(Financial Analyses with In house installation)		1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2001	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020 reskt	1 2021
329 LPG bottle repurchase 330 In house pipeline installation 331 Before tax cash flow 332 IRR of before tax cash flow	(mil Rp)			1,200 2,400 -40,843 23,0%	2,185 4,371 -42,327	3,992 1,985 -48,330	4,222 8,445 -36,783	4,000 7,999 -2,253	4,000 8,000 8,774	4,000 8,000 17,036	4,000 8,000 28,549	4,000 8,000 33,362	4,000 8,000 44,359	4,000 8,000 55,249	4,000 8,000 69,100	4,000 8,000 88,367	4,000 8,000 118,954	4,000 8,000 132,473	4,000 8,000 183,128	4,000 8,000 178,909	4,000 8,000 213,548	4,000 8,000 262,346	4,000 8,000 241,115	4,000 8,000 312,105	4,000 8,000 348,050	4,000 8,000 369,869	0 0 478.238 2.08	
333 NPV as of 10% (financial) 334 NPV as of 15% (financial)	(mil Rp) (mil Rp)			612,581 204,832																								
(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	1 2021
335 Before tax cash flow 336 IRR of before tax cash flow 331 NPV as of 104 338 NPV as of 154	(mil Rp) (mil Rp) (mil Rp)	0	0	-44,334 19.7% 445,143 117,839	-46,662	-54,183	-44,001	-8,352	1,363	8,417	18,805	22,491	32,073	41,251	52,901	69,341	96,985	106,940	152,580	138,520	165,986	208,314	179,312	242,935	265,927	273,649	375,822 1,90	
Case 4:Residential Distribution Pipeline Inv		overnment	when Gas		e to Resid	dential Se	ctor goes	up to 800F	p in ton y	e 41 S.																	·	
(Financial Feasibility Analysis) 339 Sales Residential	(mil Rp)	1995	1996	1997 1,023	1998 2,079	1999 4,210	2000 8,504	2001 13,764	2002 19,565	2003 26,141	2004 33,507	2005 41,683	2006 50,741	2007 60,667	2008 67,837	2009 75,134	2010 82,562	2011 90,004	2012 97,550	2013 105,230	2014 113,016	2015 120,918	2016 128,957	2017 137,118	2018 145,492	2019 153,810	2020 resid 162,346	1 2021
340 Commercial Cooking 341 Commercial Boiler+AC 342 Commercial Total	(mil Rp) (mil Rp) (mil Rp)	· · · · · · · · · · · · · · · · · · ·		1,553 2,607 4,360	1,819 3,597 5,416	2,085 4,975 7,060	2,351 6,943 9,294	2,746 10,430 13,176	3,269 14,948 18,217	3,921 20,496 24,417	4,702 21,075 31,777	5,511 34,685 40,295	6,576 42,749 49,325	7,603 51,300 58,902	8,694 60,371 69,064	9,854 69,997 79,852	11,089 80,218 91,307	12,415 91,174 103,589	13,849 102,923 116,764	15,373 115,532 130,905	17,021 129,069 146,089	18,794 143,608 162,402	20,702 159,230 179,932	22,756 176,021 198,777	24,967 194,075 219,042	27,348 213,490 240,838	29,912 234,315 264,288	•
343 Industrial 344 Total 345 Gas material cost	(mil Rp) (mil Rp) (mil Rp)			302,529 307,913 158,550	331,194 338,689 181,500	371,199 382,470 213,923	436,089 453,887 266,067	499,719 526,659 323,798	562,883 600,666 382,086	612,559 663,116 430,883	665,636 130,920 482,031	698,220 780,198 517,906	753,720 853,786 573,153	815,397 934,966 633,970	896,845 1 1,033,746 1 711,607		1,325,875	1,459,615	1,695,695	1,964,903	2,295,705	2,406,193 : 2,689,513 : 2,088,343 :	2,948,381	3,469,980	4,095,648	4,772,125	515,973	
346 Gross profit 347 Gross profit (incremental MMRp)	(mil Rp) (mil Rp)			149,363	157,190 7,827	168,547 19,184	187,820 38,457	53,499	218,580 69,217	232,934 83,571	248.889 99.527	262,292 112,930	280,633 131,270	300,997 151,634	322,139 172,776	349,766 199,403	381,200 231,838	408,663 259,300	467,374 318,012	513,857 364,504	560,379 411,016	601,169 451,807	611,951 462,589	659,010 509,647	705,667 556,304	739,709 590,346	760,726 611,363 2,19	9,148
348 Property Tax 349 Labor cost (incremental Staffs 350 Workers	(mil Rp) (mil Rp) (mil Rp)			1,196 1,557	59 2,649 3,530	90 4,165 6,521	117 6,217 8,788	118 7,025 10,287	118 7,540 11,474	119 1,803 12,383	118 7,872 13,064	7,793 13,560	121 7,605 13,909	124 7,336 14,134	130 7,012 14,260	137 6,651 14,303	142 6,267 14,273	154 5,873 14,167	169 5,479 14,657	221 5,101 13,913	272 4.732 13.733	306 4,371 13,513	358 4,027 13,270	378 3,697 12,998	400 3,388 12,711	425 3,097 12,410	372 2,673 11,443	
351 Pensions 352 Total 353 Administrative expanses	(mil Rp) (mil Rp) (mil Rp)			275 3,029 909	618 6,797 2,039	1,129 12,421 3,726	1,501 16,506 4,952	1,731 19,043 5,713	1,901 20,916 6,275	2,019 22,205 6,661	2,094 23,030 6,909	2,135 23,489 7,047	2,151 23,665 7,099	2,147 23,617 7,085	2,127 23,399 7,020	2,095 23,050 6,915	2,054 22,594 6,778	2,006 22,066 6,620	1,954 21,490 6,447	1,901 20,916 6,275	1,845 20,311 6,093	1,788 19,673 5,902	1,730 19,027	1,670 18,365 5,509	1,610 17,708	1,551 17,059		5,854
354 Maintenance & other expenses 355 Total investment	(mil Rp) (mil Rp)		: '	763 34,912	1,626 31,231	2,717 43,773	3,814 43,431	4,392 18,117	4,949 16,996	5,511 17,300	5,014 15,847	6,624 18,296	7,218 18,869	7,856 21,034	8,554 24,111	9,315 21,234	10,031 24,962	10,940 34,669	11,925 38,414	13,817 83,805	15.838 90.207	17,594 16,994	5,708 19,874 103,194	21,570 74,020	5,312 23,373 79,308	5,118 25,307 85,896		6,756 1,032
356 Before tax cash flow (financial) 357 IRR of before tax cash flow 358 NPV as of 10% (financial)	(mit Rp)			-39,643 27.8N 830,235	-39,976	-43,544	-30,362	6,115	19,964	31,775	47,580	51,445	14,299	91,858	109,562	132,752	167,331	184,851	239,567	239,471	218.294	331,339	314,429	389,805	430,203	456,542	565,499 2,03:	5 506
359 NPV as of 15% (Gnancial)	(mil Rp)			324,729	ż			1 *				And the second				:										. :		
(Down Side sensitivity Analyses) 360 24 contingency sales VcGross profit	(mil 8p)	1995	1996	1997	1998 7,211	1999 17,693	2000 35,538	2001 49,124	2002 63,362	2003 76.467	2004 91,067	2005 103,484	2006 120,353	2007 139,093	2008 158,259	2009 182,293	2010 211,478	2011 236,266	2012 290,256	2013 331,364	2014 371,260	2015 404,175	2016 409,779	2017 446,406	2018 480,549	2019 501,062	2020 resid 507,202 2,087	
361-10% contingency total investment 362-Before tax cash flow	(mil Rp) (mil Rp)			38,403 -43,134	40,954 -44,264	48,150 -49,412	47,774 -31,624	19.929 -72	18,695 12,410	19,030 22,941	17,431 37,535	20,027 46,178	20,755 61,495	23,204 17,207	26,523	29,957 112,918	27,458 144,475	38,136	42,255 201,970	92,186 197,950	99.228	84,693 276,008	113,513	81,422 319,162	87,239 346,517	94.485	0 461,338 1,900	
363 IRR of before tax cash flow 364 NPV as of 10% 365 NPV as of 15%	(mil Rp) (mil Rp)			24.3% 662,301 236,837	1 .			•		,					:											-		
(Financial Analyses with In house Installation)		1995	1995	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020 cesid	2021
366 LPG bottle repurchase 367 In house pipeline installation	(mil R _P)			1,200 2,400	2,185 4,371	3,992 7,935	4,222 8,445	4,000 7,999	4,000 8,000	4,000 8,000	4,000 8,000	4,000 8,000	4,000 8,000	4,000 8,000	4,000 8,000	4,000 8,000	4,000 8,000	4,000 8,000	4,000 8,000	4,000 8,000	4,000 8,000	4,000 8,000	4,000 8,000	4,000 8,000	4,000 8,000	4,000 8,000	0	
368 Before tax cash flow 369 IRR of before tax cash flow 370 NPV as of 10% (financial)	(mil Ro)			-40,843 26.5% 807,818	-42,111	-47,536	-34,584	2,115	15,964	21,715	43,580	53,445	10,299	87,858	105,562	128,752	163,331	180,850	235,567	235,471	274,294	321,339	310,429	385,805	426,203	. 452,542	565,499 2,135	5,361
371 NPV as of 15% (financial)	(mil Ro)	:		305,852	. :					٠						٠						: ' :					* #	
(Down Side Sensitivity Analysis) 372 Before tax cash flow	(mil Rp)	1995	1996 0	1997 ~44,334	1998 -46,450	1999 -53,405	2000 -41,847	2001 -4,072	2002 8,410	2003	2004 33,535	2005 42,178	2006 57,435	2007 73,208	2008 88,634	2009 108,918	2010 140,476	2011 154,350	2012 203,970	2013 193,950	2014 225,518	2015 272,008	2016 247,300	2017 315,162	2018 342,517	2019 354,668	2020 resid 461,338 1,998	
373 IRR of before tax cash flow 374 NPV as of 10% 375 NPV as of 15%	(mil Rp) (mil Rp)			23.1% 639,777 217,925	4											:												•
Case 5: Financial feasibility of PGN in separ (Financial Feasibility Analysis)	ate utility (case							· .			:			•													
376 Seles Residential	(mil Rp)	1995	1995	1997 871	1998 1,586	1999 2,908	2000 5,368	2001 7,999	2002 10,535	2003 13,112	2004 15,730	2005 18,390	2006 21,114	2007 23,888	2008 26,711	2009 29,584	2010 32,509	2011 35,439	2012 38,414	2013 41,434	2014 44,500	2015 47,612	2016 S0,717	2017 53,990	2018 57,252	2019 60,563	2020 resid: 63.924	2021
377 Commercial Cooking 378 Commercial Boiler*AC 379 Commercial Total	(mil Rp) (mil Rp) (mil Rp)			1,482 2,619 4,162	1,736 3,433 5,169	1,990 4,749 6,739	2,244 6,627 8,811	2,621 9,956 12,577	3,121 14,268 17,389	3,743 19,564 23,307	4,488 25,844 30,332	5,355 33,108 38,463	6,277 40,806 47,083	7,257 48,968 56 ,225	8,299 57,626 65,925	9,406 66,816 76,222	10,585 76,572 87,157	11,851 87,029 98,880	13,211 98,245 111,456			17,940 137,080 155,020		21,721 168,020 189,742		26,105 203,786 229,891		
380 Industriat 381 Total	(mil Rp) (mil Rp)			302,529 307,563	331,194 337,950	371,199 380,847	436,089 450,329	499,119 520,296	562,883 590,807	612,559 648,938	665,636 711,698	698,220 755,073	753,720 821,917	815,397 895,510	896,845 1 989,481 1	.008,451 1 .114,258 1	,152,006 1 ,271,671 1	1,266,022 1 1,400,341 1	1,461,371 1 1,631,241 1	.728,768 2 .895,157 2	036 600 2 220 549 2	2,406,193 2,603,824	2,639,492 3 2,862,022 3	134,086 3 1,377,818 3	1,731,205 4 1,997,542 4	1,377,477 5 1,667,931 5	089,339 405,537	
382 Gas material cost 383 Gross profit 384 Gross profit (incremental MMRp)	(mil Rp) (mil Rp) (mil Rp)	-		158,550 149,012 0	181,500 156,450 7,438	213,923 166,924 17,912	266,067 184,262 35,250		382,086 208,722 59,709	430,183 218,795 69,783			573,153 248,764 99,752	261,540	711,607 277,873 128,851	299,586	326,997	349,389	,228,320 1 402,921 253,909	444,121	485,222	2,088,343 2 520,481 331,468	525,593	566,847	607,561	635,514	/ · · · · · · · · · · · · · · · · · · ·	360
385 Proporty Tax 386 Labor cost (incremental Staffs	(mil Re) (mil Re)	:		27 801	52 1,636	76 2,809	97 3,715	93 4,234	89 4,558	85 4,731	80 4,783	78 4,747	77 4,643	77 4,490	80 4,303	85 4,093	83 3,856	9 3 3,63 5	111 3,402	161 3,182	210 2,966	242 2,752	292 2,551	310 2.354	331 2,167	354 1,993	310 1,754	
387 Workers 388 Pensions 389 Yotal	(mil Rp) (mil Rp) (mil Rp)			913 171 1,886	2,041 358 4,044	3,698 651 7,158	5,092 881 9,687	6,029 1,026 11,289	6,754 1,131 12,443	1,310 1,204 13,245	7,727 1,251 13,761	8,035 1,278 14,060	8,251 1,289 14,183	8,392 1,288 14,171	8,473 1,278 14,054	8,503 1,260 13,855	8,486 1,235 13,587	8,439 1,201 13,282	8,361 1,176 12,940	8,286 1,147 12,615	8,187 1,115 12,268	8,057 1,081 11,890	7,922 1,047 11,520	7,754 1,011 11,119	7,576 974 10,718	7,390 938 10,322	6.871 863 9,498 30),120
390 Administrative exponses 391 Maintenance & other expenses	(mil Rp) (mil Rp)			566 616	1.213 1.255	2,147 1,954	2,906 2,661	3,387 2,855	3,733 3,021	3,974 3,184	4,128 3,317	4,218 3,497	4,255 3,685	4,251 3,918	4,216 4,208	4,157 4,556	4,076 4,858	3,984 5,350	3,882 5,911	3,785 1,378	3,680 8,968	3,567 10,290	3,456 12,128	3,336 13,319	3,215 14,729	3,097 16,209	2.846 9	9,036 1,443

392 Total investment 393 Before tax cash flow (financial) 394 IRR of before tax cash flow 395 NPV as of 10% (financial) 396 NPV as of 15% (financial)	(mil Rp) (mil Rp) (mil Rp) (mil Rp)			30,820 -33,916 31.5N 727,665 305,569	31,954 -31,081	35,419 -28,853	34,840 -14,941	9,711 20,150	8,309 32,114	8.170 41.125	6,620 52,749	8,985 57,317	9,491 68,060	11,589 78,521	14,494 91,810	17,413 110,507	15,108 140,267	24,569 153,093	28,078 202,987	73,311 197,859	79,503 231,581	66,097 279,383	91,931 257,252	62,525 327,166	67,523 362,033	73,973 382,541	-200 472,630 1,50	0,760
(Down Side sensitivity Analyses) 397 2% contingency sales Vc Gross profit 398 10% contingency total investment 399 Before tax cash flow 400 IRR of before tax cash flow 401 NPV as of 10% 402 NPV as of 15%	(mit Rp) (mit Rp) (mit Rp) (mit Rp) (mit Rp)	1995	1996	1997 0 39,903 -36,998 27,4% 570,842 224,914	1998 6,830 35,150 -34,884	1999 16,446 38,961 -33,860	2000 32,394 38,324 -21,281	2001 43,231 10,682 14,925	2002 54,044 9,140 25,618	2003 62,955 8,987 33,480	2004 72,573 7,282 44,004	2005 79:205 9,884 47,468	2006 89,465 10,440 56,823	2007 100,769 12,748 65,603	2008 115,223 15,943 76,722	2009 134,440 19,154 92,632	2010 158,702 16,619 119,474	2011 178,521 27,026 128,780	2012 227,435 30,885 173,705	2013 263,356 80,642 158,776	2014 297,950 87,454 185,371	2015 325,443 72,707 226,748	2016 325,491 101,125 196,970	2017 356,430 68,178 259,509	2018 384,749 74,215 281,481	2019 399,294 81,370 287,943	2020 resid 399,319 1,45 -220 370,690 1,35	7,369
(Financial Analyses with In house Installation) 403 LPG bottle repurchase 404 In house pipeline installation 405 Before tax cash flow 406 IRR of before tax cash flow 407 NPV as of 105 (financial) 408 NPV as of 155 (financial)	(mil Rp) (mil Rp) (mil Rp)	1995	1996	1997 1,200 2,400 -35,116 29,74 704,426 286,421	1998 2,165 4,371 -33,266	1999 3,992 7,985 -32,845	2000 4,222 8,445 -19,164	2001 4,000 7,999 16,151	2002 4,000 8,000 28,114	2003 4,000 8,000 37,125	2004 4,000 8,000 48,748	2005 4,000 8,000 53,317	2006 4,000 8,000 64,059	2007 4,000 8,000 74,521	2008 4,000 8,000 87,809	2009 4,000 8,000 106,507	2010 4,000 8,000 136,267	2011 4,000 8,000 149,093	2012 4,000 8,000 198,987	2013 4,000 8,000 193,859	2014 4,000 8,000 227,581	2015 4,000 8,000 275,383	2016 4,000 8,000 253,252	2017 4,000 8,000 323,166	2018 4,000 8,000 358,033	2019 4,000 8,000 378,547	2020 resid 0 0 0 472,630 1,59	
(Down Side Sensitivity Analysis) 409 Before tex cash flow 410 IRR of before tex cash flow 411 NPV as of 10% 412 NPV as of 15%	(mil Rp) (mil Rp) (mil Rp)	1995	1996 0	1997 -38,198 25,5% 548,514 206,067	1998 -31,069	1999 -37,853	2000 -25,503	2001 10,925	2002 21,618	2003 29,480	2004 40,004	2005 43,468	2006 52,823	2007 61,603	2008 72,722	2009 88,632	2010 115,474	2011 124,780	2012 169,705	2013 154,776	2014 181,371	2015 222,748	2016 192,970	2017 255,509	2018 277,481	2019 283,943	2020 resid 370,690 1,45	
Case 5.Financial feasibility of separate util (Financial Feasibility Analysis) 413 Total sales 414 Gas material cost 415 Gross profit 416 Total salaries 417 Administrative expenses 418 Maintenance & other expenses 419 Property tax 420 Before tax income 421 Total investment 422 Net cash flow 423 FIRR 424 NPV as of 10% 425 NPV as of 15%	(mil Rp)	1997 0 0 498 149 146 6 -801 7,322 -8,123 11,94 130,940 26,094	1998 2,052 809 1,243 1,306 392 370 15 -841 11,175 -12,016	1999 5,739 2,262 3,477 2,532 760 749 30 -593 18,930 -19,523	2000 12,401 4,886 7,515 9,478 1,043 1,152 44 1,798 20,168 -18,971	2001 20,927 7,891 12,136 4,155 1,246 1,535 5,55 5,145 19,144 -13,999	2002 27,807 10,857 16,850 4,651 1,395 1,927 65 8,811 19,610 -10,799	2003 36,024 14,196 21,928 5,009 1,503 2,319 14 12,924 19,616 -6,693	2004 44,653 17,597 27,056 5,195 1,559 2,717 83 17,502 19,896 -2,394	2005 53,690 21,159 32,530 5,343 1,603 3,115 90 22,381 19,867 2,513	2006 62,998 24,829 38,169 5,461 1,638 3,515 96 27,459 20,024 7,436	2007 72,562 28,600 43,963 5,408 1,622 3,922 102 32,909 20,326 12,583	2008 82,398 32,418 49,920 5,426 1,628 4,326 107 38,434 20,237 18,197	2009 92,523 36,410 56,053 5,324 1,597 4,735 111 44,285 20,413 23,872	2010 102,951 40,581 62,369 5,223 1,561 5,143 115 50,321 20,438 29,883	2011 113,617 44,787 68,829 5,101 1,530 5,552 119 56,526 20,454 36,073	2012 124.634 49.132 75.502 4.970 1.491 5.970 122 62.943 20.881 42.061	2013 136,023 53,623 82,399 4,829 1,449 6,390 125 69,606 21,003 48,603	2014 147,806 58,271 89,535 4,669 1,401 6,814 128 76,524 21,200 55,324	2015 160,008 63,083 96,924 4,508 1,352 7,241 131 83,692 21,354 62,338	2016 172,672 68,078 104,593 4,388 1,316 7,675 133 91,080 21,702 69,378	2017 185,811 73,262 112,550 4,218 1,265 8,113 136 98,818 21,891 76,927	2018 199,455 78,644 120,811 4,028 1,208 8,556 138 106,881 22,159 84,722	2019 213,636 84,239 129,397 3,898 1,169 9,005 141 115,184 22,448 92,736	2020 228,387 90,059 138,329 3,580 1,074 9,005 123 124,546 0 124,546	695,789 695,789		
(Downside Sensitivity Analyses) 426 2% contingency sales vot Gross profit 427 10% contingency of all investment 428 Before tax cash flow 429 FIRR 430 NPV as of 10% 431 NPV as of 15%	(mil Rp) (mil Rp) (mil Rp) (mil Rp) (mil Rp)	1997 -794 8,055 -8,849 16,5% 113,644 13,604	1998 -850 12,293 -13,143	1999 -633 20,823 -21,456	2000 1,691 22,185 -20,494	2001 4,957 21,059 -16,101	2002 8,540 21,571 -13,031	2003 12,561 21,578 -9,016	2004 17,044 21,886 -4,842	2005 21,820 21,854 -35	2006 26,192 22,026 4,766	2007 32,131 22,358 9,773	2008 37,542 22,260 15,281	2009 43,276 22,455 20,821	2010 49,189 22,482 26,707	2011 55,269 22,499 32,769	2012 61,560 22,969 38,591	2013 68,083 23,104 44,980	2014 74,861 23,320 51,542	2015 81,885 23,489 58,395	2016 89,121 23,872 65,249	2017 96,703 24,080 72,622	2018 104,603 24,375 80,228	2019 112,737 24,693 88,044	2020 121,903 0 121,903	738,804		
(Financial Feasibility with In House Pipeline In 432 LPG tottle selling (residential) 433 In house pipeline installation (residential 434 LPG bottle repurchase (commercial) 435 In house pipeline installation (cooking) 436 Net cash flow 437 FIRR 438 NPV as of 104 439 NPV as of 154	(nal Re)	1997 1,200 2,400 5 94 -9,412 15.5% 105,758 5,390	1998 2,185 4,371 5 94 -14,290	1999 3,992 7,985 5 94 -23,604	2000 4,222 8,445 9 166 -22,750	2001 4,000 7,999 13 237 -18,223	2002 4,000 8,000 18 309 -15,091	2003 4,000 8,000 22 382 -11,053	2004 4,000 8,000 26 456 -6,823	2005 4,000 8,000 28 487 -1,946	2005 4,000 8,000 29 520 2,945	2007 4,000 8,000 31 555 8,059	2008 4,000 8,000 34 593 13,637	2009 4,000 8,000 36 634 19,274	2010 4,000 8,000 39 683 25,239	2011 4,000 8,000 42 736 31,378	2012 4,000 8,000 45 794 37,318	2013 4,600 8,000 48 856 43,795	2014 4,000 8,000 52 924 50,453	2015 4,000 8,000 56 997 57,398	2016 4,000 8,000 61 1,076 64,363	2017 4,000 8,000 66 1,161 71,831	2018 4,000 8,000 71 1,253 79,539	2019 4,000 8,000 77 1,353 87,459	2020 0 0 0 0 0 124,545	803,524		
(Downside Sensitivity Analyses) 440 Before tex cash flow 441 FIRR 442 NPV as of 104 443 NPV as of 154	(mil Rp) (mil Rp) (mil Rp)	1997 -10,137 14.4% 68,463 -7,099	1998 -15,417	1999 -25,537	2000 -24,873	2001 -20,325	2002 -17,323	2003 -13,376	2004 -9,272	2005 -4,493	2006 275	2007 5,249	2008 10,722	2009 16,223	2010 22,063	2011 28,075	2012 33,842	2013 40,172	2014 46,670	2015 53,455	2016 60,234	2017 67,521	2018 75,046	2019 82,767		esid 2021 846,547		
(Gas price of separate utility) 444 Sales price (residential) 445 Sales price (cooking) 446 Sales price (AG) 447 Gas material cost	(Rp/m3) (Rp/m3) (Rp/m3) (Rp/m3) (Rp/m3)	1997 800 800 330 315	1998 800 800 330 315	800 330	2000 800 800 330 315	2001 800 800 330 315	2002 800 800 330 315	2003 800 800 330 315	2004 800 800 930 315	2005 800 800 930 315	2006 800 800 330 315	2007 800 800 330 315	2008 800 800 330 315	2009 800 800 330 315	2010 800 800 330 315	2011 800 800 330 315	2012 800 800 330 315	2013 800 800 330 315	2014 800 800 330 315	2015 800 800 330 315	2016 800 800 330 315	2017 800 800 330 315	2018 809 800 330 315	2019 800 800 330 315	800 800 330	esid 2021		

Master Plan Economic and Financial Analyses (Low Case)

