926	278,007	326,585	387,020	411,561	446,271	498,241	549,222	619,430	743,550	878,837	987,786	1,176,499	1,390,828	1,664,785	2,005,473	2,245,518	2,703,682	3,263,016	3,884,166	4,583,577	5,366,104	6,244,104	
50 Gross social benefit (mil Rp)	143,218	158,775	181,220	217,914	258,268	282,388	307,528	333,950	352,233	378,693	409,233	442,991	453,511	487,361	518,081	587,749	626,872	687,345	743,501	789,230	834,675	901,721	957,726	1,002,526	1,052,526	1,102,526	
51 Incremental gross social benefit (mil Rp)	0	15,558	38,002	74,695	113,049	139,169	164,309	190,731	209,015	235,475	268,014	299,772	310,292	344,143	372,863	424,530	483,654	544,127	600,282	628,012	691,458	758,502	814,508	859,308	893,108	926,908	
52 LFG bottle repurchase (residential) (mil Rp)	1,200	2,165	3,992	4,222	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000
53 In house pipeline installation (residential) (mil Rp)	2,400	4,371	7,985	8,445	7,999	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000
54 LFG bottle repurchase (cooking) (mil Rp)	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
55 In house pipeline installation (cooking) (mil Rp)	94	94	94	166	237	309	382	458	520	555	593	634	683	736	794	856	924	997	1,078	1,161	1,253	1,353	1,461	1,578	1,704	1,841	
56 In house pipeline installation (AC) (mil Rp)	94	139	184	347	472	599	725	864	920	1,043	1,112	1,185	1,274	1,370	1,475	1,588	1,710	1,842	1,984	2,138	2,304	2,484	2,678	2,888	3,114	3,356	
57 Turbo chiller (1000\$)	7,124	10,539	13,955	28,344	35,915	45,515	55,128	65,675	69,824	74,487	79,323	84,514	90,061	96,836	104,172	112,111	120,697	129,980	140,012	150,850	162,555	175,193	188,835	203,483	219,137	235,895	
58 Absorption chiller (1000\$)	18,740	24,787	32,793	61,909	84,401	106,951	129,551	154,337	164,321	174,997	186,409	198,607	211,842	227,564	244,804	263,638	305,452	329,027	354,497	382,004	411,704	443,763	478,183	514,963	554,103	595,603	
59 FO tank installation (mil Rp)	17,945	26,549	35,152	66,393	90,473	114,655	138,811	165,440	176,143	187,586	199,819	212,895	226,888	243,935	262,415	282,413	304,042	327,428	352,697	379,999	409,486	441,322	475,687	512,587	552,007		
60 In house pipeline (industrial) (mil Rp)	1,426	1,990	3,228	3,185	3,142	2,471	2,840	1,821	2,761	3,068	4,052	5,652	7,141	8,572	10,713	12,307	15,314	18,388	11,608	24,605	29,705	32,150	35,413	39,487	44,377		
61 Imported facilities (included) (mil Rp)	4,627	8,553	11,457	13,369	15,493	16,081	17,928	18,612	21,239	22,784	25,607	29,173	32,884	32,021	41,913	46,638	53,375	60,879	50,491	75,833	87,005	93,733	102,239	111,495	121,495		
62 Imported tax (mil Rp)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
63 Net social loss for facilities (mil Rp)	39,723	46,110	58,681	62,160	37,651	38,628	40,829	42,098	44,244	45,747	48,187	51,115	54,152	54,009	54,009	54,009	54,009	54,009	54,009	54,009	54,009	54,009	54,009	54,009	54,009	54,009	
64 Labor cost (Incremental Staffs) (mil Rp)	1,284	2,998	5,770	8,062	9,758	11,221	12,444	13,452	14,271	14,923	15,428	15,804	16,087	16,224	16,295	16,295	16,260	16,165	16,005	15,804	15,553	15,274	14,968	13,843	12,843		
65 Workers (mil Rp)	1,629	3,889	7,595	10,743	13,176	15,369	17,308	19,015	20,521	21,851	23,021	24,051	24,958	25,745	26,434	27,011	27,421	27,621	27,621	27,621	27,621	27,621	27,621	27,621	27,621		
66 Pensions (mil Rp)	289	690	1,337	1,881	2,293	2,659	3,247	3,479	3,677	3,845	4,102	4,197	4,273	4,334	4,388	4,429	4,455	4,471	4,474	4,474	4,474	4,474	4,474	4,474	4,474		
67 Total (mil Rp)	3,183	5,565	11,270	16,088	25,228	29,248	32,725	35,714	38,271	40,451	42,293	43,841	45,127	46,168	47,002	47,688	48,268	48,721	49,004	49,179	49,217	49,179	49,004	48,195	46,195		
68 Income tax (included) (mil Rp)	353	839	1,625	2,284	2,781	3,220	3,597	3,919	4,183	4,424	4,648	4,778	4,908	5,008	5,088	5,148	5,201	5,237	5,255	5,234	5,208	5,185	5,155	5,115	5,065		
69 Administrative expenses (mil Rp)	955	2,278	4,411	6,208	7,589	8,774	9,817	10,714	11,481	12,135	12,688	13,152	13,538	13,850	14,101	14,301	14,480	14,618	14,701	14,754	14,765	14,752	14,715	14,658	14,585		
70 Maintenance & other Expenses (mil Rp)	783	1,630	2,717	3,822	4,404	4,961	5,527	6,064	6,544	7,242	7,884	8,588	9,351	10,087	10,890	11,985	13,857	15,888	17,842	19,922	21,618	23,421	25,383	27,385	29,387		
71 Value tax (included) (mil Rp)	158	355	648	912	1,088	1,249	1,395	1,525	1,648	1,762	1,870	1,976	2,081	2,174	2,280	2,388	2,576	2,773	2,940	3,152	3,308	3,470	3,643	3,826	4,019		
72 Net social benefit (mil Rp)	-44,115	-40,850	-40,238	-44,983	-42,067	-42,067	-42																				

Feasibility Study at Bekasi

		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
(Gas Demand)																									
1 Residential	(1000m3)	137	1,152	2,429	2,666	2,679	2,693	2,707	2,721	2,735	2,755	2,776	2,797	2,817	2,838	2,856	2,874	2,892	2,910	2,928	2,944	2,961	2,978	2,994	3,011
(Number of Customers)																									
2 Residential		1,650	5,520	7,740	7,740	7,740	7,740	7,740	7,740	7,740	7,740	7,740	7,740	7,740	7,740	7,740	7,740	7,740	7,740	7,740	7,740	7,740	7,740	7,740	7,740
(Sales Volume per Customer)																									
3 Residential	(1000m3)	0.08	0.21	0.31	0.34	0.35	0.35	0.35	0.35	0.35	0.36	0.36	0.36	0.36	0.37	0.37	0.37	0.37	0.38	0.38	0.38	0.38	0.38	0.39	0.39
(Investment Plan)																									
4 Transmission pipeline	(km)	0.3																							
5 Distribution pipeline	(km)	29.9	38.2																						
6 Cumulative distribution pipeline	(km)	29.9	68.1	68.1	68.1	68.1	68.1	68.1	68.1	68.1	68.1	68.1	68.1	68.1	68.1	68.1	68.1	68.1	68.1	68.1	68.1	68.1	68.1	68.1	68.1
7 Cumulative A governor	(units)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
8 Cumulative B governor	(units)	2	6	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
9 SP/customer	(1000Rp)	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
10 HR/meter/customer	(1000Rp)	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126
11 Transmission pipeline	(mil Rp)	814																							
12 Distribution pipeline	(mil Rp)	1,878	1,803																						
13 Total SP	(mil Rp)	165	387																						
14 Total HR/meter	(mil Rp)	208	488	280	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15 A governor	(mil Rp)	119	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16 B governor	(mil Rp)	117	235	117	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17 Total investment(Case 1 and 2)	(mil Rp)	3,302	2,913	619	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18 Cumulative facility investment	(mil Rp)	3,302	6,214	6,833	6,833	6,833	6,833	6,833	6,833	6,833	6,833	6,833	6,833	6,833	6,833	6,833	6,833	6,833	6,833	6,833	6,833	6,833	6,833	6,833	6,833
19 Depreciation	(mil Rp)	413	725	712	623	545	477	417	365	320	280	245	214	187	164	143	125	110	96	84	74	64	56	49	43
20 Cumulative depreciation	(mil Rp)	413	1,138	1,850	2,473	3,018	3,495	3,912	4,277	4,597	4,876	5,121	5,335	5,522	5,686	5,830	5,955	6,065	6,161	6,245	6,318	6,383	6,439	6,488	6,531
21 Net property	(mil Rp)	2,889	5,076	4,983	4,361	3,815	3,339	2,921	2,556	2,237	1,957	1,712	1,498	1,311	1,147	1,004	878	769	672	588	515	450	394	345	302
22 Total investment(Case 3 and 4)	(mil Rp)	1,424	1,110	619	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23 Cumulative facility investment	(mil Rp)	1,424	2,533	3,152	3,152	3,152	3,152	3,152	3,152	3,152	3,152	3,152	3,152	3,152	3,152	3,152	3,152	3,152	3,152	3,152	3,152	3,152	3,152	3,152	3,152
24 Depreciation	(mil Rp)	178	294	335	293	256	224	196	172	150	132	115	101	88	77	67	59	52	45	40	35	30	26	23	20
25 Cumulative depreciation	(mil Rp)	178	472	807	1,100	1,357	1,581	1,778	1,950	2,100	2,231	2,347	2,447	2,535	2,613	2,680	2,739	2,791	2,836	2,875	2,910	2,940	2,967	2,990	3,010
26 Net property	(mil Rp)	1,246	2,061	2,345	2,052	1,795	1,571	1,375	1,203	1,052	921	806	705	617	540	472	413	362	316	277	242	212	185	162	142
27 Total Investment of separate utility	(mil Rp)	2,368	2,913	619	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28 Cumulative facility investment	(mil Rp)	2,368	5,281	5,900	5,900	5,900	5,900	5,900	5,900	5,900	5,900	5,900	5,900	5,900	5,900	5,900	5,900	5,900	5,900	5,900	5,900	5,900	5,900	5,900	5,900
29 Depreciation	(mil Rp)	296	623	623	545	477	417	365	319	279	244	214	187	164	143	125	110	96	84	74	64	56	49	43	38
30 Cumulative depreciation	(mil Rp)	296	919	1,542	2,087	2,563	2,980	3,345	3,665	3,944	4,189	4,403	4,590	4,754	4,897	5,022	5,132	5,228	5,312	5,385	5,450	5,506	5,555	5,598	5,636
31 Net property	(mil Rp)	2,072	4,362	4,358	3,814	3,337	2,920	2,555	2,235	1,956	1,711	1,498	1,310	1,147	1,003	878	768	672	588	515	450	394	345	302	264
(Imported Facilities in Dollar Term)																									
32 Total HR/meter	(1000\$)	88	207	119	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
33 A governor	(1000\$)	51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34 B governor	(1000\$)	50	100	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
35 Total	(1000\$)	189	307	169	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36 Exchange rate	(Rp/\$)	2,350	2,350	2,350	2,350	2,350	2,350	2,350	2,350	2,350	2,350	2,350	2,350	2,350	2,350	2,350	2,350	2,350	2,350	2,350	2,350	2,350	2,350	2,350	2,350
(Number of Workers)																									
37 Administrative staff (except safety)(persons)		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
38 Administrative workers (except safety)(persons)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
39 Administrative staff (for safety) (persons)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40 Administrative workers (for safety) (persons)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
41 Sales	(persons)	5	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
42 Meter reading	(persons)	1	3	4	4	4	4	3	3	3	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2
43 Collecting	(persons)	2	5	7	6	6	6	5	5	5	4	4	4	4	3	3	3	3	3	3	2	2	2	2	2
44 Low pressure (safety)	(persons)	4	9	8	8	7	7	6	6	5	5	5	4	4	4	4	3	3	3	2	2	2	2	2	2
45 Meter administration	(persons)	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
46 Total	(persons)	15	23	23	22	21	21	18	18	17	16	16	15	14	13	12	12	12	12	11	10	10	10	9	8
47 White collar (except safety)	(persons)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
48 Blue collar (except safety)	(persons)	10	13	14	13	13	13	11	11	11	10	10	10	9	8	8	8	8	8	8	7	7	7	6	5
49 White collar (for safety)	(persons)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50 Blue collar (for safety)	(persons)	4	9	8	8	7	7	6	6	5	5	5	4	4	4	3	3	3	3	2	2	2	2	2	2
51 Salary per a white collar (separate utility)(1000Rp/y)		50,842	50,842	50,842	50,842	50,842	50,842	50,842	50,842	50,842	50,842	50,842	50,842	50,842	50,842	50,842	50,842	50,842	50,842	50,842	50,842	50,842	50,842	50,842	50,842
52 Salary per a blue collar (separate utility)(1000Rp/y)		9,829	9,829	9,829	9,829	9,829	9,829	9,829	9,829	9,829	9,829	9,829	9,829	9,829	9,829	9,829	9,829	9,829	9,829	9,829	9,829	9,829	9,829	9,829	9,829
53 Salary per a white collar (PGN) (1000Rp/y)		76,262	76,262	76,262	76,262	76,262	76,262	76,262	76,262	76,262	76,262	76,262	76,262	76,262	76,262	76,262	76,262	76,262	76,262	76,262	76,262	76,262	76,262	76,262	76,262
54 Salary per a blue collar (PGN) (1000Rp/y)		14,744	14,744	14,744	14,744	14,744	14,744	14,744	14,744	14,744	14,744	14,744	14,744	14,744	14,744	14,744	14,744	14,744	14,744	14,744	14,744	14,744	14,744	14,744	14,744
55 Total salary(white, case 1 to 4)	(mil Rp)	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76
56 Total salary(blue, case 1 to 4)	(mil Rp)	206	324	324</																					

Bekasi

(Financial Analyses with In House Installation)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
227 LPG bottle repurchase (mil Rp)	330	774	441	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
228 In house pipeline installation (mil Rp)	660	1,548	888	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
229 Before tax cash flow (mil Rp)	-2,878	-3,487	-289	899	905	912	945	952	959	981	991	1,001	1,024	1,047	1,055	1,064	1,072	1,081	1,089	1,110	1,118	1,126	1,146	1,167
230 IRR of before tax cash flow	11.4%																							
231 NPV as of 10% (mil Rp)	698																							
232 NPV as of 15% (mil Rp)	-1,302																							

(Down Side Sensitivity Analysis)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
233 Before tax cash flow (mil Rp)	-3,117	-3,797	-390	856	863	869	902	908	915	937	947	956	979	1,001	1,009	1,018	1,026	1,034	1,042	1,063	1,070	1,078	1,098	1,119
234 IRR of before tax cash flow	9.7%																							
235 NPV as of 10% (mil Rp)	-140																							
236 NPV as of 15% (mil Rp)	-1,993																							

(Profit & Loss Account of Separate Utility)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
237 Sales of gas (mil Rp)	109	922	1,943	2,133	2,143	2,154	2,165	2,176	2,188	2,204	2,220	2,237	2,254	2,271	2,285	2,299	2,313	2,328	2,342	2,355	2,368	2,382	2,395	2,409
238 Gas material cost (mil Rp)	45	380	802	880	884	889	893	898	902	909	916	923	930	937	943	948	954	960	966	972	977	983	988	994
239 Gross profit (mil Rp)	64	541	1,141	1,253	1,259	1,265	1,272	1,279	1,285	1,295	1,305	1,314	1,324	1,334	1,342	1,351	1,359	1,367	1,376	1,384	1,391	1,399	1,407	1,415
240 Depreciation (mil Rp)	296	623	623	545	477	417	365	319	279	244	214	187	164	143	125	110	96	84	74	64	56	49	43	38
241 Labor cost (mil Rp)	149	179	188	179	179	179	159	159	159	149	149	149	139	129	129	129	129	129	129	120	120	120	110	100
242 Administrative expenses (mil Rp)	45	54	57	54	54	54	48	48	48	45	45	45	42	39	39	39	39	39	39	36	36	36	33	30
243 Maintenance & other expenses (mil Rp)	47	106	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118
244 Property tax (mil Rp)	2	4	4	4	3	3	3	2	2	2	1	1	1	1	1	1	1	1	1	0	0	0	0	0
245 Interest income (mil Rp)	50	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
246 Interest expenses (mil Rp)	300	370	473	524	517	507	492	452	433	454	455	483	516	550	590	638	688	747	815	886	961	1,041	1,126	1,214
247 Income before income taxes (mil Rp)	-936	-1,110	-649	-490	-386	-310	-173	-80	7	51	91	121	142	160	167	144	115	76	49	16	-43	-108	-158	-212
248 Income taxes (mil Rp)	0	0	0	0	0	0	0	-366	2	15	27	36	43	48	50	43	35	23	15	5	-13	-32	-47	-64
249 Net income (mil Rp)	-936	-1,110	-649	-490	-386	-310	-173	285	5	36	63	85	100	112	117	101	81	54	34	11	-30	-75	-110	-148

(Cash Flow Statement of Separate Utility)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
(Cash out)																								
250 Investment (mil Rp)	2,368	2,913	619	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
251 Cash or Short term Debt (mil Rp)	992	-2,400	-646	-373	-338	-322	-236	176	-644	-649	-223	-328	-337	-345	-458	-490	-523	-652	-692	-724	-774	-826	-867	-911
252 Total (mil Rp)	3,360	513	-27	-373	-338	-322	-236	176	-644	-649	-223	-328	-337	-345	-458	-490	-523	-662	-692	-724	-774	-826	-867	-911
(Cash In)																								
253 Net income (mil Rp)	-936	-1,110	-649	-490	-386	-310	-173	285	5	36	63	85	100	112	117	101	81	54	34	11	-30	-75	-110	-148
254 Dividend (mil Rp)	0	0	0	0	0	0	0	0	-500	-500	-500	-600	-600	-600	-700	-700	-700	-800	-800	-800	-800	-800	-800	-800
255 Depreciation (mil Rp)	296	623	623	545	477	417	365	319	279	244	214	187	164	143	125	110	96	84	74	64	56	49	43	38
256 Equity (mil Rp)	1000	1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
257 Long term (Financing) (mil Rp)	3000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
258 (Principle repayment) (mil Rp)	0	0	0	-429	-429	-429	-429	-429	-429	-429	-429	-429	-429	-429	-429	-429	-429	-429	-429	-429	-429	-429	-429	-429
259 Total (mil Rp)	3,360	513	-27	-373	-338	-322	-236	176	-644	-649	-223	-328	-337	-345	-458	-490	-523	-662	-692	-724	-774	-826	-867	-911

(Balance Sheet of Separate Utility)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
(Assets)																								
260 Cash (mil Rp)	992	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
261 Facilities (mil Rp)	2,072	4,362	4,358	3,814	3,337	2,920	2,555	2,235	1,956	1,711	1,498	1,310	1,147	1,003	878	768	672	588	515	450	394	345	302	264
262 Total (mil Rp)	3,064	4,362	4,358	3,814	3,337	2,920	2,555	2,235	1,956	1,711	1,498	1,310	1,147	1,003	878	768	672	588	515	450	394	345	302	264
(Liabilities and Equity)																								
263 long term debt (mil Rp)	3,000	3,000	3,000	2,571	2,143	1,714	1,286	857	429	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
264 Short term debt (mil Rp)	0	1,408	2,054	2,427	2,765	3,087	3,323	3,147	3,792	4,440	4,663	4,991	5,328	5,673	6,130	6,620	7,143	7,806	8,498	9,222	9,996	10,822	11,690	12,600
265 Equity (mil Rp)	64	-46	-695	-1,185	-1,571	-1,882	-2,054	-1,789	-2,264	-2,729	-3,165	-3,681	-4,181	-4,669	-5,253	-5,852	-6,471	-7,218	-7,983	-8,772	-9,602	-10,478	-11,388	-12,336
266 Total (mil Rp)	3,064	4,362	4,358	3,814	3,337	2,920	2,555	2,235	1,956	1,711	1,498	1,310	1,147	1,003	878	768	672	588	515	450	394	345	302	264
267 Equity/Total Investment (mil Rp)	33.9%																							
268 Equity Cash Flow (mil Rp)	-1000	0	0	0	0	0	0	0	500	500	500	600	600	600	700	700	700	800	800	800	800	800	800	800
269 IRR of Equity Investment	12.4%																							

(Financial feasibility of PGN in Separate Utility Case)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
270 Gas sales (mil Rp)	45	380	802	880	884	889	893	898	902	909	916	923	930	937	943	948	954	960	966	972	977	983	988	994
271 Gas material cost (Rp/m3)	162	168	174	183	192	199	204	209	212	216	219	223												

Feasibility Study at BSD Case: Air Conditioning Demand 100% Development

(Gas Demand)		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
1 Residential (1000m3)	(1000m3)	0	126	679	1,800	2,665	3,939	4,836	4,836	4,932	5,028	5,028	5,028	5,028	5,028	5,028	5,028	5,028	5,028	5,028	5,028	5,028	5,028	5,028	5,028
2 Commercial (cooking) (1000m3)	(1000m3)	0	921	1,286	2,670	2,958	3,245	3,571	3,968	4,273	4,483	4,594	4,912	5,159	5,561	5,869	6,178	6,486	6,795	6,908	6,908	6,908	6,908	6,908	6,908
3 (AC) (1000m3)	100% (1000m3)	0	6,747	7,672	17,977	20,569	23,233	26,137	29,764	32,337	34,308	35,284	37,573	39,137	41,833	43,938	46,043	48,147	50,252	53,678	56,382	59,087	59,087	59,087	59,087
4 Gas demand Total (1000m3)	(1000m3)	0	7,795	9,636	22,447	26,192	30,417	34,544	38,568	41,542	43,819	44,906	47,513	49,324	52,421	54,835	57,248	59,662	62,075	65,615	68,319	71,023	71,023	71,023	71,023
5 AG demand with 100% contingency (1000m3)	(1000m3)	0	6,747	7,672	17,977	20,569	23,233	26,137	29,764	32,337	34,308	35,284	37,573	39,137	41,833	43,938	46,043	48,147	50,252	53,678	56,382	59,087	59,087	59,087	59,087
(Number of Customers)																									
6 Residential (units)	(units)	0	212	1,142	4,017	6,431	9,757	12,269	12,269	12,431	12,592	12,592	12,592	12,592	12,592	12,592	12,592	12,592	12,592	12,592	12,592	12,592	12,592	12,592	12,592
7 Commercial (cooking) (units)	(units)	0	13	17	46	53	60	69	79	91	95	99	118	136	161	179	197	214	232	240	240	240	240	240	240
8 (AC) (units)	(units)	0	7	8	22	25	28	33	38	43	46	47	55	63	73	80	88	95	103	108	110	112	112	112	112
9 Gas demand Total (units)	(units)	0	232	1,166	4,084	6,509	9,845	12,371	12,386	12,565	12,733	12,739	12,766	12,791	12,826	12,851	12,876	12,901	12,927	12,941	12,943	12,945	12,945	12,945	12,945
(Sales Volume per Customer)																									
10 Residential (1000m3)	(1000m3)	0	0.59	0.59	0.45	0.41	0.40	0.39	0.39	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40
11 Commercial (cooking) (1000m3)	(1000m3)	0	69.62	76.24	57.54	55.85	54.52	51.81	50.21	47.06	46.95	46.32	41.57	37.81	34.52	32.82	31.43	30.27	29.29	28.73	28.73	28.73	28.73	28.73	28.73
12 (AC) (1000m3)	(1000m3)	0	945.74	976.88	833.41	823.72	818.93	794.09	783.71	747.08	750.34	743.65	678.99	624.16	573.92	547.18	524.95	506.20	490.15	496.58	511.26	525.37	525.37	525.37	525.37
13 Gas demand Total (1000m3)	(1000m3)	0	33.54	8.26	5.50	4.02	3.09	2.79	3.11	3.31	3.44	3.53	3.72	3.86	4.09	4.27	4.45	4.62	4.80	5.07	5.28	5.49	5.49	5.49	5.49
(Investment Plan)																									
14 Cumulative main pipeline length (10bar) (km)	(km)	1.6	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
15 Cumulative main pipeline length (1bar) (km)	(km)	4.7	11.6	11.6	11.6	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7
16 Cumulative distribution pipeline length (km)	(km)	22.8	22.8	22.8	22.8	151.2	151.2	151.2	151.2	151.2	151.2	151.2	151.2	151.2	151.2	151.2	151.2	151.2	151.2	151.2	151.2	151.2	151.2	151.2	151.2
17 Cumulative off-taker (units)	(units)	0	0	0	0	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	3	3	3	3
18 Cumulative A governor (units)	(units)	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
19 Cumulative B governor (units)	(units)	1	2	5	7	10	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13
20 Phase 1 Main pipeline (10bar) (mil Rp)	(mil Rp)	223																							
21 Main pipeline (1bar) (mil Rp)	(mil Rp)	779																							
22 Distribution pipeline (mil Rp)	(mil Rp)	1,351																							
23 Phase 2 Main pipeline (10bar) (mil Rp)	(mil Rp)		460																						
24 Main pipeline (1bar) (mil Rp)	(mil Rp)		1,250																						
25 Distribution pipeline (mil Rp)	(mil Rp)		0																						
26 Phase 3 Main pipeline (mil Rp)	(mil Rp)					423																			
27 Distribution pipeline (mil Rp)	(mil Rp)					7,608																			
28 Phase 4 Main pipeline (mil Rp)	(mil Rp)													978											
29 Distribution pipeline (mil Rp)	(mil Rp)													0											
30 Residential SP (mil Rp)	(mil Rp)	21	93	288	241	333	251	0	16	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31 Residential HR+meter (mil Rp)	(mil Rp)	27	117	362	304	419	317	0	20	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32 Commercial SP (cooking) (mil Rp)	(mil Rp)	5	1	11	2	2	3	4	4	2	1	7	7	9	6	6	6	6	3	0	0	0	0	0	0
33 Commercial HR+meter (cooking) (mil Rp)	(mil Rp)	45	12	100	22	22	32	34	40	16	13	65	62	84	60	60	60	29	0	0	0	0	0	0	0
34 Commercial SP valve (mil Rp)	(mil Rp)	5	1	10	2	2	3	4	4	2	1	6	5	7	5	5	5	4	2	2	0	0	0	0	0
35 Commercial SP (AC) (mil Rp)	(mil Rp)	9	1	17	4	4	6	6	7	3	2	10	9	13	9	9	9	7	3	3	0	0	0	0	0
36 Commercial meter (AC) (mil Rp)	(mil Rp)	81	8	155	39	38	51	57	60	28	20	89	83	115	84	84	84	63	25	25	0	0	0	0	0
37 Off-taker (mil Rp)	(mil Rp)	0	0	0	0	564	0	0	0	0	0	0	564	0	0	0	0	0	0	0	564	0	0	0	0
38 A governor (mil Rp)	(mil Rp)	119	0	0	0	119	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
39 B governor (mil Rp)	(mil Rp)	59	59	176	117	176	176	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40 Total investment (Case 1 and 2) (mil Rp)	(mil Rp)	2,723	2,002	1,120	733	9,712	840	105	151	87	37	176	731	1,206	165	165	165	165	106	29	29	564	0	0	0
41 Cumulative investment (Case 1 and 2) (mil Rp)	(mil Rp)	2,723	4,725	5,845	6,578	16,290	17,129	17,235	17,386	17,473	17,510	17,686	18,417	19,623	19,788	19,953	20,119	20,284	20,390	20,419	20,448	21,012	21,012	21,012	21,012
42 Depreciation (Case 1 and 2) (mil Rp)	(mil Rp)	340	548	620	634	1,768	1,652	1,459	1,296	1,144	1,006	902	881	922	827	744	672	609	546	481	425	442	387	338	296
43 Cumulative depreciation (Case 1 and 2) (mil Rp)	(mil Rp)	340	889	1,508	2,142	3,910	5,563	7,022	8,317	9,462	10,468	11,370	12,251	13,172	13,999	14,744	15,415	16,024	16,570	17,051	17,476	17,918	18,304	18,643	18,939
44 Net property (case 1 and 2) (mil Rp)	(mil Rp)	2,383	3,837	4,337	4,436	12,379	11,567	10,213	9,069	8,011	7,042	6,316	6,166	6,451	5,789	5,210	4,703	4,260	3,820	3,368	2,972	3,094	2,708	2,369	2,073
45 Total investment (Case 3 and 4) (mil Rp)	(mil Rp)	1,372	2,002	1,120	733	2,104	840	105	151	87	37	176	731	1,206	165	165	165	165	106	29	29	564	0	0	0
46 Cumulative investment (Case 3 and 4) (mil Rp)	(mil Rp)	1,372	3,374	4,494	5,227	7,331	8,170	8,276	8,427	8,514	8,551	8,727	9,458	10,664	10,829	10,994	11,160	11,325	11,431	11,460	11,489	12,053	12,053	12,053	12,053
47 Depreciation (Case 3 and 4) (mil Rp)	(mil Rp)	172	400	490	521	718	734	655	592	529	467	431	469	561	511	458	430	397	361	319	283	318	278	244	213
48 Cumulative depreciation (Case 3 and 4) (mil Rp)	(mil Rp)	172	572	1,062	1,583	2,301	3,035	3,690	4,282	4,811	5,278	5,710	6,178	6,739	7,250	7,718	8,143	8,545	8,906	9,225	9,508	9,826	10,105	10,348	10,561
49 Net property (Case 3 and 4) (mil Rp)	(mil Rp)	1,201	2,802	3,432	3,644	5,029	5,135	4,586	4,145	3,703	3,272	3,017	3,280	3,925	3,579	3,276	3,011	2,780	2,525	2,235	1,981	2,227	1,948	1,705	1,492
50 Total investment of separate utility (mil Rp)	(mil Rp)	2,381	1,542	1,120	733	9,029	840	105	151	87	37	176	167	1,206	165	165	165	165	106	29	29	0	0	0	0
51 Cumulative investment of separate utility (mil Rp)	(mil Rp)	2,381	3,923	5,043	5,776	14,805	15,644	15,750	15,901	15,988	16,025	16,201	16,368	17,574	17,739	17,905	18,070	18,235	18,341	18,370	18,399	18,399	18,399	18,399	18,399
52 Depreciation of separate utility (mil Rp)	(mil Rp)	298	453	537	561	1,620	1,522	1,345	1,196	1,057	930	835	752	809	728	658	596	542	488	430	380	333	291	255	223
53 Cumulative depreciation of separate utility (mil Rp)	(mil Rp)	298	751	1,287	1,848	3,468	4,990	6,335	7,531	8,588	9,518	10,353	11,105	11,913	12,642	13,300	13,896	14,438	14,926	15,357	15,737	16,070	16,361	16,616	16,839
54 Net property of separate utility (mil Rp)	(mil Rp)	2,084	3,172	3,756	3,928	11,337	10,654	9,415	8,370	7,400	6,507	5,848	5,263	5,661	5,098	4,605	4,174	3,797	3,415	3,013	2,662	2,329	2,038	1,783	1,561
(Imported facilities in dollar term)																									
55 Residential HR+meter (1000\$)	(1000\$)	11	50																						

(Number of Workers)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
66 Administrative staff (Except Safety) (persons)	1	2	4	5	6	6	5	4	4	4	3	3	3	2	2	2	2	2	1	1	1	1	1	1
67 Administrative workers (Except Safety) (persons)	3	5	9	10	11	10	8	6	6	6	4	4	4	2	2	2	2	1	1	1	1	1	1	1
68 Administrative staff (for Safety) (persons)	2	2	1	1	8	7	6	5	5	4	3	3	2	2	2	1	1	1	1	0	0	0	0	0
69 Administrative workers (for Safety) (persons)	4	4	2	1	14	11	9	7	6	5	3	3	2	1	1	0	0	0	0	0	0	0	0	0
70 Sales (persons)	1	4	9	7	9	7	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0
71 Meter reading (persons)		1	1	3	4	5	6	5	5	5	5	4	4	4	4	3	3	3	3	3	3	2	2	2
72 Collecting (persons)		1	2	4	6	8	9	8	8	7	7	7	6	6	5	5	5	4	4	4	4	4	3	3
73 High-medium pressure (Safety) (persons)	0	2	2	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0
74 Low pressure (Safety) (persons)	10	9	8	8	50	47	44	41	38	35	33	31	29	27	25	23	22	20	19	17	16	15	14	13
75 Meter administration (persons)	1	2	7	10	13	15	14	14	13	12	11	11	10	9	9	8	8	7	7	6	6	6	5	1
76 Total (persons)	22	32	45	50	123	118	103	92	87	80	71	68	62	55	52	46	45	42	38	35	32	30	27	21
77 White collar (except safety) (persons)	1	2	4	5	6	6	5	4	4	4	3	3	3	2	2	2	2	2	1	1	1	1	1	1
78 Blue collar (except safety) (persons)	5	13	28	34	43	45	38	34	33	31	28	27	25	22	21	19	19	18	16	15	15	14	12	7
79 White collar (for safety) (persons)	2	2	1	1	8	7	6	5	5	4	3	3	2	2	2	1	1	1	1	1	0	0	0	0
80 Blue collar (for safety) (persons)	14	15	12	10	66	60	54	49	45	41	37	35	32	29	27	24	23	21	20	18	16	15	14	13
81 Salary per a white collar (separate utility) (1000Rp/y)	50,842	50,842	50,842	50,842	50,842	50,842	50,842	50,842	50,842	50,842	50,842	50,842	50,842	50,842	50,842	50,842	50,842	50,842	50,842	50,842	50,842	50,842	50,842	50,842
82 Salary per a blue collar (separate utility) (1000Rp/y)	9,829	9,829	9,829	9,829	9,829	9,829	9,829	9,829	9,829	9,829	9,829	9,829	9,829	9,829	9,829	9,829	9,829	9,829	9,829	9,829	9,829	9,829	9,829	9,829
83 Salary per a white collar (PGN) (1000Rp/y)	76,262	76,262	76,262	76,262	76,262	76,262	76,262	76,262	76,262	76,262	76,262	76,262	76,262	76,262	76,262	76,262	76,262	76,262	76,262	76,262	76,262	76,262	76,262	76,262
84 Salary per a blue collar (PGN) (1000Rp/y)	14,744	14,744	14,744	14,744	14,744	14,744	14,744	14,744	14,744	14,744	14,744	14,744	14,744	14,744	14,744	14,744	14,744	14,744	14,744	14,744	14,744	14,744	14,744	14,744
85 Total salary(White, case 1 to 4) (mil Rp)	229	305	381	458	1,068	991	839	686	686	610	458	458	381	305	305	229	229	229	153	153	76	76	76	76
86 Total salary(blue, case 1 to 4) (mil Rp)	280	413	590	649	1,607	1,548	1,356	1,224	1,150	1,062	958	914	840	752	708	634	619	575	531	487	457	428	383	295
87 Total salary of separate utility(white, case 1) (mil Rp)	51	102	203	254	305	305	254	203	203	203	153	153	153	102	102	102	102	102	51	51	51	51	51	51
88 Total salary of separate utility(blue, case 5) (mil Rp)	49	128	275	334	423	442	374	334	324	305	275	265	246	216	206	187	187	177	157	147	147	138	118	69
89 Total salary of PGN(white, case 1) (mil Rp)	153	153	76	76	610	534	458	381	381	305	229	229	153	153	153	76	76	76	76	76	0	0	0	0
90 Total salary of PGN(blue, case 1) (mil Rp)	206	221	177	147	973	885	796	722	663	604	546	516	472	428	398	354	339	310	295	265	236	221	206	192