	Master Plan Econom	nic and Financ	cial Analy	ses (Lov	v Case)																									
•	(Gas Demand) 1 Residential 2 Commercial 3 4 5 Industrial 6 Total	Cooking Boiler+Air Con. Total	(1000m3) (1000m3) (1000m3) (1000m3) (1000m3) (1000m3)	1995 2,490 3,331 4,138 7,469 150,734 760,693	1996 2274 4,564 5,670 10,234 871,599 890,107	1997 2,766 4,706 8,506 13,212 960,411 1 976,389 1	1998 4,654 5,512 10,899 16,411 015,011 1	1999 8,189 6,319 15,076 21,395 ,091,211 1,121,975	2000 15,854 7,125 21,038 28,163 214,811 1,261,021	2001 24,381 8,294 31,383 39,677 1,336,011 1,401,848	2002 31,751 9,824 44,630 54,454 1,456,323 1,545,072	2003 40,001 11,716 60,777 72,493 1,550,943 1,665,889	2004 47,910 13,970 79,825 93,795 1,652,043	2005 54,965 16,586 101,773 118,360 1,801,922 1	2006 64,699 19,344 124,854 144,198 1,908,575 2,118,038	171,384 2051,015 2	2008 81,168 25,315 174,680 199,995 2,228,307 2,507,209	2.443.336 2	261,827 2.634,638	2.701.717 (2.931.294	43,191 322,885 366,077 3,160,738 3	404,102 1,430,736	2015 131,594 51,603 392,288 443,891 3,725,819 4,307,506	2016 137,704 56,112 429,414 485,526 3,759,481 4,391,049			2019 156,769 70,961 551,404 622,365 4,782,446 5,578,575	163,020 76,385 595,875 672,260 5,111,025	sid 2021
	(Number of Customers) 7 Residential 8 Commercial 9 10 11 Industrial 12 Total	Cooking Boiler+Air Con Total	(1000) (1000) (1000) (1000) (1000)	1995 9.06 0.18 0.01 0.19 0.19 9.43	1996 9.67 0.16 0.01 0.17 0.21 10.05	1997 11.14 0.16 0.01 0.16 0.22 11.51	1998 17.09 0.18 0.01 0.20 0.23 17.51	1999 28.03 0.21 0.02 0.23 0.24 28.50	2000 45.13 0.24 0.04 0.27 0.27 45.67	2001 67.13 0.28 0.06 0.34 0.30 67.78	2002 86.03 0.35 0.10 0.44 0.33 86.80	2003 107.10 0.43 0.14 0.57 0.35 108.02	2004 127,19 0.54 0.19 0.73 0.37 128,29	2005 144.98 0.66 0.25 0.91 0.40 146.29	2006 169.14 0.79 0.32 1.11 0.43 170.67	2007 189.14 0.93 0.39 1.32 0.46 190.91	2008 209.14 1.07 0.46 1.53 0.50 211.17	2009 229.14 1.23 0.54 1.77 0.55 231.45	2010 249.14 1.39 0.62 2.01 0.59 251.74	2011 269.14 1.56 0.71 2.27 0.60 272.01	2012 283.92 1.75 0.80 2.54 0.66 287.12	2013 298.31 1.94 0.89 2.83 0.71 301.85	2014 312.64 2.14 0.99 3.13 0.77 316.53	2015 326.89 2.35 1.09 3.44 0.83 331.17	2016 340.58 2.57 1.20 3.78 0.84 345.20	2017 354.70 2.81 1.32 4.12 0.91 359.74	2018 368.76 3.05 1.44 4.49 1.00 374.24	2019 382.78 3.31 1.56 4.67 1.07 388.72		sid 2021
	(Salos Volume per Custome 13 Residential 14 Commercial 15 16 17 Industrial 18 Total	Cooking Boğert Air Con Total	(1000m3) (1000m3) (1000m3) (1000m3) (1000m3)	1995 0.27 18.40 827.60 40.16 4,036.20 80.63	1996 0:24 28:00 1134:00 60:92 4,159:24 88:58	1997 0.25 29.98 1701.14 81.56 4,467.03 84.81	1998 027 30.02 905.00 83.87 4,467.03 59.18	1999 0.29 30.05 671.17 91.93 4,467.03 39.36	2000 0.35 30.08 580.23 103.11 4,467.03 27.61	2001 0.36 29.32 507.29 115.11 4,467.03 20,68	2002 0.37 28.23 463.10 122.55 4.467.03 17.80	2003 0.37 27.10 434.91 126.72 4,467.03 15.42	2004 0.38 26.08 415.82 128.89 4,457.03 14.00	2005 0.38 25.18 400.60 129.69 4.467.03 13.53	2006 0.38 24.52 390.93 130.09 4,467.03 12.41	2007 0.39 24.00 383.84 130.27 4,467.03 12.02	2008 0.39 23.59 378.44 130.30 4.467.03 11.87	2009 0.39 23.24 374.12 130.23 4,467.03 11.93	2010 0.39 22.95 370.56 130.10 4,467.03 11.89	2011 0.40 22.70 367.53 129.91 4,467.03 11.40	2012 0.40 22.48 364.90 129.69 4,467.03 11,74	2013 0.40 22.29 362.58 129.44 4,467.03 12.08	2014 0.40 22.12 360.51 129.17 4,467.03 12.52	2015 0.40 21.96 358.64 128.89 4.467.03 13.01	2016 0.40 21.82 356.94 128.61 4.467.03 12.72	2017 0.41 21.68 355.37 128.32 4,467.03 13.26	2018 0.41 21.56 353.93 128.04 4,467.03 13.85	2019 0.41 21.45 352.58 127.75 4.467.03 14.35	2020 re 0.41 21.35 351.33 127.47 4,467.03 14.82	sid 2021
	(Investment Plan) 19 Pipoline installation 20 (Km) 21 22 23 24 Cumulative pipiline 25 (Km) 26 27 28 29 Cumulative meter 30 (Units) 31 32 33 Cumulative offisker 34 Cumurative governor 35	Residential distriction of the commercial of the comme	ribution ution ussion ansmission ibution ution ution assion ansmission	1995	1996	1997 59.56 10 0.91 36.13 10 59.56 10.00 0.91 36.13 10.00 5,956 27 7	1998 109.37 10 1.27 36.13 10 168.93 20.00 2.18 722.25 20.00 16.893 53 17 29 6	1999 171.02 10 2.06 36.13 10 339.95 30.00 425 108.38 30.00 33,995 80 31 15 77 12 3	2000 220 03 10 2002 36,13 10 559,98 40,00 627 144,50 40,00 55,938 126 57 84 18 55	2001 189.00 10 2.01 0.00 10 748.98 50.00 8.28 144.50 50.00 74.898 191 111 24 7	2002 210.70 10 1.53 0.00 10 959.68 60.00 9.85 144.50 60.00 95.968 215 135 132 29 95	2003 200.85 10 1.69 0.00 10 1.150.53 70.00 11.54.50 70.00 116.053 379 187 185 35 11	2004 177.91 10 2.50 0.00 10 1.338.44 80.00 14.04 144.50 80.00 133.844 502 249 188 42 13	2005 241.57 10 1.78 0.00 10 1.580.00 90.00 15.82 144.50 90.00 158,000 632 314 212 48 15	2006 200.01 10 238 0.00 1,780.01 100.00 144.50 100.00 178.001 770 384 244 56 17	2007 199.99 10 2.96 0.00 10 1,980.00 110.00 21.16 144.50 110.00 198.000 916 457 284 65 19	2008 200.01 10 3.59 0.00 10 2.180.01 120.00 24.75 144.50 120.00 218.001 1,071 534 332 76 21 218	2009 199.99 10 3.19 0.00 10 2.380.00 27.94 144.50 130.00 238,000 1.235 615 375 86 238	2010 200 01 10 1.12 0.00 10 2.580.01 140.00 29.06 144.50 140.00 258.001 1,40.00 258.001 1,40.00 258.001 258.001 258.001 258.001 258.001 258.001	2011 147.83 103 383 0.00 10 2,727.84 150.00 32.89 144.50 150.00 272,784 1,590 791 441 102 27 27 272	2012 143.93 10 3.83 0.00 10 2,871.77 160.00 267,177 1,781 885 493 114 28 287	2013 143.24 10 4.51 0.00 10 3,015.00 170.00 41.22 144.50 170.00 301,500 1,982 965 553 127 30	2014 142.54 10 4.92 0.00 10 3.157.54 180.00 46.15 144.50 180.00 315,754 2,193 1,089 619 142 31 315	2015 136.93 10 0.56 0.00 10 3.294.47 190.00 329.447 144.50 190.00 329.447 2.415 1,198 627 145 32 329	2016 141.20 10 5.46 0.00 10 3.435.68 200.00 52.17 144.50 200.00 343.568 2.648 1.313 700 162 343	2017 140 53 10 5.599 0.00 10 3.576 20 210.00 58.16 144.50 210.00 357.620 2.894 1,433 780 179 357	2018 140 20 10 5 562 0.00 10 3,716 40 220.00 63,78 144 50 220.00 311,640 3,151 1,559 856 196 371	2019 135.87 10 5.48 0.00 10 3.852.27 230.00 69.26 144.50 230.00 385.227 3.421 1,691 929 213 38 385	2020 re 000 0 3.852.27 230.00 69.26 144.50 230.00 385.227 3.421 1.691 929 213	sid 2021
	(Imported facilities in Dollar 36 Residentia HR+meter 31 Commercial cooking in 38 commercial AC valve 39 Commercial AC meter 40 Industrial valve 41 Industrial meter 42 A governor 43 B governor 44 Offtaker 45 Turbo chiller 46 Absorption chiller 47 Total (Casel to 4) 48 Separate utility meter 49 Total (Case 5) 50 Exchange rate	neter+HR r ed)	(1000\$) (1000\$) (1000\$) (1000\$) (1000\$) (1000\$) (1000\$) (1000\$) (1000\$) (1000\$) (1000\$) (1000\$) (1000\$) (1000\$)	1995	1996	1997 319 39 2 34 22 59 0 125 480 7,124 7,636 1,592 5 1,597 2,350	1998 586 39 3 50 31 82 51 275 960 10,539 11,297 12,835 10 2,845 2,350	1999 917 39 4 66 50 133 101 425 1,440 13,955 14,958 4,160 10 4,189 2,350	2000 1,180 66 8 123 49 131 101 550 1,440 25,901 27,765 5,512 10 5,521 2,350	2001 1,013 94 11 166 49 130 101 475 1,440 34,903 37,414 5,990 14 6,004 2,350	2002 1,130 122 13 209 38 102 101 525 1,200 43,871 47,027 6,597 10 6,606 2,350	2003 1,077 150 16 252 41 109 101 525 1,440 52,825 56,625 7,511 14 1,525 2,350	2004 954 178 19 293 61 162 101 425 1,680 62,670 67,179 8,386 10 8,396 2,350	2005 1,295 189 20 315 43 115 101 625 1,440 66,202 70,965 8,906 14 8,921 2,350	2006 1,072 200 21 333 58 154 101 500 1,920 69,942 74,973 9,391 14 9,405 2,350	2007 1,072 212 22 352 72 191 101 500 2,160 73,897 79,214 9,999 10 10,008 2,350	2008 1,072 224 24 372 87 232 101 500 2,640 78,081 10,869 10,869 14 10,884 2,350	2009 1,072 237 25 393 77 206 101 500 2,400 82,504 88,439 10,948 10	2010 1,072 250 26 413 27 72 101 500 960 86,672 92,907 9,657 14 9,672 2,350	2011 793 263 28 434 93 248 101 350 2,880 91,027 11,737 10 11,747 2,350	2012 772 277 29 455 93 248 51 375 2,880 95,517 102,452 12,054 5 12,059 2,350	2013 768 291 30 478 109 291 101 350 3120 100,331 107,549 12,757 10 12,767 2,350	2014 764 306 32 502 119 318 51 350 3600 105,300 112,875 13,617 10 13,627 2,350	2015 734 321 34 527 14 36 51 350 710,492 118,441 10,735 10	2016 757 338 35 552 132 353 101 350 4,080 4,080 115,916 124,255 15,038 5 15,043 2,350	2017 753 355 37 579 145 387 51 350 4,080 121,582 130,329 15,484 10 15,494 2,350	2018 752 372 39 608 136 363 101 350 4060 127,501 136,673 15,983 2,350	2019 728 391 41 637 133 355 51 350 4,080 133,682 143,299 16,382 10 16,392 2,350	2020 re	sid 2021
	(Investment cost in case 1 51 Residential distributio 52 Distributio 53 Residentia HR+meter 54 Total 55 Commercial distribution 56 57 Industrial distribution 58 59 Industrial transmissio 60 61 Resid+Comm transmi 62 63 Commercial cooking 64 Commercial cooking 65 Coomercial AO SP 65 Commercial AO SP 66 Commercial AO SP	on fine+SP on ission SP meter+HR	(1000Rp/ml (mil Rp) (mil Rp) (mil Rp) (1000Rp/ml (1000Rp/ml (mil Rp) (1000Rp/ml (mil Rp) (1000Rp/ml (mil Rp) (mil Rp) (mil Rp) (mil Rp) (mil Rp)		1996	1997 77 3815 750 4.565 197 2.000 165 150 711 25.671 228 2.276 10 91	1998 77 7,005 1,378 8,383 197 2,004 165 210 711 25,671 228 2,276 10 91 13	1999 77 10.954 2.155 13.109 197 2.007 165 340 711 25.671 228 2.276 10 91	2000 77 14,094 2,772 16,866 197 2,038 165 333 711 25,671 228 2,276 17 156 32	2001 77 12,106 2,381 14,487 197 2,065 165 331 0 0 228 2,276 23 222 43 25	228 2,276 30 287 55	2003 171 12,865 2,531 15,395 197 2,120 0 0 228 2,276 37 352 2,666 38	2004 171 11,395 2,242 13,637 197 2,149 165 412 0 0 228 2,276 44 418 418 78 78		2006 17 12,811 2,520 15,331 197 2,171 165 392 0 0 228 2,276 50 469 87 50	2007 77 12,810 2,520 15,330 197 2,183 165 488 0 0 228 2,276 53 497 92 53	2008 77 12,811 2,520 15,331 197 2,196 165 591 0 228 2,276 56 527 97	2009 77 12,810 2,520 15,330 197 2,209 165 526 0 0 228 2,276 59 558 103 59	2010 77 12,811 2,520 15,331 197 2,221 165 184 0 0 228 2,276 62 587 108 62	2011 77 9,469 1,863 11,331 197 2,235 601 0 0 228 2,276 65 618 113 65	2012 77 9219 1.813 11,033 197 2.248 165 631 0 228 2.216 69 650 119 68	2013 77 9,175 1,805 10,980 197 2,263 165 743 0 0 228 2,276 72 683 125 72	2014 717 9,130 1,796 10,926 72,218 165 812 0 0 228 2,216 719 131	2015 177 8,711 1,725 10,496 197 2,293 165 93 0 0 228 2,276 80 755 755 755 138 19	2016 77 9,045 1,779 10,824 197 2,310 165 900 0 228 2,276 84 793 144 83	2017 77 9,001 1,774 10,772 2,327 165 987 0 0 228 2,276 88 833 151 87	2018 77 8,580 1,766 10,746 197 2,344 165 926 0 0 228 2,276 93 875 159 91	2019 77 8,703 1,712 10,415 197 2,363 165 904 0 0 228 2,276 91 918 167 95	2020 re	sid 2021

	(an)			6.0	. 116	156	ممة	201	401	562	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			
67 Commercial AC meter 68 Industrial SP 69 Industrial valve 70 Industrial meter 71 A governor 72 B governor 73 Offtaker 74 Other investment 75 Total investment 76 Cumulative investment 77 Opericiation 78 Cumulative depriciation 79 Not property	(mil Rp)			80 23 52 138 0 294 1,128 200 36,692 36,692 4,587 4,587 32,106	118 32 72 193 119 646 2,256 200 42,301 78,994 9,301 13,887 65,106	156 51 118 313 238 998 3.384 400 49.190 128.184 14.287 28.175 100,010	19,187 47,361	19,947 67,309	491 39 90 240 238 1,233 2,820 200 26,535 233,476 20,771 88,080 145,396	592 42 96 256 238 1,233 3,384 200 26,604 260,080 21,500 109,580 150,500	62 143 380 238 998 3,948 0 25,531	44 101 270 238 1,468 3,384 200 30,314 315,925 23,043 154,626	783 59 135 361 238 1.175 4.512 0 28,090 344,015 23,674 178,300 165,715	74 169 450 238 1,175 5,076 0 28,979 312,994 24,337 202,637	90 205 545 238 1,175 6,204 0 30,460 403,454 25,102 227,739	80 182 485 298 1,175 5,640 0 29,842 433,297 25,695 253,434	28 64 170 238 1,175 2,256 0 25,734 459,030 25,700 279,133 179,897	96 218 582 238 822 6,768 0 27,079 486,109 25,872 305,005 181,104	96 218 582 119 881 6,768 -200 26,628 512,737 25,966	112 257 685 238 822 7,332 0 27,783 540,520 26,194 357,165 183,355	123 281 748 119 822 8,460 0 29,025 569,544 26,547 383,713 185,832	14 32 85 119 822 1,692 -200 20,011 589,556 25,730 409,443 180,113	136 311 830 228 822 9.588 0 30,637 620,193 26,344 435,787	149 341 910 119 822 9,588 0 30,813 651,006 26,902 462,689	140 320 854 238 822 9.588 -200 30,102 681,708 27,377 490,066 191,641	137 313 833 119 822 9.588 0 30,544 712,252 27,773 517,840 194,412	-200 -200 712,052 24,277 542,116 169,936		
(Total investment for PGN in case 3 and 4) 80 PGN investment for residential customent 81 Total investment for PGN 82 Cumulative investment 83 Depriciation 84 Cumulative depriciation 85 Net property	(mil Rp) (mil Rp) (mil Rp) (mil Rp) (mil Rp) (mil Rp)	. 1995	1996	1997 1,346 33,473 33,473 4,184 4,184 29,289	1998 2,472 36,390 69,863 8,210 12,394 57,469	1999 3.865 39.946 109.809 12.177 24.571 85.238	15,854 40,425	2001 4271 15,056 166,456 15,754 56,179 110,278	2002 4,762 15,146 181,603 15,678 71,857 109,746	2003 4,539 15,748 197,350 15,687 87,543 109,807	2004 4,021 15,915 213,265 15,715 103,259 110,007	15,908 119,166	2006 4,520 17,279 247,800 16,079 135,246 112,555	16,340 151,586	2008 4,520 19,649 285,618 16,754 168,340 117,278	17,039 185,379	2010 4,520 14,922 319,573 16,774 202,153 117,420	2011 3,341 19,088 338,662 17,064 219,217 119,445	17,287 236,503	17,631 254,134	2014 3,221 21,320 398,870 18,092 272,226 125,644	2015 3,095 12,610 411,480 17,407 289,633 121,847	18,107 307,739		2018 3,168 23,124 480,825 19,293 345,777 135,048	2019 3,071 23,200 504,025 19,781 365,558 138,467	2020 re -200 503,825 17,283 382,842 120,984	osid 2021	
(Total investment for PGN in case 5) 86 PGN investment for residential customent 87 PGN investment for cooking HR+SP+met 88 PGN investment for AC SP+meter+velve 90 Separate utility meter 91 PGN investment for B governor 92 Total investment for PGN 93 Cumulative investment 94 Depricuation 95 Cumulative depriciation 96 Nat property	i (mil Rp) i (mil Rp)	1995	1996	1997 0 0 0 0 11 0 29,450 29,450 3,681 3,681 25,769	1998 0 0 0 0 0 23 0 31,052 60,503 7,103 10,784 49,719	1999 0 0 0 0 23 0 32,615 93,117 10,292 21,076 72,042	2000 0 0 0 0 23 0 32,599 125,716 13,080 34,156 91,560	2001 0 0 0 0 34 0 6,933 132,649 12,312 46,467 86,181	2002 0 0 0 0 23 0 6,186 138,835 11,546 58,013 80,822	2003 0 0 0 0 34 0 6,605 145,440 10,928 68,942 76,498	2004 0 0 0 0 23 0 7,482 152,922 10,498 79,439 73,483	2005 0 0 0 0 34 0 6,842 159,764 10,041 89,480 70,284	2006 0 0 0 0 34 0 8.008 167,771 9,786 99,266 68,505	2007 0 0 0 0 0 23 0 8,792 176,564 9,662 108,928 67,636	2008 0 0 0 0 34 0 10.183 186,747 9,727 118,656 68,091	2009 0 0 0 0 23 0 9,450 196,196 9,693 128,348 61,848	2010 0 0 0 0 34 0 5,250 201,447 9,137 137,486 63,961	2011 0 0 0 0 23 0 10,832 212,279 9,349 146,835 65,444	2012 0 0 0 0 11 0 10,501 222,780 9,493 156,328 66,452	2013 0 0 0 0 23 0 11,665 234,446 9,765 166,093 68,353	2014 0 0 0 0 0 23 0 12,841 247,287 10,149 176,242 71,045	2015 0 0 0 0 23 0 4.334 251,621 9,422 185,654 65,956	10,031	2017 0 0 0 0 23 0 14.194 280.105 10.551 206.246 73.859	2018 0 0 0 0 23 0 14,366 294,471 11,028 217,275 77,197	2019 0 0 0 0 23 0 14.192 308.663 11.424 228.698 79.965	0 308,663 9,996 238,694 63,969	esid 2021	
(Total investment for separate utility in case 5 97 Residential distribution 98 Commercial distribution 99 Commercial cooking meter 100 Commercial AC meter 101 B governor 102 Other investments 103 Total investment 104 Cumulative investment 105 Depriciation 106 Cumulative depriciation 107 Net property	(ml Rp)	1995 4,565 2,000 91 80 294 200 7,230 7,230 904 904 6,326	1996 8.383 2.004 91 118 646 0 11.242 18.471 2.196 3.100 15.372	1997 13,109 2,007 91 156 938 200 16,562 35,033 3,992 7,091 27,942	1998 16,866 2,038 156 290 1,292 200 20,842 53,875 6,098 13,189 42,686	1999 14,487 2,065 222 391 1,116 0 18,281 74,156 7,621 20,810 53,346	2000 16,151 2,093 287 491 1,233 20 20,455 94,611 9,225 30,035 64,576	2001 15,395 2,120 352 592 1,233 0 19,692 114,303 10,534 40,569 73,735	2002 13,637 2,149 418 702 998 0 17,905 132,208 11,455 52,024 80,184	2003 18,517 2,160 443 741 1,468 0 23,329 155,537 12,939 64,963 90,575	2004 15,331 2,171 459 783 1,175 0 19,929 175,467 13,813 78,776 96,691	2005 15,330 2,183 497 828 1,175 200 20,212 195,679 14,613 93,389 102,290	2006 15,331 2,196 527 874 1,175 0 20,102 215,781 15,299 108,688 107,093	15,911 124,599	2008 15,331 2,221 587 971 1,175 0 20,285 256,261 16,458 141,057 115,204		2010 11,033 2,248 650 1,070 891 0 15,882 287,968 16,317 173,752 114,216	2011 10,980 2,263 683 1,124 822 0 15,871 303,839 16,261 190,013	16,219 206,232	2013 10,496 2,293 755 1,237 822 0 15,604 335,367 16,142 222,373 112,993	2014 10,824 2,310 793 1,298 822 0 16,047 351,414 16,130 238,504 112,910	2015 10,772 2,327 833 1,362 822 0 16,115 367,529 16,128 254,632 112,897	16,139	2017 10,415 2,363 918 1,497 822 -200 15,815 399,560 16,099 285,869 112,691	2018 0 0 0 0 0 0 0 399,560 14,086 300,956 98,604	2019	2020 re	osid 2021	
(Comulative workers in case 1 to 4) 108 Administrative staff 109 Administrative workers 110 Sales 111 Mater reading 112 Collecting 113 High-medium pressure 114 Low pressure 115 Mater administration 116 Total 117 Total white coller 118 Total blue collar 119 Salary per a white collar 120 Saraly per a blue collar	(persons) (1000Rp/y) (1000Rp/y)	1995	1996	1997 16 36 21 9 28 10 120 16 105 76,262 14,744	1998 35 75 36 3 5 17 75 27 213 35 238 76,262 14,744	1999 57 116 53 9 14 23 140 51 464 57 406 76262 14,744	2000 79 150 63 17 26 29 215 78 658 79 579 76262 14,744	2001 88 156 51 26 40 30 269 97 757 88 669 76,262 14,744	2002 97 160 53 33 50 30 321 116 860 97 763 76262 14,744	2003 100 155 47 39 60 30 362 131 925 100 825 76262 14,744	2004 100 143 39 44 68 30 390 141 956 100 856 76,262 14,744	2005 103 137 49 47 73 30 430 156 1026 103 923 76262 14,744	2006 99 124 38 52 81 30 452 164 1,040 99 941 76,262 14,744	2007 96 112 36 55 85 30 469 170 1,052 96 956 76,262 14,744	2008 92 100 33 57 88 30 481 175 1,056 92 964 76,262 14,744	2009 87 88 31 59 91 29 490 178 1.054 87 967 76,262 14,744	2010 82 78 29 61 92 29 496 180 1,046 82 964 76,262 14,144	2011 75 66 20 61 93 28 489 178 1011 75 936 76262 14,744	2012 69 57 18 61 92 27 481 175 979 69 911 76,262 14,744	2013 63 48 17 60 91 27 471 171 948 63 885 76,262 14,744	2014 57 41 16 59 26 460 168 916 57 859 76,262	2015 52 35 14 58 87 25 448 163 882 52 830 76,262 14,744	2016 47 29 14 56 85 25 436 159 851 47 804 76,262	2017 43 25 13 55 82 24 423 154 820 43 177 76262 14,744	2018 39 21 12 54 80 23 410 150 189 39 751 76262 14,744	2019 35 18 11 53 78 23 397 145 158 35 723 76,252 14,744	2020 re 30 14 51 75 21 370 135 698 30 667 76,262 14,744	ssid 2021	
(Cumulative workers for PGN in case 5) 121 Administrative staff 122 Administrative workers 123 Sales 124 Mater reading 125 Collecting 126 High-medium pressura 127 Low pressure 128 Meter administration 129 Total 130 Yotal white coller 131 Total blue coller 132 Salary per a white coller 133 Saraly per a blue coller	(persons) (1000Rp/y) (1000Rp/y)		1996	1997 10 24 0 9 28 0 72 10 61 76,262 14,744	1998 21 46 0 0 0 17 75 0 159 21 138 76262 14,744	1999 34 70 0 0 0 23 140 0 268 34 233 76262 14,744	2000 47 89 0 0 29 215 0 381 47 334 76,262	2001 53 95 0 0 30 269 0 447 53 393 76,262 14,744	2002 59 97 0 0 0 30 321 507 59 448 76262 14,144	2003 61 94 0 0 0 0 30 362 0 548 61 437 76262 14,744	2004 61 61 0 0 0 30 390 61 509 76,262 14,744	2005 62 83 0 0 0 1 30 430 0 606 62 544 76,262 14,744	2006 61 76 0 0 1 30 452 0 619 61 559 76,262 14,744	2007 59 69 0 0 1 30 469 0 627 59 568 16,262 14,744	2008 56 61 0 0 1 30 481 0 630 56 513 76,262 14,144	2003 54 54 0 0 1 29 490 629 54 515 76,262 14,744	2010 51 48 0 0 0 1 29 496 0 624 51 514 76,262 14,144	2011 47 41 0 0 1 28 489 0 607 47 560 76,262 14,744	2012 43 35 0 0 1 27 481 0 588 43 545 76,262 14,744	2013 39 30 0 0 0 1 27 471 0 569 39 529 76262 14,744	2014 36 25 0 0 1 26 460 0 550 36 514 76,262 14,744	2015 33 22 0 0 1 25 448 0 530 33 497 76,262 14,744	2016 30 19 0 0 1 25 436 0 511 30 431 76262 14,744	2017 28 16 0 0 1 24 423 0 492 28 455 76,262	2018 25 14 0 0 0 1 23 410 0 414 25 449 76262 14,744	2019 23 12 0 0 1 23 397 0 458 23 433 76262 14,744	2020 rs 20 10 0 1 21 370 0 423 20 403 76262 14,744	osid 2021	