(Social benefit & loss analyses: case 1 to 4)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
91 Social benefit for residential customers (Rp/m3)	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800
92 Social benefit for commercial cooking (Rp/m3)	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800
93 Social benefit for commercial AC (Rp/m3)	528	528	528	528	528	528	528	528	528	528	528	528	528	528	528	528	528	528	528	528	528	528	528	528
94 Total social benefit from gas sales (MMRp)	0	4,400	5,622	13,068	15,359	18,014	20,526	22,759	24,438	25,723	26,328	27,790	28,814	30,559	31,917	33,275	34,633	35,992	37,891	39,319	40,747	40,747	40,747	40,747
95 Social loss for gas supplied (Rp/m3)	167	167	167	167	167	174	178	182	186	190	193	197	210	217	222	227	231	236	242	247	252	257	262	267
96 Total social loss from gas supplied (mil Rp)	0	1,302	1,609	3,749	4,374	5,293	6,149	7,019	7,727	8,326	8,667	9,360	10,358	11,375	12,173	12,995	13,782	14,650	15,879	16,875	17,898	18,253	18,608	18,963
97 Gross social benefit (mil Rp)	0	3,099	4,013	9,319	10,985	12,722	14,377	15,739	16,711	17,398	17,661	18,430	18,456	19,183	19,744	20,280	20,852	21,342	22,012	22,444	22,849	22,494	22,139	21,784
98 Total investment (mil Rp)	2,723	2,002	1,120	733	9,712	840	105	151	87	37	176	731	1,206	165	165	165	165	106	29	29	564	0	0	0
99 LPG bottle repurchase (residential) (mil Rp)	42	186	575	483	665	502	0	32	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
100 In house pipeline installation (residential) (mil Rp)	85	372	1,150	966	1,330	1,005	0	65	65	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
101 LPG bottle repurchase (commercial) (mil Rp)	3	1	6	1	1	2	2	2	1	1	4	4	5	4	4	4	4	2	0	0	0	0	0	0
102 In house pipeline installation (cooking) (mil Rp)	47	13	104	23	23	33	36	42	17	13	67	65	87	63	63	63	63	30	0	0	0	0	0	0
103 In house pipeline installation (AC) (mil Rp)	95	10	183	45	45	60	67	71	32	23	105	98	136	99	99	99	99	74	29	29	0	0	0	0
104 Turbo chiller (mil Rp)	16,958	1,709	32,605	8,085	8,078	10,802	12,039	12,610	5,799	4,098	18,750	17,513	24,214	17,610	17,610	17,610	17,610	13,243	5,195	5,195	0	0	0	0
105 Absorption chiller (mil Rp)	18,178	1,832	34,950	8,667	8,659	11,579	12,906	13,517	6,216	4,393	20,099	18,772	25,956	18,877	18,877	18,877	18,877	14,196	5,569	5,569	0	0	0	0
106 Imported facilities (included) (mil Rp)	1,555	320	3,150	1,067	1,923	1,356	962	1,031	483	328	1,508	1,975	1,948	1,416	1,416	1,416	1,416	1,048	400	400	564	0	0	0
107 Imported tax (mil Rp)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
108 Net social loss for facilities (mil Rp)	3,987	2,137	3,564	1,337	10,315	1,648	1,005	1,098	519	344	1,589	2,052	3,030	1,491	1,491	1,491	1,491	1,086	403	403	564	0	0	0
109 Labor cost (mil Rp)	590	790	1,068	1,217	2,942	2,793	2,415	2,101	2,020	1,839	1,558	1,509	1,344	1,163	1,114	949	933	884	752	703	587	554	506	408
110 Income tax (included) (mil Rp)	62	87	116	134	321	304	261	225	218	198	164	160	141	121	117	98	96	92	76	72	57	54	50	41
111 Administrative expenses (mil Rp)	168	237	320	365	883	838	724	630	605	552	467	453	403	349	334	285	280	265	225	211	176	166	152	122
112 Maintenance & other expenses (mil Rp)	54	95	117	132	326	343	345	348	349	350	354	368	392	396	399	402	406	408	408	409	420	420	420	420
113 Value tax (included) (mil Rp)	22	33	44	50	121	118	107	98	96	90	82	82	80	74	73	69	69	67	63	62	60	59	57	54
114 Net social benefit (mil Rp)	-4,685	-39	-896	6,452	-3,039	7,521	10,256	11,885	13,530	14,601	13,940	14,291	13,507	15,980	16,595	17,319	17,907	18,657	20,364	20,852	21,219	21,466	21,168	20,928
115 EIRR	52.2%																							
116 NPV as of 10% (mil Rp)	72,634																							
117 NPV as of 15% (mil Rp)	39,538																							

(Social benefit & loss analyses: case 5)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
118 Social benefit for residential customers (Rp/m3)	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800
119 Social benefit for commercial cooking (Rp/m3)	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800
120 Social benefit for commercial AC (Rp/m3)	528	528	528	528	528	528	528	528	528	528	528	528	528	528	528	528	528	528	528	528	528	528	528	528
121 Total social benefit from gas sales (MMRp)	0</																							

142 EIRR 55.9%
 143 NPV as of 10% (mil Rp) 75,527
 144 NPV as of 15% (mil Rp) 41,634

Case 1: PGN operates, when gas sales price of residential sector remained the same as now.
 (Price of Gas)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
145 Gas sales price (residential) (Rp/m ³)	370	370	370	370	370	370	370	370	370	370	370	370	370	370	370	370	370	370	370	370	370	370	370	370
146 Gas sales price (commercial cooking) (Rp/m ³)	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330
147 Gas sales price (commercial AC) (Rp/m ³)	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330
148 Gas material cost (Rp/m ³)	162	168	174	183	192	199	204	209	212	216	219	223	227	230	232	237	241	246	252	257	262	267	272	277

(Financial Feasibility Analysis)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
149 Gas sales (mil Rp)	0	2,577	3,207	7,479	8,750	10,195	11,593	12,921	13,906	14,661	15,020	15,880	16,478	17,500	18,297	19,093	19,890	20,686	21,854	22,746	23,639	23,639	23,639	23,639
150 Gas material cost (mil Rp)	0	1,309	1,681	4,102	5,027	6,060	7,054	8,051	8,802	9,447	9,856	10,612	11,203	12,082	12,722	13,568	14,379	15,271	16,535	17,558	18,608	18,963	19,318	19,673
151 Gross profit (mil Rp)	0	1,268	1,526	3,378	3,723	4,135	4,539	4,870	5,104	5,215	5,165	5,268	5,275	5,418	5,575	5,525	5,511	5,415	5,319	5,188	5,031	4,676	4,320	3,965
152 Property tax (mil Rp)	2	4	4	4	12	12	10	9	8	7	6	6	6	6	5	5	4	4	3	3	3	3	2	2
153 Labor cost (mil Rp)	560	790	1,068	1,217	2,942	2,793	2,415	2,101	2,020	1,839	1,558	1,509	1,344	1,163	1,114	949	933	884	752	703	587	554	506	408
154 Administrative expenses (mil Rp)	168	237	320	365	883	838	724	630	606	552	467	453	403	349	334	285	280	265	225	211	176	166	152	122
155 Maintenance & other expenses (mil Rp)	54	95	117	132	326	343	345	348	349	350	354	368	392	396	399	402	406	408	408	409	420	420	420	420
156 Total investment (mil Rp)	2,723	2,002	1,120	733	9,712	840	105	151	87	37	176	731	1,206	165	165	165	165	106	29	29	564	0	0	0
157 Before tax cash flow (mil Rp)	-3,508	-1,858	-1,103	927	-10,152	-690	939	1,631	2,034	2,430	2,603	2,201	1,923	3,340	3,557	3,719	3,723	3,749	3,901	3,834	3,281	3,532	3,241	3,012
158 IRR of before tax cash flow																								
159 NPV as of 10% (mil Rp)																								
160 NPV as of 15% (mil Rp)																								

(Down Side Sensitivity Analysis)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
161 2% contingency sales Gross Profit (mil Rp)	0	1,217	1,462	3,228	3,548	3,932	4,307	4,612	4,826	4,922	4,664	4,950	4,946	5,068	5,209	5,143	5,113	5,002	4,882	4,733	4,558	4,203	3,848	3,493
162 10% contingency total investment (mil Rp)	2,996	2,202	1,232	806	10,683	924	116	167	95	41	194	804	1,327	182	182	182	182	116	32	32	620	0	0	0
163 Before tax cash flow (mil Rp)	-3,780	-2,110	-1,279	704	-11,298	-978	697	1,357	1,747	2,133	2,285	1,811	1,473	2,974	3,175	3,321	3,309	3,324	3,461	3,376	2,752	3,059	2,768	2,540
164 IRR of before tax cash flow																								
165 NPV as of 10% (mil Rp)																								
166 NPV as of 15% (mil Rp)																								

(Financial Analyses with In House Installation)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
167 LPG bottle repurchase (residential) (mil Rp)	42	186	575	483	665	502	0	32	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
168 In house pipeline installation (residential) (mil Rp)	85	372	1,150	966	1,330	1,005	0	65	65	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
169 LPG bottle repurchase (commercial) (mil Rp)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
170 In house pipeline installation (commercial) (mil Rp)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
171 Before tax cash flow (mil Rp)	-3,550	-2,044	-1,678	444	-10,817	-1,192	939	1,598	2,002	2,430	2,603	2,201	1,923	3,340	3,557	3,719	3,723	3,749	3,901	3,834	3,281	3,532	3,241	3,012
172 IRR of before tax cash flow																								
173 NPV as of 10% (mil Rp)																								
174 NPV as of 15% (mil Rp)																								

(Down Side Sensitivity Analysis)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
175 Before tax cash flow (mil Rp)	-3,823	-2,296	-1,854	221	-11,963	-1,480	697	1,325	1,715	2,133	2,285	1,811	1,473	2,974	3,175	3,321	3,309	3,324	3,461	3,376	2,752	3,059	2,768	2,540
176 IRR of before tax cash flow																								
177 NPV as of 10% (mil Rp)																								
178 NPV as of 15% (mil Rp)																								

Case 2: PGN operates when gas sales price of residential sector goes up to 800Rp in ten years.
 (Price of Gas)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
179 Gas sales price (residential) (Rp/m ³)	370	413	456	499	542	585	628	671	714	757	800	800	800	800	800	800	800	800	800	800	800	800	800	800
180 Gas sales price (commercial cooking) (Rp/m ³)	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330
181 Gas sales price (commercial AC) (Rp/m ³)	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330
182 Gas material cost (Rp/m ³)	162	168	174	183	192	199	204	209	212	216	219	223	227	230	232	237	241	246	252	257	262	267	272	277

(Financial Feasibility Analysis)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
183 Gas sales (mil Rp)	0	2,583	3,265	7,712	9,208	11,042	12,841	14,377	15,603	16,607	17,182	18,042	18,640	19,662	20,459	21,255	22,052	22,848	24,016	24,908	25,801	25,801	25,801	25,801
184 Gas material cost (mil Rp)	0	1,309	1,681	4,102	5,027	6,060	7,054	8,051	8,802	9,447	9,856	10,612	11,203	12,082	12,722	13,568	14,379	15,271	16,535	17,558	18,608	18,963	19,318	19,673
185 Gross profit (mil Rp)	0	1,274	1,585	3,610	4,182	4,982	5,787	6,326	6,801	7,161	7,327	7,430	7,437	7,581	7,737	7,687	7,673	7,578	7,481	7,350	7,193	6,838	6,483	6,127
186 Property tax (mil Rp)	2	4	4	4	12	12	10	9	8	7	6	6	6	6	5	5	4	4	3	3	3	3	2	2
187 Labor cost (mil Rp)	560	790	1,068	1,217	2,942	2,793	2,415	2,101	2,020	1,839	1,558	1,509	1,344	1,163	1,114	949	933	884	752	703	587	554	506	408
188 Administrative expenses (mil Rp)	168	237	320	365	883	838	724	630	606	552	467	453	403	349	334	285	280	265	225					

(Financial Analyses with In House Installation)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
201 LPG bottle repurchase (residential) (mil Rp)	42	186	575	483	665	502	0	32	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
202 In house pipeline installation (residential) (mil Rp)	85	372	1,150	966	1,330	1,005	0	65	65	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
203 LPG bottle repurchase (commercial) (mil Rp)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
204 In house pipeline installation (cooking) (mil Rp)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
205 Before tax cash flow (mil Rp)	-3,550	-2,039	-1,620	676	-10,358	-345	2,187	3,054	3,698	4,376	4,765	4,363	4,085	5,502	5,719	5,881	5,885	5,911	6,063	5,996	5,443	5,694	5,403	5,174
206 IRR of before tax cash flow	15.8%																							
207 NPV as of 10% (mil Rp)	8,524																							
208 NPV as of 15% (mil Rp)	727																							

(Down Side Sensitivity Analysis)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
209 Before tax cash flow (mil Rp)	-3,823	-2,291	-1,797	448	-11,514	-650	1,920	2,751	3,377	4,040	4,404	3,929	3,592	5,092	5,294	5,440	5,428	5,443	5,580	5,495	4,870	5,178	4,887	4,658
210 IRR of before tax cash flow	13.3%																							
211 NPV as of 10% (mil Rp)	5,053																							
212 NPV as of 15% (mil Rp)	-1,661																							

Case 3: Residential distribution pipelines invested by Government when gas sales price remained the same as now.

(Price of Gas)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
213 Gas sales price (residential) (Rp/m3)	370	370	370	370	370	370	370	370	370	370	370	370	370	370	370	370	370	370	370	370	370	370	370	370
214 Gas sales price (commercial cooking) (Rp/m3)	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330
215 Gas sales price (commercial AC) (Rp/m3)	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330
216 Gas material cost (Rp/m3)	162	168	174	183	192	199	204	209	212	216	219	223	227	230	232	237	241	246	252	257	262	267	272	277

(Financial Feasibility Analysis)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
217 Gas sales (mil Rp)	0	2,577	3,207	7,479	8,750	10,195	11,593	12,921	13,906	14,661	15,020	15,880	16,478	17,500	18,297	19,093	19,890	20,686	21,854	22,746	23,639	23,639	23,639	23,639
218 Gas material cost (mil Rp)	0	1,309	1,681	4,102	5,027	6,060	7,054	8,051	8,802	9,447	9,856	10,612	11,203	12,082	12,722	13,568	14,379	15,271	16,535	17,558	18,608	18,963	19,318	19,673
219 Gross profit (mil Rp)	0	1,269	1,526	3,378	3,723	4,135	4,539	4,870	5,104	5,215	5,165	5,268	5,275	5,418	5,575	5,525	5,511	5,415	5,319	5,188	5,031	4,676	4,320	3,965
220 Property tax (mil Rp)	1	3	3	4	5	5	5	4	4	3	3	3	4	4	3	3	3	3	2	2	2	2	2	1
221 Labor cost (mil Rp)	560	790	1,068	1,217	2,942	2,793	2,415	2,101	2,020	1,839	1,558	1,509	1,344	1,163	1,114	949	933	884	752	703	587	554	506	408
222 Administrative expenses (mil Rp)	168	237	320	365	883	838	724	630	606	552	467	453	403	349	334	285	280	265	225	211	176	166	152	122
223 Maintenance & other expenses (mil Rp)	54	95	117	132	326	343	345	348	349	350	354	368	392	396	399	402	406	408	408	409	420	420	420	420
224 Total investment (mil Rp)	339	103	471	287	378	312	67	87	49	23	106	99	137	100	100	100	100	73	28	28	0	0	0	0
225 Before tax cash flow (mil Rp)	-1,122	41	-454	1,374	-810	-156	983	1,700	2,076	2,448	2,677	2,836	2,995	3,408	3,625	3,786	3,790	3,783	3,904	3,836	3,846	3,533	3,241	3,013
226 IRR of before tax cash flow	38.0%																							
227 NPV as of 10% (mil Rp)	11,701																							
228 NPV as of 15% (mil Rp)	5,887																							

(Down Side Sensitivity Analysis)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
229 2% contingency sales Gross Profit (mil Rp)	0	1,217	1,462	3,228	3,548	3,932	4,307	4,612	4,826	4,922	4,864	4,950	4,946	5,068	5,209	5,143	5,113	5,002	4,882	4,733	4,558	4,203	3,848	3,493
230 10% contingency total investment (mil Rp)	373	114	518	315	416	343	74	96	53	25	117	109	151	110	110	110	80	30	30	30	0	0	0	0
231 Before tax cash flow (mil Rp)	-1,156	-20	-565	1,196	-1,023	-391	744	1,433	1,793	2,152	2,366	2,508	2,651	3,048	3,249	3,395	3,383	3,362	3,464	3,378	3,373	3,060	2,769	2,540
232 IRR of before tax cash flow	32.1%																							
233 NPV as of 10% (mil Rp)	9,566																							
234 NPV as of 15% (mil Rp)	4,561																							

(Financial Analyses with In House Installation)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
235 LPG bottle repurchase (residential) (mil Rp)	42	186	575	483	665	502	0	32	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
236 In house pipeline installation (residential) (mil Rp)	85	372	1,150	966	1,330	1,005	0	65	65	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
237 LPG bottle repurchase (commercial) (mil Rp)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
238 In house pipeline installation (cooking) (mil Rp)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
239 Before tax cash flow (mil Rp)	-1,165	-144	-1,029	891	-1,475	-658	983	1,668	2,044	2,448	2,677	2,836	2,995	3,408	3,625	3,786	3,790	3,783	3,904	3,836	3,846	3,533	3,241	3,013
240 IRR of before tax cash flow	28.3%																							
241 NPV as of 10% (mil Rp)	10,022																							
242 NPV as of 15% (mil Rp)	4,487																							

(Down Side Sensitivity Analysis)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
243 Before tax cash flow (mil Rp)	-1,198	-206	-1,140	713	-1,688	-893	744	1,400	1,761	2,152	2,366	2,508	2,651	3,048	3,249	3,395	3,383	3,362	3,464	3,378	3,373	3,060	2,769	2,540
244 IRR of before tax cash flow	24.1%																							
245 NPV as of 10% (mil Rp)	7,887																							
246 NPV as of 15% (mil Rp)	3,162																							

Case 4: Residential distribution pipelines invested by Government when gas sales price to residential sector goes up to 800Rp in ten years.