(Cumulative workers for separate utility in case 5) 134 Administrative staff (persons) 135 Administrative workers (porsons) 136 Sales (persons) 137 Meter reading (persons) 138 Collecting (persons) 139 High-medium pressure (persons) 140 Low pressure (persons) 141 Meter administration (persons) 142 Total (persons) 143 Total white collar (persons) 144 Total blue collar (persons) 145 Salery per a white collar (1000Rp) 146 Salery per a blue collar (1000Rp)) 4) 9) 21) 0) 0) 0) 0) 0) 0) 34 (1) 4 (1) 30 (2) 50,842	996 1997 11 19 23 38 36 52 3 8 5 13 0 0 0 0 0 9 25 87 155 11 19 76 136 50,842 50,842 9,829 9,829	1998 1999 28 36 53 56 63 56 16 26 26 46 0 6 0 7 47 77 233 27 28 36 205 24 50.842 50.846 9.829 9.826	5 57 5 9 52 4 1 30 3 9 50 6 0 0 2 90 10 4 314 34 2 35 3 2 279 30 2 50,842 50,84	5 53 1 39 1 41 1 61 0 0 0 0 0 3 122 5 359 7 37 3 322 2 50,842 50	03 2004 38 38 59 47 49 38 45 49 73 80 0 0 0 0 131 145 386 397 38 38 348 359 0,842 50,842 9,829 9,829	50,842 50	35 33 35 33 33 33 34 55 54 55 87 90 0 0 0 0 158 162 405 404 35 33 370 371 842 50,842 9,829 9,829	402 31 371 50,842 50	3 2010 29 26 25 21 20 18 57 56 93 92 0 0 0 167 165 391 378 29 26 362 352 842 50.842 829 9.829	18 17 55 90 0 0 162 366 24 342 50,842 50	2 2013 22 20 15 13 15 14 54 53 88 86 0 0 0 0 0 0 159 156 353 342 22 20 331 322 842 50,842 829 9,829	2014 18 11 13 52 84 0 0 151 329 18 311 50.842 9.829	16 9 12 50 82 0 0 147 316 16		17 2018 13 11 6 5 10 48 46 77 74 0 0 139 134 293 270 13 11 280 259 0,842 50,842 0,829 9,829		2020 resid 2021
(Social benefit & loss enelyses in cess 1 to 4)		100	1000 1000	2002 2001	2002 200	03 2004	2005 200	06 2007	2008 200	9 2010	2011 2013	2 2013	2014	2015	2016 20	17 2018	2019	2020 resid 2021
147 Social benefit for residential customers 148 Social benefit for commercial cooking 149 Social benefit for commercial AC 150 Social benefit for industrial customers 151 Social benefit for residential customers 152 Social benefit for commercial AC 153 Social benefit for commercial cooking 153 Social benefit for commercial customers 154 Social benefit for commercial AC 155 Social benefit for commercial total 155 Social benefit for industrial customers 156 Total social benefit from gas sales 157 Social benefit from gas supplied 158 Total social benefit from gas supplied 159 Gross social benefit 160 Incremental gross social benefit 161 Total investment 162 LPG bottle repurchase (residential) 163 In house pipeline installation (residential) 164 LPG bottle repurchase (cooking) 165 In house pipeline installation (residential) 166 In house pipeline installation (cooking) 167 Turbo chiller 168 Absorption chiller 169 FO tank installation 170 In house pipeline (industrial) 171 Imported facilities (included) 172 Imported facilities (included) 173 Net social loss for feolities 174 Labor cost (incremental Staffs 175 Workers 176 Pensions 177 Total 178 Income tax (included) 179 Administrative expenses 180 Maintenance & other Expenses 181 Value tax (included) 182 Net social benefit 183 EIRR 184 NSB as of 104 185 NSB as of 154		1996 1997 800 800 528 308 2,213 3,765 4,491 8,256 295,807 306,275 167 163,057 143,218 0 36,692 1,191 2,382 5,94 94 16,740 17,945 856 244 3,311 6,740 1,186 1,544 1,186 1,544 1,186 1,544 1,186 1,544 1,186 1,544 1,186 1,544 1,186 1,544 1,186 1,544 1,186 1,544 1,186 1,544 1,186 1,544 1,186 1,544 1,186 1,544 1,186 1,544 1,545 1,544 1,545 1,544 1,545 1	94 9 139 18 24,767 32,79 26,549 35,15 1,194 1,93 341 55 5,871 8,58	0 800 800 8 528 52 3 308 30 1 12,683 19,50 5 5,700 6,63 0 11,108 16,51 5 16,808 23,20 3 374,162 411,43 9 403,653 454,20 7 167 16 0 210,591 234,10 9 193,063 220,03 1 49,844 76,81 0 53,485 25,23 0 4,001 3,78 1 68,01 7,56 5 9 1 4 162 23 4 341 44 341 44 341 44 341 44 341 1360 12,70 0 0 0 9 61,402 34,24 5 6,038 6,7 2 8,535 9,84 7 1,457 1,66 3 16,030 18,20 5 1,759 1,91 1 4,803 4,11	0 800 0 800 8 528 8 308 5 25,401 32 5 7,859 5 0 23,564 41 1 448,547 47 1 505,372 551 7 174 9 268,842 296 3 236,529 256 4 93,311 11 1 26,535 24 0 8,428 4 3 17 0 298 9 577 9 103,098 12 1 1,483 9 424 1 1,483 9 13,977 16 0 0 0 2 37,965 3 17 1,395 14 11,255 16 16 11,255 17 17 1,295 18 11,255 17 18	800 800 800 800 528 528 938 308 2001 38,228 9,313 11,176 2,090 42,147 1,463 53,324 7,690 508,829 1,154 600,481 178 182 6,528 326,958 1,408 130,305 6,604 25,531 4,017 3,558 8,034 7,116 21 25 366 435 8,034 7,116 21 25 366 435 1,408 130,305 6,604 25,531 4,017 3,558 8,034 7,116 21 25 366 455 369 157,870 1,584 23,49 15,1870 15,1870 1,583 16,196 1,9459 39,241 1,694 1,605 2,162 12,619 1,989 2022 11,809 22,246 2,366 2,403 6,543 6,614 5,202 5,112 1,063 1,126	800 800 528 308 43,972 51 13,269 15 53,736 65 67,005 81 554,992 587 665,969 720 186 368,116 402 297,853 318 154,635 175 30,314 28 4,831 4 9,663 8 26 461 871 155,576 16-166,768 170 1,671 478 19,181 20 46,449 40 7,822 13,610 13 21,143 23,574 23 23,574 25,534 7,072 6,319 1217	800 800 800 800 528 528 308 308 1,159 58,314 5,415 17,800 5,923 78,743 1,938 96,543 7,841 631,713 0,993 786,570 190 193 2,427 442,173 8,511 343,797 5,353 200,578 8,090 28,979 4,000 4,000 28 29 488 517 920 972 4,363 173,659 6,187 186,152 2,232 2,778 6,187 186,152 2,232 2,778 6,187 186,152 2,323 2,778 6,187 186,152 2,323 2,778 1,000 44,947 1,788 1,7316 3,873 14,097 2,146 2,141 3,604 23,555 2,525 2,507 1,068 7,460 1,269 1,321 7,881 121,378	800 800 528 308 64,934 71, 20,252 22,92,231 106, 112,483 129, 863,736 953, 197 226,597 230,460 29,4000 4,000 4,000 4,000 4,000 4,000 4,000 1,027 1	800 800 800 800 528 528 308 308 621 78,373 838 25,564 428 121,372 265 146,937 547 811,469 433 1,036,778 1 210 217 646 649,305 ,781 387,474 569 244,255 ,842 25,734 600 4,000 ,000 8,000 33 35 610 ,085 1,140	800 800 528 308 85,101 90,28,422 31,137,008 153,30 165,430 184,832,129 902,082,660 1,177,222 688,137 765,394,522 412,251,304 269,27,079 2,957 2,95	800 800 800 800 528 528 308 308 198 95,208 416 34,553 367 170,483 783 205,036 839 973,507 820 1,273,751 403 842,220 417 431,532 198 288,313 628 27,783 879 2,865 757 5,729 38 40 666 71 257 1,320 605 235,779	800 800 528 308 100,234 37,840 188,392 226,231 1,056,667 1,383,131 1,233 935,264 1,447,868 304,649 28,025 2,851 5,702 42 747 1,385 247,455	41,283 207,128 248,411 147,552 1,501,238 1,242 ,042,417 1315,603 20,011 2,739 5,477 44 785 1,453 29,656 278,336 527 151 24,235 0 43,247 3,959 12,241 1,620 17,620 1,818 5,346 11,791 1,558	44.890 4.226,731 24 271,620 1.25 539,703 1.66 247 084,589 1.20 455,114 46 311,896 32 30,637 3 2.824 5.648 47 825 1.525 272,403 28 291,999 30 5.128 1.465 34,317 3 0 51,698 5 3,596 11,849 1 1.544 16,939 1 1.724 16,939 1 1,724 15,91	800 800 800 800 800 800 528 528 308 308 5228 120,308 3,668 57,625 5,907 321,320 3,710 1,369,244 9,845 1,810,872 252 252 2,186 1,332,357 1,659 478,515 4,441 335,297 3,813 30,702 2,811 2,804 5,621 5,608 49 51 6,621 5,608 49 51 6,621 5,608 49 51 6,621 5,608 49 51 6,621 5,608 49 51 6,621 5,608 49 51 6,621 5,608 49 51 6,621 5,608 49 51 6,621 5,608 49 51 6,621 5,608 49 51 6,621 5,608 49 51 6,621 5,608 49 51 6,621 5,608 49 51 6,621 5,608 49 51 6,621 5,608 49 51 6,621 5,608 49 51 6,621 5,608 49 51 6,621 5,608 6,6	800 528 125,415 56,768 291,141 347,910 1,946,319 262 1,461,587 484,732 341,513 30,544 2,717 5,435 54 955 1,758 314,152 336,752 336,752 336,752 336,752 336,752 336,752 336,752 336,752 336,752 336,752 336,752 336,752 341,152 3	1,574,196 2,080,342 267 1,593,292
(Social benefit & loss enalyses in case 5) 186 Incremental gross social benefit (mil Rp) 187 Total Investment (mil Rp) 188 Imported facilities (included) (mil Rp) 189 Imported tax (mil Rp) 190 Net social loss for facilities (mil Rp) 191 Labor cost (incremental Staffs (mil Rp) 192 Workers (mil Rp) 193 Pensions (mil Rp) 194 Total (mil Rp) 195 Income tax (included) (mil Rp) 196 Administrative expenses (mil Rp) 197 Meintenance & other Expenses (mil Rp) 198 Value tax (included) (mil Rp) 199 Net social benefit (mil Rp) 200 EIRR 201 NSB as of 104 (mil Rp) (Price of gas in case 1)	o) o	1996 1997 0 36,704 3,311 0 38,659 999 1,200 170 2,369 270 711 734 131 -42,083 2,55% 680,837 292,281	2,188 3,58 2,778 4,7 366 66 5,332 8,9 606 1,0 1,600 2,60 1,519 2,50 289 4 -43,093 -41,5	3 53,508 25,3 14 11,360 12,7 0 0 19 61,402 34,2 17 5,021 5,7 18 6,940 8,1 16 852 9 12 12,813 14,8 16 1,447 1,6 10 3,844 4,4 33 3,632 4,1 18 680 7	14 93,311 11 15 26,758 2 26,758 2 26,758 2 27 13,977 1 27 0 27 0 27 0 27 13,977 1 28 22 37,965 3 28 6243 27 9,352 1 28 1,107 29 16,703 1 28 1,872 28 1,07 29 16,703 1 20 1,872 20 1,872 20 4,669 20 880	003 2004 11,408 130,305 26,438 25,554 16,196 18,420 0 0 0 29,459 39,241 10,209 10,663 1,183 1,214 17,923 18,404 17,923 18,404 2,001 2,045 5,377 5,521 5,195 5,703 961 1,020 46,581 64,479	154,635 17 30,348 2 19,181 2 0 46,449 4 6,670 11,439 1 1,276 19,385 1 2,144 5,616 6,306 1,102	006 2007 5,353 200,578 8,124 29,202 0,620 22,049 0 0 13,700 44,947 1,763 11,953 1,287 1,286 9,617 19,550 2,161 2,142 5,885 5,865 6,865 7,445 1,159 1,210 125,900	30,494 29 24,095 24 0 46,797 47 6,013 5 12,090 12 1,275 1 19,438 19 2,120 2 5,831 5 8,051 8 1,262 1		26,512 27 0 44,658 44 5,033 4 11,813 11 1,881 1 18,027 17 1,936 1 5,408 5 9,687 10 1,372 1 177,010 194	198 288,313 639 27,806 286 28,942 0 0 991 46,517 596 4,226 4,93 11,167 1,31 1,081 219 16,474 8,39 1,751 1,66 4,942 2,15 10,766 1,428 2,12 10,769 3,98 1,428 3,93 212,709	304,649 29,047 30,969 0 48,464 3,873 10,827 1,033 15,733 1,664 4,720 11,341 1,460 227,492	315,603 20,234 24,235 0 43,247 3,532 10,489 984 15,005 1,579 4,502 11,740 1,476 243,942	311,896 32 30,649 3 34,317 3 0 51,698 5 3,213 10,147 939 14,299 1 1,497 4,290 12,341 1 1,512 237,260 24	17 2018 4.441 335.291 0.635 30.924 5.370 36.523 0 2.577 53.822 2.911 2.624 9.803 9.464 895 853 1.417 1.344 4.083 3.881 2.953 13.564 1.549 4.362 253.79	30,367 37,514 37,514 3,514 3,514 3,704 3,704 3,704 4,164 3,704 4,164 3,704 4,164 3,704 4,164 3,704	1,596 5,412 317,707 1,076,972
203 Gas Sales Price Residential (Rp/m3 204 Commercial (Cooking) (Rp/m3 205 Commercial (8ollert AC) (Rp/m3 206 Industrial (Rp/m3 207 Gas Purchase Price (Rp/m3	3) 3) 3) 3)	1996 1997 370 330 330 315 162	330 3 330 3 315 3	30 330 3 30 330 3 15 315 3	2002 24 70 370 30 330 30 330 15 315 87 194	2003 2004 370 379 330 330 330 330 315 315 199 203	370 330 330 315	370 370 370 370 330 330 330 330 315 315 212 216	2008 20 370 330 330 315 219	09 2010 370 370 330 330 330 330 315 315 223 226	330 330 315	2 2013 370 370 330 330 330 330 315 315 237 241	2014 370 330 330 315 246	2015 370 330 330 315 252	2016 26 370 330 330 315 257	370 371 370 371 330 33 330 33 315 311 262 26	0 330 0 330 5 315	330 330 315

(Price of gas in case 2)	1995 199	96 1997	1998 1	1999 2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2019	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020 resid 20)2 1
208 Gas Sales Price Residential (Rp/m3) 209 Commercial (Cooking) (Rp/m3) 210 Commercial (Boller+AC) (Rp/m3) 211 Industrial (Rp/m3) 212 Gas Purchase Price (Rp/m3)	1999	370 330 330 315 162	413 330 330 315 167	456 499 330 330 330 330 315 315 172 179	542 330 330 315	585 330 330 315 194	628 330 330 315 199	671 330 330 315 203	714 330 330 315 208	757 330 330 315 212	800 330 330 315 216	800 330 330 315 219	800 330 330 315 223	800 330 330 315 226	800 330 330 315 232	800 330 330 315 237	800 330 330 315 241	800 330 330 315 246	800 330 330 315 252	800 330 330 315 257	800 330 330 315 262	800 330 330 315 267	800 330 330 315 272	800 330 330 315 277	
(Price of gas in case 3)	1995 199	96 1997	1998 1	1999 2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020 resid 203	021
213 Ges Sales Price Residential (Rp/m3) 214 Commercial (Cooking) (Rp/m3) 215 Commercial (Boller+AC) (Rp/m3) 216 Industrial (Rp/m3) 217 Ges Purchase Price (Rp/m3)	1995 199	370 330 330 315 162	370 330 330 315 167	370 370 330 330 330 330 315 315 172 179	370 330 390 315	370 330 330 315 194	370 330 330 315 199	370 330 330 315 203	370 330 330 315 208	370 330 330 315 212	370 330 330 315 216	370 330 330 315 219	370 330 330 315 223	370 330 330 315 226	370 330 330 315 232	370 330 330 315 237	370 330 330 315 241	370 330 330 315 246	370 330 330 315 252	370 330 330 315 257	370 330 330 315 262	370 330 330 315 267	370 330 330 315 272	370 330 330 315 277	
(Price of gas in case 4)	1995 199	96 1997	1998 1	1999 2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020 resid 200)21
218 Ges Sales Price Residential (Rp/m3) 219 Commercial (Cooking) (Rp/m3) 220 Commercial (Boiler+AC) (Rp/m3) 221 Industrial (Rp/m3) 222 Gas Purchase Price (Rp/m3)	1337 133	370 330 330 315 162	413 330 330 315 167	456 499 330 330 330 330 315 315 172 179	542 330 330 315	585 330 330 315 194	628 330 330 315 199	671 330 330 315 203	714 330 330 315 208	757 330 330 315 212	800 330 330 315 216	800 330 330 315 219	800 330 330 315 223	800 330 330 315 226	800 330 330 315 232	800 330 330 315 237	800 330 330 315 241	800 330 330 315 246	800 330 330 315 252	800 330 330 315 257	800 330 339 315 262	800 330 330 315 267	800 330 330 315 272	800 330 330 315 217	
(Price of gas of PGN for separate utility in case 5)	1995 199	96 1997	1998 1	1999 2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020 resid 20	121
223 Gas Sales Price Residential (Rp/m3) 224 Commercial (Cooking) (Rp/m3) 225 Commercial (Boilert AC) (Rp/m3) 226 Industrial (Rp/m3) 227 Gas Purchase Price (Rp/m3)	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	315 315 315 315 315	315 315 315 315 167	315 315 315 315 315 315 315 315 315 315 172 179	315 315 315 315	315 315 315 315 315	315 315 315 315 199	315 315 315 315 203	315 315 315 315 208	315 315 315 315 315 212	315 315 315 315 216	315 315 315 315 219	315 315 315 315 223	315 315 315 315 226	315 315 315 315 315 232	315 315 315 315 315 237	315 315 315 315 315 241	315 315 315 315 315 246	315 315 315 315 315 252	315 315 315 315 257	315 315 315 315 262	315 315 315 315 267	315 315 315 315 272	315 315 315 315 315 277	
Case 1.PGN operates, when Gas Sales Price of Reside	ntial Sector re	mained the sam	e as now.									. :			٠ :		1	-							
(Financial Feasibility Analyzis)	1995 199			1999 2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016 50,950	2017 53.293	2018 55,642	2019 58,005	2020 resid 202 60,318	21
228 Sales Residential (mil Rp) 229 Commercial Cooking (mil Rp) 230 Commercial Boiler*AC (mil Rp) 231 Commercial Total (mil Rp) 232 Industrial (mil Rp) 233 Total (mil Rp) 234 Cas material cost (mil Rp) 235 Gross profit (mil Rp)		1,023 1,553 2,807 4,360 302,529 307,913 158,550 149,363	326,865 3 172,784 1 154,082 1	3,030 5,866 2,085 2,351 4,975 9,294 7,060 9,294 343,731 382,665 353,821 397,825 193,005 225,911 160,817 171,914	2,737 10,357 13,093 420,843 442,958 262,526 180,431	11,748 3,242 14,728 17,970 458,742 488,459 299,765 188,695	527,270 331,177 196,093	203,944		23,939 6,383 41,202 47,585 601,201 672,725 448,736 223,989	26,970 7,343 49,214 56,557 646,070 729,597 494,528 235,069	30,032 8,354 51,644 65,998 701,917 797,947 549,920 248,027	93,125 9,420 66,517 75,938 769,651 878,713 615,703 263,010	35,247 10,545 75,858 86,403 829,911 952,561 676,015 276,547	703,972 283,782	799,121 274,767	1,160,471 878,679 281,792	974,894 285,500	1,368,807 1,085,492 283,315	18,517 141,707 160,224 1,184,237 1,395,411 1,128,500 266,911	20,075 154,525 174,600 1,287,317 1,515,210 1,249,892 265,319	21,708 167,935 189,642 1,400,363 1,645,648 1,384,200 261,448	23,417 181,963 205,380 1,506,470 1,769,855	25,207 196,639 221,846 1,609,973 1,892,136 1,652,966 239,170	26
236 Gross profit (incremental MMRp) (mil Rp) 237 Proporty Tex (mil Rp) 238 Lebor cost (incremental Staffs) (mil Rp) 239 Workers (mil Rp) 240 Pensions (mil Rp) 241 Total (mil Rp) 242 Administrative expenses (mil Rp) 243 Meintenance & other expenses (mil Rp) 244 Total investment (mil Rp) 245 Before tax cesh flow (financiel) (mil Rp)		0 32 1,186 1,544 273 3,004 901 734 36,692 -41,363	65 2,639 3,516 615 6,770 2,031 1,580 42,301	11,454 22,551 100 134 4,375 6,038 5,992 8,535 1,037 1,457 11,403 16,030 3,421 4,809 2,564 3,633 49,190 53,485 -55,224 -55,541	6,737 9,864 1,660 18,260 5,478 4,139 25,271	39,332 145 7,395 11,255 1,865 20,515 6,154 4,670 26,535 -18,688	46,730 151 7,664 12,162 1,983 21,809 6,543 5,202 26,604 -13,577	54,581 154 7,605 12,619 2,022 22,246 6,674 5,712 25,531 -5,736	65,022 161 7,822 13,610 2,143 23,574 7,072 6,319 30,314 -2,419	74,627 166 7,585 13,873 2,146 23,604 7,081 6,880 28,090 8,805	85,706 170 7,316 14,097 2,141 23,555 7,066 7,460 28,979 18,475	98,664 176 6,992 14,219 2,121 23,332 6,999 8,069 30,460 29,628	113,648 180 6,628 14,254 2,088 22,971 6,891 8,666 29,842 45,097	127,184 180 6,241 14,214 2,045 22,500 6,750 9,181 25,734 62,840	134,419 181 5,714 13,802 1,952 21,467 6,440 9,722 27,079 69,529	125,404 182 5,234 13,421 1,866 20,521 6,153 10,255 26,628 61,655	132,429 183 4,783 13,046 1,783 19,612 5,884 10,810 27,783 68,157	136,137 186 4,361 12,659 1,702 18,722 5,617 11,391 29,025 71,197	133,953 180 3,959 12,241 1,620 17,820 5,346 11,791 20,011 78,804	117.548 184 3.596 11.849 1.544 16.989 5.097 12,404 30,637 52,237	115,956 188 3,259 11,457 1,472 16,187 4,856 13,020 30,813 50,891	112,086 192 2,950 11,066 1,402 15,418 4,625 13,634 30,702 41,516	194 2,662 10,666 1,333 14,660 4,398 14,245 30,544 39,018	89,808 863,53 170 2,299 9,839 1,214 13,352 128,38 4,006 38,51 14,241 136,93 -200 58,239 559,70	83 15 33
246 IRR of before tax cash flow 247 NPV as of 10% (financial) (mil Rp)		10.4% 8,837	40.020	33,224 33,341	22,220	10,000	13,011	3,130	2,410	0,003	10,410	23,020	40,037	. 02,040	03.023	31,000	99,101	,,,,,,,	70,001	VIA.		, ,,,,,,,	***************************************	002.00	
248 NPV as of 15% (financial) (mil Rp)		-11,793											-												٠
(Down Side sensitivity Analyses)	1995 199	96 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 202	21
249 2% contingency sales Vc Gross profit (mil Rp) 250 10% contingency total investment (mil Rp) 251 Before tax cash flow (mil Rp) 252 IRR of before tax cash flow 253 NPV as of 10% (mil Rp)		0 40,361 -45,032 6.24 -95,308	4,340 46,532	10,536 20,753 54,109 58,834 -61,062 -62,688	28,368 27,799	35,721 29,189 -24,952	42,343 29,264	49,358 28,084 -13,513	58,640 33,345	67,330 30,899 -1,300	77.273 31,877 7,144	88,864 33,506 16,782	102,232 32,827 30,697	114,291 28,307 47,373	120,822 29,787 53,225	110,085 29,291 43,672	115,378 30,561 48,327	117,088 31,927 49,245	112,735 22,013 55,585	95,798 33,701 27,4 23	91,810 93,894 23,664	85,331 33,772 17,691	73,881 33,598 6,785	58,123 937,47 -220 26,575 427,81	
254 NPV as of 15% (mil Rp)		-137,353			•									ŧ					*						
(Financial Analyses with In house Installation)	1995 199			1999 2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020 resid 202	21 .
255 LPG bottle repurchase (mil Rp) 255 in house pipeline installation 257 Before tax cash flow 258 iRR of before tax cash flow 259 NPV as of 10% (financial) (mil Rp) 260 NPV as of 15% (financial) (mil Rp)	:	1,191 2,382 -42,554 9.5% -15,971 -97,117	2,187 4,375 -50,216	3,420 4,401 6,841 8,601 -58,645 -59,942		4,214 8,428 -22,902	4,017 8,034 -17,594	3,558 7,116 -9,294	4,831 9,663 -1,250	4,000 8,000 4,805	4,000 8,000 14,476	4,000 8,000 25,628	4,000 8,000 41,097	4,000 8,000 58,839	2,957 5,913 66,573	2,819 5,157 58,116	2,865 5,729 65,292	2,851 5,702 68,347	2,739 5,417 76,065	2,824 5,648 49,413	2,811 5,621 48,081	2,804 5,608 44,712	2,717 5,435 36,361	0 0 58,239 612,72	?9
(Down Side Sensitivity Analysis)					46	***					8007	***			ės.	ania	0010	0014		0016	0013	0010		A000 11101	
261 Before tax cash flow (mit Rp) 262 IRR of before tax cash flow 263 NPV as of 10% (mit Rp) 264 NPV as of 15% (mit Rp)	1995 19 0	96 1997 0 -46,223 5.6% -120,719 -156,895		1999 2000 -64,482 -67,088	2001 -31,228	2002 -29,166	2003 -24,641	2004 -17,071	2005 -16,663	2006 -5,300	2007 3,144	2008 12,782	2009 26,697	2010 49,373	2011 50,268	2012 40,794	2013 45,463	2014 46,394	2015 52,846	2016 24,599	2017 20,853	2018 14,887	2019 4,068	2020 resid 202 26,575 473,65	

			45.1.6		A. 6000-1																								
(Final 265 266 267 268 269 270 271 272 273 274 275 276 277 278 279 280 281 282 283 284	Commercial Boiler+AC Commercial Total Industrial Total Gas material cost Gross profit Gross profit (incremental MMRp) Property Tax Labor cost (incremental Staffs Workers Pensions	(mil Rp)	1995	1996	1997 1,023 1,553 2,807 4,350 302,529	1998 1,922 1,819 3,597 5,416 319,728 327,066 172,784 154,282 4,919 65 2,639 3,516 615 6,770 2,031 1,580 42,301 -47,828	1999 3,734 2,685 4,975 7,060 343,731 354,556 161,521 12,158 100 4,375 5,992 1,037 11,403 3,421 2,564 49,190 -54,520	2000 7,911 2,351 6,943 9,294 382,665 399,870 24,596 134 6,038 8,535 1,457 16,030 4,803 3,633 53,435 -53,495	2001 13,215 2,737 10,357 13,093 420,843 447,151 262,526 184,625 35,262 140 6,737 9,864 1,660 18,260 5,478 4,139 25,271 -18,026	2002 18,514 3,242 14,728 17,970 458,742 495,265 195,521 46,158 145,7,395 11,255 1,865 20,515 4,610 26,535 -11,861	2003 25,121 3,866 20,056 23,923 488,547 531,590 331,177 206,413 57,051 151 1,664 12,162 1,583 21,893 6,543 5,202 26,604 -3,256	2004 32,148 4,610 26,342 30,952 520,394 583,493 365,128 218,365 69,002 154 7,605 12,619 2,022 22,246 6,674 5,712 25,531 8,685	2005 39.245 5,473 33,585 39.059 561,605 645,909 412,617 233,292 83,930 161 7,822 13,610 2,143 23,574 7,072 6,319 30,314 16,489	2006 48,977 6,383 41,202 47,585 601,201 697,164 448,736 249,028 99,665 168 7,585 13,873 2,146 23,604 7,081 6,880 28,090 33,844	2007 58,314 7,343 49,214 56,557 646,070 760,941 494,528 268,413 117,050 170 7,316 14,097 2,141 23,555 7,066 7,460 28,979 49,819	549,920	2009 71,621 9,420 66,517 75,938 769,651 917,209 615,703 301,506 152,144 180 6,628 14,254 2,083 22,971 6,891 8,666 29,842 83,593	2010 78,313 10,545 75,858 86,403 829,911 994,681 676,015 318,672 169,310 180 6241 14,214 20,45 22,500 9,181 25,734 104,965	2011 85,101 11,724 85,630 97,354 851,041 1,033,496 703,972 329,523 180,161 181 5,714 13,802 1,952 21,467 6,440 9,722 21,079 115,271	2012 90,198 12,959 95,855 108,814 923,358 1,122,359 199,121 323,248 173,885 182 5,234 13,427 1,866 20,527 6,158 10,255 26,628 110,136		1314269	1,425,392	1,454,623	1,577,145	1,710,314	2019 125.415 23.417 181.963 205.380 1.506.470 1.837.266 1.517.373 319.894 170.531 194 2.662 10.666 1.333 14.660 4.398 14.245 30.544 106.489	130,416 25,207 196,639 221,846 1,609,913 1,962,235 1,652,966 309,269 159,906 170 2,293 9,839 1,214 13,352 4,006 14,241 -200	993.208 82,931 24,879 88,454 796,944
286 287 288 288 289	wn Side sensitivity Analyses) 6 2% contingency sales Vc Gross profit 7 10% contingency total investment 8 Before tax cash flow 9 IRR of before tax cash flow 0 NPV as of 10% 1 NPV as of 15%	(mil Rp) (mil Rp) (mil Rp) (mil Rp) (mil Rp)	1995	1996	1997 0 40,361 -45,032 13.15 101,758 -38,707	1998 4,536 46,532 -52,441	1999 11,226 54,109 -60,372	2000 22,757 58,834 -60,683	2001 32,478 27,799 -23,338	2002 42,411 29,189 -18,262	2003 52,457 29,264 -10,510	2004 63,491 28,084 620	2005 11,170 33,345 6,698	2006 91,868 30,899 23,238	2007 107,990 31,877 37,861	2008 123,068 33,506 50,986	2009 139,958 32,827 68,423	2010 155,574 28,307 88,656	2011 165,649 29,787 98,051	2012 157,596 29,291 91,184	2013 165,529 30,561 98,478	2014 169,886 31,927 102,043	2015 168,188 22,013 111,039	2016 153,827 33,701 85,452	2017 152,506 33,894 84,360	2018 148,703 33,772 81,063	2019 139,944 33,598 72,848	126,820 9 -220	sid 2021 968,092 726,883
292 293 294 293 294	nancial Analyses with in house Installation 2 LPG bottle repurchase 3 In house pipeline installation 4 Before tax cash flow 5 IRR of before tax cash flow 6 NPV es of 105 (financial) 7 NPV es of 155 (financial)	n) (mil Rp) (mil Rp) (mil Rp)	1995	1996	1997 1,191 2,382 -42,554 15,1% 178,826 1,411	1998 2,187 4,375 -50,016	1999 3,420 6,841 -57,941	2000 4,401 8,801 -57,896	2001 3,780 7,580 -21,806	2002 4,214 8,428 -16,075	2003 4,017 8,034 -7,273	2004 3,558 7,116 5,127	2005 4,831 9,663 11,658	2006 4,000 8,000 29,843	2007 4,000 8,000 45,820	2008 4,000 8,000 60,530	2009 4,000 8,000 79,593	2010 4,000 8,000 100,965	2011 2,957 5,913 112,314	2012 2,879 5,757 107,257	2013 2,865 5,729 116,466	2014 2,851 5,702 122,222	2015 2,739 5,477 132,651	2016 2,824 5,648 108,625	2017 2,811 5,621 110,016	2018 2,804 5,608 109,377	2019 2,717 5,435 103,772	0	sid 2021 849,722
294 29 30	win Side Sensitivity Analysis) 8 Before tax cash flow 19 IRR of before tax cash flow 10 NPV as of 104 11 NPV as of 154	(mil Rp) (mil Rp) (mil Rp)	1 .	1996	1997 -46,223 12.24 17,006 -58,013	1998 -54,629	1999 -63,792	2000 - 65,084	2001 -27,118	2002 -22,476	2003 -14,527	2004 -2,938	2005 1,867	2006 19237	2007 33,861	2008 45,986	2009 64,423	2010 84,656	2011 95,095	2012 88,305	2013 95,613	2014 99,193	2015 103,300	2016 82,627	2017 81.550	2018 78,259	2019 70,130		sid 2021 780,505
(Fin 30) 30) 30) 30) 30) 30) 30) 31) 31) 31) 31) 31) 31) 31] 31] 31] 31] 32] 32] 32] 32] 32] 32] 32] 32] 32] 32	Commercial Boilert AC Commercial Total Commercial Commerc	invested by (mil Ro)	1995	1996	\$ Sales Pri 1997 1,023 1,553 2,807 4,360 302,529 307,913 158,550 149,363 0 29 1,186 1,544 273 3,004 901 734 33,473 -36,141 13,34 78,171 -24,719	1998 1,722 1,819 3,597 5,416 319,728 326,866	d the sam 1999 3,030 2,085 4,975 7,975 193,005 160,817 11,454 85 4,375 5,992 1,037 11,403 3,421 2,564 -45,966	2000 5,866 2,351 6,943 382,665 397,825 285,911 171,914 22,551 111 6,038 8,535 1,457 16,030 4,803 3,633 41,592	262,526 180,431 31,069 110 6,737 9,864 1,660 18,260 5,478 4,139 15,056	2002 11,748 3,242 14,728 17,970 458,142 488,459 299,765 188,659 39,332 110 7,395 11,255 1,865 20,515 6,154 4,670 15,146 -7,263	2003 14,800 3,868 20,056 23,923 488,547 527,270 331,177 198,093 46,730 110 7,664 12,162 1,983 21,809 6,543 5,202 15,748 -2,680	4,610 26,342 30,952 520,394 569,073 365,128 203,944 54,581 110 7,605 12,619 2,022 22,246 6,674 5,712 15,915	7,072 6,319 17,256	2006 23,939 6,383 41,202 47,585 661,201 672,725 448,736 223,989 74,627 113 7,585 13,873 2,146 23,604 7,081 6,800 17,279 19,669	2007 26.970 7.343 49.214 56.557 646.070 729.597 494.528 235.069 85,706 114 7.316 14.097 2.141 23.555 7.066 7.460 18,169 29,342	2008 30,032 8,354 57,644 65,938 701,917 797,947 549,920 248,027 98,664 117 6,992 14,219 2,121 23,332 6,999 8,069 19,649 40,498	878,713 615,703 263,010 113,648 119 6,628 14,254 2,088 22,971 6,891 8,666 19,032	2010 36247 10,545 75,858 86,403 829,911 952,561 676,547 127,184 117 6241 42,045 22,500 6,750 9,181 14,922 73,713	703,972 283,782 134,419 119 5,714 13,802 1,952 21,467 6,440 9,722 19,088	799,121 274,767	1,160,471 878,679 281,792	1,080,682 1,260,393 974,894	1,173,633 1,368,807 1,085,492 283,315	1,184,237 1,395,411 1,128,500 266,911	1,287,317 1,515,210 1,249,892	1,400,363 1,645,648 1,384,200		60,318 25,207 25,207 221,846 1,609,913 1,892,136 1,652,966 239,170 89,808 121 2,299 9,839 1,214 13,352 4,006 14,241 1,200	675,246 100,390 30,117 107,075 437,664
32 32 32 32 32	own Side sensitivity Analyses) 23.2% contingency sales Vc Gross profit 24.10% contingency total investment 25. Before tex cash flow 26.IRR of before tex cash flow 27.NPV as of 10% 28.NPV as of 15%	(mil Rp) (mil Rp) (mil Rp) (mil Rp) (mil Rp)	,	1996	1997 0 36,620 -41,498 9.1% -19,267 -79,056	1998 4,340 40,029 -46,127	1939 10,536 43,941 -50,878	2000 20,753 45,751 -49,581	2001 28,368 16,561 -16,181	2002 35,721 16,661 -12,388	2003 42,343 17,322 -8,642	17,506	2005 58,640 18,982 2,581	2006 67,330 19,007 10,645	2007 77,273 19,986 19,091	2008 88,864 21,614 28,732	2009 102,232 20,936 42,648	2010 114,291 16,415 59,328	2011 120,822 20,997 62,076	2012 110,085 20,733 52,291	2013 115,378 22,045 55,904	2014 117,088 23,452 51,780	2015 112,735 13,871 63,785	2016 95,798 25,305 35,877	2017 91,810 25,539 32,076	2018 85,331 25,436 26,083	2019 73,881 25,520 14,920	2020 res 58,123 6 -220 26,624 2	.