(Price of Gas)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	201
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BSD 100%

257 Maintenance & other expenses	(mil Rp)	54	95	117	132	326	343	345	348	349	350	354	368	392	396	399	402	406	408	408	409	420	420	420	420
258 Total investment	(mil Rp)	339	103	471	287	378	312	67	87	49	23	106	99	137	100	100	100	100	73	28	28	0	0	0	0
259 Before tax cash flow	(mil Rp)	-1,122	47	-395	1,606	-352	691	2,231	3,156	3,773	4,394	4,839	4,998	5,157	5,570	5,787	5,949	5,952	5,945	6,066	5,998	6,008	5,695	5,403	5,175
260 IRR of before tax cash flow		52.5%																							
261 NPV as of 10%	(mil Rp)	21,600																							
262 NPV as of 15%	(mil Rp)	11,623																							

(Down Side Sensitivity Analysis)

		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
263 2% contingency sales Gross Profit	(mil Rp)	0	1,222	1,519	3,455	3,997	4,762	5,530	6,038	6,488	6,828	6,983	7,069	7,064	7,187	7,328	7,262	7,232	7,121	7,001	6,852	6,677	6,322	5,967	5,611
264 10% contingency total investment	(mil Rp)	373	114	518	315	416	343	74	96	53	25	117	109	151	110	110	110	110	80	30	30	0	0	0	0
265 Before tax cash flow	(mil Rp)	-1,156	-15	-508	1,423	-574	439	1,967	2,859	3,456	4,059	4,485	4,627	4,770	5,167	5,368	5,513	5,501	5,480	5,583	5,497	5,492	5,179	4,887	4,659
266 IRR of before tax cash flow		46.7%																							
267 NPV as of 10%	(mil Rp)	19,267																							
268 NPV as of 15%	(mil Rp)	10,183																							

(Financial Analyses with In House Installation)

		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
269 LPG bottle repurchase (residential)	(mil Rp)	42	186	575	483	665	502	0	32	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
270 In house pipeline installation (residential)	(mil Rp)	85	372	1,150	966	1,330	1,005	0	65	65	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
271 LPG bottle repurchase (commercial)	(mil Rp)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
272 In house pipeline installation (cooking)	(mil Rp)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
273 Before tax cash flow	(mil Rp)	-1,165	-139	-970	1,123	-1,017	189	2,231	3,123	3,740	4,394	4,839	4,998	5,157	5,570	5,787	5,949	5,952	5,945	6,066	5,998	6,008	5,695	5,403	5,175
274 IRR of before tax cash flow		41.1%																							
275 NPV as of 10%	(mil Rp)	19,921																							
276 NPV as of 15%	(mil Rp)	10,224																							

(Down Side Sensitivity Analysis)

		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
277 Before tax cash flow	(mil Rp)	-1,198	-201	-1,083	940	-1,239	-63	1,967	2,827	3,424	4,059	4,485	4,627	4,770	5,167	5,368	5,513	5,501	5,480	5,583	5,497	5,492	5,179	4,887	4,659
278 IRR of before tax cash flow		36.8%																							
279 NPV as of 10%	(mil Rp)	17,588																							
280 NPV as of 15%	(mil Rp)	8,784																							

Case 5: Separate utility Entity (Price of Gas)

		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
281 Gas sales price (residential)	(Rp/m3)	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800
282 Gas sales price (commercial cooking)	(Rp/m3)	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800
283 Gas sales price (commercial AG)	(Rp/m3)	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330
284 Gas material cost	(Rp/m3)	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315

(Financial Feasibility Analysis)

		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
285 Gas sales	(mil Rp)	0	3,065	4,103	9,509	11,286	13,414	15,351	16,865	18,035	18,930	19,341	20,351	21,065	22,276	23,217	24,159	25,100	26,042	27,263	28,155	29,048	29,048	29,048	29,048
286 Gas material cost	(mil Rp)	0	2,455	3,035	7,071	8,251	9,581	10,831	12,149	13,086	13,803	14,145	14,966	15,537	16,513	17,273	18,033	18,794	19,554	20,669	21,520	22,372	22,372	22,372	22,372
287 Gross profit	(mil Rp)	0	609	1,068	2,438	3,036	3,833	4,469	4,716	4,950	5,127	5,196	5,385	5,528	5,763	5,944	6,125	6,307	6,488	6,594	6,635	6,676	6,676	6,676	6,676
288 Property tax	(mil Rp)	2	3	4	4	11	11	9	8	7	7	6	5	6	5	5	4	4	3	3	3	2	2	2	2
289 Labor cost	(mil Rp)	100	229	479	588	728	747	628	538	528	508	428	418	398	318	308	288	288	279	208	198	193	188	163	120
290 Administrative expenses	(mil Rp)	30	69	144	177	218	224	188	161	158	152	128	125	119	95	92	87	87	84	62	59	59	57	51	36
291 Maintenance & other expenses	(mil Rp)	48	78	101	116	296	313	315	318	320	320	324	327	351	355	358	361	365	367	367	368	368	368	368	368
292 Total investment	(mil Rp)	2,381	1,542	1,120	733	9,029	840	105	151	87	37	176	167	1,206	165	165	165	165	166	29	29	0	0	0	0
293 Before tax cash flow	(mil Rp)	-2,561	-1,313	-779	820	-7,246	1,698	3,224	3,540	3,850	4,103	4,134	4,342	3,447	4,825	5,016	5,220	5,398	5,650	5,924	5,977	6,047	6,061	6,086	6,150
294 IRR of before tax cash flow		22.7%																							
295 NPV as of 10%	(mil Rp)	13,786																							
296 NPV as of 15%	(mil Rp)	5,263																							

(Down Side Sensitivity Analysis)

		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
297 2% contingency sales Gross Profit	(mil Rp)	0	548	986	2,243	2,810	3,565	4,162	4,379	4,589	4,749	4,809	4,978	5,106	5,318	5,480	5,642	5,805	5,967	6,049	6,072	6,095	6,095	6,095	6,095
298 10% contingency total investment	(mil Rp)	2,619	1,696	1,232	806	9,932	924	116	167	95	41	194	183	1,327	182	182	182	116	32	32	0	0	0	0	0
299 Before tax cash flow	(mil Rp)	-2,799	-1,528	-973	557	-8,375	1,346	2,906	3,187	3,480	3,721	3,729	3,918	2,905	4,363	4,535	4,720	4,879	5,118	5,376	5,411	5,466	5,480	5,505	5,559
300 IRR of before tax cash flow		18.8%																							
301 NPV as of 10%	(mil Rp)	10,110																							
302 NPV as of 15%	(mil Rp)	2,770																							

(Financial Analyses with In House Installation)

		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
303 LPG bottle rep																									

(Profit & Loss Account of Separate Utility)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
315 Sales of gas (mil Rp)	0	3,065	4,103	9,509	11,286	13,414	15,351	16,865	18,035	18,930	19,341	20,351	21,055	22,276	23,217	24,159	25,100	26,042	27,263	28,155	29,048	29,048	29,048	29,048
316 Gas material cost (mil Rp)	0	2,455	3,035	7,071	8,251	9,581	10,881	12,149	13,086	13,803	14,145	14,966	15,537	16,513	17,273	18,033	18,794	19,554	20,669	21,520	22,372	22,372	22,372	22,372
317 Gross profit (mil Rp)	0	609	1,068	2,438	3,036	3,833	4,469	4,716	4,950	5,127	5,196	5,385	5,528	5,763	5,944	6,125	6,307	6,488	6,594	6,635	6,676	6,676	6,676	6,676
318 Depreciation (mil Rp)	298	453	537	561	1,620	1,522	1,345	1,196	1,057	930	835	752	809	728	658	596	542	488	430	380	333	291	255	223
319 Labor cost (mil Rp)	100	229	479	588	728	747	628	538	528	508	428	418	398	318	308	288	288	279	208	198	198	188	169	120
320 Administrative expenses (mil Rp)	30	69	144	177	218	224	188	161	158	152	128	125	119	95	92	87	87	84	62	59	59	57	51	36
321 Maintenance & other expenses (mil Rp)	48	78	101	116	296	313	315	318	320	320	324	327	351	355	358	361	365	367	367	368	368	368	368	368
322 Property tax (mil Rp)	2	3	4	4	11	11	9	8	7	7	6	5	6	5	5	4	4	3	3	3	2	2	2	2
323 Interest income (mil Rp)	0	43	27	29	16	0	25	77	139	215	312	430	483	499	575	683	750	776	812	855	901	950	1,001	1,055
324 Interest expenses (mil Rp)	300	300	300	300	324	932	822	729	600	471	343	257	171	86	0	0	0	0	0	0	0	0	0	0
325 Income before income taxes (mil Rp)	-777	-481	-468	721	-146	84	1,187	1,244	2,418	2,954	3,444	3,929	4,156	4,675	5,098	5,472	5,771	6,043	6,335	6,481	6,616	6,719	6,832	6,982
326 Income taxes (mil Rp)	0	0	0	0	0	0	0	503	725	886	1,033	1,179	1,247	1,402	1,529	1,641	1,731	1,813	1,900	1,944	1,985	2,016	2,050	2,095
327 Net income (mil Rp)	-777	-481	-468	721	-146	84	1,187	1,340	1,693	2,068	2,411	2,751	2,909	3,272	3,569	3,830	4,039	4,230	4,434	4,537	4,631	4,704	4,783	4,887

(Cash Flow Statement of Separate Utility)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
(Cash Out)																								
328 Investment (mil Rp)	2,381	1,542	1,120	733	9,029	840	105	151	87	37	176	167	1,206	165	165	165	165	106	29	29	0	0	0	0
329 Cash or Short term Debt (mil Rp)	1,139	-570	-51	121	-1,984	338	1,998	1,099	1,378	1,675	2,213	2,478	-346	978	2,061	2,261	417	612	836	888	964	995	1,037	1,110
330 Total (mil Rp)	3,520	972	1,068	854	7,045	1,177	2,103	1,250	1,464	1,712	2,389	2,645	861	1,143	2,226	2,426	582	718	865	917	964	995	1,037	1,110
(Cash In)																								
331 Net income (mil Rp)	-777	-481	-468	721	-146	84	1,187	1,340	1,693	2,068	2,411	2,751	2,909	3,272	3,569	3,830	4,039	4,230	4,434	4,537	4,631	4,704	4,783	4,887
332 Dividend (mil Rp)	0	0	0	0	0	0	0	0	0	0	0	0	-2,000	-2,000	-2,000	-2,000	-4,000	-4,000	-4,000	-4,000	-4,000	-4,000	-4,000	-4,000
333 Depreciation (mil Rp)	298	453	537	561	1,620	1,522	1,345	1,196	1,057	930	835	752	809	728	658	596	542	488	430	380	333	291	255	223
334 Equity (mil Rp)	1,000	1,000	1,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
335 Long term (Financing) (mil Rp)	3,000	0	0	0	6,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
336 (Principle repayment) (mil Rp)	0	0	0	-429	-429	-429	-429	-1,286	-1,286	-1,286	-857	-857	-857	-857	0	0	0	0	0	0	0	0	0	0
337 Total (mil Rp)	3,520	972	1,068	854	7,045	1,177	2,103	1,250	1,464	1,712	2,389	2,645	861	1,143	2,226	2,426	582	718	865	917	964	995	1,037	1,110

(Balance Sheet of Separate Utility)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
(Assets)																								
338 Cash (mil Rp)	1,139	569	517	638	0	0	990	2,089	3,467	5,142	7,354	9,833	9,487	10,465	12,527	14,788	15,204	15,817	16,652	17,540	18,504	19,499	20,536	21,647
339 Facilities (mil Rp)	2,084	3,172	3,756	3,928	11,337	10,654	9,415	8,370	7,400	6,507	5,848	5,263	5,661	5,098	4,606	4,174	3,797	3,415	3,013	2,662	2,329	2,038	1,783	1,561
340 Total (mil Rp)	3,223	3,741	4,273	4,566	11,337	10,654	10,405	10,460	10,867	11,649	13,203	15,096	15,148	15,563	17,132	18,962	19,001	19,231	19,666	20,202	20,833	21,537	22,320	23,207
(Liabilities and Equity)																								
341 Long term debt (mil Rp)	3,000	3,000	3,000	2,571	8,143	7,714	7,286	6,000	4,714	3,429	2,571	1,714	857	0	0	0	0	0	0	0	0	0	0	0
342 Short term debt (mil Rp)	0	0	0	0	1,345	1,008	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
343 Equity (mil Rp)	223	741	1,273	1,994	1,848	1,932	3,119	4,460	6,152	8,220	10,631	13,382	14,291	15,563	17,132	18,962	19,001	19,231	19,666	20,202	20,833	21,537	22,320	23,207
344 Total (mil Rp)	3,223	3,741	4,273	4,566	11,337	10,654	10,405	10,460	10,867	11,649	13,203	15,096	15,148	15,563	17,132	18,962	19,001	19,231	19,666	20,202	20,833	21,537	22,320	23,207
345 Long term debt/Total investment	48.9%																							
346 Equity/Total investment	16.3%																							
347 Equity cash flow (mil Rp)	-1,000	-1,000	-1,000	0	0	0	0	0	0	0	0	0	2,000	2,000	2,000	2,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	25,647
348 IRR of equity investment	18.4%																							

(Financial Feasibility of PGN in Separate Utility Case)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
349 Gas sales price (Rp/m3)	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315
350 Gas purchase price (Rp/m3)	162	168	174	183	192	199	204	209	212	216	219	223	227	230	232	237	241	246	252	257	262	267	272	277
351 Total gas sales (mil Rp)	0	2,455	3,035	7,071	8,251	9,581	10,881	12,149	13,086	13,803	14,145	14,966	15,537	16,513	17,273	18,033	18,794	19,554	20,669	21,520	22,372	22,372	22,372	22,372
352 Total gas purchased (mil Rp)	0	1,309	1,681	4,102	5,027	6,060	7,054	8,051	8,802	9,447	9,856	10,612	11,203	12,082	12,722	13,568	14,379	15,271	16,535	17,558	18,608	18,963	19,318	19,673
353 Gross profit (mil Rp)	0	1,147	1,355	2,969	3,224	3,522	3,827	4,098	4,283	4,356	4,290	4,354	4,334	4,431	4,551	4,465	4,415	4,283	4,134	3,962	3,764	3,409	3,054	2,699
354 Offtaker (mil Rp)	0	0	0	0	564	0	0	0	0	0	0	564	0	0	0	0	0	0	0	0	564	0	0	0
355 A governor (mil Rp)	119	0	0	0	119	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
356 Main pipeline (10bar) (mil Rp)	223	460	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
357 Total investment (mil Rp)	342	460	0	0	683	0	0	0	0	0	0	564	0	0	0	0	0	0	0	0	564	0	0	0
358 Labor exp/Salaries (mil Rp)	359	374	253	224	1,583	1,418	1,254	1,104	1,045	910	774	745	624	580	551	430	415	386	371	342	236	221	206	192
359 Pensions (mil Rp)	36	37	25	22	158	142	125	110	104	91	77	74	62	58	55	43	42	39	37	34	24	22	21	19

Feasibility Study at BSD Case: Air Conditioning Demand 50% Development

		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	
(Gas Demand)																										
1 Residential	(1000m3)	0	126	679	1,800	2,665	3,939	4,836	4,836	4,932	5,028	5,028	5,028	5,028	5,028	5,028	5,028	5,028	5,028	5,028	5,028	5,028	5,028	5,028	5,028	5,028
2 Commercial (cooking)	(1000m3)	0	921	1,286	2,670	2,958	3,245	3,571	3,968	4,273	4,483	4,594	4,912	5,159	5,561	5,869	6,178	6,486	6,795	6,908	6,908	6,908	6,908	6,908	6,908	6,908
3 (AC)	50% (1000m3)	0	3,374	3,836	8,988	10,285	11,616	13,068	14,882	16,168	17,154	17,642	18,786	19,568	20,916	21,989	23,021	24,074	25,126	26,839	28,191	29,543	29,543	29,543	29,543	29,543
4 Gas demand Total	(1000m3)	0	4,421	5,800	13,459	15,908	18,801	21,475	23,686	25,373	26,665	27,264	28,726	29,756	31,505	32,866	34,227	35,588	36,949	38,776	40,128	41,480	41,480	41,480	41,480	
5 AO demand with 100% contingency	(1000m3)	0	6,747	7,672	17,977	20,569	23,233	26,137	29,764	32,337	34,308	35,284	37,573	39,137	41,833	43,938	46,043	48,147	50,252	53,678	56,382	59,087	59,087	59,087	59,087	
(Number of Customers)																										
6 Residential	(units)	0	212	1,142	4,017	6,431	9,757	12,269	12,269	12,431	12,592	12,592	12,592	12,592	12,592	12,592	12,592	12,592	12,592	12,592	12,592	12,592	12,592	12,592	12,592	12,592
7 Commercial (cooking)	(units)	0	13	17	46	53	60	69	79	91	95	99	118	136	161	179	197	214	232	240	240	240	240	240	240	240
8 (AC)	(units)	0	7	8	22	25	28	33	38	43	46	47	55	63	73	80	88	95	103	103	110	112	112	112	112	
9 Gas demand Total	(units)	0	232	1,166	4,084	6,509	9,845	12,371	12,386	12,565	12,733	12,739	12,766	12,791	12,826	12,851	12,876	12,901	12,927	12,941	12,943	12,945	12,945	12,945	12,945	
(Sales Volume per Customer)																										
10 Residential	(1000m3)	0	0.59	0.59	0.45	0.41	0.40	0.39	0.39	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40
11 Commercial (cooking)	(1000m3)	0	69.62	76.24	57.54	55.85	54.52	51.81	50.21	47.06	45.95	46.32	41.57	37.81	34.52	32.82	31.43	30.27	29.29	28.73	28.73	28.73	28.73	28.73	28.73	28.73
12 (AC)	(1000m3)	0	472.87	488.44	416.71	411.86	409.47	397.04	391.85	373.54	375.17	371.82	339.50	312.08	286.96	273.59	262.48	253.10	245.08	248.29	255.63	262.69	262.69	262.69	262.69	
13 Gas demand Total	(1000m3)	0	19.03	4.97	3.30	2.44	1.91	1.74	1.91	2.02	2.09	2.14	2.25	2.33	2.46	2.56	2.66	2.76	2.86	3.00	3.10	3.20	3.20	3.20	3.20	
(Investment Plan)																										
14 Cumulative main pipeline length (10bar)	(km)	1.6	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
15 Cumulative main pipeline length (1bar)	(km)	4.7	11.6	11.6	11.6	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	20.5	20.5	20.5	20.5	20.5	20.5	20.5	20.5	20.5	20.5	20.5	20.5	20.5
16 Cumulative distribution pipeline length	(km)	228	228	228	228	151.2	151.2	151.2	151.2	151.2	151.2	151.2	151.2	151.2	151.2	151.2	151.2	151.2	151.2	151.2	151.2	151.2	151.2	151.2	151.2	151.2
17 Cumulative offtaker	(units)	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
18 Cumulative A governor	(units)	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
19 Cumulative B governor	(units)	1	2	5	7	10	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13
20 Phase 1 Main pipeline (10bar)	(mil Rp)	223																								
21 Main pipeline (1bar)	(mil Rp)	779																								
22 Distribution pipeline	(mil Rp)	1,351																								
23 Phase 2 Main pipeline (10bar)	(mil Rp)		460																							
24 Main pipeline (1bar)	(mil Rp)		1,250																							
25 Distribution pipeline	(mil Rp)		0																							
26 Phase 3 Main pipeline	(mil Rp)					423																				
27 Distribution pipeline	(mil Rp)					7,608																				
28 Phase 4 Main pipeline	(mil Rp)													978												
29 Distribution pipeline	(mil Rp)													0												
30 Residential SP	(mil Rp)	21	93	288	241	333	251	0	16	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31 Residential HR+meter	(mil Rp)	27	117	362	304	419	317	0	20	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32 Commercial SP (cooking)	(mil Rp)	5	1	11	2	2	3	4	4	2	1	7	7	9	6	6	6	6	3	0	0	0	0	0	0	0
33 Commercial HR+meter (cooking)	(mil Rp)	45	12	100	22	22	32	34	40	16	13	65	62	84	60	60	60	60	29	0	0	0	0	0	0	0
34 Commercial SP valve	(mil Rp)	5	1	10	2	2	3	4	4	2	1	6	5	7	5	5	5	5	4	2	2	0	0	0	0	0
35 Commercial SP (AC)	(mil Rp)	9	1	17	4	4	6	6	7	3	2	10	9	13	9	9	9	9	7	3	3	0	0	0	0	0
36 Commercial meter (AC)	(mil Rp)	81	8	155	39	38	51	57	60	28	20	89	83	115	84	84	84	84	63	25	25	0	0	0	0	0
37 Offtaker	(mil Rp)	0	0	0	0	0	0	0	564	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
38 A governor	(mil Rp)	119	0	0	0	119	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
39 B governor	(mil Rp)	59	59	176	117	176	176	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40 Total investment (Case 1 and 2)	(mil Rp)	2,723	2,002	1,120	733	9,148	840	105	715	87	37	176	167	1,206	165	165	165	165	106	29	29	0	0	0	0	0
41 Cumulative investment (Case 1 and 2)	(mil Rp)	2,723	4,725	5,845	6,578	15,726	16,565	16,671	17,386	17,473	17,510	17,686	17,853	19,059	19,224	19,389	19,555	19,720	19,826	19,855	19,884	19,884	19,884	19,884	19,884	19,884
42 Depreciation (Case 1 and 2)	(mil Rp)	340	548	620	634	1,698	1,591	1,405	1,319	1,165	1,024	918	824	872	783	706	639	579	520	459	405	354	310	271	237	207
43 Cumulative depreciation (Case 1 and 2)	(mil Rp)	340	889	1,508	2,142	3,840	5,430	6,836	8,154	9,319	10,343	11,261	12,085	12,957	13,740	14,446	15,085	15,654	16,184	16,643	17,048	17,403	17,713	17,954	18,222	
44 Net property (case 1 and 2)	(mil Rp)	2,383	3,837	4,337	4,436	11,886	11,135	9,835	9,232	8,154	7,167	6,425	5,768	6,102	5,484	4,943	4,470	4,056	3,641	3,212	2,836	2,481	2,171	1,900	1,662	
45 Total investment (Case 3 and 4)	(mil Rp)	1,372	2,002	1,120	733	1,540	840	105	715	87	37	176	167	1,206	165	165	165	165	106	29	29	0	0	0	0	
46 Cumulative investment (Case 3 and 4)	(mil Rp)	1,372	3,374	4,494	5,227	6,767	7,606	7,712	8,427	8,514	8,551	8,727	8,894	10,100	10,265	10,430	10,596	10,761	10,867	10,896	10,925	10,925	10,925	10,925	10,925	
47 Depreciation (Case 3 and 4)	(mil Rp)	172	400	490	521	648	672	601	615	549	485	447	412	511	468	430	397	368	335	297	263	230	202	176	154	
48 Cumulative depreciation (Case 3 and 4)	(mil Rp)	172	572	1,062	1,583	2,231	2,903	3,504	4,119	4,669	5,154	5,600	6,012	6,523	6,991	7,421	7,818	8,186	8,521	8,818	9,081	9,312	9,513	9,690	9,844	
49 Net property (Case 3 and 4)	(mil Rp)	1,201	2,802	3,432	3,644	4,536	4,704	4,208	4,308	3,845	3,397	3,126	2,882	3,577	3,274	3,010	2,778	2,575	2,346	2,078	1,844	1,613	1,412	1,235	1,081	
50 Total investment of separate utility	(mil Rp)	2,381	1,542	1,120	733	9,029	840	105	151	87	37	176	167	1,206												