	(Financial Analyses with In house Installation) 329 LPG bottle repurchase 330 In house pipeline installation	(mit Rp)	1995	1996	1997 1,191 2,382	1998 2,187 4,375	1999 3,420 6,841	2000 4.401 8,801	2001 3,780 7,560	2002 4,214 8,428	2003 4,017 8,034	2004 3,558 7,116	2005 4,831 9,663	2006 4,000 8,000	2007 4,000 8,000	2008 4,000 8,000	2009 4,000 8,000	2010 4,000 8,000	2011 2,957 5,913	2012 2,879 5,757	2013 2,865 5,729	2014 2,851 5,702	2015 2,739 5,477	2016 2,824 5,648	2017 2,811 5,621	2018 2,804 5,608	2019 2,717 5,435	0	} .
	331 Refore tax cash flow 332 IRR of before tax cash flow 333 NPV as of 104 (financial) 334 NPV as of 15% (financial)	(mil Rp) (mil Rp)			~39,332 12.1% 52,475 ~44,336	-44,296	-49,386	-48,025	-15,754	-11,427	-6,697	366	5,857	15,669	25,342	36,499	51,968	69,713	14,625	66,616	73,094	76,111	83,525	57,103	55,134	52,346	43,761	58,288	481.068
	(Down Side Sensitivity Analysis)		1995	1996	1997	1998	1999	2000	2001	2002 -16,602	2003 -12,659	2004 -6,449	2005 -2,250	2006 6,645	2007 15,091	2008 24,732	2009 38,649	2010 55,328	2011 59,119	2012 49,412	2013 54,039	2014 54,929	2015 61,046	2016 33,053	2017 29,266	2018 23,219	2019 12,202		rasid 2021 331,560
	335 Before tax cash flow 336 IRR of before tax cash flow 337 NPV as of 104 338 NPV as of 154	(mil Rp) (mil Rp) (mil Rp)	0	. 0	-42,619 8.04 -45,269 -98,773	~48,314	-54,299	-53,982	-19,951	10,002	12,033	0,443	2,230	0,043	10,031	24,102	30,043		03,110	10,472	04,000	04,320	V),04V	50,000	29,200	20,270		20,000	
	Case 4:Residential Distribution Pipeline Inve (Financial Feesibility Analysis)	isted by Go	verament	whon Gas	Sales Pric	e to Resid	lential Sec	tor goos	up to 800R	p in ten y	0 M / S .																		
٠	339 Sates Residential	(mit Rp)	1995	1996	1997 1,023	1998 1,922	1999 3,734	2000 7,911	2001 13,215	2002 18,574 3,242	2003 25,121 3,866	2004 32,148 4,610	2005 39,245 5,473	2006 48,977 6,383	2007 58,314 7,343	2008 64,934 8,354	2009 71,621 9,420	2010 78,373 10,545	2011 85,101 11,724	2012 90,198 12,959	2013 95,208 14,253	2014 100,234 15,609	2015 105,275 17,029	2016 110,163 18,517	2017 115,228 20,075	2018 120,308 21,708	2019 125,415 23,417	2020 130,416 25,207	resid 2021
	340 Commercial Cooking 341 Commercial Boilert AC 342 Commercial Total	(mil Rp) (mil Rp) (mil Rp)			1,553 2,807 4,350	1,819 3,597 5,416	2,085 4,975 7,060	2,351 6,943 9,294	2,737 10,357 13,093	14,728 17,970 458,742	20,056 23,923 488,547	26,342 30,952 520,394	33,585 39,059 567,605	41,202 47,585 601,201	49,214 56,557 646,070	57,644 65,998 701,917	66,517 75,938 769,651	75,858 86,403	85,630 97,354	95,855 108,814 923,358	106,552 120,805	117,745 133,354	129,455 146,484 1,173,633	141,707 160,224	154,525 174,600	167,935 189,642	181,953 205,380	196,639 221,846	
	343 Industrial 344 Total 345 Gas material cost	(mil Rp) (mil Rp) (mil Rp)			302,529 307,913 158,550		354,526 193,005	382,665 399,870 225,911	420,843 447,151 262,526	495,285 299,765	537,590 331,177	583,493 365,128	645,909 412,617	697,764 448,736	760,941 494,528	832,850 549,920	917,209 615,703	994,681 1 676,015	,033,496 1 703,972	799,121	878,679	,314,269 974,894	1,425,392 1,085,492	454,623	577,145	,710,314 ,384,200	1,837,266 1 1,517,373 1	,952,235	
	346 Gross profit 347 Gross profit (incremental MMRp) 348 Property Tex	(mil Rp) (mil Rp) (mil Rp)			149,363 0 29	154,282 4,919 57	161,521 12,158 85	173,959 24,596 111	184,625 35,262 110	46,158 110	57,051 110	218,365 69,002 110	233,292 83,930 111	113	266,413 117,050 114	282,929 133,566 117	301,506 152,144 119	318,672 169,310 117	180,161 119	323,248 173,885 121	337,966 183,603 123	339,375 190,013 127	339,901 190,538 122	176,761 127	177,891 131	176,751 135	170,531 138	159,906 121	832,846
	349 Labor cost (incremental Staffs 350 Workers 351 Pensions	(mil Rp) (mil Rp) (mil Rp)			1,185 1,544 273	2,639 3,516 615	4,375 5,992 1,037	6,038 8,535 1,457	6,737 9,864 1,660	7,395 11,255 1,865	7,664 12,162 1,983	7,605 12,619 2,022	7,822 13,610 2,143	7,585 13,873 2,146	7,315 14,097 2,141	6,992 14,219 2,121	6,628 14,254 2,088	6,241 14,214 2,045	5.714 13.802 1.952	5,234 13,427 1,866	4,783 13,046 1,783	4,351 12,659 1,702	3,959 12,241 1,620	3,596 11,849 1,544	3,259 11,457 1,472	2,950 11,066 1,402	2,662 10,666 1,333	2,299 9,839 1,214	
	352 Total 353 Administrative expenses 354 Maintenance & other expenses	(mil Rp) (mil Rp) (mil Rp)		-	3,004 901 734	6,770 2,031 1,580	11,403 3,421 2,564	16,030 4,809 3,633	18,260 5,478 4,139	20,515 6,154 4,670	21,809 6,543 5,202	22,246 6,674 5,712	23,514 7,072 6,319	23,604 7,081 6,880	23,555 7,066 7,460	23,332 6,999 8,069	22,971 6,891 8,666	22,500 6,750 9,181	21,467 6,440 9,722	20,527 6,158 10,255	19,612 5,884 10,810	18,722 5,617 11,391	17,820 5,346 11,791	16,989 5,097 12,404	16,187 4,856 13,020	15,418 4,625 13,634	14,660 4,398 14,245	13,352 4,006 14,241	20,862 74,172
	355 Total investment 356 Before tax cash flow (financial) 357 IRR of before tax cash flow	(mil Rp) (mil Rp)			33,473 -38,141 19.2%	36,390 -41,909	39,946 -45,261	41,592 -41,579	15,056 -7,781	15,146 -436	15,748 7,640	15,915 18,345	17.256 29.597	17,279 44,708	18,169 60,686	19,649 75,400	19,032 94,464	14,922 115,839	19,088	18,848 117,976	20,041 127,133	21,320 132,831	12,610 142,849	23,005 119,140	23,217 120,479	23 124 119 816	23,200 113,889	-200 128,387	
	358 NPV as of 10% (financial) 359 NPV as of 15% (financial)	(mil Rp) (mil Rp)			212,378 73,675						• •														. * . 		•		
	(Down Side sensitivity Analyses) 360 2% contingency sales Vc Gross profit	(mil Ro)	1995	1996	1997	1998 4,536	1999 11,226	2000 22,757	2001 32,478	2002 42,411	2003 52,457	2004 63,491	2005 77,170	2006 91,868	2007 107,990	2005 123,068	2009 139,958	2010 155,574	2011 165,649	2012 157,596	2013 165,529	2014 169,886	2015 168,188	2016 153,827	2017 152,506	2018 148,703	2019 139,944	2020 126,820	resid 2021 787,702
	361 10% contingency total investment 362 Bafore tax cash flow 363 IRR of bafore tax cash flow	(mil Rp) (mil Rp)			36,620 -41,488 16.1%	40,029 -45,931	43,941 -50,188	45,751 -47,577	16,561 ~12,071	16,661 -5,698	17,322 1,472	17,506 11,242	18,982 21,111	19,007 35,183	19,986 4 9,808	21,614 62,937	20,936 80,375	16,415 100,611	20,997 106,903	20,733 99,802	22,045 107,054	23,452 110,578	13,871 119,238	25,305 93,905	25,539 92,773	25,436 89,455	25,520 80,982	-220 95,321	
	364 NPV as of 104 365 NPV as of 154	(mil Rp) (mil Rp)		1.0	177,882 19,618			-	•	1 ;														1111					
	(Financial Analyses with in house installation) 366 LPG bottle repurchase	(mil Rp)	1995	1996	1997	1998 2.187	1999 3,420	2000	2001 3,780	2002	2003	2004	2005 4.831	2006 4,000	2007	2008	2009	2010 4,000	2011 2,957	2012 2,879	2013 2,855	2014 2,851	2015 2,739	2016 2,824	2017 2,811	2018 2,804	2019 2,717	2020	resid 2021
. :	367 In house pipeline installation 368 Before tax cash flow 369 IRR of before tax cash flow			*	2,382 -39,332 17,95	4,315 -44,096	6,841 -43,682	8,801 -45,980	7,560 -11,561	8,428 -4,650	8.034 3,624	7,116 14,787	9,663 24,765	8,000 40,707	8,000 56,686	8,000 71,400	8,000 90,464	8,000	5,913 120,367	5,757 115,098	5,729 124,268	5,702 129,986	5,477	5,648 116,316	5,621 117,668	5,608 117,012	5,435	0 128,387	716,605
	370 NPV as of 101 (financial) 371 NPV as of 151 (financial)	(mil Rp) (mil Rp)			247,155 54,215					• !												i i							
	(Down Side Sensitivity Analysis) 372 Before tex cash flow	(mil Rp)	1935	1996	1997 -42,679	1998 -48,118	1999 -53,609	2000 -51,978	2001 -15,851	2002 -9,913	2003 -2,545	2004 7,584	2005 16,280	2006 31,183	2007 45,808	2008 58,935	2009 16,375	2010 96,611	2011 103,946	2012 96,924	2013 104,190	2014 107,727	2015 116,500	2016 91,081	2017 89,962	2018 86,651	2019 78,265	2020 95,321	resid 2021 634,811
	373 IRR of before tax cash flow 374 NPV as of 104 375 NPV as of 15%	(mil Rp) (mil Rp)			15.0% 152,184 0			******	10,401	0,0.0			,	*****		*****				. •									. 1
:	Case 5.Financial feasibility of PGN in separ. (Financial Feasibility Analysis)	-	450		* 4.									-									÷						
	376 Sales Residential	(mil Rp)	1995	1996	1997 871	1998 1,466	1999 2,579	2000 4,994	2001 7,680	2002 10,002	2003 12,600	2004 15,092 4,401	2005 17,314 5,225	2006 20,380 6,093	2007 22,961 7,009	2008 25,588 7,974	2009 28,201 8,992	2010 30,859 10,066	2011 33,508 11,191	2012 35,515 12,370	2013 37,488 13,605	2014 39,467 14,899	2015 41,452 16,255	2016 43,377 17,675	2017 45,371 19,163	2018 47,371 20,721	2019 49,382 22,353	2020 51,351 24,061	rasid 2021
	377 Commercial Cooking 378 Commercial BoilertAC 379 Commercial Total	(mil Rp) (nil Rp) (mil Rp)			1,482 2,679 4,162	1,736 3,433 5,169	1,990 4,749 6,739	2,244 6,627 8,871	2,612 9,886 12,498	3,094 14,058 17,153	3,691 19,145 22,835	25,145 29,545	32,059 37,283	39,329 45,422	46,977 53,986	55,024 62,999	63,494 72,485	72,410 82,476	81,738 92,929	91,498 103,868	101,709 115,314	112,393 127,292	123,571 139,826	135,266 152,941	147,501 166,664	160,301 181,022	173,692 196,045	187,701 211,762	
* :	380 Industrial 381 Total 382 Gas material cost	(mil Rp) (mil Rp) (mil Rp)			302,529 307,563 158,550	326,364 172,784		382,665 396,531 225,911	420,843 441,022 262,526	458,742 485,896 299,765	523,983 331,177	520,394 565,031 365,128	567,605 622,203 412,617	601,201 667,004 448,736	723.017 494,528		769,651 870,338 615,703	943,246 676,015	977,478 1 703,972	199,121	878,679	247,441 974,894	1,173,633 1,354,911 1,085,492	380,554 1 1,128,500 1	.499,352 1 .249,892 1	.628,757 1 .384,200 1	1,751,898 1 1,517,373 1	873,086 652,966	
	383 Gross profit 384 Gross profit (incremental MMRp) 385 Property Tex	(mil Rp) (mil Rp) (mil Rp)			149,012 0 26	153,580 4,568 50	160,046 11,033 72	170,619 21,607 92	178,495 29,483 86	186,132 37,119 81	192,806 43,793 76	199,902 50,690 73	209,586 60,514 70	218,258 69,255 69	228,489 79,477 68	240,563 91,550 68	254,635 105,622 68	118,219 64	65	114,607 66	120,743 68	123,535 71	66	103,042 70	100,448 74	95,545 77	234,525 85,513 80	71,108 70	341,865
	386 Lebor cost (incremental Staffs 387 Workers 388 Pensions	(mil Rp) (mil Rp) (mil Rp)			795 905 170	1,629 2,031 366	2,621 3,441 606	3,591 4,925 852	4,077 5,799 988	4.454 6.610 1.107	4,650 7,182 1,183	4,645 7,498 1,214	4,738 8,019 1,276	4,635 8,235 1,287	4,481 8,375 1,286	4,293 8,454 1,275	4,081 8,479 1,256	3,853 8,457 1,231	3,559 8,254 1,181	3,274 8,033 1,131	3,006 7,805 1,081	2,755 7,574 1,033	2,515 7,324 984	2,298 7,090 939	2,098 6,854 895	1,913 6,620 853	1,741 6,380 812	1,536 5,935 747	
: :	389 Total 390 Administrative expenses 391 Maintenance & other exponses	(mil Rp) (mil Rp) (mil Rp)			1,871 561 589	4,026 1,208 1,210	6,669 2,001 1,862	9,374 2,812 2,514	10,863 3,259 2,653	12,181 3,654 2,777	13,015 3,904 2,909	13,358 4,007 3,058	14,033 4,210 3,195	14,156 4,247 3,355	14,142 4,243 3,531	14,022 4,207 3,735	13,816 4,145 3,924	13,541 4,062 4,029	12,994 3,898 4,246	12,438 3,731 4,456	11,893 3,568 4,689	11,361 3,408 4,946	10,823 3,247 5,032	10,327 3,098 5,318	9,847 2,954 5,602	9,386 2,816 5,889	8,934 2,680 6,173	8,217 2,465 6,173	11,852

	392 Total investment 393 Before tax cesh flow (financial) 394 IRR of before tex cash flow 395 NPV as of 10% (financial) 396 NPV as of 15% (financial)	(mil Rp) (mil Rp) (mil Rp) (mil Rp)			29,450 -32,497 20.8% 194,685 63,871	31,052 -32,978	32,615 -32,185	32,599 -25,784	6,933 5,689	6,186 12,240	5,605 17,284	7,482 22,911	6,842 32,224	8,008 39,421	8,792 48,700	10,183 59,336	9,450 74,221	5,250 91,272	10,832 92,457	10,501 83,415	11,665 88,860	12,841 90,907	4,334 96,904	1,4,291 69,938	14,194 ⁻ 67,777	14,366 63,011	14,192 53,453	0 54,182	260,821
	(Down Side sensitivity Analyses)								0504	8800	0000	0004	0006	2006	4007	ಶಿನಿಗಿತಿ	2000	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020 ies	id 2021
	397 2% contingency sales Vc Gross profit 398 10% contingency total investment 399 Before tax cash flow 400 IRR of bofore tax cash flow 401 NPV as of 10% 402 NPV as of 15%	(mil Rp) (mil Rp) (mil Rp) (mil Rp) (mil Rp)	1995	1996	1997 0 32,395 -35,442 16.5% 107,422 15,646	1998 4,192 34,158 -36,459	1999 10,123 35,876 -36,356	2000 19,828 35,859 -30,823	2001 26,814 7,626 2,326	2002 33,553 6,805 8,055	2003 39,465 7,265 12,295	2004 45,740 8,230 17,013	2005 54.281 7,526 25,247	2006 62,067 8,809 31,431	2007 71,168 9,672 39,512	2008 81,892 11,201 48,660	2009 94,367 10,395 62,020	105,505 5,776 78,034	111,095 11,916 17,976	99.504 11,551 67.261	103,925 12,832 70,876	104,737 14,125 70,826	99,460 4,767 75,524	81,532 15,720 47,049	76.612 15,613 42,522	69,121 15,803 35,150	56,626 15,611 23,148	39,797 2 0	
	(Financial Analyses with In house Installation)												ósse	555	0003	0000	0000	0010	0014	0010	2013	2014	2015	2016	2017	2018	2019	2020 res	H 2021
	403 LPG bottle repurchase 404 In house pipeline installation 405 Before tax cash flow 406 IRR of before tax cash flow 407 NPV as of 104 (financial) 408 NPV as of 155 (financial)	(mil Rp) (mil Rp) (mil Rp)	1995	1996	1997 1,191 2,382 -33,688 18.6% 167,831 43,873	1998 2,187 4,375 -35,166	1999 3,420 6,841 -35,606	2000 4,401 8,801 -30,184	3,780 7,560 1,909	2002 4,214 8,428 8,026	2003 4,017 8,034 13,267	2004 3,558 7,116 19,352	2005 4,831 9,663 27,392	2006 4,000 8,000 35,421	2007 4,000 8,000 44,701	2008 4,000 8,000 55,336	2009 4,000 8,000 70,221	2010 4,000 8,000 87,272	2011 2,957 5,913 89,501	2012 2,879 5,757 80,536	2,865 5,729 85,995	2,851 5,702 88,057	2,739 5,477 94,166	2,824 5,648 67,114	2,811 5,621 64,968	2,804 5,608 50,207	2,717 5,435 50,736	0 0 54,182	
	(Down Side Sensitivity Analysis)				•					÷				•													0010	2020	
4	409 Before tax cash flow 410 IRR of before tax cash flow 411 NPV as of 10%	(mil Rp)	1995	1996 0	1997 -35,633 14.6% 79,390	1998 ÷38,647	1999 -39,777	2000 -35,224	2001 -1,454	2002 3,841	2003 8,278	2004 13,455	2005 20,416	2006 27,431	2007 35,512	2008 44,659	2009 58,020	2010 74,033	2011 75,019	2012 64,383	2013 68,011	2014 67,975	2015 72,785	2016 44,225	2017 39,711	2018 32,346	2019 20,430	2020 res 22.872	157,134
	412 NPV as of 15%	. (miliRp)		:	-4,739																		: .						
	Case 5:Financial feesibility of separate utili (Financial Feesibility Analysis) 413 Total sales 414 Gas material cost 415 Gross profit	(mil Rp) (mil Rp) (mil Rp) (mil Rp)	1997 0 0	1998 1,939 765 1,174	1999 5,233 2,063 3,170	2000 11,482 4,524 6,958	2001 19,231 7,577 11,653	2002 26,440 10,419 16,022	2003 34,662 13,659 21,003	2004 42,899 16,906 25,993	2005 50,734 19,995 30,739	2006 60,788 23,958 36,830	2007 69,716 27,478 42,238	2008 78,824 31,069 47,755	2009 88,124 34,736 53,388	2010 97,627 38,483 59,144	42,272 64,964	2012 115,347 45,471 69,876	2013 123,513 48,693 74,820	2014 131,843 51,979 79,864	55,332 85,010	2016 148,852 58,690 90,162	2017 157,708 62,184 95,524	2018 166,759 65,755 101,004	2019 176,022 69,410 106,612	185,375 73,101 112,274	sid 2021		: : :
	416 Total salaries 417 Administrative expenses 418 Maintenance & other expenses 419 Property tax 420 Before tax income 421 Total investment 422 Net cash flow	(mit Rp)	498 149 145 6 -199 7,230 -8,028	1,306 392 369 15 -909 11,242 -12,150	2,303 691 701 28 -552 16,562 -17,114	3,439 1,032 1,118 43 1,327 20,842 -19,515	4,006 1,202 1,483 53 4,910 18,281 -13,371	4,522 1,357 1,892 65 8,187 20,455 -12,269	4,909 1,473 2,286 14 12,262 19,692 -7,430	5,046 1,514 2,644 80 16,709 17,905 -1,196	5,353 1,606 3,111 91 20,580 23,329 -2,750	5,461 1,638 3,509 97 26,125 19,929 6,196	5,408 1,622 3,914 102 31,191 20,212 10,979	5,416 1,625 4,316 107 36,291 20,102 16,189	5,324 1,597 4,720 111 41,636 20,195 21,441	5,223 1,567 5,125 115 47,114 20,285 26,829	5,033 1,510 5,442 115 52,865 15,825 37,040	1,435 5,759 114 57,786 15,882 41,904	4,582 1,375 6,077 114 62,674 15,871 46,802	4,372 1,312 6,395 114 67,671 15,924 51,748	4,182 1,255 6,707 113 72,754 15,604 57,150	3,972 1,192 7,028 113 77,858 16,047 61,811	3,762 1,129 7,351 113 83,170 16,115 67,055	3,552 1,066 7,675 113 68,598 16,216 72,382	3,413 1,024 7,591 113 94,071 15,815 78,255	0	589,102 589,102		
	423 FIRR 424 NPV as of 10% 425 NPV as of 15%	(mil Rp) (mil Rp)	17.0% 106,697 16,495	·. · · · .									÷																
	(Downside Sensitivity Analyses)		1997	1998	1999	2000	2001 :	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019		sid 2021		
:	426.24 contingency sales vol. Gross profit 427.104 contingency of all investment 428. Before tex cash flow 429.FIRR	(mil Rp) (mil Rp) (mil Rp)	-792 7,953 -8,745 15.64	-917 12,366 -13,282	-588 18,218 -18,805	1,231 22,926 -21,695	4,730 20,109 -15,379	7,931 22,501 -14,570	11,916 21,662 -9,746	16,269 19,695 -3,426	20,055 25,662 -5,607	25,485 21,922 3,563	30,449 22,233 8,216	35,443 22,113 13,330	40,679 22,214 18,465	46,046 22,314 23,733	51,680 17,408 34,273	56,503 17,470 39,033	61,291 17,458 43,832	66,188 17,516 48,672	71,167 17,164 54,002	76,167 17,652 58,516	61,372 17,727 63,646	86,690 17,837 68,853	92,051 17,397 74,654	98,001 0 98,001	628,209		
	430 NPV as of 10% 431 NPV as of 15%	(mit Rp) (mit Rp)	90,454 4,582						:																	14			
	(Financial Fessibility with In House Pipeline Ins	stallation)	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020 rd	esid 2021		
	432 LPG bottle selling (residential) 433 In house pipeline installation (residential) 434 LPG bottle repurchase (commercial) 435 In house pipeline installation (cooking) 436 Nat cash flow 437 FIRR	(mil Rp) (mil Rp) (mil Rp)	1,191 2,382 5 94 -9,308 14,6%	2,187 4,375 5 94 -14,426	3,420 6,841 5 94	4,401 8,801 9 162 -24,069	3,780 7,560 13 230 -17,369	4,214 8,428 17 298	4,017 8,034 21 366 -11,792	3,558 7,116 25 435 -5,164	4,831 9,663 26 461 -8,016	4,000 8,000 28 488 1,735	4,000 8,000 29 517 6,492	4,000 8,000 31 547 11,672	4,000 8,000 33 580 15,894	4,000 8,000 35 610 22,253	2,957 5,913 36 642 33,417	2,879 5,757 38 676 38,388	2,865 5,729 40 711 43,267	2,851 5,702 42 741 43,192	2,739 5,477 44 785 53,671	2,824 5,648 47 825 58,208	2,811 5,621 49 858 63,427	2,804 5,608 51 910 68,720	2,717 5,435 54 955 74,637	0 0 0 0 100,147	685,941		
	438 NPV as of 104 439 NPV as of 153	(mil Ro) (mil Ro)	82.842 -3.311																		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1								
	(Downside Sensitivity Analyses)		1001	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	: 2012	2013	2014	2015	2016	2017	2018	2019	2020 r	ssid 2021		
:	440 Before tax cash flow 441 FIRR 442 NPV as of 104 443 NPV as of 158	(mil Rp) (mil Rp) (mil Rp)	1997 -10,025 13.5% 66,680 -15,258	-15,559			-19376		-14,108	-7,394		-897	3,728	8,814	13,919	19,157	30,110	35,517	40,297	45,116	50,523	54,913	60,018		71,036		725,930		
	(Gas price of seperate utility)		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019		osid 2021		-
	444 Sales price (residential) 445 Sales price (cooking) 446 Sales price (AC) 447 Gas material cost	(Rp/m3) (Rp/m3) (Rp/m3) (Rp/m3)	800 800 330 315	800 800 330	800 800 330	800 800 330 315	800 800 330 315	800 800 330	800 800 330 315	800 800 330 315	800 800 330 315	800 800 330 315	800 800 330 315	800 800 330 315	800 800 330 315	800 800 330 315	800 800 330 315	800 800 330 315	800 800 330 315	800 800 330 315	800 800 330 315	800 800 330 315	800 800 330 315	800 800 330 315	800 800 330 315	800 800 330 315			