(Number of Workers)

		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
66 Administrative staff (Except Safety)	(persons)	1	2	4	5	6	6	5	4	4	4	3	3	3	2	2	2	2	2	1	1	1	1	1	1
67 Administrative workers (Except Safety)	(persons)	3	5	9	10	11	10	8	6	6	6	4	4	4	2	2	2	2	2	1	1	1	1	1	1
68 Administrative staff (for Safety)	(persons)	2	2	1	1	8	7	6	5	5	4	3	3	2	2	2	1	1	1	1	1	0	0	0	0
69 Administrative workers (for Safety)	(persons)	4	4	2	1	14	11	9	7	6	5	3	3	2	1	1	0	0	0	0	0	0	0	0	0
70 Sales	(persons)	1	4	9	7	9	7	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
71 Meter reading	(persons)	1	1	1	3	4	5	6	5	5	5	5	4	4	4	4	3	3	3	3	3	3	2	2	2
72 Collecting	(persons)	0	2	2	4	6	8	9	8	8	7	7	7	7	6	5	5	5	5	4	4	4	4	3	3
73 High-medium pressure (Safety)	(persons)	0	2	2	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0
74 Low pressure (Safety)	(persons)	10	9	8	8	50	47	44	41	38	35	33	31	29	27	25	23	22	20	19	17	16	15	14	13
75 Meter administration	(persons)	1	2	7	10	13	15	14	14	13	12	11	11	10	9	9	8	8	7	7	6	6	6	5	1
76 Total	(persons)	22	32	45	50	123	118	103	92	87	80	71	68	62	55	52	46	45	42	38	35	32	30	27	21
77 White collar (except safety)	(persons)	1	2	4	5	6	6	5	4	4	4	3	3	3	2	2	2	2	2	1	1	1	1	1	1
78 Blue collar (except safety)	(persons)	5	13	28	34	43	45	38	34	33	31	28	27	25	22	21	19	19	18	16	15	15	14	12	7
79 White collar (for safety)	(persons)	2	2	1	1	8	7	6	5	5	4	3	3	2	2	2	1	1	1	1	1	0	0	0	0
80 Blue collar (for safety)	(persons)	14	15	12	10	65	60	54	49	45	41	37	35	32	29	27	24	23	21	20	18	16	15	14	13
81 Salary per a white collar (separate utility)	(1000Rp/y)	50,842	50,842	50,842	50,842	50,842	50,842	50,842	50,842	50,842	50,842	50,842	50,842	50,842	50,842	50,842	50,842	50,842	50,842	50,842	50,842	50,842	50,842	50,842	50,842
82 Salary per a blue collar (separate utility)	(1000Rp/y)	9,829	9,829	9,829	9,829	9,829	9,829	9,829	9,829	9,829	9,829	9,829	9,829	9,829	9,829	9,829	9,829	9,829	9,829	9,829	9,829	9,829	9,829	9,829	9,829
83 Salary per a white collar (PGN)	(1000Rp/y)	76,262	76,262	76,262	76,262	76,262	76,262	76,262	76,262	76,262	76,262	76,262	76,262	76,262	76,262	76,262	76,262	76,262	76,262	76,262	76,262	76,262	76,262	76,262	76,262
84 Salary per a blue collar (PGN)	(1000Rp/y)	14,744	14,744	14,744	14,744	14,744	14,744	14,744	14,744	14,744	14,744	14,744	14,744	14,744	14,744	14,744	14,744	14,744	14,744	14,744	14,744	14,744	14,744	14,744	14,744
85 Total salary(White, case 1 to 4)	(mil Rp)	229	305	381	458	1,068	991	839	686	686	610	458	458	381	305	305	229	229	229	153	153	76	76	76	76
86 Total salary(blue, case 1 to 4)	(mil Rp)	280	413	590	649	1,607	1,548	1,356	1,224	1,150	1,062	958	914	840	752	708	634	619	575	531	487	457	428	383	295
87 Total salary of separate utility(white, case 1)	(mil Rp)	51	102	203	254	305	305	254	203	203	203	153	153	153	102	102	102	102	102	51	51	51	51	51	51
88 Total salary of separate utility(blue, case 5)	(mil Rp)	49	128	275	334	423	442	374	334	324	305	275	265	246	216	206	187	187	177	157	147	147	138	118	69
89 Total salary of PGN(white, case 1)	(mil Rp)	153	153	76	76	610	534	458	381	381	305	229	229	153	153	153	76	76	76	76	76	0	0	0	0
90 Total salary of PGN(blue, case 1)	(mil Rp)	206	221	177	147	973	885	795	722	663	604	546	516	472	428	398	354	339	310	295	265	236	221	206	192

(Social benefit & loss analyses case 1 to 4)

		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
91 Social benefit for residential customers	(Rp/m3)	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800
92 Social benefit for commercial cooking	(Rp/m3)	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800
93 Social benefit for commercial AC	(Rp/m3)	528	528	528	528	528	528	528	528	528	528	528	528	528	528	528	528	528	528	528	528	528	528	528	528
94 Total social benefit from gas sales	(MMRp)	0	2,619	3,597	8,322	9,929	11,881	13,626	14,901	15,901	16,666	17,013	17,871	18,482	19,515	20,317	21,120	21,923	22,725	23,720	24,434	25,148	25,148	25,148	25,148
95 Social loss for gas supplied	(Rp/m3)	167	167	167	167	174	174	178	182	186	190	193	197	210	217	222	227	231	236	242	247	252	257	262	267
96 Total social loss from gas supplied	(mil Rp)	0	738	969	2,248	2,657	3,271	3,823	4,311	4,719	5,066	5,262	5,659	6,249	6,837	7,296	7,770	8,221	8,720	9,384	9,912	10,453	10,660	10,868	11,075
97 Gross social benefit	(mil Rp)	0	1,881	2,628	6,074	7,272	8,610	9,803	10,590	11,182	11,600	11,751	12,212	12,233	12,678	13,021	13,350	13,702	14,005	14,337	14,523	14,695	14,488	14,280	14,073
98 Total investment	(mil Rp)	2,723	2,002	1,120	733	9,148	840	105	715	87	37	176	167	1,206	165	165	165	165	106	29	29	0	0	0	0
99 LPG bottle repurchase (residential)	(mil Rp)	42	185	575	483	665	502	0	32	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
100 In house pipeline installation (residential)	(mil Rp)	85	372	1,150	966	1,330	1,005	0	65	65	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
101 LPG bottle repurchase (commercial)	(mil Rp)	3	1	6	1	1	2	2	2	1	1	4	4	5	4	4	4	4	2	0	0	0	0	0	0
102 In house pipeline installation (cooking)	(mil Rp)	47	13	104	23	23	33	36	42	17	13	67	65	87	63	63	63	63	30	0	0	0	0	0	0
103 In house pipeline installation (AC)	(mil Rp)	95	10	183	45	45	60	67	71	32	23	105	98	136	99	99	99	99	74	29	29	0	0	0	0
104 Turbo chiller	(mil Rp)	16,958	1,709	32,605	8,085	8,078	10,802	12,039	12,610	5,799	4,098	18,750	17,513	24,214	17,610	17,610	17,610	17,610	13,243	5,195	5,195	0	0	0	0
105 Absorption chiller	(mil Rp)	18,178	1,832	34,950	8,667	8,659	11,579	12,906	13,517	6,216	4,393	20,099	18,772	25,956	18,877	18,877	18,877	18,877	14,156	5,569	5,569	0	0	0	0
106 Imported facilities (included)	(mil Rp)	1,555	320	3,150	1,067	1,359	1,356	962	1,595	483	328	1,508	1,411	1,948	1,416	1,416	1,416	1,416	1,048	400	400	0	0	0	0
107 Imported tax	(mil Rp)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
108 Net social loss for facilities	(mil Rp)	3,987	2,137	3,564	1,337	9,751	1,648	1,005	1,662	519	344	1,589	1,488	3,030	1,491	1,491	1,491	1,491	1,086	403	403	0	0	0	0
109 Labor cost	(mil Rp)	560	790	1,068	1,217	2,942	2,793	2,415	2,101	2,020	1,839	1,558	1,509	1,344	1,163	1,114	949	933	884	752	703	587	554	506	408
110 Income tax (included)	(mil Rp)	62	87	116	134	321	304	261	225	218	198	164	160	141	121	117	98	96	92	76	72	57	54	50	41
111 Administrative expenses	(mil Rp)	168	237	320	365	883	838	724	630	606	552	467	453	403	349	334	285	280	265	225	211	176	166	152	122
112 Maintenance & other expenses	(mil Rp)	54	95	117	132	315	331	333	348	349	350	354	357	381	384	388	391	394	397	397	398	398	398	398	398
113 Value tax (included)	(mil Rp)	22	33	44	50	120	117	106	98	96	90	82	81	78	73	72	68	67	66	62	61	57	56	55	52
114 Net social benefit	(mil Rp)	-4,685	-1,257	-2,281	3,208	-6,177	3,419	5,692	6,172	8,000	8,803	8,030	8,647	7,294											

142 EIRR		32.9%
143 NPV as of 10%	(mil Rp)	38,099
144 NPV as of 15%	(mil Rp)	18,575

Cas 1: PGN operates, when gas sales price of residential sector remained the same as now.
(Price of Gas)

		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
145 Gas sales price (residential)	(Rp/m3)	370	370	370	370	370	370	370	370	370	370	370	370	370	370	370	370	370	370	370	370	370	370	370	370
146 Gas sales price (commercial cooking)	(Rp/m3)	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330
147 Gas sales price (commercial AC)	(Rp/m3)	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330
148 Gas material cost	(Rp/m3)	162	168	174	183	192	199	204	209	212	216	219	223	227	230	232	237	241	246	252	257	262	267	272	277

(Financial Feasibility Analysis)

		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
149 Gas sales	(mil Rp)	0	1,464	1,941	4,513	5,356	6,362	7,280	8,010	8,571	9,000	9,198	9,681	10,020	10,598	11,047	11,496	11,945	12,394	12,997	13,443	13,889	13,889	13,889	
150 Gas material cost	3 (mil Rp)	0	742	1,012	2,459	3,053	3,746	4,385	4,944	5,376	5,748	5,984	6,416	6,758	7,261	7,625	8,112	8,577	9,090	9,771	10,313	10,868	11,075	11,283	
151 Gross profit	(mil Rp)	0	722	929	2,054	2,303	2,616	2,895	3,066	3,194	3,252	3,215	3,265	3,262	3,337	3,422	3,384	3,368	3,305	3,226	3,130	3,022	2,814	2,607	
152 Property tax	(mil Rp)	2	4	4	4	12	11	10	9	8	7	6	6	6	5	5	4	4	4	3	3	2	2	2	
153 Labor cost	(mil Rp)	560	790	1,068	1,217	2,942	2,793	2,415	2,101	2,020	1,839	1,558	1,509	1,344	1,163	1,114	949	933	884	752	703	587	554	506	
154 Administrative expenses	(mil Rp)	168	237	320	365	883	838	724	630	606	552	467	453	403	349	334	285	280	265	225	211	176	166	152	
155 Maintenance & other expenses	(mil Rp)	54	95	117	132	315	331	333	348	349	350	354	357	381	384	388	391	394	397	397	398	398	398	398	
156 Total investment	(mil Rp)	2,723	2,002	1,120	733	9,148	840	105	715	87	37	176	167	1206	165	165	165	165	106	29	29	0	0	0	
157 Before tax cash flow	(mil Rp)	-3,508	-2,405	-1,700	-397	-10,996	-2,197	-693	-738	124	467	653	773	-78	1,270	1,416	1,590	1,592	1,650	1,819	1,787	1,859	1,694	1,550	
158 IRR of before tax cash flow	#NUM!																								
159 NPV as of 10%	(mil Rp)	-11,832																							
160 NPV as of 15%	(mil Rp)	-11,377																							

(Down Side Sensitivity Analysis)

		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
161 2% contingency sales Gross Profit	(mil Rp)	0	692	891	1,964	2,196	2,489	2,749	2,905	3,023	3,072	3,031	3,071	3,062	3,125	3,201	3,154	3,130	3,057	2,966	2,862	2,744	2,537	2,329	
162 10% contingency total investment	(mil Rp)	2,996	2,202	1,232	806	10,062	924	116	787	95	41	194	183	1327	182	182	182	182	116	32	32	0	0	0	
163 Before tax cash flow	(mil Rp)	-3,780	-2,635	-1,851	-561	-12,018	-2,409	-849	-970	-56	284	452	563	-399	1,042	1,178	1,343	1,337	1,391	1,556	1,515	1,581	1,416	1,272	
164 IRR of before tax cash flow	#DIV/0!																								
165 NPV as of 10%	(mil Rp)	-14,296																							
166 NPV as of 15%	(mil Rp)	-13,161																							

(Financial Analysis with In House Installation)

		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
167 LPG bottle repurchase (residential)	(mil Rp)	42	186	575	483	665	502	0	32	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
168 In house pipeline installation (residential)	(mil Rp)	85	372	1,150	966	1,330	1,005	0	65	65	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
169 LPG bottle repurchase (commercial)	(mil Rp)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
170 In house pipeline installation (cooking)	(mil Rp)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
171 Before tax cash flow	(mil Rp)	-3,550	-2,591	-2,275	-880	-11,661	-2,700	-693	-770	92	467	653	773	-78	1,270	1,416	1,590	1,592	1,650	1,819	1,787	1,859	1,694	1,550	
172 IRR of before tax cash flow	#NUM!																								
173 NPV as of 10%	(mil Rp)	-13,511																							
174 NPV as of 15%	(mil Rp)	-12,776																							

(Down Side Sensitivity Analysis)

		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
175 Before tax cash flow	(mil Rp)	-3,823	-2,821	-2,426	-1,043	-12,683	-2,911	-849	-1,002	-88	284	452	563	-399	1,042	1,178	1,343	1,337	1,391	1,556	1,515	1,581	1,416	1,272	
176 IRR of before tax cash flow	#DIV/0!																								
177 NPV as of 10%	(mil Rp)	-15,975																							
178 NPV as of 15%	(mil Rp)	-14,561																							

Cas 2: PGN operates when gas sales price of residential sector goes up to 800Rp in ten years.

		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
179 Gas sales price (residential)	(Rp/m3)	370	413	456	499	542	585	628	671	714	757	800	800	800	800	800	800	800	800	800	800	800	800	800	
180 Gas sales price (commercial cooking)	(Rp/m3)	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	
181 Gas sales price (commercial AC)	(Rp/m3)	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	
182 Gas material cost	(Rp/m3)	162	168	174	183	192	199	204	209	212	216	219	223	227	230	232	237	241	246	252	257	262	267	272	

(Financial Feasibility Analysis)

		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
183 Gas sales	(mil Rp)	0	1,469	2,000	4,746	5,814	7,209	8,528	9,465	10,267	10,946	11,360	11,843	12,183	12,760	13,209	13,658	14,107	14,556	15,159	15,605	16,052	16,052	16,052	
184 Gas material cost	3 (mil Rp)	0	742	1,012	2,459	3,053	3,746	4,385	4,944	5,376	5,748	5,984	6,416	6,758	7,261	7,625	8,112	8,577	9,090	9,771	10,313	10,868	11,075	11,283	
185 Gross profit	(mil Rp)	0	727	988	2,286	2,761	3,463	4,143	4,521	4,891	5,198	5,377	5,427	5,424	5,499	5,584	5,546	5,531	5,467	5,388	5,293	5,184	4,976	4,769	
186 Property tax	(mil Rp)	2	4	4	4	12	11	10	9	8	7	6	6	6	5	5	4	4	4	3	3	2	2	2	
187 Labor cost	(mil Rp)	560	790	1,068	1,217	2,942	2,793	2,415	2,101	2,020	1,839	1,558	1,509	1,344	1,163	1,114	949	933	884	752	703	587	554		
188 Administrative expenses	(mil Rp)	168	237	320	365	883	838	724	630	606	552	467	453	403	349	334	285	280	265	225	211	176	166		
189 Maintenance & other expenses	(mil Rp)	54	95	117	132	315	331	333	348	349	350	354	357	381	384	388	391	394	397	397	398	398	398	398	
190 Total investment	(mil Rp)	2,723	2,002	1,120	733	9,148	840	105	715	87	37	176	167	1,206	165	165	165	165	106	29	29	0	0	0	
191 Before tax cash flow	(mil Rp)	-3,508	-2,400	-1,642	-165	-10,537	-1,350	555	718	1,821	2,413	2,815	2,936	2,084	3,432	3,578	3,752	3,754	3,812	3,981	3,949	4,021	3,856	3,712	
192 IRR of before tax cash flow		8.6%																							
193 NPV as of 10%	(mil Rp)	-1,932																							
194 NPV as of 15%	(mil Rp)	-5,640																							

(Down Side Sensitivity Analysis)

		1997	1998</
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(Financial Analyses with In House Installation)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
201 LPG bottle repurchase (residential) (mil Rp)	42	186	575	483	665	502	0	32	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
202 In house pipeline installation (residential) (mil Rp)	85	372	1,150	966	1,330	1,005	0	65	65	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
203 LPG bottle repurchase (commercial) (mil Rp)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
204 In house pipeline installation (cooking) (mil Rp)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
205 Before tax cash flow (mil Rp)	-3,550	-2,586	-2,217	-648	-11,203	-1,853	555	685	1,788	2,413	2,815	2,936	2,084	3,432	3,578	3,752	3,754	3,812	3,981	3,949	4,021	3,856	3,712	3,632
206 IRR of before tax cash flow	7.5%																							
207 NPV as of 10% (mil Rp)	-3,612																							
208 NPV as of 15% (mil Rp)	-7,040																							

(Down Side Sensivity Analysis)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
209 Before tax cash flow (mil Rp)	-3,823	-2,815	-2,369	-816	-12,234	-2,081	374	424	1,574	2,191	2,571	2,682	1,719	3,160	3,297	3,462	3,455	3,510	3,675	3,634	3,700	3,535	3,391	3,311
210 IRR of before tax cash flow	5.8%																							
211 NPV as of 10% (mil Rp)	-6,274																							
212 NPV as of 15% (mil Rp)	-8,939																							

Case 3: Residential distribution pipelines invested by Government when gas sales price remained the same as now.

(Price of Gas)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
213 Gas sales price (residential) (Rp/m3)	370	370	370	370	370	370	370	370	370	370	370	370	370	370	370	370	370	370	370	370	370	370	370	370
214 Gas sales price (commercial cooking) (Rp/m3)	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330
215 Gas sales price (commercial AC) (Rp/m3)	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330
216 Gas material cost (Rp/m3)	162	168	174	183	192	199	204	209	212	216	219	223	227	230	232	237	241	246	252	257	262	267	272	277

(Financial Feasibility Analysis)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
217 Gas sales (mil Rp)	0	1,464	1,941	4,513	5,356	6,362	7,280	8,010	8,571	9,000	9,198	9,681	10,020	10,593	11,047	11,496	11,945	12,394	12,997	13,443	13,889	13,889	13,889	13,889
218 Gas material cost 3 (mil Rp)	0	742	1,012	2,459	3,053	3,746	4,385	4,944	5,376	5,748	5,984	6,416	6,758	7,261	7,625	8,112	8,577	9,090	9,771	10,313	10,868	11,075	11,283	11,490
219 Gross profit (mil Rp)	0	722	929	2,054	2,303	2,616	2,895	3,066	3,194	3,252	3,215	3,265	3,262	3,337	3,422	3,384	3,368	3,305	3,226	3,130	3,022	2,814	2,607	2,400
220 Property tax (mil Rp)	1	3	3	4	5	5	4	4	4	3	3	3	3	3	3	3	3	2	2	2	2	1	1	1
221 Labor cost (mil Rp)	560	790	1,068	1,217	2,942	2,793	2,415	2,101	2,020	1,839	1,558	1,509	1,344	1,163	1,114	949	933	884	752	703	587	554	506	408
222 Administrative expenses (mil Rp)	168	237	320	365	883	838	724	630	606	552	467	453	403	349	334	285	280	265	225	211	176	166	152	122
223 Maintenance & other expenses (mil Rp)	54	95	117	132	315	331	333	348	349	350	354	357	381	384	388	391	394	397	397	398	398	398	398	398
224 Total investment (mil Rp)	339	103	471	287	378	312	67	87	49	23	106	99	137	100	100	100	100	73	28	28	0	0	0	0
225 Before tax cash flow (mil Rp)	-1,122	-505	-1,050	50	-2,219	-1,663	-649	-105	166	485	727	844	993	1,338	1,483	1,657	1,659	1,683	1,822	1,790	1,860	1,695	1,551	1,470
226 IRR of before tax cash flow	8.5%																							
227 NPV as of 10% (mil Rp)	-777																							
228 NPV as of 15% (mil Rp)	-2,111																							

(Down Side Sensivity Analysis)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
229 2% contingency sales Gross Profit (mil Rp)	0	692	891	1,964	2,196	2,489	2,749	2,905	3,023	3,072	3,031	3,071	3,062	3,125	3,201	3,154	3,130	3,057	2,966	2,862	2,744	2,537	2,329	2,122
230 10% contingency total investment (mil Rp)	373	114	518	315	416	343	74	96	53	25	117	109	151	110	110	110	110	80	30	30	0	0	0	0
231 Before tax cash flow (mil Rp)	-1,156	-545	-1,135	-69	-2,363	-1,821	-802	-274	-10	303	532	640	779	1,116	1,252	1,417	1,410	1,428	1,559	1,518	1,582	1,417	1,273	1,192
232 IRR of before tax cash flow	5.8%																							
233 NPV as of 10% (mil Rp)	-2,138																							
234 NPV as of 15% (mil Rp)	-2,970																							

(Financial Analyses with In House Installation)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
235 LPG bottle repurchase (residential) (mil Rp)	42	186	575	483	665	502	0	32	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
236 In house pipeline installation (residential) (mil Rp)	85	372	1,150	966	1,330	1,005	0	65	65	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
237 LPG bottle repurchase (commercial) (mil Rp)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
238 In house pipeline installation (cooking) (mil Rp)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
239 Before tax cash flow (mil Rp)	-1,165	-691	-1,625	-433	-2,884	-2,165	-649	-137	134	485	727	844	993	1,338	1,483	1,657	1,659	1,683	1,822	1,790	1,860	1,695	1,551	1,470
240 IRR of before tax cash flow	6.0%																							
241 NPV as of 10% (mil Rp)	-2,457																							
242 NPV as of 15% (mil Rp)	-3,510																							

(Down Side Sensivity Analysis)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
243 Before tax cash flow (mil Rp)	-1,198	-731	-1,711	-552	-3,029	-2,324	-802	-306	-42	303	532	640	779	1,116	1,252	1,417	1,410	1,428	1,559	1,518	1,582	1,417	1,273	1,192
244 IRR of before tax cash flow	3.7%																							
245 NPV as of 10% (mil Rp)	-3,818																							
246 NPV as of 15% (mil Rp)	-4,370																							

Case 4: Residential distribution pipelines invested by Government when gas sales price to residential sector goes up to 800Rp in ten years.

(Price of Gas)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
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(Profit & Loss Account of Separate Utility)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
315 Sales of gas (mil Rp)	0	1,951	2,837	6,542	7,892	9,581	11,038	11,954	12,700	13,269	13,520	14,152	14,607	15,373	15,968	16,562	17,156	17,750	18,406	18,852	19,298	19,298	19,298	19,298
316 Gas material cost (mil Rp)	0	1,393	1,827	4,239	5,011	5,922	6,765	7,461	7,993	8,399	8,588	9,049	9,373	9,924	10,353	10,782	11,210	11,639	12,214	12,640	13,066	13,066	13,066	13,066
317 Gross profit (mil Rp)	0	559	1,010	2,303	2,881	3,659	4,273	4,493	4,707	4,870	4,931	5,103	5,234	5,449	5,615	5,780	5,946	6,111	6,192	6,212	6,232	6,232	6,232	6,232
318 Depreciation (mil Rp)	298	453	537	561	1,620	1,522	1,345	1,196	1,057	930	835	752	809	728	658	596	542	488	430	380	333	291	255	223
319 Labor cost (mil Rp)	100	229	479	588	728	747	628	538	528	508	428	418	398	318	308	288	288	279	208	198	199	188	169	120
320 Administrative expenses (mil Rp)	30	69	144	177	218	224	188	161	158	152	128	125	119	95	92	87	87	84	62	59	59	57	51	36
321 Maintenance & other expenses (mil Rp)	48	78	101	116	298	313	315	318	320	320	324	327	351	355	358	361	365	367	367	368	368	368	368	368
322 Property tax (mil Rp)	2	3	4	4	11	11	9	8	7	7	6	5	6	5	5	4	4	3	3	3	2	2	2	2
323 Interest income (mil Rp)	0	41	23	20	10	0	2	23	71	136	222	326	365	366	426	517	565	571	586	606	628	652	676	703
324 Interest expenses (mil Rp)	300	300	300	300	348	987	855	729	600	471	343	257	171	86	0	0	0	0	0	0	0	0	0	0
325 Income before income taxes (mil Rp)	-777	-533	-530	577	-328	-146	934	1,566	2,108	2,618	3,089	3,544	3,745	4,228	4,619	4,960	5,225	5,462	5,706	5,810	5,900	5,978	6,065	6,187
326 Income taxes (mil Rp)	0	0	0	0	0	0	0	544	632	785	927	1,063	1,123	1,268	1,386	1,488	1,567	1,639	1,712	1,743	1,770	1,819	1,856	1,856
327 Net income (mil Rp)	-777	-533	-530	577	-328	-146	934	1,023	1,476	1,833	2,162	2,481	2,621	2,960	3,234	3,472	3,657	3,823	3,994	4,067	4,130	4,185	4,245	4,331

(Cash Flow Statement of Separate Utility)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
328 Investment (Cash Out) (mil Rp)	2,381	1,542	1,120	733	9,029	840	105	151	87	37	176	167	1,206	165	165	165	165	106	29	29	0	0	0	0
329 Cash or Short term Debt (mil Rp)	1,139	-622	-113	-23	-2,166	108	1,745	781	1,161	1,440	1,964	2,209	-634	668	1,726	1,903	34	205	396	418	463	476	500	554
330 Total (mil Rp)	3,520	920	1,006	710	6,862	948	1,851	933	1,247	1,476	2,140	2,375	573	831	1,891	2,068	200	311	425	447	463	476	500	554
331 (Cash In)																								
332 Net income (mil Rp)	-777	-533	-530	577	-328	-146	934	1,023	1,476	1,833	2,162	2,481	2,621	2,960	3,234	3,472	3,657	3,823	3,994	4,067	4,130	4,185	4,245	4,331
333 Dividend (mil Rp)	0	0	0	0	0	0	0	0	0	0	0	0	-2,000	-2,000	-2,000	-2,000	-4,000	-4,000	-4,000	-4,000	-4,000	-4,000	-4,000	-4,000
334 Depreciation (mil Rp)	298	453	537	561	1,620	1,522	1,345	1,196	1,057	930	835	752	809	728	658	596	542	488	430	380	333	291	255	223
335 Equity (mil Rp)	1,000	1,000	1,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
336 Long term (Financing) (mil Rp)	3,000	0	0	0	6,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
337 (Principle repayment) (mil Rp)	0	0	0	-429	-429	-429	-429	-1,286	-1,286	-1,286	-857	-857	-857	-857	0	0	0	0	0	0	0	0	0	0
338 Total (mil Rp)	3,520	920	1,006	710	6,862	948	1,851	933	1,247	1,476	2,140	2,375	573	831	1,891	2,068	200	311	425	447	463	476	500	554

(Balance Sheet of Separate Utility)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
339 Cash (mil Rp)	1,139	517	404	380	0	0	67	849	2,009	3,449	5,413	7,621	6,988	7,653	9,379	11,282	11,317	11,522	11,918	12,336	12,799	13,275	13,775	14,328
340 Facilities (mil Rp)	2,084	3,172	3,756	3,928	11,337	10,654	9,415	8,370	7,400	6,507	5,848	5,263	5,651	5,098	4,605	4,174	3,797	3,415	3,013	2,662	2,329	2,038	1,783	1,561
341 Total (mil Rp)	3,223	3,690	4,159	4,308	11,337	10,654	9,482	9,219	9,409	9,956	11,261	12,884	12,648	12,751	13,984	15,456	15,114	14,937	14,931	14,998	15,128	15,313	15,558	15,889
342 Long term debt (mil Rp)	3,000	3,000	3,000	2,571	8,143	7,714	7,286	6,000	4,714	3,429	2,571	1,714	857	0	0	0	0	0	0	0	0	0	0	0
343 Short term debt (mil Rp)	0	0	0	0	1,786	1,678	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
344 Equity (mil Rp)	223	690	1,159	1,737	1,408	1,262	2,196	3,219	4,695	6,527	8,689	11,170	11,791	12,751	13,984	15,456	15,114	14,937	14,931	14,998	15,128	15,313	15,558	15,889
345 Total (mil Rp)	3,223	3,690	4,159	4,308	11,337	10,654	9,482	9,219	9,409	9,956	11,261	12,884	12,648	12,751	13,984	15,456	15,114	14,937	14,931	14,998	15,128	15,313	15,558	15,889
346 Long term debt/Total investment	48.9%																							
347 Equity/Total investment	16.3%																							
348 Equity cash flow (mil Rp)	-1,000	-1,000	-1,000	0	0	0	0	0	0	0	0	0	2,000	2,000	2,000	2,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	18,328
349 IRR of equity investment	18.0%																							

(Financial Feasibility of PGN in Separate Utility Case)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
350 Gas sales price (Rp/m3)	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315
351 Gas purchase price (Rp/m3)	162	168	174	183	192	199	204	209	212	216	219	223	227	230	232	237	241	246	252	257	262	267	272	277
352 Total gas sales (mil Rp)	0	1,393	1,827	4,239	5,011	5,922	6,765	7,461	7,993	8,399	8,588	9,049	9,373	9,924	10,353	10,782	11,210	11,639	12,214	12,640	13,066	13,066	13,066	13,066
353 Total gas purchased (mil Rp)	0	742	1,012	2,459	3,053	3,746	4,385	4,944	5,376	5,748	5,984	6,416	6,758	7,261	7,625	8,112	8,577	9,090	9,771	10,313	10,868	11,075	11,283	11,490
354 Gross profit (mil Rp)	0	650	815	1,780	1,958	2,177	2,379	2,517	2,616	2,651	2,605	2,633	2,615	2,663	2,728	2,670	2,634	2,549	2,443	2,327	2,198	1,991	1,784	1,576
355 Offtaker (mil Rp)	0	0	0	0	0	0	0	564	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
356 A governor (mil Rp)	119	0	0	0	119	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
357 Main pipeline (10bar) (mil Rp)	223	450	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
358 Labor exp: Salaries (mil Rp)	359	374	253	224	1,583	1,418	1,254	1,104	1,045	910	774	745	624	580	551	430	415	386	371	342	236	221	206	192
359 Pensions (mil Rp)	36	37	25	22	158	142	125	110	104	91	77	74	62	58	55	43	42	39	37	34	24	22	21	19
360 Total (mil Rp)	395	411	279	246	1,742	1,560	1,379	1,214	1,149	1,000	852	819	687	638	606	473	457	424	408	376	259</			

(m3 Cost Base Case)

	resid	cooking	AC	Industrial	Total
1 Gas/Material	66,601	18,155	142,043	1,642,015	1,868,813
2 labor	67,372	12,298	810	12,724	83,202
3 pensions	8,737	1,230	81	1,272	9,320
4 Property tax	217	85	112	481	874
5 Admin	22,233	4,058	267	4,189	30,757
6 Mail&Other	8,280	2,232	4,265	17,821	33,398
7 Investment	61,891	24,156	31,883	131,710	249,639
8 Total	233,330	63,211	179,481	1,810,002	2,288,004
9 Cost/m3	794	789	266	250	277

(NPV of 15%)

10 Gas material cost (incremental)	(mil Rp)	1,868,813
11 Property Tax	(mil Rp)	874
12 Labor cost (incremental)	(mil Rp)	34,131
13 Workers	(mil Rp)	59,071
14 Pensions	(mil Rp)	9,320
15 Total	(mil Rp)	102,523
16 Administrative expenses	(mil Rp)	30,757
17 Maintenance & other expenses	(mil Rp)	33,398
18 Total investment	(mil Rp)	243,639
Total		2,288,004

NPV of Gas demand (15%)

	(1000m3)	(1000m3/hour)	(Supplying hour/year)
19 Residential	293,727	225,844	1,300
20 Commercial	80,070	83,070	1,000
21 Cooking	626,449	208,816	3,000
22 Total	706,519		
23 Industrial	7,241,758	828,685	8,760
24 Total	8,242,004		

(Distribution of Investment)

	(mil Rp)	Share %					Allocation of each cost					Total
		Residential	Com. Cooking	Com. AC	Industrial	Total	Residential	Com. Cooking	Com. AC	Industrial	Total	
25 residential customers	83,824	73.8%	28.2%	0.0%	0.0%	100.0%	61,891	21,833	0	0	83,824	83,824
26 commercial distribution	13,455	100.0%	100.0%	100.0%	100.0%	100.0%	0	0	13,455	13,455	13,455	13,455
27 industrial distribution	3,406	100.0%	100.0%	100.0%	100.0%	100.0%	0	0	3,406	3,406	3,406	3,406
28 industrial transmission	81,207	0.0%	0.0%	0.0%	100.0%	100.0%	0	0	0	81,207	81,207	81,207
29 Residential transmission	14,568	0.0%	0.0%	100.0%	100.0%	100.0%	0	0	14,568	0	14,568	14,568
30 Commercial cooking SP	213	100.0%	100.0%	100.0%	100.0%	100.0%	0	213	0	213	213	213
31 Commercial cooking meter+HR	2,010	100.0%	100.0%	100.0%	100.0%	100.0%	0	2,010	0	2,010	2,010	2,010
32 Commercial AC SP	368	0.0%	0.0%	100.0%	100.0%	100.0%	0	0	368	0	368	368
33 commercial AC valve	209	0.0%	0.0%	100.0%	100.0%	100.0%	0	0	209	0	209	209
34 Commercial AC meter	3,287	0.0%	0.0%	100.0%	100.0%	100.0%	0	0	3,287	0	3,287	3,287
35 Industrial SP	518	0.0%	0.0%	100.0%	100.0%	100.0%	0	0	518	0	518	518
36 Industrial valve	1,178	0.0%	0.0%	100.0%	100.0%	100.0%	0	0	1,178	0	1,178	1,178
37 Industrial meter	3,141	0.0%	0.0%	100.0%	100.0%	100.0%	0	0	3,141	0	3,141	3,141
38 A governor	1,223	0.0%	0.0%	100.0%	100.0%	100.0%	0	0	1,223	0	1,223	1,223
39 B governor	6,400	0.0%	0.0%	100.0%	100.0%	100.0%	0	0	6,400	0	6,400	6,400
40 Off-taker	33,518	0.0%	0.0%	100.0%	100.0%	100.0%	0	0	33,518	0	33,518	33,518
41 Other investment	1,120	0.0%	0.0%	100.0%	100.0%	100.0%	0	0	1,120	0	1,120	1,120
42 Total investment	249,639						0	0	0	0	0	0