Labor Efficiency Doubled in 20 years Master Plan Economic and Financial Analyses Case 2.PGN operates when Gas Sales Price of Residential Sector goes up to 800Rp in ten years. Rase Casal (Cumulative Workers) 2012 2013 2014 2015 2016 2017 2018 2019 2020 resid 2021 2003 2004 2005 2008 2007 2008 2009 2010 2011 1997 1998 1999 2000 2002 1996 1995 210 178 195 147 163 320 161 Administrative staff (persons) 332 256 243 193 293 (persons) 40 162 Administrative workers 51 88 134 38 130 22 oersons. 163 Sales 128 134 137 67 103 42 94 60 91 75 114 82 124 100 114 119 184 Mater reading (persons) 195 142 165 Collecting (persons) 63 (persons) 166 High-medium pressure 959 926 842 958 743 778 810 839 283 ASA 908 928 247 321 28 11 167 Low pressure 326 335 343 350 316 191 232 249 265 280 293 305 168 Mater administration (oersons) 2,074 2,101 2,122 2,142 2,158 2,170 2,155 2.045 1.675 1,835 1,900 2,001 2,041 1.761 1.955 833 1,020 1,188 147 1.335 1.457 1.578 169 Total (parsons) 210 1,891 208 1.915 205 1,937 202 1,956 192 178 163 187 212 213 212 175 106 728 170 Total white coller (persons) 1,972 1,963 1,867 1.828 1,172 1,282 1,480 1,559 1,629 1.690 1,743 1 788 1.862 892 284 171 Total blue collar (persons) 76,262 78,262 76,262 78,262 76,262 76,262 78.262 76.262 76.262 16,252 76.262 76,262 14,744 76,282 76,262 14,744 18.262 76 262 76 262 78 262 76.262 (1000Ro/y) 76,262 76,262 76,262 172 Salary per a white coller (1000Rp/y) 14,744 14.744 173 Saraly per a blue coller (Financial Feasibility Analysis) 2007 2008 2009 2011 1998 2000 2001 2002 2003 2005 1995 1998 1997 1999 87,573 94,765 102,043 109,409 116,862 124,326 131.870 139,494 147,200 153 634 25 860 33 051 40,832 49,811 59,448 66,354 73,360 1,023 1,553 19 413 4,187 8.465 13 696 Sales Residential 25.398 27.561 19.644 21.447 2.351 3,258 3,896 8,536 9 653 10.837 12.093 13.427 14.844 16.348 17.945 2,742 Commercia Cooking (mil Rp) (mil Rp) 1.819 2.085 136,810 88,591 99,610 111,290 123,675 150,743 14,845 20,291 28,734 34,172 42.029 50 330 59 104 68 381 78.194 2,807 3,597 Commercia Boiler+AC 100,684 113,037 126,134 140,023 154,756 170,387 243.080 57,811 67.640 78,034 89,031 5,416 325,461 7,080 357,485 9,294 39.719 48.515 (mil Rp) 13.137 18.102 24 187 31.393 Commercia Total 892,392 991,840 1,060,081 1,196,142 1,343,598 1,521,223 1,725,147 1,817,476 2,065,913 2,354,380 2,647,303 2,953,312 1,043,786 1,161,339 1,248,338 1,403,944 1,571,775 1,770,655 1,998,765 2,112,189 2,385,755 2,698,446 3,017,756 3,350,026 450,281 510,813 550,553 593,015 624,383 669,862 729,004 802,537 302,529 307,913 (mil Rp) 487,115 600,600 657,458 704,934 768,189 846,263 936.531 (mil Rp) 332,938 368,712 427,136 878,868 1,009,210 1,150,815 1,326,027 1,535,108 1,655,465 1,910,778 2,207,691 2,519,987 2,854,275 633,350 717,993 811.051 177,062 203,279 245,724 292,928 340,505 380 280 423,105 457 618 504 326 562.678 Gas material cost 444,628 295,266 461,659 312,296 456,725 307,362 474.916 490,755 341,393 231,353 247,316 263,862 283,585 303,170 325,793 350,287 359,470 394,734 420,959 220 321 149,363 181,412 194 187 155,875 155.434 Gross profit 325,614 346,389 2,002,246 32,050 14,499 134,222 153,808 178,430 200,924 220,108 245,371 271.597 44,824 Gross profit (incremental MMRp) (mil Ro) 6513 156 12,425 9.744 10 Property Tex (mil Rp) 15,090 29,074 13,368 14,263 14,903 15,408 15,782 18,039 16,190 18.024 15,827 15,614 15,369 13 537 5,746 7,563 1,331 1,250 1,611 8.054 Labor cost (increment Staffs (mil Rp) 2,994 11203 22,990 24,017 24,915 26.365 26,951 27.454 27 882 28 227 28 558 28.844 28 947 27.531 13,157 15,345 17,280 18,897 (mil Ro) 10.732 3,898 4.417 3,226 35,491 3,477 38,251 3,672 40,398 4.262 4.362 4.391 4,405 2,970 3.840 3 980 4 095 4.188 4.319 Pensions 42,238 43,778 45,050 46,069 46,880 48,297 48,590 48,635 48,581 45,174 25,191 7,557 3,147 7,581 14,639 20,664 29.203 32,675 (mil Re) Total 13,515 13,821 14,064 14,253 14,393 14,489 11.538 14577 14 591 14514 14 379 13.552 78 331 9,802 10,647 11,475 12,119 12,671 13,134 8.761 Administrative expenses 2.274 4.392 6.199 (mil Rp) 21,009 21,005 121,417 5,908 28,242 7,694 31,374 12.028 12.932 13,619 15,401 17,274 19,163 1,613 2,659 5,383 5,483 8 351 9 028 9.642 10.407 11.187 16 Maintenance & other expenses (mil Ro) 42,020 29,153 32,840 33,845 30,743 38,216 39,027 45,200 27,781 43,282 52,315 54,487 28,450 27,498 28.756 (mil Rp) 11 Total investment 266,502 1,541,369 74,802 100,456 110,339 133,181 154,958 174,118 201,083 139,399 151,163 164,248 172.364 -4,557 6,542 12,823 25,596 40,070 55,522 -42,226 17.3% -20.155 -11.039 18 Before tax cash flow (financial) -48,304 -58.038 -53,189 19 IRR of before tax cash flow 319,033 20 NPV as of 10% (financial) (of Ro) (mil Rp) 21 NPV as of 15% (Down Side Sensitivity Analyses) 2010 2020 resid 2021 2005 2008 2007 1995 1998 1997 2002 2003 201,299 223,451 42,037 42,930 288 011 278 519 271 276 284 057 293 582 294.209 285.546 2.010.889 41,240 53,551 65,104 90,013 123,455 141,235 101,713 183,856 246.320 14.855 29.665 (mil Rp) 6.012 22 24 contingency sales Gross profit 46,222 49,719 37,799 98.023 102,983 36,124 39,656 33 818 29,095 30.248 28 867 31,632 32 068 34,511 37 231 23 10% contingency total investment (mil Rp) 13,475 26,165 56,700 80,313 87,709 107,357 125,479 140,341 163,869 94,403 100,244 106,992 205,680 1,449,398 24 Before tax cesh flow (mil Rp) 45,902 -53,132 -64.485 -61 022 -18.492 -13160-3073 2.007 14.2% 25 IRR of before tax cash flow (mit Rp) 183,282 28 NPV as of 10% -18.682 27 NPV as of 15% (Financial Analysis with in House Installation) 2011 2012 2013 2019 2020 resid 2021 2009 2010 2005 2006 2007 2008 1995 1996 1997 2001 2003 2004 2000 4,000 1.000 4,000 4 000 4 000 4 000 4.000 3224 4,000 4,000 4,000 1.000 4.000 3.885 4.114 4746 4.000 28 LPG bottle repurchase (mil Rp) I TAS 2.200 8,000 8.000 8,000 7.999 8,001 8,000 8,000 8,000 7,771 8,229 8,000 8,000 8,000 8,000 8.000 8.000 8 000 7,942 8,000 2.371 29 in house pipeline installation 150,958 170,118 197,082 135,400 169,140 266,502 1,618,102 70 802 96.456 106,339 129.181 -50,503 -62,009 -57,433 -24,155 -15,038 -8.557 2,658 8.709 21,598 38.069 51.522 30 Before tax cash flow 31 IRR of before tax cash flow 16.5% 294.391 32 NPV as of 10% (financial) (of fig.) (mil Rp) 33 NPV as of 15% (financial) 37,120 (Down Side Sensitivity Analysis) 2013 2010 2011 2012 2005 2006 2007 2008 2009 22,165 35,666 52,700 76,313 83,709 103,357 121,479 136,341 159,869 -68,456 -65,266 -30,517 -22,492 -17,161 -6,959 -2.107 9.475 (mil Re) ٥ 0 -47,148 -55,332 34 Before tax cash flow 35 IRR of before tex cash flow 13.5% 158,678 35 NPV as of 10% (mil Ro) (and Ro) -38,250 37 NPV as of 15% (Social Benefit & Loss Analyses) 2013 2014 2017 2018 2019 2020 resid 2021 2012 2002 800 2003 800 2004 800 2011 1995 1998 1997 1999 2000 2001 2005 2008 2007 20/18 2009 2010 1998 800 38 Social benefit for residential customers (Rp/m3) 800 800 39 Social benefit for commercial cooking (Ro/m3)528 528 528 528 528 528 528 528 528 528 528 528 528 40 Social benefit for commercial AC 308 3,991 308 7,345 Social benefit for industrial customers 2,213 13,571 20,215 26,547 32,943 39,405 45,750 52,641 68,354 73,360 87,573 94.765 102,043 109.403 116.862 124,326 131.870 139.494 147,200 59,448 80,467 42 Social benefit for residential customers (mit Ro) 35985 39.632 47,621 58.637 66.815 11,294 15,725 18,137 20,693 23,401 28271 29317 32 551 43 506 51.993 43 Social benefit for commercial cooking (mit Ro) 178,064 218,898 141,746 159,375 241,189 5,754 10,164 7,960 13,015 11,108 16,808 16,633 23,280 23,752 32,466 41,910 42,774 54,068 94566 44 Social benefit for commercial AC 54.676 67.246 80 527 109 410 125.111 115,259 132,811 151,382 171,063 191,928 214,049 237,512 262,402 288,810 318,832 346,572 378,133 411,645 784,703 872,561 969,799 1,036,523 1,169,561 1,313,740 1,487,418 1,686,810 1,777,088 2,020,982 2,302,060 2,588,474 2,887,683 966,316 1,076,792 1,201,648 1,295,159 1,456,252 1,629,632 1,834,339 2,056,074 2,190,224 2,469,684 2,786,127 3,113,812 3,457,962 68,122 98,665 82,971 45 Social Benefit for commercial total (ml Ro) 8.258 519,837 712,804 318,229 349,522 400,280 450,053 499,461 538,318 (mil Rp) 295,807 48 Social benefit for industrial customers 48 Total social benefit from gas sales 306,275 332,385 369,882 430,659 493,548 557,655 613,171 613,310 724,380 790,588 870,917 47 Social loss for gas supplied (Ro/m3) 190 193 197 966,627 1,103,064 1,272,123 1,474,190 1,591,050 1,837,848 2,125,006 2,427,341 2,751,233 663,843 753,639 839,139 224,571 331,482 368,909 401,707 444,479 494,812 558,623 163.057 176,120 194,620 254.890 297,482 48 Total social loss from gas supplied (mil Rp) 562.216 591.885 599.174 631.836 414,889 663.121 686.472 49 Gross social benefit (mil Rp) 281,689 304,401 322,673 346,109 376,104 407,694 438.009 458 020 489.825 528.769 294,791 348,407 383,550 418,997 448,666 317,801 (mil Rp) 13,046 32,044 52,315 62,869 95,439 116,955 138,471 151182 179.454 202 890 232.886 264.475 50 Incremental gross social benefit 27,498 39,027 42,020 45,200 34,363 89,112 93,621 94,456 26,242 28,756 29,153 31,374 32,840 33,846 30,743 -200 37.356 43 282 54.487 27.781 51 Total Investment (mil Ro) 26.450 4,000 1,000 1,000 4 000 1,000 4 000 4 000 1.000 4.000 4.000 4.000 3,224 52 EPG bottle repurchase (residential) 2,200 3,971 4,000 8,000 8,000 8 000

53 In house pipeline installation (residential) (mil Rp)

2,371

4,399

7.942

8,488

8,000

8.000

7.171

8,229

8 000

8.000

8 000

8 000

8 000

0 - 22

8,000

8.000

54 LPG bottle repurchase (cooking) 55 In house pipeline Installation (cooking) 56 In house pipeline installation (AC) 57 Turbo childer 58 59 Absorption childer 60 61 FO tank installation 62 In house pipeline (industrial) 63 Imported facilities (included) 64 Imported facilities (included) 65 Net social loss for facilities 65 Labor cost (incremen Staffs 67 Workers 68 Pansions 69 Total 67 Income tax (included) 68 Administrative expenses 69 Maintenance & other Expenses 70 Yalus tocial benefit 72 EIRR 73 NSS as of 10%	(mit Rp) (mit Rp) (mit Rp) (1000\$) (mit Rp) (1000\$) (mit Rp)		5 94 94 7,124 16,740 7,636 17,945 1,141 326 3,937 0 39,114 1,250 1,611 286 3,147 349 944 747 154 -43,449 31.0%	5 94 139 10,539 24,767 11,297 28,549 1,592 455 6,527 0 46,353 2,994 3,898 689 7,581 839 2,274 1,613 353 -43,583	5 94 13,85 32,793 14,958 35,152 738 9,616 0,57,013 5,746 7,563 1,311 14,639 1,618 4,392 2,659 641	9 164 26,138 61,424 28,018 65,843 2,532 724 12,631 0 61,840 8,054 10,732 1,879 20,664 2,281 6,199 3,745 904	13 234 435,444 83,292 37,993 89,284 2,514 718 14,198 9,744 13,157 2,290 25,191 2,777 7,557 4,304 1,078	17 304 44,749 105,161 47,969 112,765 14,699 0 37,418 11,203 15,345 2,655 29,203 3,215 8,761 4,833 1,238	21 374 711 54,055 127,029 67,944 136,168 2,112 604 17,045 0 40,192 12,425 17,280 2,970 32,675 3,592 9,802 5,383 1,381	25 446 64,275 151,047 68,659 161,913 1,560 446 18,187 0 41,146 13,368 16,887 3,226 3,226 10,647 5,908 1,505 73,390	27 475 897 68,195 160,258 73,101 171,786 2,262 646 20,387 0 44,128 14,263 20,510 3,477 38,251 4,190 11,475 6,483 1,633	29 505 952 72,388 170,064 77,574 182,292 841 21,739 044,714 14,903 21,821 3,612 40,398 4,413 12,119 7,068 1,744	30 537 1,010 76,809 180,501 82,334 193,486 3,658 1,045 24,543 47,263 15,408 22,990 3,840 42,238 4,610 12,671 7,694 1,851	32 572 1,072 81,534 191,605 87,400 205,389 4,470 1,277 26,622 049,043 15,782 24,017 3,950 43,778 4,769 13,134 8,351 1,953	34 609 1,139 80,560 203,416 92,787 218,050 4,947 1,414 28,355 0 50,659 18,039 24,915 4,095 45,050 4,897 13,515 9,028 2,049	37 649 7,211 92,038 216,290 98,659 231,869 3,395 970 26,665 0 49,701 16,190 25,691 4,188 46,069 4,998 13,821 9,642 2,133	39 611 1,281 97,873 230,002 104,914 245,548 6,769 1,934 34,212 0 55,857 16,253 28,365 4,262 4,262 4,263 10,407 11,064 10,407 2,225	42 737 1,369 104,086 244,603 111,574 262,199 36,129 0,57,449 16,241 26,951 4,319 47,512 6,131 14,253 11,187 2,313	44 745 110,700 260,145 118,664 278,856 2,525 39,903 060,620 16,161 27,454 4,362 47,977 5,170 14,393 12,028 2,402	47 836 1,549 117,740 276,688 128,210 296,593 10,145 2,898 43,774 64,196 16,024 27,892 4,391 48,297 5,192 14,489 12,932 2,493 285,769	50 811 1,647 125,229 294,289 134,238 315,467 0 58,741 15,827 28,227 4,405 5,197 14,538 13,619 2,560	54 94 1,752 133,197 913,012 142,779 355,530 12,409 3,545 50,509 0 109,413 15,614 28,556 4,417 48,590 5,198 14,577 15,401 2,725 275,898	57 1,011 1,854 141,870 332,924 151,881 356,874 1,036 58,024 0,114,174 15,369 28,844 4,421 14,591 17,274 2,897 302,030	61 1,077 1,982 150,678 354,094 161,518 379,568 14,572 4,163 58,283 0116,519 15,090 29,074 4,416 46,581 5,171 14,574 19,163 3,067	65 1,147 2,108 160,255 376,599 171,784 403,692 15,223 4,349 60,349 0 114,950 14,627 28,947 4,957 4,957 4,957 21,009 3,217 353,290	0 -200 13,537 27,531 4,107 45,174 4,184 13,552 21,005 3,142 486,904	0 0 0 145,724 15,431 43,717 67,756 10,134
74 NSB as of 15% [18gh Case]	(mil Rp)		363,457																	: '						1 :	
(Cumulative Workers) 158 Administrative staff 159 Administrative workers 160 Sales 161 Meter reeding 162 Collecting 163 High-medium pressure 164 Low pressure 165 Meter administration 166 Total 167 Total white collar 168 Total blue collar 169 Salary por a white collar 170 Salary per a blue collar	(persons)	1996	1997 17 40 22 9 28 11 127 17 110 76,262 14,744	1998 39 92 39 4 6 18 77 29 304 39 264 76,262 14,744	1999 76 170 68 10 18 26 163 61 591 76 515 76,262 14,744	2000 106 230 70 22 33 34 247 93 834 106 723 76,262 14,744	2001 128 269 64 33 50 36 321 120 1,022 128 894 76,262 14,744	2002 147 299 62 43 65 38 399 146 1,190 147 1,042 76,262 14,744	2003 163 320 60 52 78 40 454 170 1,337 163 1,174 75,262 14,744	2004 178 334 58 60 91 41 513 192 1,465 176 1,290 78,262 14,744	2005 187 342 56 68 103 42 567 213 1,579 187 1,392 76,262 14,744	2006 198 346 54 75 114 617 232 1,678 198 1,482 76,262 14,744	2007 202 345 53 62 124 45 683 249 1,784 202 1,581 76,262 14,744	2008 207 342 51 89 134 46 705 265 1,839 207 1,631 78,262 14,744	2009 211 336 49 95 142 48 743 250 1,903 211 1,693 76,262	2010 213 327 47 101 150 49 778 293 1,959 213 1,746 76,262 14,744	2011 214 318 46 106 157 50 810 305 2,007 214 1,793 78,262 14,744	2012 214 307 45 112 164 51 839 316 2048 214 1,834 76,262	2013 295 43 117 170 56 865 327 2,087 213 1,873 76,262 14,744	2014 212 284 42 123 175 61 888 336 2,120 212 1,908 76,262 14,744	2015 210 272 40 128 160 64 908 344 2,146 210 1,936 76,262	2016 207 259 39 132 184 68 926 351 2.168 207 1,960 76,262	2017 204 248 38 137 188 70 942 357 2,184 204 1,980 76,262 14,744	2018 200 234 37 143 192 72 956 363 2,198 200 1,996 76,262 14,744	2019 196 221 36 148 148 195 74 967 368 2,205 198 2,009 76,262 14,744	2020 1 182 198 153 197 71 934 355 2,091 182 1,909 76,262 14,744	esid 2021
(Finencial Feesibility Analysis)	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009 75,134	2010 82,562	2011	2012 97,560	2013 105,230	2014 113,016	2015 120,918	2016 128.957	2017 137,118	2018 145,402	2019 153,810	2020 rd	esid 2021
1 Salos Residential 2 Commercia Cooking 3 Commercia Cooking 4 Commercia Total 5 Total 7 Gas meterial cost 8 Gross profit 9 Gross profit (incremental MMRp) 10 Property Tax 11 Lebor cost (incremental Staffs 12 Workers 13 Pensions 14 Total 15 Administrative expenses 16 Maintenance & other expenses 17 Total investment 18 Before tax cash flow (financial) 19 IRR of before tax cash flow 20 NPV as of 10% (financial) 21 NFV as of 15% (financial)	(mil Rp)		1,023 1,523 2,807 4,360 302,529 307,913 158,550 149,363 3,264 1,629 2,89 3,183 9,55 7,63 38,155 43,089 21,6% 637,341 185,305	2,079 1,819 3,597 5,418 338,689 181,500 157,190 7,827 67 2,996 3,899 690 7,585 2,276 1,630 43,337 -47,668	4,210 2,085 4,975 7,000 371,199 382,470 213,923 168,547 19,164 100 5,770 7,595 1,337 14,702 4,441 2,717 54,363 -57,115	8,504 2,351 6,943 9,294 436,089 453,887 266,067 187,820 38,457 141 8,062 10,743 1,881 20,685 6,205 3,822 55,243 -47,640	13,764 2,745 10,430 13,176 499,719 526,559 202,861 53,499 9,758 13,176 2,293 25,258 1,759 4,404 29,127 -12,979	19,565 3,269 14,948 18,217 562,883 600,666 218,580 69,217 11,521 15,369 2,659 29,248 8,774 4,961 27,806 -1,727	26,141 3,921 20,496 24,417 612,559 663,116 430,183 232,934 83,571 12,444 17,306 2,975 32,725 9,817 5,527 28,310 7,031	33,507 4,702 27,075 31,777 665,638 730,920 248,839 99,527 164 13,452 19,015 32,41 40,714 6,054 28,857 20,014	41,683 5,611 34,685 40,295 698,220 780,198 517,906 262,292 112,930 14,271 20,521 3,479 38,271 11,481 6,644 29,018 27,348	50,741 6,578 42,749 49,325 753,720 853,780 573,153 280,633 131,270 14,923 21,851 3,677 40,451 7,242 29,850 41,389	633,970		9,854 69,997 79,852 1,008,451 1,169,438 814,672 348,766 199,403 16,067 24,958 4,102 45,127 13,538 9,351 38,245	11,089 80,218 91,307 1,152,006 1,325,875 944,674 331,200 231,838 205 18,224 25,745 4,197 46,166 13,850 10,067 35,772	12,415 91,174 103,589 1,268,092 1,469,615 1,050,952 468,663 259,300 259,300 18,295 26,434 4,273 47,002 14,101 10,980 45,680	13,840 102,923 116,764 1,481,371 1,695,695	15,373 115,532 130,905 1,728,768 1,964,903 1,451,037 513,867 364,504 288 16,260 27,621 4,388 48,268 14,480 13,857	17,021 129,069 146,089 2,036,600 2,295,705 11,735,326 560,379 411,018 341 16,165 28,127 4,429 48,721 14,616 15,886 101,418	18,794 143,608 162,402 2,406,193 2,689,513	20,702 159,230 179,932 2,639,492 2,948,381 2,336,430 611,951 462,589 428 15,804 28,905 4,471 49,179 14,754 19,922 114,005	22,756 176,021 198,777 3,134,086 3,469,980	24,967 194,075 219,042 3,731,205 4,095,648 3,389,981 705,667 556,304 472 15,274 29,429 4,470 49,173 14,752 23,421 90,118	27,348 213,490 240,638 4377,417 4,772,125 4,032,417 739,709 590,346 498 14,968 29,623 4,459 49,050 14,715 25,363	29,912 234,375 264,288 5,089,399 5,515,973 1,755,247 760,728 611,363 435 13,843 28,152 4,200	213,864 64,159 117,383
(Down Side sensitivity Analyses) 22 2% contingency sales Gross profit 23 10% contingency total investment 24 Before tax cash flow 25 IRR of before tax cash flow 26 NPV as of 10% 27 NPV as of 15%	1595 (mil Rp) (mil Rp) (mil Rp) (mil Rp) (mil Rp)	1998	1997 0 41,970 -48,905 18,4% 460,097 101,203		1999 17,693 59,799 -64,043	2000 35,538 60,767 -58,083	2001 49,124 32,040 -20,256	2002 63,362 30,587 -10,363	2003 76,467 31,142 -2,904	2004 91,087 29,543 8,868	2005 103,484 31,918 15,001	2008 120,353 32,867 27,483	2007 139,093 35,315 40,733	2008 158,259 38,634 59,857	2009 182,293 42,069 72,008	39,349	2011 236,266 50,248 113,716	2012 290,258 54,148 161,939		2014 371,260 111,559 180,137	2015 404,175 98,585 225,868	2016 409,779 125,405 200,091	2017 446,406 93,313 267,043		106,817	2020 re 507,202 2 -440 421,799 2	
(Financial Analyses with in house Installation 28 LPG bottle repurchase 29 In house pipeline installation 30 Before tax cash flow 31 IRR of before tax cash flow 32 NPV as of 10% (financial) 33 NPV as of 15% (financial)	(mã Rp) (mã Rp)	1996	1997 1,200 2,409 -44,289 20,7% 615,479 176,611	1993 2,185 4,371 -49,253	1999 3,992 7,985 -61,108	2000 4,222 8,445 -51,862	2001 4,000 7,999 -16,979	2002 4,000 8,000 -5,727	2003 4,000 8,000 3,031	2004 4,000 8,000 15,013	2005 4,000 8,000 23,348	2006 4,000 8,000 37,388	2007 4,000 8,000 52,484	2008 4,000 8,000 67,886	2009 4,000 8,000 88,943	2010 4,000 8,000 121,779	2011 4,000 8,000 137,318	2012 4,000 8,000 190,617	2013 4,000 8,000 188,995	2014 4,000 8,000 226,035	2015 4,000 8,000 278,280	2015 4,000 8,000 260,301	2017 4,000 8,000 334,767	2018 4,000 8,000 374,369	2019 4,000 8,000 399,614	2020 re 0 0 525,920 2	

Construction backwish																								2212		0010	2010	
(Bown Side Sensitivity Analysis) 34 Before tax cash flow 35 IRR of before tax cash flow 36 NPV as of 10% 37 NPV as of 15%	(mil Rp) (mil Rp) (mil Rp)	1995 O	1995	1997 -48,105 17.6% 438,080 82,458	1998 -54,202	1999 -68,035	2000 -60,306		2002 -14,363	2003 -6,904	2064 4,868	2005 11,001	2008 23,483	2007 38,733	2008 49,857	2009 68,008	2010 97,842	2011 109,718	157,939	2013 146,393	2014 176,138	2015 223,868	2016 196,091	2017 263,043	2018 289,602	2019 300,619	2020 re 421,799 2	esid 2021 2,396,558
(Social Benefit & Loss Analyses) 38 Social benefit for residential customers 39 Social benefit for commercial cooking 40 Social benefit for commercial AC 41 Social benefit for residential customers 42 Social benefit for residential customers 43 Social benefit for commercial cooking 44 Social benefit for commercial cooking 45 Social Benefit for commercial AC 45 Social Benefit for commercial AC 45 Social benefit for industrial customers 46 Total social benefit from gas sales 47 Social benefit for industrial customers 48 Total social loss from gas supplied 49 Gross social benefit 50 Incremental gross social benefit 51 Total Investment 52 LPG bottle repurchase (residential) 53 In house pipoline installation (residential) 54 LPG bottle repurchase (cooking) 55 In house pipoline installation (AC) 57 Turbo chiller 58 59 Absorption chiller 60 61 FO tank installation 62 In house pipoline (industrial) 63 Inported facilities (included) 64 Imported tax 65 Net social loss for facilities 65 Letor cost (incremen Staffs 67 Workers 68 Pensions 68 Total 68 Income tax (included) 68 Administrative expenses 69 Maintenance & other Expenses	(Rp/m3) (Rp/m3) (Rp/m3) (mil Rp)	1995	1996	1997 800 800 528 308 2,213 3,765 4,491 8,256 295,807 306,275 187 143,218 0 38,155 1,200 2,400 5 94 7,124 18,740 7,636 17,945 1,426 407 4,627 0 39,723 1,284 1,285	158,775 15,556 43,371 2,185 4,371 5 94 139 10,539 24,767 11,297 26,549 1,990 569 6,553 0 46,110 2,998 3,899 690 7,585 839 22,278	1999 800 800 800 528 308 7,386 5,055 7,960 13,015 362,951 383,351 181,220 38,002 54,863 3,992 7,985 5 94 184 13,955 32,793 14,557 0 58,681 5,770 7,595 1,337 14,702 1,625 4,411 2,717	217,914 74,695 55,243 4,222 8,445 9 166 347 28,344 61,909 28,239 66,363 3,165 904 13,369 0 62,160 8,082 10,743 1,881 20,888 2,284 6,208 3,822	800 800 528 308 20,316 6,657 16,685 23,345 485,615 532,275 278,007 258,268 113,049 29,127 4,000 7,999 13 237 472 35,915 84,401 38,499 90,473 3,142 898 15,493 90,473 97,755 13,176 2,293 25,228 2,781 7,569 4,404	608,973 174 174 26,585 22,388 139,169 27,800 4,000 8,000 18 309 45,515 106,951 48,790 114,655 2,471 706 16,081 10,081 11,281 15,389 29,248 3,200 6,774 4,961	2003 800 800 528 308 33,300 9,508 32,794 42,299 598,946 674,546 178 387,020 307,526 164,307 28,310 4,000 8,000 22 725 55,128 138,871 2,640 17,54 17,928 0 40,829 12,444 17,308 2,975 32,725 3,597 9,817 5,521 1,395	2004 800 800 528 508 39,849 11,382 54,718 650,844 745,511 182 411,561 333,950 190,731 28,857 4,000 8,000 26 456 864 65,675 154,337 70,400 165,440 1,621 483 18,612 0 42,098 13,452 19,015 32,247 35,714 3,919 10,714 6,064 6,064	798,504 188 446,271 352,233	2006 500 500 502 308 53,623 15,942 68,398 84,341 736,970 496,241 378,693 235,475 29,880 4,000 8,000 29,880 74,467 174,997 79,824 187,586 3,087 4,072 14,923 21,851 3,677 40,451 4,242 12,135 7,242 1,762 1,762	2007 800 800 528 308 60,667 18,431 32,079 100,510 797,277 953,454 193 549,222 409,233 266,014 32,104 4,000 8,000 31 565 1,043 79,323 186,409 85,029 199,819 4,052 1,158 25,607 0 48,187 15,428 23,021 3,845 4,816 12,688 7,884 1,870	2008 800 800 528 308 67,837 21,076 96,593 117,669 876,915 1,062,421 197 619,430 442,991 299,772 4,000 8,000 34,112 84,514 198,607 90,594 212,895 5,586 29,173 0 51,115 15,864 24,051 3,984 4,778 13,152 8,586 1,976 13,152 8,586 1,976 1	2009 800 800 528 308 75,134 23,889 111,996 135,885 986,041 11,97,061 210 743,550 453,511 310,292 38,245 4,000 8,000 36 634 1,185 90,061 211,842 96,539 226,868 7,141 2040 32,884 0 54,152 16,067 24,958 4,102 4,106 13,538 9,351 2081		1,503,868	1,744,241 1 227	222,118 1,690,351 2,017,700 231 1,390,828 628,872 483,654 94,616 4,000 8,000 48 856 1,588 120,697 283,638 129,380	352,130 23 5	2,748,973 : 242	304,954 2,580,837 3,014,745 247	336,799 3,064,440 3,538,357 252 2,703,682	4 184,738 257	1,841,892 : 262	800 800 528 308 162,346 72,514 375,001 447,515 1,976,243 5,588,104 26,577 1,002,526 859,308 2,400	0 0 0 0 124,514 19,185 37,354 65,342 9,609
70 Value tax (included) 71 Nat social benefit 72 EIRR 73 NSB as of 10% 74 NSB as of 15%	(mil Rp) (mil Rp) (mil Rp) (mil Rp)			-44,115 37.1% 1,231,681 551,119	355 -40,850	548 -40,238	912	1,088 42,087	1,249 62,029	80,401	101,587	114,214	138,084	161,448	189,830		227,234	246,444	292,521	304,348	356,075	417,164	421,538	518,087	575,602	622,735	782,757 2	1,108,778
[Low Cose] (Cumulative Workers)		VV.											***	0007		8200	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020 **	esid 2021
155 Administrative staff 156 Administrative workers 157 Seles 158 Meter reading 159 Collecting 160 High-medium pressure 161 Low pressure 162 Meter administration 163 Total 164 Total white collar 165 Total blue collar 165 Selary per a white collar 166 Selary per a blue collar	(persons)		1998	1997 16 40 22 9 28 11 128 18 110 76,262 14,744	1998 39 91 39 4 8 18 77 29 303 39 269 76,262	1999 157 59 10 18 26 150 56 512 69 473 78,262 14,744	2000 103 223 73 20 30 39 239 89 810 103 708 76,282 14,744	2001 123 258 61 31 48 35 309 116 980 123 857 76,262	2002 144 293 65 40 62 37 382 143 1,167 144 1,022 76,262 14,744	2003 160 314 60 50 77 39 446 187 1,313 160 1,153 76,262 14,744	2004 170 323 52 58 90 40 497 188 1,416 170 1,248 76,252 14,744	2005 188 344 65 65 100 41 567 213 1,585 1,397 76,262 14,744	2006 195 345 54 74 114 43 617 232 1,673 195 1,478 76,262 14,744	2007 202 345 52 81 124 44 683 249 1,759 202 1,557 76,262 14,744	2008 207 341 51 87 134 45 705 265 1,839 207 1,627 76,262 14,744	2009 210 334 49 93 142 46 743 279 1,897 210 1,687 75,262 14,744	2010 212 326 47 98 150 46 778 293 1,951 212 1,739 75,262 14,744	208 309 34 103 157 47 795 299 1,952 208 1,744 76,262 14,744	204 293 32 106 160 48 808 304 1,958 204 1,752 76,262 14,744	200 277 31 108 163 48 820 309 1,956 200 1,756 76,262 14,744	195 262 30 110 166 49 829 313 1,953 1,953 1,758 76,282 14,744	190 248 28 112 168 49 836 315 1,943 190 1,753 76,262 14,744	185 231 28 113 169 49 842 318 1,935 185 1,750 76,262 14,744	180 217 27 114 171 50 846 320 1,924 180 1,744 78,262	174 203 26 116 172 50 850 321 1,911 174 1,737 76,262	169 190 24 117 172 50 851 322 1,895 169 1,726 14,744	156 170 118 173 49 822 311 9.797 156 1,641 75,262	
(Financial Feesibility Analysis) 1 Sales Residential 2 Commercia Cooking 3 Commercia Boilent AC 4 Commercia Fotal 5 Industrial 6 Total 7 Ges material cost 8 Gross profit (incremental MMRp) 10 Property Tax 11 Labor cost fincrement Staffs 12 Workers 13 Pensions 14 Total 15 Administrative expenses 16 Maintenance & other expenses 17 Total investment	(mil Rp)	1995	1996	1997 1,023 1,553 2,807 4,360 302,529 307,913 158,550 149,363 0 32 1,254 1,615 287 3,156 947 734 35,692	327,068 172,784 154,282 4,919 65 2,984 3,884 687 7,554 2,266 1,584	354,528	9,294 382,685 399,870 225,911 173,959 24,598 135 7,831 10,434 1,828 20,091 8,027 3,641	447,151 262,526 184,625 35,262 140 9,357 12,635 2,199 24,191 7,257 4,147	2002 18,574 3,242 14,728 17,970 458,742 495,286 299,765 195,521 40,158 146 11,006 15,075 2,608 8,607 4,682 26,735	2003 25,121 3,866 20,055 23,923 486,547 537,590 331,177 206,413 57,051 151 12,221 16,997 2,922 32,140 9,642 5,218 26,804	34,498 10,349	645,909	2006 48,977 6,383 41,202 47,585 601,201 697,784 448,738 249,028 99,65 148,35 21,794 3,688 40,346 12,104 6,904 28,290	2007 58,314 7,343 49,214 56,557 648,070 760,941 494,528 268,413 117,050 171 15,387 22,959 3,835 42,180 12,654 7,488 29,179	13,114 8,101	769,651 917,209 615,703 301,506 152,144 181 16,011 24,871 4,088 44,970 13,491 8,698	676,015 318,672 169,310 181 10,156 25,636 4,179 45,971 13,791 9,217	85,630 97,354 851,041 1,033,496 703,972 329,523 180,161 182 15,851 25,713 4,156 45,720 13,716 9,758	799,121 323,248 173,885 183 15,562 25,825 4,139 45,525 13,658 10,295	995,632 1,211,645 878,679	1,080,682 1,314,269 974,694	146,484 1,173,633 1,425,392 1,085,492 339,901	18,517 141,707 160,224 1,184,237 1,454,623 1,128,500 326,123 176,761 185 14,106 25,800 3,991 43,897 13,169 12,448	1,577,145 1,249,892	189,642 1,400,363 1,710,314 1,384,200 326,114	1,837,265 1,517,373	130,416 25,207 158,639 221,846 1,609,973 1,962,235 1,652,966 309,269	

Labor Efficiency Sensitivity

18 Before tax cash flow (financial) 19 IRR of before tax cash flow 20 NPV as of 10% (financial) 21 NPV as of 15% (financial)	(mil Rp) (mil Rp) (mil Rp)			-41,561 12,0% 64,891 -58,718	-49,052	-57,246	~58,984	-25,744	-22,700	-16,904	-7,461	-2,822	11,854	25,378	37,803	54,962	74,216	83,706	11,391	85,960	91,006	100,622	78,424	77,449	76,342	70,927	94,035	783,378
(Down Side sensitivity Analyses) 22 2% contingency sales Gross profit 23 10% contingency total investment 24 Before tax cash flow 25 IRR of before tax cash flow 26 NPV as of 10% 27 NPV as of 15%	(mil Rp) (mil Rp) (mil Rp) (mil Rp) (mil Rp)	1995	1996	1997 0 40,361 -45,230 8,8% -39,045 -118,936	1998 4,536 46,752 -53,685	1999 11,226 54,109 -63,097	2000 22,757 59,054 -66,191	2001 32,478 27,799 -31,056	2002 42,411 29,409 -29,121	2003 52,457 29,484 -24,178	2004 63,491 28,304 -15,548	2005 77,170 33,345 -12,613	2006 91,868 31,119 1,228	2007 107,990 32,097 13,400	2008 123,068 33,728 24,238	2009 139,958 32,827 39,792	2010 155,574 28,527 57,888	2011 165,649 29,787 66,487	2012 157,598 29,511 58,425	2013 165,529 30,561 65,107	2014 169,886 31,927 67,976	2015 168,188 22,233 76,251	2016 153,627 33,701 50,426	2017 152,506 33,894 48,983	2018 148,703 33,992 45,203	2019 139,944 33,378 37,306		resid 2021 1,441,137 692,261
(Financial Analyses with in house Installation 28 LPG bottle repurchase 29 in house pipeline installation 30 Before tax cash flow 31 IRR of before tax cash flow 32 NPV as of 10% (financial) 33 NPV as of 15% (financial)	(mil Rp) (mil Rp) (mil Rp) (mil Rp)	1995	1996	1897 1,191 2,382 -42,752 11,2% 40,354 -77,953	1998 2,187 4,375 -51,239	1999 3,420 6,841 -60,666	2000 4,401 8,801 -63,384	2001 3,780 7,560 -29,524	2002 4,214 8,428 -26,914	2003 4,017 8,034 -20,921	2004 3,558 7,118 -11,019	2005 4,831 9,663 -7,653	2005 4,000 8,000 7,854	2007 4,000 8,000 21,978	2008 4,000 8,000 33,803	2009 4,000 8,000 50,962	2010 4,000 8,000 70,218	2011 2,957 5,913 80,750	2012 2,879 5,757 74,519	2013 2,865 5,729 83,095	2014 2,851 5,702 88,155	2015 2,739 5,477 97,853	2018 2,824 5,648 73,600	2017 2,811 5,621 74,638	2018 2,804 5,608 73,538	2019 2,717 5,435 68,210	2020 0 0 94,035	839,334
(Down Side Sensitivity Analysis) 34 Before tax cash flow 35 IRR of before tax cash flow 36 NPV as of 10% 37 NPV as of 15%	(mil Rp) (mil Rp) (mil Rp)	1995	199 <i>6</i> O	1997 -45,422 6.1% -63,225 -138,053	1998 -55,873	1999 -66,517	2000 -70,592	2001 -34,836	2002 -33,335	2003 -28,195	2004 -19,104	2005 -17,444	2008 -2,772	2007 9,400	2008 20,238	2009 35,792	2010 53,887	2011 63,530	2012 55,547	2013 62,242	2014 65,125	2015 73,513	2016 47,602	2017 46,172	2018 42,399	2019 34,589	2020 60,969	resid 2021 752,085
(Social Benefit & Loss Analyses) 38 Social benefit for residential customes 39 Social benefit for commercial cooking 40 Social benefit for commercial AC 41 Social benefit for commercial customes 42 Social benefit for commercial cooking 43 Social benefit for commercial cooking 44 Social benefit for commercial total 45 Social benefit for commercial total 46 Social benefit for industrial customen 47 Social besefit for industrial customen 48 Total social benefit from gas sales 49 Social besefit from gas supplied 49 Gross social benefit 50 Incremental gross social benefit 51 Total Investment 52 LPG bottle repurchase (residential) 53 In house pipelina installation (residential) 54 LPG bottle repurchase (cooking) 55 In house pipelina installation (AC) 57 Turbo chiller 58 59 Absorption chiller 60 61 FO tank installation 62 In house pipelina (industrial) 63 Imported facilities (included) 64 Imported tex 65 Nat social loss for facilities 66 Labor cost (incremen) Staffs 67 68 Administrative expenses 69 Maintenance & other Expenses 70 Value tax (included)	(Rp/m3) (Rp/m3) (Rp/m3) (Rp/m3) (mi Rp)	1995	1998	1997 800 800 528 308 2213 3,765 4,491 8,256 295,807 306,275 167 163,057 143,218 0 36,692 1,191 2,382 5,94 7,124 16,740 7,636 17,945 856 244 3,311 0 38,659 1,254 1,615 287 3,156 350 947 734 153	1998 800 528 308 3,723 4,410 5,754 10,104 10,191 42,501 10,191 42,501 10,191 42,501 10,539 24,767 11,297 26,549 1,194 341 5,814 3,884	1999 800 800 528 308 6,551 5,055 7,960 13,015 336,093 355,659 167 187,370 168,268 25,071 49,190 3,420	2000 800 528 308 12,633 5,700 11,108 18,803 374,182 403,653 167 210,591 193,063 49,844 53,685 4,401 8,801 9 162 341 25,901 60,868 27,765 65,247 1,899 543 11,360 0 61,602 7,831 10,434 1,826 20,091 22,18 6,027 3,641 8,79	2001 800 800 528 308 19,505 6,635 16,570 23,205 411,491 454,201 187 234,109 76,874 25,271 3,780 7,7560 13 230 459 34,903 82,022 37,414 87,922 1,885 509 12,709 9,357 12,835 2,199 24,191 2,637 12,837	2002 800 528 308 25,401 7,859 23,564 31,424 444 505,972 174 266,842 236,529 93,311 26,735 4,214 8,428 17,298 47,027 110,514 1,483 47,027 110,514 1,483 424 13,977 10,514 1,505 11,005 2,608 2,608 2,609 3,115 15,007 4,642 1,208	2003 800 528 308 32,001 9,373 32,090 41,463 47,690 551,154 178 29,528 24,628 111,408 26,804 4,017 8,034 21 365 52,825 124,139 56,625 124,139 1,584 453 16,196 1,584 453 16,196 1,584 16,196 1,584 1,585 1,584 1,585 1,584 1,585 1,584 1,585 1,584 1,585 1,584 1,585	2004 800 800 528 308 33,328 11,176 42,147 53,324 508,481 182 226,958 130,305 273,523 130,305 25,731 3,558 7,118 25 432 42,670 147,275 67,179 671 18,420 0 39,441 12,994 18,367 3,138 34,496 3,788 10,349 5,732 1,492	2005 800 800 528 303 43,972 13,269 53,736 67,005 554,992 665,969 186 366,116 297,853 154,635 30,314 4,831 9,663 26 481 66,202 155,576 70,965 166,202 155,576 70,965 161,202 155,576 70,965 161,202 153,571 478 19,181 0 48,449 14,324 20,597 3,492 38,413 4,208 11,524 6,339 1,624	2006 800 528 308 51,759 15,475 65,923 81,938 587,641 190 402,427 1175,353 28,290 4,000 8,000 8,000 8,000 6,000 28 468 920 69,942 184,363 74,973 20,620 0 43,900 14,685 21,794 3,688 40,348 4,412 12,104 6,904 1,728	2007 800 800 528 308 53,314 17,400 78,743 96,543 193 442,713 200,578 29,179 4,000 8,000 29 517 79,21 73,857 77,21 186,152 2,778 22,049 22,049 45,147 15,387 22,049 45,147 15,385 42,180 4,600 4,	2008 800 800 528 308 64,934 20,252 92,231 112,483 686,319 686,319 686,319 69,619 226,597 30,660 4,000 31 547 1,027 78,081 183,490 83,698 196,691 3,970 983 24,095 24,095 24,095 23,981 3,974 43,712 4,	2009 800 500 578 308 71,623 22,833 105,428 129,2547 752,547 752,547 953,433 210 579,648 373,768 373,768 373,768 373,768 4,000 39 560 1,065 82,504 193,884 88,439 68,439 68,439 4,000 47,281 15,011 4,038 44,970 4,038 40,071 8,698 2,017	2010 800 800 528 308 78.373 25.564 121,372 146,937 811,469 1,036,778 217 649,305 387,474 244,255 25,934 4,000 8,000 35 610 1,140 86,672 203,879 92,907 218,332 1,051 300 21,247 0 45,552 16,156 25,636 4,179 45,971 4,987 13,791 9,217 2,092	2011 800 800 578 308 85,101 28,422 137,008 165,430 832,139 394,522 251,304 27,079 2,957 5,913 38 642 1,197 91,507 213,912 97,575 213,912 97,575 213,912 97,575 1,028 28,512 24,658 1,568 1	2012 800 800 528 308 90,188 31,416 153,367 184,763 902,839 1,177,820 227 785,463 412,417 269,198 26,828 28,797 39 616 1,257 95,517 224,605 102,452 240,769 3,595 1,027 27,286 4,119 15,562 4,119 45,525 4,119 45,525 4,119 45,525 4,119 45,525 4,119 45,525 4,119 45,525 4,119 43,538 10,295 2,177	973,507 1,273,751 231 842,220 431,532 288,313 27,783 2,865 5,729 40 711 1,320 160,331 235,779 107,549	1,056,667 1,383,131 236 935,264 447,868 304,649 29,025 2,851 5,702 42 747 1,385 105,300 247,455 112,875	1,501,238 242	2016 800 528 308 10,163 44,890 226,731 271,620 1,539,703 247 1,084,589 455,114 311,896 30,637 2,824 5,648 47 825 1,525 115,916 272,403 124,255 291,999 5,128 1,465 34,317 0 51,698 14,108 25,800 3,991 43,897 4,669 12,448 2,329	,258,710 ,669,845 ,252 ,202,186 ,487,659 ,324,441 ,30,813 ,2,811 ,5,621 ,49 ,868 1,599 11,582 285,719 130,329	1,810,872 257	1,472,993 1,948,319 262	800 800 528 308 130,416 61,108 314,622 375,730 1,574,196 2,080,342 247 1,593,292 487,050 343,832 -200	0 0 0 0 1,392,030 1,392,030 1,392,030 1,392,030 48,224 57,834 9,642
71 Net social benefit 72 EIRR 73 NSB as of 10% 74 NSB as of 15%	(mil Rp) (mil Rp) (mil Rp)			-42,994 24,7% 533,662 202,811	-45,872	-45,808	-38,421	10,701	17,535	29,632	45,534	57,743	78,238	99,544	121,364	123,035	136,803	144,535	161,624	179,156	193,479	209,877	197,708	209,421	218,922	224,721	284,718 (1,151,888

Feasibility Study at Bekasi

(Gas Demand) 1 Residential (1000m3)	1997 137	1998 1,152	1999 2,429	2000 2,666	2001 2,679	2002 2,693	2003 2,707	2004 2,721	2005 2,735	2006 2,755	2007 2,775	2008 2,797	2009 2,817	2010 2,838	2011 2,856	2012 2,874	2013 2,892	2014 2,910	2015 2,928	2016 2,944	2017 2,961	2018 2,978	2019 2,994	2020 3,011
1 Residential (1000m3)	107	1,102	2,415	2,000	2,0.0	2,777	2,,,,,	-,,-,	•	-,														•
(Number of Customers)	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007 7,740	2008 7,740	2009 7,740	2010 7,740	2011 7,740	2012 7,740	2013 7,740	2014 7,740	2015 7,740	2016 7,740	2017 7,740	2018 7,740	2019 7,740	2020 7,740
2 Residential	1,650	5,520	7,740	7,740	7,740	7,740	1,740	7,740	7,740	7,740	1,140	7.140	7,740	7.140	7,740	7,140	7,140	2.140	7,740	3,740	1,110	7,710		2,1.10
(Sales Volume per Customer)	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
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	0.33	0.38	0.39	0.39
(Investment Plan)	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
4 Transnission pipeline (km)	0.3 29.9	38.2													÷.				:					
5 Distribution pipeline (km) 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	63.1	68.1	68.1	68.1	68.1	68.1	68.1 1	68.1	68.1
7 Cumulative A governor (units) 8 Cumulative B governor (units)	1 2	1 6	1 8	1 8	1 8	1 8	1 8	1 8	1 8	1 8	8	8	8	. 8	1 8	. 8	8	8	8	. 8	: 8	8	8	8
9 SP/customer (1000Rp)	100	100	100	100	100	100	100	100 126																
10 HR*meter/customer (1000Rp) 11 Transmission pipeline (mil Rp)	126 814	126	126	126	126	126	126	120	120	120	120	120	120	120	720		120		120					
12 Distribution pipeline (mil Rp)	1,878 165	1,803 387	222	. 0			0	. 0	ń	0	o.	0	. 0	0	. 0	O	0	. 0	0	. 0	0	0	0	0
13 Total SP (mil Rp) 14 Total HR+meter (mil Rp)	208	488	280	ŏ	ŏ	ŏ	ŏ	ŏ	ŏ	Ŏ	ò	ō	ō	ó	0	0	0	0	0	. 0	.0	0	. 0	0
15 A governor (mil Rp) 16 B governor (mil Rp)	119 117	0 235	0 117	0	. 0	. 0	0	0	- 0	Ö	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	Ó	Ŏ	ō	0	0	0	0	0	0	0	0 6,833	0 6,833	0 6,833	0 6,833	0 6,833	6,833	6,833	6,833	0 6,833	0 6,833	6,833
18 Cumulative facility investment (mil Rp) 19 Depriciation (mil Rp)	3,302 413	6,214 725	6,833 712	6,833 623	6,833 545	6,833 477	6,833 . 417	6,833 365	6,833 320	6,833 280	6,833 245	6,833 214	6,833 187	164	143	125	110	96	84	74	64	56	49	43
20 Cumulative depreciation (mil Rp)	413	1,138 5,076	1,850 4,983	2,473 4,361	3.018 3.815	3,495 3,339	3,912 2,921	4,277 2,556	4,597 2,237	4.876 1.957	5,121 1,712	5,335 1,498	5,522 1,311	5.686 1.147	5,830 1,004	5,955 878	6,065 769	6,161 672	6,245 588	6,318 515	6,383 450	6,439 394	6,488 345	6,531 302
21 Net property (mil Rp) 22 Total investment(Case 3 and 4) (mil Rp)	2,889 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) 24 Depriciation (mil Rp)	1,424 178	2,533 294	3,152 335	3.152 293	3,152 256	3,152 224	3,152 196	3,152 172	3,152 150	3,152 132	3,152 115	3,152 101	3,152 88	3.152 77	3,152 67	3,152 59	3,152 52	3,152 45	3,152 40	3,152 35	3,152 30	3,152 26	3,152 23	3,152 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	2,447 705	2,535 617	2,613 540	2,680 472	2,739 413	2,791 352	2,835 316	2,875 277	2,910 242	2,940 212	2,967 185	2,990 162	3,010 142
26 Net property (mil Rp) 27 Total Investment of separate utility (mil Rp)	1,246 2,368	2,061	2,345 619	2,052 0	1,795 0	1,571 0	1,375 0	1,203	1,052 0	921 0	806 0	733	. 0	340	0	0	. 0	0	0	0	0	0	0	. 0
28 Cumulative facility investment (mil Rp)	2,368 296	5,281 623	5,900 623	5,900 545	5,900 477	5,900 417	5,900 365	5,900 319	5,900 279	5,900 244	5,900 214	5,900 187	5,900 164	5,900 143	5,900 125	5,900 110	5,900 96	5,900 84	5,900 74	5,900 64	5,900 56	5,900 49	5,900 43	5,900 38
30 Cumulative depreciation (mil Rp)	295	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	5,450 450	5,506 394	5,555 345	5,598 302	5,636 264
31 Net property (mit 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	343	302	204
(Imported Facilities in Dollar Term)	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
32 Total HR*meter (1000\$) 33 A governor (1000\$)	88 51	207	119	. 0	0	0	0	0	0	0	ŏ	ŏ	ŏ	ŏ	ŏ	ŏ	ŏ	ŏ	0	Ö	ŏ	ŏ	ŏ	ŏ
34 8 governor (1000\$) 35 Total (1000\$)	50 189	100 307	50 169	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)				- 1										***	***	8078	0010	A044	6015	2016	2017	2018	2019	2020
37 Administrative staff (except safety)(persons)	1997 1	1998	1999 1	2000	2001	2002	2003 1	2004	2005	2006 1	2007	2008 1	2009 1	2010 1	2011	2012 1	2013 1	2014	2015 1	- 1	-: 1	1	1	1020
38 Administrative workers (except safe(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) 40 Administrative workers (for safety) (persons)	ő	. 0	. 0	0	0	.0	. 0	Ŏ	ŏ	ŏ	ŏ	ŏ	. 0	ŏ	ŏ	į ŏ	, Ŏ,	Ŏ	ō	0	0	0	0	0
41 Sales (persons) 42 Meter reading (persons)	5	3	1	1 4	1 1	1	1 3	1 3	1 3	1 3	1 3	1 3	1 2	1 2	1 2	1 2	1 2	1 2	1 2	2	2	1 2		0
43 Collecting (persons)	2	5	į	6	6	6	š	5	. 5	4	4	- 1	. 4	3	3	3	3	3	3	2 2	2	2	2	2 2
44 Low pressure (safety) (persons) 45 Meter administration (persons)	4 2	9 2	8 2	8 2	7 2	7 2	6	6	5 2	5	5 2	. 4	2	2	3	2	3 2	3 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) 48 Blue collar (except safety) (persons)	1 10	1 13	14	13	1 13	13	11	: 11	11	10	10	10	9	8	. 8	8	8	8	8	· ,	7	i	6	5
49 White collar (for safety) (persons)	0	9	0	0 8	0	0	0	0 6	0 5	0	0	.0	. 0	0	0	. 0	0 3	0 3	0	0 2	2	. 2	0	0 2
50 Blue collar (for safety) (persons) 51 Salary per a white collar (separate i(1000Rp/)	50,842	-	50,842	50.842	50.842	50,812	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 Saraly per a blue collar (separate ut(1000Rp/) 53 Salary per a white collar (PGN) (1000Rp/)	9,829		9,829 76,262																					
54 Saraty per a blue collar (PGN) (1000Rp/)	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 salar/white, case 1 to 4) (mil Rp) 56 Total salar/tilue, case 1 to 4) (mil Rp)	76 206	76 324	76 324	76 310	76 295	76 295	76 251	76 251	76 236	76 221	76 221	76 206	76 192	. 76 177	76 162	76 162	76 162	76 162	76 147	76 133	76 133	76 133	76 118	76 103
57 Total salary(white, PGN, case 5) (mil Rp)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 44	0 44	0 29	0 29	0 29	0 29	0 29	0 29
58 Total salary(blue,PGN,case 5) (mil Rp) 59 Total salary(white, separate utility, (mil Rp)	59 51	133 51	118 51	118 51	103 51	103	88 51	88 51	74 51	74 51	74 51	59 51	59 51	59 51	44 51	44 51	51	51	51	51	51	51	51	51
60 Total salary(blue, separate utility, c (mil Rp)	98		138	128	128	128	108	108		98	98	98	88	79		79	79	79	79	69	69	69	59	49

(Social Benefit & Loss Analyses case 1 61 Social benefit for residential custor 62 Total social benefit from gas sales 63 Social loss for gas supplied 64 Total social loss from gas supplied 65 Gross social benefit 66 Total investment 67 LPG bottle repurchase 68 In house pipeline installation 69 Imported facilities (included) 70 Imported facilities (included) 71 Net social loss for facilities 72 Labor cost 73 Income tax (included) 74 Administrative expenses 75 Maintenance & other expenses 76 Value tax (included) 77 Net social benefit 78 EIRR 79 NSB as of 10% 80 NSB as of 15%	i(Rp/m3) (mil Rp) (Rp/m3)	1997 800 109 167 23 86 3,302 330 660 444 0 3,632 311 32 93 66 16 -3,967 11,4% 832 -1,513	1998 800 922 167 192 729 2,913 774 1,548 723 0 3,687 441 44 132 124 26 -3,585	1999 800 1,943 167 406 1,538 619 444 888 397 0 1,063 441 44 132 137 27 -164	2000 800 2,133 167 445 1,687 0 0 0 0 0 0 424 42 127 137 26 1,068	2001 800 2,143 167 447 1,696 0 0 0 0 0 408 41 122 137 26 1,095	2002 800 2,154 174 469 1,686 0 0 0 0 0 408 411 122 137 26 1,085	2003 800 2,165 178 482 1,684 0 0 0 0 0 0 0 360 37 108 137 24 1,140	2004 800 2,176 182 495 1,681 0 0 0 0 0 350 37 103 137 24 1,138	2005 800 2,188 186 509 1,679 0 0 0 0 0 0 343 35 103 137 24 1,155	2006 800 2,204 190 523 1,680 0 0 0 0 0 0 327 34 98 137 23 1,175	2007 800 2,220 193 536 1,685 0 0 0 0 0 327 34 98 137 23 1,180	2008 800 2,237 197 551 1,686 0 0 0 0 0 311 32 93 137 23 1,200	2009 800 2,254 210 592 1,662 0 0 0 0 0 295 31 88 137 23 1,196	2010 800 2,271 217 616 1,655 0 0 0 0 0 279 29 84 137 22 1,207	2011 800 2,285 222 634 1,651 0 0 0 0 0 262 23 79 137 22 1,222	2012 800 2,299 227 652 1,647 0 0 0 0 0 0 262 28 79 137 22 1,218	2013 800 2,313 231 668 1,645 0 0 0 0 262 28 79 137 22 1,217	2014 800 2,328 236 637 1,641 0 0 0 0 0 262 28 79 137 22 1,213	2015 800 2.342 242 709 1.634 0 0 0 0 246 266 74 137 21	2016 800 2,355 247 727 1,628 0 0 0 0 0 230 25 69 137 21	2017 800 2,368 252 746 1,622 0 0 0 0 0 230 25 69 137 21 1,232	2018 800 2,392 257 765 1,617 0 0 0 0 0 230 25 69 137 21 1,227	2019 800 2,395 262 784 1,611 0 0 0 0 0 214 23 64 137 20 1,240	2020 800 2,409 267 804 1,605 0 0 0 0 0 197 22 59 137 20 1,253
(Social Benefit & Loss Analyses case 5) 81 Gross social benefit 82 Total investment 83 LPG bottle repurchase 84 In house pipeline installation 85 Imported facilities (included) 86 Imported facilities (included) 86 Imported facilities for facilities 88 Labor cost 89 Income tax (included) 90 Administrative expenses 91 Maintenance & other expenses 92 Value tax (included) 93 Net social benefit 94 EIRR 95 NSB as of 10% 96 NSB as of 15%	(mil Rp)	1997 86 3,302 330 660 444 0 3,632 214 23 64 66 13 -3,853 19,37 -715	1998 729 2,913 774 1,548 723 0 3,687 325 34 97 124 22 -3,448	1999 1,538 619 444 888 397 0 1,063 318 33 95 137 23 -19	2000 1,687 0 0 0 0 0 0 308 32 93 137 23 1,205	2001 1,696 0 0 0 0 0 292 31 88 137 22 1,232	2002 1,686 0 0 0 0 0 0 292 31 88 137 22 1,222	2003 1,684 0 0 0 0 0 0 256 27 77 137 21 1,262	2004 1,681 0 0 0 0 0 256 27 77 137 21 1,260	2005 1,679 0 0 0 0 0 240 26 72 137 21	2006 1,680 0 0 0 0 0 230 25 69 137 21 1,290	2007 1,685 0 0 0 0 0 230 25 69 137 21 1,294	2008 1,686 0 0 0 0 0 214 23 64 137 20 1,315	2009 1,862 0 0 0 0 0 0 204 22 61 137 20 1,302	2010 1.655 0 0 0 0 0 194 21 58 137 19 1,306	2011 1,651 0 0 0 0 0 178 20 53 137 19	2012 1,647 0 0 0 0 0 178 20 53 137 19 1,317	2013 1.645 0 0 0 0 0 178 20 53 137 19 1.316	2014 1.641 0 0 0 0 0 0 178 20 53 137 19 1,312	2015 1,634 0 0 0 0 0 0 162 18 49 137 19	2016 1,628 0 0 0 0 0 152 17 46 137 18 1,330	2017 1,622 0 0 0 0 0 152 17 46 137 18	2018 1,617 0 0 0 0 0 152 17 46 137 18 1,318	2019 1,611 0 0 0 0 0 142 16 43 137 18 1,323	2020 1,605 0 0 0 0 0 132 15 40 137 18 1,329
Case 1:PGN operates, when gas sale (Financial Feasibility Analysis) 97 Gas sales 98 Gas material cost 99 Gross profit 100 Property tax 101 Labor cost 102 Administrative expenses 103 Maintenance & other expenses 104 Total investment 105 Before tax cash flow 106 IRR of before tax cash flow 107 NPV as of 10% 108 NPV as of 15%	(nit Rp) (nit Rp) (mit Rp)	1997 51 22 28 3 311 93 66 3,302 -3,746 #DIV/0! -7,824 -7,035	1998 426 193 233 5 441 132 124 2,913 -3,392	aîned the 1999 899 424 475 5 441 132 137 619 -859	2000 986 487 499 4 424 127 137 0	2001 991 514 477 4 408 122 137 0 -194	2002 996 536 460 3 408 122 137 0 -211	2003 1,001 553 449 3 360 108 137 0 -158	2004 1,007 568 439 3 360 100 137 0 -168	2005 1,012 579 432 2 343 103 137 0 -153	2006 1,019 594 425 2 327 98 137 0 -139	2007 1,027 609 418 2 327 98 137 0 -146	2008 1,035 625 410 1 311 93 137 0 -132	2009 1,042 540 403 1 295 88 137 0 -119	2010 1,050 654 396 1 279 84 137 0 -104	2011 1.057 663 394 1 262 79 137 0 -85	2012 1,063 681 382 1 262 79 137 0	2013 1,070 697 373 1 262 79 137 0 -106	2014 1,077 716 361 1 262 79 137 0 -118	2015 1,083 738 346 1 246 74 197 0	2016 1,089 757 333 1 230 69 137 0 -103	2017 1,095 776 320 0 230 69 137 0 -116	2018 1,102 795 307 0 230 69 137 0 -129	2019 1,108 814 293 0 214 64 137 0 -121	2020 1.114 834 280 0 197 59 137 0
(Down Side Sensitivity Analysis) 109 2% contingency sales Gross Profit 110 10% contingency total investment 111 Before tax cash flow 112 IRR of before tax cash flow 113 NPV as of 10% 114 NPV as of 15% (Financial Analyses with In House Insti 115 LPG bottle repurchase 116 In house pipeline installation	(mil Rp) (mil Rp) (mil Rp) (mil Rp)	1997 27 3.632 -4.078 #DIV/0! -8.566 -7.687 1997 330 660	1998 224 3,204 -3,682 1998 774 1,548	1999 457 681 -939 1999 444 888	2000 479 0 -213	2001 457 0 -214	2002 440 0 -231 2002 0 0	2003 429 0 -178	2004 419 0 -188	2005 412 0 -173	2006 405 0 -159 2006	2007 397 0 -166	2008 389 0 -153	2009 382 0 -139	2010 375 0 -125	2011 373 0 -106	2012 361 0 -118	2013 352 0 -127	2014 339 0 -139 2014 0	2015 324 0 -133	2016 311 0 -125 2016 0	2017 298 0 -138	2018 285 0 -151 2018	2019 271 0 -143 2019 0	2020 258 0 -136
117 Before tax cash flow 118 IRR of before tax cash flow 119 NPV as of 10% 120 NPV as of 15%	(mil Rp) (mil Rp) (mil Rp)	-4,076 #D(V/0! -9,097 -8,199	-4,156	-1,303	-194	-194	-211	-158	-168	-153	-139	-146	-132	-119	-104	-85	-96	-105	-118	-112	-103	-116	-129	-121	-114