(Gas Material Cost)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	
43 Gas material cost			155,550	177,082	203,279	245,724	292,928	340,605	380,280	423,105	457,818	504,328	552,878	603,360	651,893	701,051	750,868	800,210	850,150	900,627	951,756	1,003,556	1,056,035	1,109,207	1,163,085	1,217,574	1,272,678
44 Gas material cost (incremental)			0	18,512	44,728	87,174	134,377	182,055	221,729	264,555	299,068	345,778	404,126	474,810	559,443	652,501	720,317	800,659	892,265	992,657	1,101,477	1,219,556	1,347,915	1,486,678	1,635,957	1,796,877	1,970,564

(Gas Demand)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
45 Residential	2,450	2,274	2,768	4,688	9,181	18,983	33,184	41,179	49,258	57,188	65,801	74,310	82,943	91,700	100,584	109,468	118,456	127,554	136,761	145,987	155,408	164,837	174,368	184,000	184,000	192,643
46 Commercial	3,331	4,564	4,708	5,512	6,319	7,125	8,308	9,888	11,805	14,118	16,808	19,658	22,872	26,668	29,251	32,838	36,846	40,689	44,981	49,540	54,382	59,526	64,981	70,798	76,984	83,518
47 Boilers/Air	4,138	5,870	8,508	10,889	15,078	21,038	31,502	44,888	61,488	81,011	103,553	127,350	152,514	179,102	207,218	236,953	268,458	301,847	337,242	374,773	414,578	456,797	501,591	549,120	599,558	653,087
48 Total	7,469	10,234	13,212	16,411	21,365	28,163	39,810	54,854	73,293	95,129	120,381	147,016	175,186	204,989	236,465	269,791	305,104	342,538	382,223	424,313	468,958	518,323	568,581	619,916	676,522	738,605
49 Industrial	750,734	877,599	960,411	1,033,211	1,134,811	1,269,811	1,431,211	1,621,827	1,747,787	1,882,587	1,982,187	2,126,548	2,314,298	2,547,738	2,832,890	3,148,899	3,365,336	3,797,277	4,265,390	4,829,280	5,476,656	6,269,766	7,201,822	8,304,221	9,599,122	11,104,243
50 Total	760,693	890,107	976,369	1,054,611	1,165,337	1,344,738	1,526,290	1,709,665	1,882,259	2,026,972	2,159,718	2,339,353	2,583,794	2,835,647	3,161,158	3,519,074	3,779,906	4,258,268	4,775,168	5,390,354	6,091,892	6,841,497	7,793,047	8,968,505	10,284,659	11,804,243

(Incremental gas demand)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
51 Residential	0	0	2,223	6,415	14,197	22,503	30,418	38,419	46,490	54,422	63,035	71,544	80,177	88,934	97,818	106,700	115,690	124,768	133,995	143,312	152,842	162,071	171,602	181,234	189,277	
52 Commercial	0	0	806	1,812	2,419	3,802	5,182	7,098	9,412	12,102	14,950	17,866	21,180	24,545	28,132	31,940	35,982	40,275	44,834	49,678	54,820	60,264	66,000	72,258	78,812	
53 Boilers/Air	0	0	2,293	6,570	12,532	22,898	38,490	52,830	72,505	95,047	118,654	144,009	170,597	198,711	228,441	259,552	293,341	328,737	366,267	406,070	448,291	493,065	540,614	591,052	644,581	
54 Total	0	0	3,199	8,183	14,651	26,598	41,842	60,081	81,817	107,149	139,804	181,974	219,757	272,258	326,579	391,592	459,324	529,011	601,011	675,174	752,111	832,958	917,746	1,007,900	1,102,473	
55 Industrial	0	0	72,800	174,400	339,200	500,800	661,218	787,376	922,176	1,021,758	1,166,135	1,353,887	1,587,325	1,872,579	2,188,288	2,404,925	2,630,968	3,004,979	3,883,869	4,510,245	4,809,355	5,601,218	6,513,810	7,443,726	8,415,183	
56 Total	0	0	78,222	188,998	368,349	549,901	753,276	885,870	1,050,583	1,183,327	1,362,974	1,587,405	1,859,258	2,184,769	2,542,685	2,803,517	3,281,879	3,798,779	4,413,965	5,115,303	5,465,108	6,318,658	7,292,116	8,288,270	9,327,854	
57 incremental number of customers	0.00	0.00	8.00	16.93	38.89	58.00	78.00	96.00	118.00	138.00	158.00	178.00	198.00	218.00	238.00	258.00	278.00	298.00	318.00	338.00	358.00	378.00	398.00	418.00	438.00	

(Cumulative Workers for residential)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
58 Administrative staff	2	17	35	53	62	69	72	72	73	72	69	65	61	57	52	47	42	37	33	29	25	22	19	15	13	
59 Administrative workers	4	37	78	101	110	113	111	103	98	89	80	71	62	54	46	39	32	27	22	18	15	12	9	7	5	
60 Sales	21	36	61	81	94	101	107	112	116	119	121	122	122	121	119	116	112	107	101	94	87	80	73	66	59	
61 Meter reading	3	8	15	23	30	35	40	43	45	46	46	45	43	41	39	37	35	32	29	26	23	20	17	14	11	
62 Co-cooking	5	14	28	43	59	76	94	112	130	148	166	184	202	220	238	256	274	292	310	328	346	364	382	400	418	
63 High-medium pressure																										
64 Low pressure		21	56	103	161	200	241	272	292	325	341	354	364</													

m3 Cost Base

(Cumulative Workers for cooking)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
69 Administrative staff (persons)			2	4	7	10	12	13	14	14	14	14	13	13	12	11	11	10	9	8	7	7	6	6	6	5
70 Administrative workers (persons)			4	9	15	19	21	22	21	20	19	17	16	14	12	11	10	8	7	5	5	4	3	3	3	2
71 Sales (persons)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
72 Meter reading (persons)			0	0	0	0	0	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2
73 Collecting (persons)			0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1
74 High-medium pressure (persons)																										
75 Low pressure (persons)			7	18	37	54	68	80	90	99	105	110	114	118	120	121	122	122	121	120	119	117	115	113	109	102
76 Meter administration (persons)			0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
77 Total (persons)			12	31	60	85	102	116	128	134	140	144	146	147	147	147	146	144	142	139	136	133	130	127	122	113
78 Total salary (persons)			279	701	1,338	1,872	2,240	2,512	2,706	2,827	2,919	2,960	2,969	2,954	2,919	2,870	2,809	2,740	2,684	2,584	2,502	2,417	2,332	2,245	2,143	1,968
79 NPV			12,298																							

(Cumulative Workers for AC)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
80 Administrative staff (persons)			1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1
81 Administrative workers (persons)			2	3	3	4	4	4	3	3	3	3	2	2	2	2	2	1	1	1	1	1	1	1	1	0
82 Sales (persons)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
83 Meter reading (persons)			0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1
84 Collecting (persons)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
85 High-medium pressure (persons)			3	8	8	10	12	13	14	15	16	17	17	17	18	18	18	18	17	17	17	17	18	18	18	15
86 Low pressure (persons)																1	1	1	1	1	1	1	1	1	1	1
87 Meter administration (persons)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
88 Total (persons)			6	10	13	16	18	19	21	22	22	23	23	23	23	23	22	22	22	21	21	20	20	19	19	18
89 Total salary (persons)			54	94	123	144	157	165	169	169	167	162	156	149	141	133	124	116	106	100	92	84	77	71	67	58
90 NPV			810																							

(Cumulative Workers for Industrial sector)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
91 Administrative staff (persons)			11	12	13	14	13	13	13	13	12	12	12	12	12	11	11	11	11	11	11	11	11	11	11	11
92 Administrative workers (persons)			26	27	27	26	24	22	20	18	16	15	14	13	12	11	10	9	9	8	7	7	6	6	5	5
93 Sales (persons)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
94 Meter reading (persons)			0	1	1	2	2	2	3	3	3	3	3	4	4	4	5	5	5	6	6	6	7	7	8	7
95 Collecting (persons)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96 High-medium pressure (persons)			6	11	15	19	18	17	16	15	14	13	13	12	12	11	10	10	9	9	8	8	8	8	7	7
97 Low pressure (persons)																										
98 Meter administration (persons)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1
99 Total (persons)			43	51	57	61	58	54	51	49	45	44	42	41	40	35	37	36	35	35	34	33	33	33	32	31
100 Total salary (persons)			682	649	1,013	1,057	1,029	1,002	978	956	937	920	907	895	865	873	865	858	852	847	838	834	831	827	823	815
101 NPV			6,065																							

(Total workers)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
102 Administrative staff (persons)			18	35	60	79	90	97	101	101	102	99	98	92	87	82	76	70	64	58	53	48	44	40	38	31
103 Administrative workers (persons)			38	75	122	150	158	160	155	145	138	124	112	100	88	78	67	58	49	42	36	30	28	22	18	15
104 Sales (persons)			21	36	61	81	54	47	43	43	42	36	33	31	29	27	25	24	22	21	19	18	17	13	0	
105 Meter reading (persons)			0	3	9	17	28	33	39	44	47	52	55	57	59	61	61	61	60	59	56	55	54	53	51	51
106 Collecting (persons)			0	5	14	26	40	50	60	68	73	81	85	88	91	92	93	92	91	89	87	85	82	80	78	75
107 High-medium pressure (persons)			9	17	23	29	30	30	30	30	30	30	30	30	29	29	28	27	27	27	26	25	24	23	23	21
108 Low pressure (persons)			28	75	140	215	269	321	382	390	430	452	469	481	490	496	489	481	471	460	448	436	423	410	397	370
109 Meter administration (persons)			10	27	55	81	101	119	133	145	156	164	170	175	178	180	181	181	181	179	177	175	172	169	164	153
110 Total (persons)			120	273	454	658	788	880	928	965	1,018	1,040	1,052	1,058	1,054	1,048	1,029	995	968	938	905	874	845	815	780	718

(m3 Cost High Case)

	resid	cooking	AC	Industrial	Total
1 Gas Material	67,998	18,724	146,621	2,243,103	2,476,438
2 Labor	67,166	12,406	811	13,107	93,491
3 Pensions	6,717	1,241	81	1,311	9,349
4 Property tax	215	85	112	536	948
5 Admin	22,165	4,094	268	4,325	30,852
6 Maint/Bother	8,144	3,222	4,229	20,282	35,877
7 Investment	81,836	24,458	32,108	154,006	272,418
8 Total	234,231	64,241	184,228	2,438,071	2,919,371
9 Cost/m3	778	775	284	248	268

(NPV of 15%)

10 Gas material cost (Incremental)	(mil Rp)	2,476,438
11 Property Tax	(mil Rp)	948
12 Labor cost (Incremental)	(mil Rp)	34,228
13 Workers	(mil Rp)	59,263
14 Pensions	(mil Rp)	9,349
15 Total	(mil Rp)	102,840
16 Administrative expenses	(mil Rp)	30,852
17 Maintenance & other expenses	(mil Rp)	35,877
18 Total investment	(mil Rp)	272,418
Total		2,919,371

NPV of Gas demand (15%)

	(1000m3)	(1000m3/hour)	(Supplying hour/year)
19 Residential	300,893	231,533	1,300
20 Commercial	82,896	82,865	1,000
21 Boilert/Air	649,115	218,372	3,000
22 Total	732,011		
23 Industrial	9,917,666	1,132,154	8,780
24 Total	10,663,589		

(Distribution of investment)

	(mil Rp)	Share %					Allocation of each cost					Total	Total
		Residential	Com. Cooking	Com. AC	Industrial	Total	Residential	Com. Cooking	Com. AC	Industrial	Total		
25 residential customers	83,975	73.6%	28.4%	0.0%	0.0%	100.0%	81,836	22,139	0	0	83,975	83,975	
26 commercial distribution	13,497			100.0%		100.0%	0	0	13,497	0	13,497	13,497	
27 Industrial distribution	5,018				100.0%	100.0%	0	0	0	5,018	5,018	5,018	
28 Industrial transmission	85,329	0.0%	0.0%	0.0%	100.0%	100.0%	0	0	85,329	85,329	85,329		
29 Resid+Comm transmission	14,568	0.0%	0.0%	100.0%		100.0%	0	14,568	0	14,568	14,568		
30 Commercial cooking SP	223		100.0%			100.0%	0	223	0	223	223		
31 Commercial cooking meter+HR	2,108		100.0%			100.0%	0	2,108	0	2,108	2,108		
32 Commercial AC SP	383		0.0%	100.0%		100.0%	0	0	383	0	383		
33 commercial AC valve	219		0.0%	100.0%		100.0%	0	0	219	0	219		
34 Commercial AC meter	3,443		0.0%	100.0%		100.0%	0	0	3,443	0	3,443		
35 Industrial SP	760				100.0%	100.0%	0	0	760	0	760		
36 Industrial valve	1,735				100.0%	100.0%	0	0	1,735	0	1,735		
37 Industrial meter	4,628				100.0%	100.0%	0	0	4,628	0	4,628		
38 A governor	1,225				100.0%	100.0%	0	0	1,225	0	1,225		
39 B governor	8,404	0.0%			100.0%	100.0%	0	0	8,404	0	8,404		
40 Offtake	47,780				100.0%	100.0%	0	0	47,780	0	47,780		
41 Other investment	1,128	0.0%			100.0%	100.0%	0	0	1,128	0	1,128		
42 Total investment	272,418				0.0%	0	0	0	0	0	0		

(Gas Material Cost)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
43 Gas material cost			158,550	181,500	213,923	268,067	323,799	382,068	430,183	487,031	517,906	573,153	633,870	711,607	814,672	944,874	1,050,552	1,226,320	1,451,037	1,735,328	2,083,343	2,338,430	2,810,971	3,389,681	4,032,417	4,755,247
44 Gas material cost (incremental)			0	22,949	55,373	107,517	165,248	223,538	271,633	323,480	359,355	414,602	475,420	553,057	658,122	788,124	892,402	1,069,170	1,292,436	1,576,778	1,929,793	2,177,879	2,652,420	3,231,431	3,873,866	4,598,696

(Gas Demand)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
45 Residential	2,490	2,274	2,768	5,034	9,232	17,042	25,395	33,445	41,625	49,636	58,390	67,029	75,834	84,798	93,918	103,202	112,505	121,950	131,538	141,270	151,148	161,198	171,397	181,752	192,263	202,932
46 Commercial	3,331	4,584	4,706	5,512	6,319	7,125	8,321	9,907	11,882	14,247	17,002	19,928	23,038	28,345	29,862	33,803	37,822	41,841	45,864	51,578	56,851	62,733	69,957	75,657	82,872	90,643
47 Boilert/Air	4,138	5,870	8,508	10,889	15,078	21,038	31,608	45,298	62,108	82,048	105,105	129,542	155,453	182,941	212,113	243,085	276,264	311,689	350,097	391,117	435,175	482,515	533,398	588,106	646,941	710,229
48 Total	7,469	10,234	13,212	16,411	21,395	28,163	39,827	55,203	73,991	92,293	122,106	149,470	178,492	209,286	241,975	278,658	313,806	353,830	398,631	442,895	492,126	545,248	602,355	663,763	729,813	800,871
49 Industrial	750,734	877,599	960,411	1,051,411	1,178,411	1,384,411	1,588,411	1,786,931	1,944,831	2,113,131	2,216,570	2,392,781	2,583,582	2,847,127	3,201,433	3,657,181	4,010,118	4,702,784	5,468,153	6,465,398	7,638,707	8,799,341	9,949,479	11,845,064	13,808,751	15,158,633
50 Total	760,693	890,107	978,589	1,073,361	1,210,364	1,430,697	1,652,739	1,876,923	2,061,911	2,261,326	2,399,307	2,611,795	2,845,707	3,144,313	3,540,715	4,040,725	4,449,487	5,182,768	6,020,699	7,054,172	8,287,077	9,091,168	10,728,868	12,698,559	14,825,061	17,168,956

(Incremental gas demand)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
51 Residential	0	0	2,268	6,466	14,278	22,829	30,879	38,659	47,170	55,814	64,283	73,068	82,030	91,152	100,438	109,739	119,154	128,772	138,504	148,382	158,430	168,631	178,988	189,497	200,166	
52 Commercial	0	0	808	1,812	2,419	3,615	5,201	7,178	9,541	12,295	15,222	18,332	21,639	25,155	28,897	32,815	37,234	41,878	46,872	52,245	58,028	64,250	70,951	78,168	85,937	
53 Boilert/Air	0	0	2,393	6,570	12,532	23,100	38,790	53,694	73,540	98,589	121,036	148,843	174,435	203,807	234,580	267,778	303,384	341,591	382,811	428,670	474,009	524,892	579,800	638,435	701,723	
54 Total	0	0	3,199	8,183	14,951	28,715	41,991	60,779	83,061	108,894	138,258	165,208	198,074	228,763	263,478	300,694	340,818	383,469	429,453	478,914	532,038	589,143	650,551	718,601	791,659	
55 Industrial	0	0	91,000	218,000	424,000	628,000	826,520	984,220	1,152,720	1,258,159	1,432,350	1,628,151	1,848,716	2,241,022	2,698,750	3,058,707	3,742,353	4,527,742	5,504,985	6,878,296	7,418,930	8,989,065	10,884,633	12,938,340	15,198,222	
56 Total	0	0	98,972	233,975	454,308	676,350	900,534	1,065,522	1,284,937	1,422,918	1,635,408	1,869,818	2,167,924	2,584,328	3,064,338	3,473,098	4,206,397	5,044,510	6,077,783	7,310,683	8,114,777	9,752,507	11,720,170	13,848,672	16,190,547	
57 incremental number of customers	0	0	8.00	18.83	36.89	58.00	78.00	99.00	118.00	138.00	158.00	178.00	198.00	218.00	238.00	258.00	278.00	298.00	318.00	338.00	358.00	378.00	398.00	418.00	438.00	