(Down Side Sensitivity Analysis) 121 Before tax cash flow 122 IRR of before tax cash flow 123 NPV as of 104 124 NPV as of 154	(mil Rp) (mil Rp) (mil Rp)	1597 -4,408 #DIV/0! -9,840 -8,851	1998 -4,456	1999 -1,383	2000 213	2001 214	2002 -231	2003 -178	2004 -188	2005 -173	2006 -159	2007 -166	2008 -153	2009 -139	2010 -125	2011 -106	2012 -118	2013 -127	2014 -139	2015 -133	2016 ~125	2017 -138	2018 -151	2019 -143	2020 -136
Case 2.PGN operates when gas sale	es price of r	ecidential s	ector goe:	supto 80	ORp in ter	years.										•									
(Financial Feasibility Analysis) 125 Gas sales 126 Gas material cost 127 Gross profit 128 Property tax 129 Labor cost 130 Administrative expenses 131 Maintenance & other expenses 132 Total investment 133 Before tax cash flow 134 IRR of before tax cash flow 135 NPV as of 10% 136 NPV as of 15%	(mit Rp)	1997 51 22 28 3 311 93 66 3,302 -3,746 7,3% -1,722 -3,383	1998 476 193 282 5 441 132 124 2,913 -3,332	1999 1.108 424 684 5 441 132 137 619 -650	2000 1,330 487 843 4 424 127 137 0 150	2001 1,452 514 938 4 408 122 137 0 267	2002 1,575 536 1,039 3 408 122 137 0 368	2003 1,700 553 1,147 3 360 108 137 0 540	2004 1,826 568 1,258 3 360 108 137 0 651	2005 1,952 579 1,373 2 343 103 137 0 768	2006 2,085 594 1,491 2 327 98 137 0 928	2007 2,220 609 1,611 2 327 98 137 0 1,048	2008 2,237 . 625 1,613 1 311 93 137 0 1,070	2009 2,254 640 1,614 1 295 88 137 0 1,093	2010 2,271 654 1,616 1 279 84 137 0 1,117	2011 2,285 653 1,622 1 262 79 137 0 1,144	2012 2,299 681 1,618 1 262 79 137 0 1,139	2013 2,313 697 1,616 1 262 79 137 0 1,138	2014 2.328 716 1.612 1 262 79 137 0 1.134	2015 2,342 738 1,605 1 246 74 137 0 1,147	2016 2,355 757 1,599 1 230 69 137 0 1,163	2017 2 368 776 1 593 0 230 69 137 0 1,157	2018 2,382 795 1,587 0 230 69 137 0 1,151	2019 2,395 814 1,581 0 214 64 137 0 1,166	2020 2,409 834 1,575 0 197 59 137 0 1,181
(Down Side Sensitivity Analysis) 137 2% contingency sales Gross Profit 138 10% contingency total investment 139 Before tax cash flow 140 IRR of before tax cash flow 141 NPV as of 10% 142 NPV as of 15%		1997 27 3,632 -4,078 6.1% -2,586 -4,108	1998 273 3,204 -3,633	1999 662 681 -734	2000 816 0 124	2001 909 0 238	2002 1,007 0 337	2003 1,113 0 506	2004 1,221 0 614	2005 1,334 0 749	2006 1,450 0 886	2007 1,567 0 1,003	2008 1,568 0 1,025	2009 1,569 0 1,048	2010 1,571 0 1,071	2011 1,577 0 1,098	2012 1,572 0 1,094	2013 1,570 0 1,092	2014 1,565 0 1,087	2015 1,558 0 1,101	2016 1,552 0 1,116	2017 1,545 0 1,110	2018 1,539 0 1,104	2019 1,533 0 1,118	2020 1,527 0 1,133
(Financial Analyses with In House Inst 143 LPG bottle repurchase 144 In house pipeline installation 145 Before tax cash flow 146 IRR of before tax cash flow 147 NPV as of 10% 148 NPV as of 15%	(mil Rp) (mil Rp) (mil Rp) (mil Rp) (mil Rp) (mil Rp)	1997 330 660 -4,076 5,7% -2,995 -4,548	1998 774 1,548 -4,106	1999 444 888 -1,094	2000 0 0 150	2001 0 0 267	2002 0 0 368	2003 0 0 540	2004 0 0 651	2005 0 0 728	2006 0 0 928	2007 0 0 1,048	2008 0 0 1,070	2009 0 0 1,093	2010 0 0 1,117	2011 0 0 1,144	2012 0 0 1,139	2013 0 0 1,138	2014 0 0 1,134	2015	2016 0 0 1,163	2017 0 0 1.157	2018 0 0 1,151	2019 0 0 1,166	2020 0 0 1,181
(Down Side Sensitivity Analysis) 149 Before tax cash flow 150 IRR of before tax cash flow 151 NPV as of 10A 152 NPV as of 154	(mil Rp) (mil Rp) (mil Rp)	1997 -4,408 4.7% -3,859 -5,272	1998 -4,407	1999 -1,178	2000 124	2001 238	2002 337	2003 506	2004 614	2005 749	2006 886	2007 1,003	2008 1,025	2009 1,048	2010 1,071	2011 1,098	2012 1,094	2013 1,092	2014 1,087	2015 1,101	2016 1,116	2017 1,110	2018 1,104	2019 1,118	2020 1,133
Case 3 Residential distribution pipe (Financial Feasibility Analysis)	elines invest	ed by Gove	rament wi	en gas sa	iles price i	remained t	he same a	s now.				: :													
153 Gas sales 154 Gas material cost 155 Gross profit 156 Property tex 157 Labor cost 158 Administrative expenses 159 Maintenance & other expenses 160 Total investment 161 Before tax cash flow 162 IRR of before tax cash flow 163 NPV as of 10%	(mil Rp)	1997 51 22 28 1 1 311 93 66 1,424 -1,867 *DIV/0* -4,613 -4,028	1998 426 193 233 2 441 132 124 1,110 -1,576	1999 899 424 475 2 441 132 137 619 -856		2001 991 514 477 2 408 122 137 0 -192	2002 996 536 460 2 408 122 137 0 -209	1 360 108 137	2004 1,007 568 439 1 360 108 137 0 -167	2005 1,012 579 432 1 343 103 137 0 -152	2006 1,019 594 425 1 327 98 137 0 -138	2007 1,027 609 418 1 327 98 137 0 -145		2009 1,042 640 403 1 295 88 137 0 -118	2010 1,050 654 396 1 279 84 137 0 -103	2011 1,057 663 394 0 262 79 137 0 -84	2012 1,063 681 382 0 262 79 137 0 -96	2013 1,070 697 373 0 262 79 137 0 -105	2014 1,077 716 361 0 282 79 137 0 -117	2015 1,083 738 346 0 246 74 137 0 -111	2016 1,089 757 333 0 230 69 137 0 -103	2017 1,095 776 320 0 230 69 137 0 -116	2018 1,102 795 307 0 230 69 137 0 -129	2019 1,108 814 293 0 214 64 137 0 -121	2020 1,114 834 280 0 197 59 137 0 -113
(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
165.2% contingency sales Gross Prof 166.10% contingency total investmen 167.Before tax cash flow 168 IRR of before tax cash flow 169 NPV as of 10% 170 NPV as of 15%		27 1,566 -2,010 #DIV/0! -5,036 -4,380	224 1,220	- 457 - 681	479 0	457 0	440 0	0	419 0 -187	412 0 -172	405 0 -158	397 0 -166		382 0 -139	375 0 -124	373 0 -105	361 0 -117	352 0 -126	339 0 -139	324 0 -133	311 0 -125	298 0 -138	285 O -151	271 0 -143	258 0 -136
(Financial Analyses with In House In-	stallation)	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
171 LPG bottle repurchase 172 In houss pipeline installation 173 Before tax cash flow 174 IRR of before tax cash flow 175 NPV as of 10% 176 NPV as of 15%	(mil Rp) (mil Rp) (mil Rp) (rnil Rp) (mil Rp)	330 660 -2,197 #DIV/0! -5,886 -5,192		888	0	Ö	0 0 -209	0 0 -157	0	0 0 -152	0		0		0 0 -103	0 0 -84	0 0 -96	0 0 -105	0 0 -117	0 0 -111	0 -103	0 -116	- 129	-121	0 -113

(Down Side Sensitivity Analysis) 177 Before tax cash flow 178 IRR of before tax cash flow 179 NPV as of 10% 180 NPV as of 15%	(mit Rp) (mit Rp) (mit Rp)	1997 -2,340 *DIV/0! -6,309 -5,544	1998 -2,469	1999 -1,380	2000 -211	2001 212	2002 -229	2003 -177	2004 -187	2005 -172	2006 -158	2007 -166	2008 -152	2009 -139	2010 -124	2011 -105	2012 -117	2013 -126	2014 -139	2015 -133	2016 -125	2017 -138	2018 -151	2019 -143	2020 -136
Case 4:Residential distribution pip (Financial Feasibility Analysis) 181 Gas sales 182 Gas material cost 183 Gross profit 184 Property tax 185 Labor cost 185 Administrative expenses 187 Maintenance & other expenses 188 Total investment 189 Before tax cash flow 190 IRR of before tax cash flow 191 NPV as of 10% 192 NPV as of 15%	(mil Rp)	1997 51 22 28 1 311 93 66 1.424 -1.867 1.489 -376	1998 476 193 282 2 441 132 124 1,110 -1,526	1999 1,108 424 684 2 441 132 137 619 -647	2000 1,330 497 843 2 424 127 137 0 153	2001 1,452 514 938 2 408 122 137 0 269	2002 1.575 536 1.039 2 408 122 137 0 370	2003 1,700 553 1,147 1 360 108 137 0 542	800Rp in 2004 1,826 563 1,258 1 360 108 137 0 652	2005 1,952 579 1,373 1 343 103 137 0 789	2006 2,085 594 1,491 1 327 98 137 0 929	2007 2,220 609 1,611 1 327 98 137 0 1,049	2008 2,237 625 1,613 1 311 93 137 0	2009 2.254 640 1.614 1 295 88 137 0 1.094	2010 2.271 654 1.616 1 279 84 137 0 1,117	2011 2,285 663 1,622 0 262 79 137 0 1,144	2012 2,299 681 1,618 0 262 79 137 0 1,140	2013 2,313 697 1,616 0 262 79 137 0 1,138	2014 2.328 716 1.612 0 262 79 137 0 1.134	2015 2,342 738 1,605 0 246 74 137 0 1,148	2016 2,355 757 1,599 0 230 69 137 0 1,163	2017 2,368 776 1,593 0 230 69 137 0 1,157	2018 2,382 795 1,587 0 230 69 137 0 1,151	2019 2,395 814 1,581 0 214 64 137 0 1,166	2020 2,409 834 1,575 0 197 59 137 0 1,181
(Down Side Sensitivity Analysis) 193.2% contingency sales Gross Pro 194.10% contingency total investment 195.8efore tax cash flow 196.IRR of before tax cash flow 197.NPV as of 10% 198.NPV as of 15%	fit (mil Rp) nt (mil Rp) (mil Rp) (mil Rp) (nil Rp)	1997 27 1,566 -2,010 12,2% 945 -801	1998 273 1,220 -1,647	1999 662 681 -731	2000 816 0 126	2001 909 0 240	2002 1,007 0 338	2003 1,113 0 508	2004 1,221 0 616	2005 1,334 0 750	2006 1,450 0 887	2007 1,567 0 1,004	2008 1.568 0 1.026	2009 1,569 0 1,049	2010 1,571 0 1,072	2011 1.577 0 1.098	2012 1,572 0 1,094	2013 1,570 0 1,092	2014 1,565 0 1,087	2015 1,553 0 1,101	2016 1,552 0 1,116	2017 1,545 0 1,110	2018 1,539 0 1,104	2019 1,533 0 1,118	2020 1,527 0 1,133
(Financial Analyses with In House In 199 LPG bottle repurchase 200 in house pipeline installation 201 Before tax cash flow 202 IRR of before tax cash flow 203 NPV as of 10% 204 NPV as of 15%	(mil Rp) (mil Rp) (mil Rp) (mil Rp) (mil Rp) (mil Rp)	1997 330 660 -2,197 10.4% 216 -1,540	1938 774 1,548 -2,300	1999 444 888 -1,091	2000 0 0 153	2001 0 0 269	2002 0 0 370	2003 0 0 542	2004 0 0 652	2005 0 0 789	2006 0 0 929	2007 0 0 1,049	2008 0 0 1,071	2009 0 0 1,094	2010 0 0 1,117	2011 0 0 5,144	2012 0 0 1,140	2013 0 0 1,138	2014 0 0 1,134	2015 0 0 1,148	2016 0 0 1,163	2017 0 0 1,157	2018 0 0 1,151	2019 0 0 1,166	2020 0 0 1,181
(Down Side Sensitivity Analysis) 205 Before tax cash flow 206 IRR of before tax cash flow 207 NPV as of 10% 208 NPV as of 15%	(mil Rp) (mil Rp) (mil Rp)	1997 -2,340 9,4% -329 -1,965	1998 -2,421	1999 -1,175	2000 126	2001 240	2002 338	2003 508	2004 616	2005 750	2006 887	2007 1,004	2008 1,026	2009 1,049	2010 1,072	2011 1,098	2012 1,094	2013 1,092	2014 1,087	2015 1,101	2016 1,116	2017 1,119	2018 1,104	2019 1,118	2020 1,133
Case 5: Separate utility Entity (Financial Feasibility Analysis) 209 Gas sales 210 Gas material cost 211 Gross profit 212 Property tax 213 Labor cost 214 Administrative expenses 215 Maintenance & other expenses 216 Total investment 217 Before tax cash flow 218 IRR of before tax cash flow 219 NPV as of 10% 220 NPV as of 15%	(mil Rp)	1997 109 45 64 2 149 45 47 2,368 -2,548 14.5% 1,971	380 541 4 179 54 106 2,913 -2,713	802 1,142 4 188 57 118 619	880 1,253 4 179 54 118	3 179 54 118 0	2002 2,154 889 1,266 3 179 54 118 0 912	2003 2,165 893 1,272 3 159 48 118 0 945		902 1,285 2 159 48 118	2006 2.204 909 1.295 2 149 45 118 0 981	2007 2,220 916 1,305 1 149 45 118 0 591	2008 2,237 923 1,314 1 149 45 118 0	2009 2,254 930 1,324 1 139 42 118 0	2010 2.271 937 1.334 1 129 39 118 0 1.047	2011 2,285 943 1,342 1 129 39 118 0	2012 2,299 948 1,351 1 129 39 118 0	2013 2,313 954 1,359 1 129 39 118 0 1,072	2014 2,328 960 1,367 1 129 39 118 0 1,081		2016 2,355 972 1,384 0 120 36 118 0	118	2018 2,382 983 1,399 0 120 36 118 0	2019 2,395 988 1,407 0 110 33 118 0 1,146	2020 2,409 994 1,415 0 100 30 118 0 1,167
(Down Side Sensitivity Analysis) 221 2% contingency sales Gross Pr 222 10% contingency total investma 223 Before tax cash flow 224 IRR of before tax cash flow 225 NPV as of 10% 226 NPV as of 15%	ofit (mil Rp) ent (mil Rp) (mil Rp) (mil Rp) (mil Rp)	1997 62 2,605 -2,787 12.4% 1,134 -829	3,204 -3,023	681	. 0	0		2003 1,229 0 902	0	. 0	2006 1,251 0 937		0	. 0		2011 1,297 0 1,009	2012 1,305 0 1,018	2013 1,313 0 1,026	: 0	0	0		2018 1,352 0 1,078	2019 1,359 0 1,098	2020 1,367 0 1,119

	(Financial Analyses with In House Insti 227 LPG bottle repurchase 228 In house pipeline installation 229 Before tax cash flow 230 IRR of before tax cash flow	alfation) (mil Rp) (mil Rp) (mil Rp)	1997 330 660 -2,878 11.4%	1998 774 1,548 -3,487	1999 444 888 -289	2000 0 0 899	2001 0 0 905	2002 0 0 912	2003 0 0 945	2004 0 0 952	2005 0 0 959	2006 0 0 981	2007 0 0 991	2008 0 0 1,001	2009 0 0 1,024	2010 0 0 1,047	2011 0 0 1,055	2012 0 0 1,064	2013 0 0 1,072	2014 0 0 1,081	2015 0 0 1,089	2016 0 0 1,110	2017 0 0 1,118	2018 0 0 1,126	2019 0 0 1,146	2020 0 0 1,167	
	231 NPV as of 10% 232 NPV as of 15%	(mil Rp) (mil Rp)	698 -1,302																								
	(Down Side Sensitivity Analysis)		1997	1998	1999	2000	2001	2002	2003	2004	2005 915	2006 937	2007 947	2008 956	2009 979	2010 1,001	2011	2012 1,018	2013 1,026	2014	2015 1,042	2016 1,063	2017	2018 1,078	2019 1,098	2020	
	233 Before tax cash flow 234 IRR of before tax cash flow 235 NPV as of 104 236 NPV as of 154	(mil Rp) (mil Rp) (mil Rp)	-3,117 9.7% -140 -1,933	-3,797	-390	856	863	869	902	908	\$13	501	347	300	373	1,001	,,,,,,	3,010	,,,,,,	1,001			7,444	·•···	-		
	(Profit & Loss Account of Separate Ut	Ulity)	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 238 Gas material cost 239 Gross profit 240 Depriciation 241 Labor cost 242 Administrative expenses 243 Maintenance & other expenses 244 Property tax	(mil Rp) (mil Rp) (mil Rp) (mil Rp) (mil Rp) (mil Rp) (mil Rp) (mil Rp)	109 45 64 296 149 45 47	922 380 541 623 179 54 106	1,943 802 1,142 623 188 57 118	2,133 880 1,253 545 179 54 118	2,143 884 1,259 477 179 54 118	2,154 889 1,256 417 179 54 118	2.165 893 1,272 365 159 48 118	2,176 898 1,279 319 159 48 118	2,188 902 1,285 279 159 48 118	2,204 909 1,295 244 149 45 118	2,220 916 1,305 214 149 45 118	2,237 923 1,314 187 149 45 118	2,254 930 1,324 164 139 42 118	2,271 937 1,334 143 129 39 118	2,285 943 1,342 125 129 39 118	2,299 948 1,351 110 129 39 118	2,313 954 1,359 96 129 39 118	2,328 960 1,367 84 129 39 118	2,342 966 1,376 74 129 39 118	2,355 972 1,384 64 120 36 118	2,368 977 1,391 56 120 36 118	2,382 983 1,399 49 120 36 118	2.395 988 1,407 43 110 33 118 0	2,409 994 1,415 38 100 30 118 0	
	245 Interest income 246 Interest expenses 247 Income before income taxes 248 Income taxes 249 Net income	(mil Rp) (mil Rp) (mil Rp) (mil Rp) (mil Rp)	50 300 -936 0 -936	25 370 -1,110 0 -1,110	0 473 -649 0 -649	0 524 -490 0 -490	0 517 -386 0 -386	0 507 -310 0 -310	0 492 -173 0 -173	0 452 -80 -366 285	0 433 7 2 5	0 454 51 15 36	0 455 91 27 63	0 483 121 36 85	0 516 142 43 100	0 550 160 48 112	590 167 50 117	0 638 144 43 101	0 688 115 35 81	0 747 76 23 54	0 815 49 15 34	0 886 16 5	961 -43 -13 -30	0 1,041 -108 -32 -75	1,126 -158 -47 -110	1,214 -212 -64 -148	
	(Cash Flow Statement of Separate Ut (Cash out)	ility)	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	
:	250 Investment 251 Cash or Short term Debt 252 Total	(mil Rp) (mil Rp) (mil Rp)	2,368 992 3,360	2,913 -2,400 513	619 -646 -27	0 -373 -373	0 -338 -338	0 -322 -322	-236 -236	0 176 176	0 -644 -644	-649 -649	0 -223 -223	-328 -328	0 -337 -337	0 -345 -345	-458 -458	-490 -490	-523 -523	-652 -662	-692 -692	-724 -724	0 -774 -774	-826 -826	-867 -867	-911 -911	٠.
	(Cash In) 253 Net income 254 Dividend	(mit Rp) (mit Rp)	-936	-1,110	-649	-490	-386	-310	-173	285	-500	36 -500	63 -500	. 85 -600	100 -600	112 -600	117 -700	101 -700 110	81 -700 98	: 54 -800 84	34 -800 74	11 -800 64	-30 -800 56	-75 -800 49	-110 -800 43	-148 -800 38	
- 1	255 Depriciation 256 Equity 257 Long term (Financing)	(mil Rp) (mil Rp) (mil Rp)	296 1000 3000	623 1000	623	545	417	417	365	319	279	244	214	187	164	143	125	110	30								
	258 (Princple repayment) 259 Total	(mit Rp) (mit Rp)	3,360	513	-21	-429 -373	-429 -338	-429 -322	-429 -236	-429 176	-429 -644	-429 -649	-223	-328	-337	-345	-458	-490	-523	-662	-692	-724	-774	-826	~867	-911	
	(Balance Sheet of Separate Utility) (Assets)		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	
	260 Cash 261 Facilities 262 Total	(mil Rp) (mil Rp) (mil Rp)	992 2,072 3,064	4,362 4,362	4,358 4,358	3,814 3,814	0 3,337 3,337	2,920 2,920	2,555 2,555	2,235 2,235	0 1,956 1,956	1,711 1,711	0 1,498 1,498	1,310	1,147 1,147	1,003 1,003	878 878	768 768	672 672	588 588	515 515	450 450	394 394	345 345	302 302	264 264	
	(Liabilities and Equity) 263 long term debt 264 Short term debt	(mil Rp) (mil Rp)	3,000	3,000 1,408	3,000 2,054	2,571 2,427	2,143 2,765	1,714 3,087	1,286 3,323	857 3,147	429 3,792	0 4,440	4,663	0 4,991	0 5,328	0 5,673	0 6,130	0 6.620	0 7,143	0 ² 7,806	0 8,498	9,222	9,936	0 10,822	0 11.690	0 12,600	
	265 Equity 266 Total	(mil Rp) (mil Rp)	64 3,064	-46 4,362	-695 4,358	-1,185 3,814	-1,571 3,337	-1,882 2,920	-2,054 2,555	-1,769 2,235	-2,264 1,956	-2,729 1,711	-3,165 1,498	-3,681 1,310	-4,181 1,147	-4,669 1,003	-5,253 878	-5,852 768	-6.471 672	-7,218 588	-7.983 515	-8,772 450	-9,602 394	-10,478 345	-11.388 302	-12,336 264	
	267 Equity/Total Investment 268 Equity Cash Flow 269 IRR of Equity Investment	(mil Rp)	33.9% -1000 12.4%	-1000	0	0	0	0	0	. 0	500	500	500	600	600	600	700	700	700	800	800	800	800	800	800	800	
	(Financial feasibility of PGN in Separa	ate Utility Cas	ie) 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 271 Gas material cost 272 Gas material cost 273 Gross profit	(mil Rp) (Rp/m3) (mil Rp) (mil Rp)	45 162 22 23	380 168 193 187	802 174 424 378	880 183 487 393	884 192 514 370	889 199 536 352	893 204 553 340	898 209 568 330	902 212 579 323	909 216 594 315	916 219 609 307	923 223 625 298	930 227 640 290	937 230 654 282	943 232 663 280	948 237 681 267	954 241 697 257	960 246 716 244	966 252 738 228	972 257 757 215	977 262 776 201	933 267 795 188	988 272 814 174	994 277 834 160	
	274 Property tax 275 Labor cost 276 Administrative expenses	(mit Rp) (mit Rp) (mit Rp)	1 65 19	1 146 44	1 130 39			0 114 34	0 97 29	0 97 29	0 81 24	0 81 24	0 81 24	65 19	0 65 19	65 19	0 49 15	0 49 15	0 49 15	0 49 15	0 32 10	0 32 10	0 32 10	0 32 10	0 32 10	0 32 10	
	277 Maintenance & other expenses 278 Investment	(mil Rp) (mil Rp)	19 933	19 0 -22	19 0	19 0	19 0	19 0 185	. 19 0 195	19 0 184	19 0 199	19 0 191	19 0 182	19 0 195	19 0 187	19 0 179	19 0	19 0 185	19 0 175	19 0 162	19 0 167	19 0 154	19 0 140	19 0 127	19 0 113	19 0 99	
\$ 1 1	279 Net cash flow 280 IRR of the cash flow 281 NPV as of 10% 282 NPV as of 15%	(mil Rp) (mil Rp) (mil Rp)	-1,014 15.2% 403 9		190	200	<i>2</i> W	163	150		133	191	102	133	107	1,3					· - •						
	EAT 111 A GO OF IA3	(cine 1.h)	J																							. :	