(Cumulative Workers for residential)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
58 Administrative staff			2	17	37	53	62	68	72	72	73	71	68	65	61	57	52	47	42	37	33	29	25	22	18	14
59 Administrative workers			5	37	78	101	109	113	111	103	98	89	80	71	62	54	46	38	32	27	22	18	15	12	9	7
60 Sales			21	38	61	61	54	50	47	44	41	38	35	33	31	29	27	25	23	22	20	19	18	16	15	
61 Meter reading				2	7	15	23	29	35	40	43	47	49	51	52	53	53	51	50	47	46	43	41	38	35	35
62 Collecting				5	14	26	40	50	60	67	73	80	84	87	90	91	92	91	89	87	85	83	81	78	75	73
63 High-medium pressure																										
64 Low pressure				21	58	103	160	200	241	272	291	324	340	353	363	370	374	387	355	343	339	328	318	307	297	288
65 Meter administration				10	27	55	80	101	118	133	145	155	162	169	179	178	179	179	179	177	173	169	166	162	151	
66 Total			</																							

m3 Cost High

(Cumulative Workers for cooking)

	1995	1998	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
69 Administrative staff (persons)			2	4	7	10	12	13	14	14	14	14	13	13	12	12	11	10	9	9	8	7	7	8	6	5
70 Administrative workers (persons)			4	9	15	19	21	22	21	20	19	17	16	14	12	11	10	8	7	6	5	5	4	3	3	2
71 Sales (persons)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
72 Meter reading (persons)			0	0	0	0	0	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2
73 Collecting (persons)			0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1
74 High-medium pressure (persons)			7	18	37	55	69	81	91	99	106	111	115	118	121	122	123	123	122	121	120	118	113	114	111	104
75 Low pressure (persons)			0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1
76 Meter administration (persons)			0	0	0	0	0	0	0	135	141	145	147	148	149	148	147	145	143	140	138	135	131	128	125	115
77 Total (persons)			13	31	60	85	103	117	127	2,660	2,942	2,954	2,964	2,976	2,944	2,894	2,833	2,764	2,689	2,609	2,527	2,443	2,358	2,273	2,189	2,007
78 Total salary (persons)			284	706	1,352	1,888	2,257	2,531	2,727																	
79 NPV			12,406																							

(Cumulative Workers for AC)

	1995	1998	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
80 Administrative staff (persons)			1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1
81 Administrative workers (persons)			2	3	3	4	4	4	3	3	3	3	2	2	2	2	2	1	1	1	1	1	1	1	0	0
82 Sales (persons)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
83 Meter reading (persons)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
84 Collecting (persons)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
85 High-medium pressure (persons)			3	6	8	10	12	13	14	15	16	17	17	17	18	18	18	18	17	17	17	17	16	15	14	14
86 Low pressure (persons)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
87 Meter administration (persons)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
88 Total (persons)			6	10	13	16	19	21	22	22	22	23	23	23	23	23	22	22	22	21	21	21	20	20	19	18
89 Total salary (persons)			54	94	123	144	157	165	169	170	187	183	157	149	142	133	125	116	108	100	92	85	78	72	67	59
90 NPV			811																							

(Cumulative Workers for industrial sector)

	1995	1998	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
91 Administrative staff (persons)			11	12	13	14	14	13	13	13	12	12	12	12	12	12	11	11	11	11	11	11	11	11	11	11
92 Administrative workers (persons)			26	27	27	26	24	22	20	18	17	15	14	13	12	11	10	9	9	8	8	7	7	6	6	5
93 Sales (persons)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
94 Meter reading (persons)			0	1	2	2	3	3	3	3	3	4	4	4	5	5	6	7	8	9	9	10	12	13	14	13
95 Collecting (persons)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96 High-medium pressure (persons)			6	11	15	19	18	17	16	15	14	13	13	12	12	11	10	10	9	9	8	8	8	8	7	7
97 Low pressure (persons)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
98 Meter administration (persons)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
99 Total (persons)			43	51	57	62	59	55	52	50	47	45	43	42	41	39	39	38	35	36	37	38	39	39	40	38
100 Total salary (persons)			863	952	1,018	1,064	1,037	1,011	987	954	844	927	913	902	890	881	875	870	867	854	856	854	853	852	850	839
101 NPV			6,129																							

(Total workers)

	1995	1998	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
102 Administrative staff (persons)			16	35	60	79	90	97	101	101	101	99	96	92	87	82	78	70	64	58	53	48	44	40	38	31
103 Administrative workers (persons)			36	75	122	150	155	150	155	145	138	124	112	100	88	78	67	58	49	42	38	30	28	22	18	15
104 Sales (persons)			21	36	62	81	54	50	47	44	41	38	36	33	31	29	27	25	24	22	21	19	18	17	18	0
105 Meter reading (persons)			0	3	9	17	28	33	39	44	47	52	55	57	59	61	61	61	60	59	58	58	55	54	53	51
106 Collecting (persons)			0	5	14	28	40	50	60	68	73	81	85	88	91	92	93	92	91	89	87	85	82	80	78	75
107 High-medium pressure (persons)			9	17	23	29	30	30	30	30	30	30	30	30	29	29	28	27	27	26	25	25	24	23	23	21
108 Low pressure (persons)			28	75	140	215	269	321	382	390	430	452	459	481	490	496	489	481	471	450	443	438	423	410	397	370
109 Meter administration (persons)			10	27	55	81	101	119	134	148	158	164	170	175	178	180	182	182	181	180	178	175	173	169	168	155
110 Total (persons)			121	273	485	658	768	880	928	958	1,015	1,041	1,052	1,056	1,054	1,046	1,024	995	968	937	908	875	845	816	786	718

(m3 Cost Low Case)

	resid	cooking	AC	Industrial	Total
1 Gas Material	63,228	17,602	137,574	1,149,620	1,368,023
2 labor	66,923	12,157	809	10,812	90,701
3 pensions	6,692	1,216	81	1,081	8,070
4 Property tax	211	84	113	393	800
5 Admin	22,085	4,012	267	3,568	29,931
6 Maintenance	8,181	3,248	4,384	15,213	31,003
7 Investment	58,915	23,433	31,647	109,829	223,824
8 Total	228,214	61,749	174,674	1,290,518	1,753,353
9 Cost/m3	818	802	291	257	293

(NPV of 15%)

10 Gas material cost/incremental	(mil Rp)	1,368,023
11 Property Tax	(mil Rp)	800
12 Labor cost (incremental)	(mil Rp)	33,259
13 Workers	(mil Rp)	57,442
14 Pensions	(mil Rp)	9,070
15 Total	(mil Rp)	99,771
16 Administrative expenses	(mil Rp)	29,931
17 Maintenance & other expenses	(mil Rp)	31,003
18 Total investment	(mil Rp)	223,824
Total	(mil Rp)	1,753,353

NPV of Gas Demand (15%)

	(1000m3)	(1000m3/hour)	(Supplying hour/year)
19 Residential	278,618	212,782	1,300
20 Commercial	77,005	77,005	1,000
21 Cooking	601,871	200,624	3,000
22 Total	878,877		
23 Industrial	5,018,933	572,938	8,760
24 Total	5,894,964		

(Distribution of investment)

	(mil Rp)	Share %					Allocation of each cost					Total
		Total NPV	Residential	Com. Cookin	Com. AC	Industrial	Residential	Com. Cookin	Com. AC	Industrial	Total	
25 residential customers	80,238	73.4%	28.6%	0.0%	0.0%	100.0%	58,915	21,321	0	0	80,238	
26 commercial distribution	13,412			100.0%		100.0%	0	0	13,412	0	13,412	
27 Industrial distribution	2,199				100.0%	100.0%	0	0	0	2,199	2,199	
28 Industrial transmission	73,291	0.0%	0.0%	0.0%	100.0%	100.0%	0	0	73,291	73,291	73,291	
29 Resid+Comm transmission	14,568	0.0%	0.0%	100.0%		100.0%	0	0	14,568	0	14,568	
30 Commercial cooking SP	202		100.0%			100.0%	0	202	0	0	202	
31 Commercial cooking meter/HR	1,910		100.0%			100.0%	0	1,910	0	0	1,910	
32 Commercial AC SP	347		0.0%	100.0%		100.0%	0	0	347	0	347	
33 commercial AC valve	199		0.0%	100.0%		100.0%	0	0	199	0	199	
34 Commercial AC meter	3,123		0.0%	100.0%		100.0%	0	0	3,123	0	3,123	
35 Industrial SP	333		0.0%		100.0%	100.0%	0	0	333	0	333	
36 Industrial valve	781				100.0%	100.0%	0	0	781	0	781	
37 Industrial meter	2,028				100.0%	100.0%	0	0	2,028	0	2,028	
38 A governor	1,184				100.0%	100.0%	0	0	1,184	0	1,184	
39 B governor	6,114	0.0%			100.0%	100.0%	0	0	6,114	0	6,114	
40 Offtaker	22,837				100.0%	100.0%	0	0	22,837	0	22,837	
41 Other investment	1,083	0.0%			100.0%	100.0%	0	0	1,083	0	1,083	
42 Total investment	223,824				0.0%	0	0	0	0	0	0	

(Gas Material Cost)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
43 Gas material cost			158,550	172,754	193,005	225,911	282,528	299,765	331,177	365,128	412,817	443,738	494,528	549,920	615,703	678,015	703,972	799,121	878,879	974,894	1,055,492	1,128,500	1,249,882	1,384,200	1,517,373	1,652,968
44 Gas material cost/incremental			0	14,234	34,454	67,381	103,976	141,214	172,827	208,578	254,068	290,168	335,978	391,370	457,153	517,454	545,422	640,371	720,129	816,343	928,941	989,949	1,091,342	1,225,849	1,358,822	1,494,418

(Gas Demand)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
45 Residential	2,490	2,274	2,768	4,654	8,189	15,854	24,381	31,751	43,001	41,810	54,865	64,699	72,893	81,168	89,528	97,858	106,378	112,747	119,010	125,292	131,594	137,704	144,035	150,385	158,769	163,020
46 Commercial	3,331	4,364	4,708	5,512	8,319	7,125	8,294	9,824	11,716	13,970	16,586	19,344	22,250	25,315	28,547	31,955	35,527	39,270	43,191	47,299	51,603	56,112	60,834	65,781	70,951	78,365
47 Cooking	4,138	5,870	8,506	10,899	15,078	21,038	31,383	44,930	60,777	79,825	101,773	124,854	149,134	174,690	201,587	229,872	259,485	290,468	322,865	358,802	392,288	429,414	468,257	508,893	551,404	595,875
48 Total	7,459	10,234	13,212	18,411	21,395	23,183	39,877	54,454	72,493	93,795	118,360	144,183	171,384	199,995	230,114	261,827	295,012	329,738	368,077	404,102	443,891	485,526	529,061	574,874	622,365	672,260
49 Industrial	750,734	877,599	960,411	1,015,011	1,091,211	1,214,811	1,338,011	1,458,323	1,550,943	1,652,043	1,801,922	1,908,575	2,051,015	2,228,307	2,443,336	2,834,838	2,701,717	2,931,294	3,160,738	3,400,736	3,725,819	3,759,481	4,088,722	4,445,598	4,782,446	5,111,025
50 Total	760,693	890,107	976,369	1,038,534	1,121,975	1,281,021	1,401,848	1,545,072	1,665,889	1,798,471	1,979,118	2,118,038	2,294,181	2,507,209	2,769,219	2,992,187	3,099,717	3,371,819	3,645,973	3,962,982	4,307,506	4,391,049	4,770,580	5,164,269	5,578,575	5,967,366

(Incremental gas demand)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
51 Residential	0	1,888	5,423	13,068	21,615	28,935	37,235	45,144	52,199	61,933	70,127	78,402	86,760	95,200	103,810	109,581	115,244	122,526	128,828	134,938	141,269	147,819	154,003	158,769	163,020	
52 Commercial	0	806	1,812	2,419	3,587	5,117	7,010	9,264	11,880	14,637	17,544	20,609	23,841	27,249	30,821	34,584	38,485	42,593	46,897	51,406	56,128	61,074	66,254	71,679		
53 Cooking	0	2,393	6,570	12,532	22,878	38,124	52,271	71,319	93,268	118,349	146,828	168,175	193,062	221,368	250,979	281,983	314,360	348,296	383,782	420,909	459,751	500,387	542,839	587,370		
54 Total	0	3,199	8,183	14,951	28,465	41,242	59,281	80,583	105,148	130,988	158,172	186,783	216,902	248,615	281,800	316,526	352,865	390,890	430,879	472,314	515,879	561,462	609,153	658,048		
55 Industrial	0	54,600	130,800	254,400	378,600	495,912	590,532	691,632	811,511	948,164	1,090,604	1,247,898	1,422,925	1,674,227	1,741,306	1,970,883	2,200,327	2,470,325	2,785,408	2,799,070	3,128,311	3,485,187	3,822,035	4,150,814		
56 Total	0	60,145	145,568	284,632	423,459	568,683	699,500	820,082	1,002,729	1,141,649	1,317,732	1,530,820	1,783,630	2,015,793	2,123,328	2,355,430	2,689,584	2,868,593	3,331,117	3,414,660	3,794,191	4,207,880	4,602,186	4,890,997		
57 incremental number of customers	0	0	5	18	33	56	74	95	118	150	188	230	278	332	392	458	530	608	692	782	878	980	1,088	1,202	1,322	

(Cumulative Workers for residential)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
58 Administrative staff	2	17	36	54	81	108	135	162	189	216	243	270	297	324	351	378	405	432	459	486	513	540	567	594	621	648
59 Administrative workers	4	37	72	101	138	181	229	281	338	399	464	533	606	684	767	854	945	1,040	1,139	1,242	1,349	1,460	1,574	1,691	1,811	1,934
60 Sales	21	38	53	63	71	78	84	89	94	99	104	109	114	119	124	129	134	139	144	149	154	159	164	169	174	179
61 Meter reading	3	8	15	24	30	38	47	56	65	74	83	92	101	110	119	128	137	146	155	164	173	182	191	200	209	218
62 Collecting	5	14	28	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200	210	220	230	240	250	260
63 High-medium pressure																										
64 Low pressure																										
65 Meter administration																										
66 Total	984	3,711	7,170	10,649	12,360	14,139	15,154	15,497	16,584	18,513	18,559	18,449	18,197	15,870	15,080	14,378	13,694	13,029	12,369	11,744						

m3 Cost Est

(Cumulative Workers for cooking)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
69 Administrative staff (persons)			2	4	7	10	12	13	14	14	14	14	14	13	12	12	11	10	9	8	7	6	6	6	5	4
70 Administrative workers (persons)			4	9	14	19	21	21	21	20	19	17	16	14	13	11	9	8	7	6	5	4	4	3	3	2
71 Sales (persons)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
72 Meter reading (persons)			0	0	0	0	0	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2
73 Collecting (persons)			0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1
74 High-medium pressure (persons)																										
75 Low pressure (persons)			7	18	35	53	67	80	90	97	107	112	118	119	122	123	121	119	117	114	111	108	105	102	98	92
76 Meter administration (persons)			0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
77 Total (persons)			13	32	56	83	100	115	126	132	142	148	149	149	149	149	145	141	138	132	127	123	119	114	110	102
78 Total salary (persons)			284	710	1,257	1,836	2,165	2,458	2,703	2,796	2,953	3,004	3,013	2,998	2,962	2,911	2,797	2,680	2,565	2,453	2,340	2,234	2,131	2,032	1,936	1,775
79 NPV			12,157																							

(Cumulative Workers for AO)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
80 Administrative staff (persons)			1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	0
81 Administrative workers (persons)			2	3	3	4	4	4	3	3	3	3	2	2	2	2	2	1	1	1	1	1	1	1	1	0
82 Sales (persons)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
83 Meter reading (persons)			0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1
84 Collecting (persons)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
85 High-medium pressure (persons)			3	6	8	10	12	13	14	15	16	17	17	17	18	18	18	18	17	17	17	17	16	16	15	14
86 Low pressure (persons)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1
87 Meter administration (persons)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
88 Total (persons)			6	10	13	18	18	19	21	22	22	23	23	23	23	23	22	22	22	21	21	20	20	19	19	17
89 Total salary (persons)			54	94	123	144	157	165	169	169	167	162	156	149	141	133	124	118	107	99	91	84	77	70	66	57
90 NPV			509																							

(Cumulative Workers for Industrial sector)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
91 Administrative staff (persons)			11	12	13	14	13	13	13	12	12	12	12	12	11	11	11	11	11	11	11	11	11	11	11	10
92 Administrative workers (persons)			26	27	27	28	24	22	20	18	16	15	14	13	12	11	10	9	8	8	7	7	6	6	5	5
93 Sales (persons)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
94 Meter reading (persons)			0	1	1	1	2	2	2	2	2	2	3	3	3	3	3	3	3	4	3	4	4	4	4	4
95 Collecting (persons)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96 High-medium pressure (persons)			6	11	15	19	18	17	16	15	14	13	13	12	12	11	10	10	9	9	8	8	8	8	7	7
97 Low pressure (persons)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
98 Meter administration (persons)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
99 Total (persons)			43	51	56	60	57	53	50	48	45	43	41	40	38	36	35	34	33	32	30	30	29	28	27	26
100 Total salary (persons)			662	948	1,007	1,050	1,022	994	970	950	931	914	900	858	877	863	855	846	839	833	824	819	815	810	806	801
101 NPV			6,045																							

(Total workers)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
102 Administrative staff (persons)			16	35	57	79	88	97	100	100	103	99	95	92	87	82	75	69	63	57	52	47	43	39	35	30
103 Administrative workers (persons)			38	75	118	150	158	160	155	143	137	124	112	100	88	78	68	67	48	41	35	29	25	21	18	14
104 Sales (persons)			21	36	53	63	51	53	47	39	49	38	38	33	31	29	20	18	17	16	14	13	12	11	9	0
105 Meter reading (persons)			0	3	9	17	28	33	39	44	47	52	55	57	59	61	61	61	61	60	59	58	55	54	53	51
106 Collecting (persons)			0	5	14	28	40	50	60	65	73	81	85	88	91	92	93	92	91	89	87	85	82	80	78	75
107 High-medium pressure (persons)			9	17	23	29	30	30	30	30	30	30	30	30	29	29	28	27	27	27	26	25	24	23	23	21
108 Low pressure (persons)			28	75	140	215	269	321	362	390	430	452	469	481	490	496	489	481	471	460	448	438	423	410	397	370
109 Meter administration (persons)			10	27	51	78	97	116	131	141	156	164	170	175	178	180	178	175	171	168	163	159	154	150	145	135
110 Total (persons)			120	273	484	658	757	860	925	956	1,028	1,040	1,052	1,058	1,054	1,048	1,011	979	947	916	882	851	820	789	758	698