Feasibilit	ty Study at BSD	Case:A	ir Cond	itioning	Demar	id 100%	Devel	opment																		
(Gas Demand	• • •		4047	1000	14050	****	``	****	0000	4004	8006	2008	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
3 4 Gas dem	ci (cooking) (AC) sand Total	(1000m3) (1000m3) 100% (1000m3) (1000m3) (1000m3)	1997 0 0 0 0	1998 126 921 6,747 7,795 6,747	1959 679 1,286 7,672 9,636 7,672	2000 1,800 2,670 17,977 22,447 17,977	2001 2,665 2,958 20,569 26,192 20,569	2002 3,939 3,245 23,233 30,417 23,233	2003 4,836 3,571 26,137 34,544 26,137	2004 4,836 3,968 29,764 38,568 29,764	2005 4,932 4,273 32,337 41,542 32,337	2006 5,028 4,483 34,308 43,819 34,308	5.028 4.594 35.284 44,906 35,284	5.028 4.912 37,573 47,513 37,573	5,028 5,159 39,137 49,324 39,137	5,028 5,561 41,833 52,421 41,833	5.028 5,869 43,938 54,835 43,938	5,028 6,178 46,043 57,248 46,043	5,028 6,486 48,147 59,662 48,147	5,028 6,795 50,252 62,075 50,252	5.028 6.908 53.678 65,615 53,678	5,028 6,908 56,382 68,319 55,382	5.028 6.908 59.087 71.023 59.087	5,028 6,908 59,087 71,023 59,087	5,028 6,908 59,087 71,023 59,087	5,028 6,908 59,087 71,023 59,087
(Number of C	and with 100% contingency Austomers)	(1000110)	J		7,072														•					***		
6 Resident 7 Commerce 8 9 Gas dem	ci (cooking) (AC)	(units) (units) (units) (units)	1997 0 0 0	1998 212 13 7 232	1999 1,142 17 8 1,166	2000 4,017 46 22 4,084	2001 6,431 53 25 6,509	9,757 60 28 9,845	2003 12,269 69 33 12,371	2004 12,269 79 38 12,386	2005 12,431 91 43 12,565	2006 12,592 95 46 12,733	2007 12,592 99 47 12,739	2008 12,592 118 55 12,766	2009 12,592 136 63 12,791	2010 12,592 161 73 12,826	2011 12,592 179 80 12,851	2012 12,592 197 88 12,876	2013 12,592 214 95 12,901	2014 12,592 232 103 12,927	2015 12,592 240 108 12,941	2016 12,592 240 110 12,943	2017 12.592 240 112 12,945	2018 12,592 240 112 12,945	2019 12,592 240 112 12,945	2020 12,592 240 112 12,945
(Sales Volume	e per Customer)		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
10 Resident 11 Commen 12 13 Gas dem	ci (cocking) (AC)	(1000m3) (1000m3) (1000m3) (1000m3)	0 0	0.59 69.62 945.74 33.54	0.59 76.24 976.88 8.26	0.45 57.54 833.41 5.50	0.41 55.85 823.72 4.02	0.40 54.52 818.93 3.09	0.39 51.81 794.09 2.79	0.39 50.21 783.71 3.11	0.40 47.06 747.08 3.31	0.40 46.95 750.34 3.44	0.40 46.32 743.65 3.53	0.40 41.57 678.99 3.72	0.40 37.81 624.16 3.86	0.40 34.52 573.92 4.09	0.40 32.82 547.18 4.27	0.40 31.43 524.96 4.45	0.40 30.27 506.20 4.62	0.40 29.29 490.15 4.80	0.40 28.73 496.58 5.07	0.40 28.73 511.26 5.28	0.40 28.73 525.37 5.49	0.40 28.73 525.37 5.49	0.40 28.73 525.37 5.49	0.40 28.73 525.37 5.49
(Investment F	Plan)	.:	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
15 Cumulati 16 Cumulati 17 Cumulati 18 Cumulati 19 Cumulati	ive A governor ive B governor Main pipeline (10bar)) (km) h (km) (units) (units) (units) (units) (mit Rp)	1.6 4.7 22.8 0 1 1 223	4.1 11.6 22.8 0 1	4.1 11.6 22.8 0 1 5	4.1 11.5 22.8 0 1 7	4.1 14.7 151.2 1 2 10	4.1 14.7 151.2 1 2	4.1 14.7 151.2 1 2 13	4.1 14.7 151.2 1 2 13	4.1 14.7 151.2 1 2	4.1 14.7 151.2 1 2 13	4.1 14.7 151.2 1 2 13	4.1 .14.7 151.2 2 2 13	4.1 20.5 151.2 2 2 13	4.1 20.5 151.2 2 2 13	4.1 20.5 151.2 2 2 2 13	4.1 20.5 151.2 2 2 13	4.1 20.5 151.2 2 2 13	4.1 20.5 151.2 2 2 13	4.1 20.5 151.2 2 2 13	4.1 20.5 151.2 2 2 13	4,1 20.5 151.2 3 2 13	4.1 20.5 151.2 3 2 13	4.1 20.5 151.2 3 2 13	4.1 20.5 151.2 3 2
21 22 23 Phase 2 24 25 26 Phase 3 27	Main pipeline (1bar) Distribution pipeline Main pipeline Distribution pipeline	(mil Rp) (mil Rp) (mil Rp) (mil Rp) (mil Rp) (mil Rp) (mil Rp)	779 1,351	460 1,250 0			423 7,608		:						978											
29 30 Resident 31 Resident 32 Commer 33 Commer 34 Commer 35 Commer	Main pipeline Distribution pipeline tial SP tial HR*meter rotal SP (cooking) rotal HR*meter (cooking) rotal SP valve rotal SP (AC) rotal meter (AC)	(mil Rp)	21 27 5 45 5 9	93 117 1 12 1 1 8	288 362 11 100 10 17 155	241 304 2 22 2 4 39	333 419 2 22 22 4 38	251 317 3 32 3 6 51	0 4 34 4 6 57	16 20 4 40 4 7	16 20 2 16 2 3	0 0 1 13 1 2 20	0 0 7 65 6 10 89	0 0 7 62 5 9	0 0 9 84 7 13	0 0 6 60 5 9	0 0 6 60 5 9	0 0 6 60 5 9	0 6 60 5 9	0 0 3 29 4 7	0 0 0 0 2 3 25	0 0 0 0 2 3	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 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 Cumulat 42 Depriola 43 Cumurat	nor	(mil Rp)	0 119 59 2,723 2,723 340 340 2,383	0 59 2,002 4,725 548 889 3,837	0 0 176 1,120 5,845 620 1,508 4,337	0 0 117 733 6,578 634 2,142 4,436	564 119 176 9,712 16,290 1,768 3,910 12,379	0 176 840 17,129 1,652 5,563 11,567	0 0 105 17,235 1,459 7,022 10,213	0 0 151 17,386 1,296 8,317 9,069	0 0 87 17,473 1,144 9,462 8,011	0 0 37 17,510 1,006 10,468 7,042	0 0 176 17,686 902 11,370 6,316	564 0 0 731 18,417 881 12,251 6,166	0 0 1,206 19,623 922 13,172 6,451	0 0 165 19,788 827 13,999 5,789	0 0 165 19,953 744 14,744 5,210	0 0 165 20,119 672 15,415 4,703	0 0 165 20,284 609 16,024 4,260	0 0 106 20,390 546 16,570 3,820	0 0 29 20,419 481 17,051 3,368	0 0 29 20,448 425 17,476 2,972	564 0 0 564 21,012 442 17,918 3,094	0 0 0 21,012 387 18,304 2,708	0 0 0 21,012 338 18,643 2,369	0 0 0 21,012 296 18,939 2,073
46 Cumulat 47 Depricia 48 Cumulat	vestment (Case 3 and 4) tive investment (Case 3 and 4) ition (Case 3 and 4) tive depriciation (Case 3 and perty (Case 3 and 4)	(mil Rp)	1,372 1,372 172 172 1,201	2,002 3,374 400 572 2,802	1,120 4,494 490 1,062 3,432	733 5,227 521 1,583 3,644	2,104 7,331 718 2,301 5,029	840 8,170 734 3,035 5,135	105 8,276 655 3,690 4,586	151 8,427 592 4,282 4,145	87 8,514 529 4,811 3,703	37 8,551 467 5,278 3,272	176 8,727 431 5,710 3,017	731 9,458 469 6,178 3,280	1,206 10,664 561 6,739 3,925	165 10,829 511 7,250 3,579	165 10,994 458 7,718 3,276	165 11,160 430 8,148 3,011	165 11,325 397 8,545 2,780	106 11,431 361 8,906 2,525	29 11,460 319 9,225 2,235	29 11,489 283 9,508 1,981	564 12,053 318 9,826 2,227	0 12,053 278 10,105 1,948	0 12,053 244 10,348 1,705	0 12,053 213 10,561 1,492
51 Cumulat 52 Depriola 53 Cumulat	vestment of separate utility tive investment of separate u ition of separate utility tive depriciation of separate o perty of separate utility	(mil Rp)	2,381 2,381 298 298 2,084	1.542 3.923 453 751 3,172	1,120 5,043 537 1,287 3,756	733 5,776 561 1,848 3,928	9,029 14,805 1,620 3,468 11,337	840 15,644 1,522 4,990 10,654	105 15,750 1,345 6,335 9,415	151 15,901 1,196 7,531 8,370	87 15,988 1,057 8,588 7,400	37 16,025 930 9,518 6,507	176 16,201 835 10,353 5,848	167 16,368 752 11,105 5,263	1,206 17,574 809 11,913 5,661	165 17,739 728 12,642 5,098	165 17,905 658 13,300 4,605	165 18,070 596 13,896 4,174	165 18,235 542 14,438 3,797	106 18,341 488 14,926 3,415	29 18,370 430 15,357 3,013	29 18,399 380 15,737 2,662	0 18,399 333 16,070 2,329	0 18,399 291 16,361 2,038	0 18.399 255 16,616 1,783	0 18,399 223 16,839 1,561
55 Residen 56 Commer 57 Commer 58 Commer 59 Offtaker 60 A govern 61 B govern 62 Turbo of	nor nor hiller (deducted)	(1000\$) (1000\$) (1000\$) (1000\$) (1000\$) (1000\$) (1000\$)	1997 11 19 2 34 0 51 25 7,216 7,735	1998 50 5 0 3 0 0 25 727 719	1999 154 43 4 66 0 0 75 13,874 14,872	2000 129 9 1 16 0 0 50 3,440 3,688	2001 178 9 1 16 240 51 75 3,437 3,685	2002 135 14 1 22 0 0 75 4,597 4,927	2003 0 15 2 24 9 0 0 5,123 5,492	2004 9 17 2 26 0 0 0 5,366 5,752	2005 9 7 1 12 0 0 0 2,468 2,645	2006 0 5 1 8 0 0 0 1,744 1,869	2007 0 27 2 38 0 0 0 7,979 8,553	2008 0 26 2 36 240 0 0 7,452 7,988	2009 0 36 3 49 0 0 0 10,304 11,045	2010 0 26 2 36 0 0 0 7,494 8,003	2011 0 26 2 36 0 0 0 7,494 8,033	2012 0 26 2 36 0 0 0 7,494 8,033	2013 0 26 2 36 0 0 7,494 8,033	2014 0 12 2 27 0 0 0 5.635 6.041	2015 0 0 1 11 0 0 0 2.211 2.370	2016 0 0 1 11 0 0 0 2,211 2,370	2017 0 0 0 0 240 0	2018	2019	2020
63 Absorpti 64 Total 65 Exchang		(10003) (10003) (Rp/\$)	662 2,350	136	1,340 2,350	454 2,350	818	577 2,350	409 2,350	439 2,350	205 2,350	140 2,350	642 2,350	840 2,350	829 2,350	603 2,350	603 2,350	603 2,350	603 2,350	446 2,350	170 2,350	170 2,350	240 2,350	2,350	2,350	0 2,350

(Number of Workers)																•								
66 Administrative staff (Except Safety) 67 Administrative workers (Except Safety) 68 Administrative workers (for Safety) 69 Administrative workers (for Safety) 70 Safes 71 Meter reading (person 72 Collecting (person 72 Collecting (person 74 Low pressure (Safety) (person 74 Low pressure (Safety) (person 75 Meter administration (person 76 Total (person 76 Total (person 78 Blue collar (except safety) (person 79 White collar (for safety) (person 79 White collar (for safety) (person 79 Safety) (person 79 White collar (for safety) (person 79 Saf	3 3 2 2 3 4 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	9 2 32 2 13 2 15 50,842 9,829 76,262	1999 4 9 1 2 9 1 2 2 8 7 45 4 28 1 12 50,842 9,829 76,262	2000 5 10 1 1 7 3 4 1 8 10 50 5 34 1 10 50 5 34 1 10 50 5 34 1 10 10 10 10 10 10 10 10 10	2001 6 11 8 14 9 4 6 2 50 13 123 6 43 8 66 50.842 9.829 76.262 14,744	2002 6 10 7 11 7 5 8 2 47 15 118 6 45 7 60 50,842 9,829 76,262 14,744	2003 5 8 6 9 1 6 9 1 44 103 5 38 6 54 50,842 9,829 76,262 14,744	2004 4 6 5 7 1 5 8 1 41 14 92 4 34 5 49 50.842 9.829 76.262 14,744	2005 4 6 5 6 1 5 8 1 38 13 87 4 33 5 45 50.842 9.829 76.262 14,744	2006 4 6 4 5 1 5 7 1 35 12 80 4 31 4 41 50,842 9,829 76,262 14,744	2007 3 4 3 3 1 5 7 1 3 3 11 71 3 28 3 3 7 5 5,842 9,829 76,262 14,744	2008 3 4 3 3 1 4 7 1 31 11 68 3 27 3 35 50,842 9,829 76,262 14,744	2009 3 4 2 2 1 4 6 1 29 10 62 3 25 2 3 25 2 9,829 76,262 14,744	2010 2 2 2 2 1 1 4 6 1 27 9 55 2 22 2 29 50.842 9.829 76.262 14.744	2011 2 2 2 2 1 1 4 4 5 1 25 9 52 2 2 21 27 50.842 9.829 76.262 14,744	2012 2 2 1 0 1 3 5 1 23 8 46 2 19 1 24 50,842 9,829 76,262 14,744	2013 2 2 1 0 1 3 5 1 22 8 45 2 19 1 23 50,842 9,829 76,262 14,744	2014 2 2 1 0 1 3 5 1 20 7 42 2 18 1 21 50,842 9,829 76,262 14,744	2015 1 1 1 0 1 3 4 1 1 19 7 38 1 16 1 20 50,842 9,829 76,252 14,744	2016 1 1 0 1 3 4 1 17 6 35 1 15 1 18 50,842 9,829 76,262 14,744	2017 1 1 0 0 1 3 4 0 16 6 32 1 15 0 16 50.842 9,829 76.262 14,744	2018 1 0 0 1 2 4 0 15 6 30 1 14 0 15 50,842 9,829 76,262 14,744	2019 1 1 0 0 1 2 3 0 14 5 27 1 12 0 14 50,842 9,829 76,262 14,744	2020 1 1 0 0 0 2 2 3 0 13 1 21 1 7 0 13 50.842 9.829 76.262 14.744
85 Total salary(White, case 1 to 4) (mit Rp 86 Total salary(blue, case 1 to 4) (mit Rp 87 Total salary of separate utility(white, case (mit Rp 88 Total salary of separate utility(blue, case 5 (mit Rp 89 Total salary of PGN(white, case 1) (mit Rp 90 Total salary of PGN(blue, case 1) (mit Rp	280 51 49 153	413 102 128 153	381 590 203 275 76 177	458 649 254 334 76 147	1,068 1,607 305 423 610 973	991 1,548 305 442 534 885	839 1,356 254 374 458 796	686 1,224 203 334 381 722	686 1,150 203 324 381 663	610 1,062 203 305 305 604	458 958 153 275 229 546	458 914 153 265 229 516	381 840 153 246 153 472	305 752 102 216 153 428	305 708 102 206 153 398	229 634 102 187 76 354	229 619 102 187 76 339	229 575 102 177 76 310	153 531 51 157 76 295	153 487 51 147 76 265	76 457 51 147 0 236	76 428 51 138 0 221	76 383 51 118 0 206	76 295 51 69 0 192
(Social benefit & loss analyses case 1 to 4) 91 Social benefit for residential customers 92 Social benefit for commercial cooking 93 Social benefit for commercial CO 94 Total social benefit from gas sales 95 Social loss for gas supplied 96 Total social benefit 97 Gross social loss from gas supplied 98 Total investment 99 LPG bottle repurchase (residential) 100 In house pipeline installation (residential) 101 LPG bottle repurchase (commercial) 102 In house pipeline installation (cooking) 103 In house pipeline installation (AO) 104 Turbo chiller 105 Absorption chiller 106 Imported facilities (included) 107 Imported tax 108 Net social loss for facilities 109 Labor cost 110 Income tax (included) 111 Administrative expenses 112 Maintenance & other expenses 113 Value tax (included) 114 Net social benefit 115 EIRR 116 NPV as of 10% 117 NPV as of 15%	9 800 9 528 0 0 167 0 2,723 42 85 3 47 95 16,958 18,178 1,555 0 3,987 560 62 169 54 22 4,685 54 72,634	800 528 4,400 167 1,302 3,099 2,002 1 86 372 1 13 10 1,709 1,832 320 0 2,137 790 87 237 237	1999 800 800 528 5,622 167 1,609 4,013 1,150 6 104 183 32,605 34,950 3,150 0 3,564 1,068 1,166	2000 800 800 800 800 107 3,749 9,319 733 483 966 1 23 45 8,085 8,667 1,067 0 1,337 1,217 134 365 132 50 6,452	2001 800 800 528 15,359 167 4,374 10,985 9,712 665 1,330 1 23 45 8,678 8,659 1,923 0 10,315 2,942 321 883 326 121 -3,039	2002 800 800 528 18,014 174 5,293 12,722 840 502 1,005 2 33 60 10,802 11,579 1,356 0 1,648 2,793 304 838 343 118 7,521	2003 800 800 800 528 20,526 178 6,149 14,377 105 0 0 2 36 67 12,039 12,906 962 0 1,005 2,415 261 724 345 107 10,256	2004 800 800 800 800 182 7,019 15,739 151 32 65 2 71 12,610 13,517 1,031 0 1,098 2,101 2,25 630 348 98 11,885	2005 800 800 528 24,438 186 7,727 16,711 87 32 65 1 17 32 5,799 6,216 483 0 519 2,020 218 606 349 96 13,530	2006 800 800 800 25,723 190 8,326 17,398 37 0 0 1 13 23 4,098 4,393 328 0 344 1,839 198 552 350 90 14,601	2007 800 800 528 26,328 193 8,667 17,661 176 0 0 4 67 105 18,750 20,099 1,508 0 1,589 1,558 164 467 354 82 13,940	2008 800 800 528 27,790 197 9,360 0 0 4 65 98 17,513 18,772 1,975 0 2,052 1,509 160 453 368 82 14,291	2009 800 800 808 28.814 210 10.358 18.456 1,206 0 0 5 87 136 24,214 25,956 1,948 0 3,030 1,344 141 403 392 80 13,507	2010 800 800 800 800 217 11,375 19,183 165 0 4 63 99 17,610 18,877 1,416 0 1,491 1,163 121 349 396 74 15,930	2011 800 800 800 528 31,917 222 12,173 19,744 165 0 4 63 99 17,610 18,877 1,416 0 1,491 1,114 117 334 399 73	2012 860 800 528 33,275 227 12,995 20,280 165 0 0 4 63 99 17,610 18,877 1,416 0 1,491 949 949 949 17,610 1,491 949 17,610 1,491 949 17,610 1,491 949 17,610 1,491 949 17,610 1,491 949 17,610 1,491 949 17,610 17,731 17,731 17,731	2013 800 800 800 228 34,633 13,782 20,852 165 0 0 4 63 99 17,610 18,877 1,416 0 1,491 933 96 280 406 69 17,907	2014 800 800 800 528 35,992 236 14,650 0 0 2 30 74 13,243 14,196 1,048 0 1,086 864 92 265 408 67 18,657	2015 800 800 800 228 37,891 242 15,879 22,012 29 0 0 0 29 5,195 5,569 400 0 403 752 408 63 20,364	2016 800 800 800 28 39,319 247 16,875 22,444 29 0 0 0 29 5,195 5,569 400 0 403 703 703 72 211 409 62 20,852	2017 800 800 800 252 17,898 22,849 564 0 0 0 0 564 587 57 176 420 60 21,219	2018 800 800 800 257 18.253 22,494 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2019 800 800 800 800 800 800 262 18,608 22,139 0 0 0 0 0 0 0 0 0 0 0 0 0	2020 800 800 800 528 40,747 267 18,963 21,784 0 0 0 0 0 0 0 0 0 0 0 0 0
(Social benefit & loss analyses:case 5) 118 Social benefit for residential customers 119 Social benefit for commercial cooking 120 Social benefit for commercial AG 121 Total social benefit from gas sales 122 Social loss for gas supplied 123 Total social loss from gas supplied 124 Gross social benefit 125 Total investment 126 LPG bottle repurchase (residential) 127 In house pipeline installation (residential) 128 LPG bottle repurchase (commercial) 129 In house pipeline installation (cooking) 130 In house pipeline installation (AC) 131 Turbo chiller 132 Absorption chiller 133 Imported facilities (included) 134 Imported tex 135 Net social loss for facilities 136 Labor cost 137 Income tax (included) 138 Administrative expenses 140 Value tax (included) 141 Net social benefit (mil Ri Imil Ri	800 528 00 167 00 2,723 42 685 16,938 18,178 1,555 16,938 18,178 1,555 1	800 528 4,400 167 1,302 3,099 2,002 186 372 1 13 1 10 1,709 1,832 320 2,137 641 73 192 95	1999 800 800 528 5,622 167 1,609 4,013 1,120 575 1,150 6 104 183 32,605 34,950 3,150 0 3,564 757 87 227 117 34 -530	2000 800 800 800 167 3,749 9,319 733 483 966 1 23 45 8,085 8,667 1,067 0 1,337 834 98 250 132 38 6,902	2001 800 800 800 800 15,359 167 4,374 10,985 9,712 665 1,330 1 23 45 8,078 8,659 1,923 0 10,315 2,469 277 741 326 107 -2,482	2002 800 800 528 18,014 174 5,293 12,722 840 502 1,005 2 33 60 10,802 11,579 1,356 0 1,648 2,308 259 692 343 103 8,093	2003 800 800 528 20,526 178 6,149 14,377 105 0 0 2 36 67 12,039 12,906 962 2,007 224 602 345 95 10,737	2004 800 800 800 800 800 15,739 15,739 15,139 15,139 15,139 12,610 13,517 1,031 0 1,098 1,752 193 526 348 87 12,297	2005 800 800 800 24.438 186 7.727 16,711 87 32 65 1 17 32 5.799 6.216 483 0 519 1.677 186 503 349 85 13.934	2006 800 800 800 25,723 190 8,326 17,398 37 0 0 1 1 13 23 4,098 4,393 328 4,393 328 4,599 167 453 350 80 14,990	2007 800 800 800 26,328 193 8,667 17,661 176 0 0 4 4 7 105 18,750 20,099 1,508 0 1,589 1,279 139 384 354 74	2008 800 800 528 27,790 197 9,360 18,430 0 4 65 98 17,513 18,772 1,975 0 2,052 1,237 135 371 368 74 14,611	2009 800 800 800 28,814 210 10,358 18,456 1,206 0 0 5 87 136 24,214 25,956 1,948 0 3,030 1,085 118 326 392 72 13,812	2610 800 800 800 217 11,375 19,183 165 0 0 4 63 99 17,610 18,877 1,416 0 1,491 956 103 287 396 68 16,224	2011 800 800 800 528 31,917 222 12,173 19,744 165 0 0 4 63 99 17,610 18,877 1,416 0 1,491 914 99 274 399 67 16,831	2012 800 800 800 528 33,275 227 12,995 20,280 165 0 0 4 4 63 99 17,610 18,877 1,416 0 1,491 762 81 228 402 63 17,540	2013 800 800 528 34,633 231 13,782 20,852 165 0 0 4 63 99 17,610 18,877 1,416 0 1,491 745 79 224 406 63 18,128	2014 800 800 800 528 35,992 236 14,650 21,342 106 0 0 2 30 74 13,243 14,196 1,048 703 75 211 408 62 19,071	2015 800 800 528 37.891 242 15.879 22.012 29 0 0 0 29 5.195 5.569 400 0 403 616 64 185 408 59 20.524	2016 800 800 800 247 16,875 22,444 29 0 0 0 29 5,195 5,569 400 0 403 574 60 172 409 58 21,005	2017 800 800 800 252 40,747 252 17,898 22,849 564 0 0 0 0 0 564 458 46 137 420 56 21,371	2018 800 800 800 257 18,253 22,494 0 0 0 0 0 0 0 0 0 0 0 0 0	2019 800 800 800 800 201 262 18,608 22,139 0 0 0 0 0 0 0 0 0 0 0 0 0	2020 800 800 800 800 528 40,747 267 18,963 21,784 0 0 0 0 0 0 0 0 0 0 0 0 0

	142 EIRR 143 NPV as of 10% 144 NPV as of 15%	(mil Rp) (mil Rp)	55.9% 75.527 41.634																					-		
	Case 1:PGN operates, when gas sales prior	e of residen	tial sector r	emained t	he same a	is now.																				
	(Price of Gas) 145 Gas sales price (residential) 146 Gas sales price (commercial cooking) 147 Gas sales price (commercial AC) 148 Gas material cost	(Rp/m3) (Rp/m3) (Rp/m3) (Rp/m3)	1997 370 330 330 162	1998 370 330 330 168	1999 370 330 330 174	2000 370 330 330 183	2001 370 330 330 192	2002 370 330 330 199	2003 370 330 330 204	2004 370 330 330 209	2005 370 330 330 212	2006 370 330 330 216	2007 370 330 330 219	2008 370 330 330 223	2009 310 330 330 227	2010 370 330 330 230	2011 370 330 330 232	2012 370 330 330 237	2013 370 330 330 241	2014 370 330 330 246	2015 370 330 330 252	2016 370 330 330 257	2017 370 330 330 262	2018 370 330 330 267	2019 370 330 330 272	2020 370 330 330 277
	(Financial Feasibility Analysis)																									
	149 Gas sales 150 Gas material cost 151 Gross profit 152 Property tax 153 Labor cost 154 Administrative expenses 155 Maintenance & other expenses 156 Total investment 157 Before tax cash flow 158 IRR of before tax cash flow 159 NPV as of 10% 160 NPV as of 15%	(mil Rp)	1997 0 0 0 2 560 163 54 2,723 -3,508 10,3% 304 -3,611	1998 2,577 1,309 1,269 4 790 237 95 2,002 -1,858	1999 3,207 1,681 1,526 4 1,068 320 117 1,120 -1,103	2000 7,479 4,102 3,378 4 1,217 365 132 733 927	2001 8,750 5,027 3,723 12 2,942 883 326 9,712 -10,152	2002 10,195 6,060 4,135 12 2,793 838 343 343 840 -690	2003 11,593 7,054 4,539 10 2,415 724 345 105 939	2004 12,921 8,051 4,870 9 2,101 630 348 151 1,631	2005 13,906 8,802 5,104 8 2,020 606 349 87 2,034	2006 14,661 9,447 5,215 7 1,839 552 350 37 2,430	2007 15,020 9,856 5,165 6 1,558 467 354 176 2,603	2008 15,880 10,612 5,268 6 1,509 453 368 731 2,201	2009 16,478 11,203 5,275 6 1,344 403 392 1,206 1,923	2010 17,500 12,082 5,418 6 1,163 349 396 165 3,340	2011 18.297 12.722 5.575 5 1.114 334 399 165 3.557	2012 19.093 13.568 5.525 5 949 285 402 165 3.719	2013 19,890 14,379 5,511 4 933 280 406 165 3,723	2014 20,686 15,271 5,415 4 884 265 408 106 3,749	2015 21.854 16.535 5.319 3 752 225 408 29 3.901	2016 22,746 17,558 5,188 3 703 211 409 29 3,834	2017 23,639 18,608 5,031 3 587 176 420 564 3,281	2018 23.639 18.963 4.676 3 554 166 420 0 3.532	2019 23.639 19.318 4.320 2 506 152 420 0 3.241	2020 23,639 19,673 3,955 2 408 122 420 0 3,012
	(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 162 10% contingency total investment 163 Before tax cash flow 164 IRR of before tax cash flow 165 NPV as of 10% 166 NPV as of 15%	(mit Rp) (mit Rp) (mit Rp) (mit Rp) (mit Rp)	0 2,996 -3,780 7,6% -2,969 -5,884	1,217 2,202 -2,110	1,462 1,232 -1,279	3,228 806 704	3,548 10,683 -11,298	3,932 924 -978	4,307 116 697	4,612 167 1,357	4,826 95 1,747	4,922 41 2,133	4,864 194 2,285	4,950 804 1,811	4,946 1,327 1,473	5,068 182 2,974	5,209 182 3,175	5.143 182 3.321	5,113 182 3,309	5,002 116 3,324	4,882 32 3,461	4,733 32 3,376	4,558 620 2,752	4,203 0 3,059	3,848 0 2,768	3,493 0 2,540
	(Financial Analyses with In House Installation)																									
	167 LPG bottle repurchase (residential) 168 In house pipeline installation (residential) 169 LPG bottle repurchase (commercial) 170 In house pipeline installation (cooking) 171 Before tax cash flow 172 IRR of before tax cash flow 173 NPV as of 10% 174 NPV as of 15%	(mil Rp)	1997 42 85 0 0 -3,550 8.9% -1,376 -5,010	1993 186 372 0 -2.044	1999 575 1,150 0 0 -1,678	2000 483 966 0 0 444	2001 565 1,330 0 0 -10,817	2002 502 1,005 0 0 -1,192	2003 0 0 0 0 939	2004 32 65 0 0 1,598	2005 32 65 0 0 2,002	2006 0 0 0 0 2,430	2007 0 0 0 0 0 2,603	2008 0 0 0 2,201	2009 0 0 0 0 1,923	2010 0 0 0 0 3,340	2011 0 0 0 0 3,557	2012 0 0 0 0 3,719	2013 0 0 0 0 3,723	2014 0 0 0 0 3,749	2015 0 0 0 0 3,901	2016 0 0 0 0 3,834	2017 0 0 0 0 0 3,281	2018 0 0 0 0 3,532	2019 0 0 0 0 3,241	2020 0 0 0 0 3,012
	(Down Side Sensitivity Analysis)			1	4.															11						
	175 Before tax cash flow 176 tilk of before tax cash flow 177 NPV as of 10% 178 NPV as of 15%	(mit Rp) (mit Rp) (mit Rp)	1997 -3,823 6.4% -4,648 -7,284	1998 -2,296	1999 -1,854	2000 221	2001 -11,963	2002 -1,480	2003 697	2004 1,325	2005 1,715	2006 2,133	2007 2,285	2008 1,811	2009 1,473	2010 2,974	2011 3,175	2012 3,321	2013 3,309	2014 3,324	2015 3,461	2016 3,376	2017 2,752	2018 3,059	2019 2,768	2020 2,540
	Gase 2:PGN operates when gas sales price	of resident	ial sector g	oes up to	800Rp in	ten years.						•		: ;				1919								
:	(Price of Gas) 179 Gas sales price (residential) 180 Gas sales price (commercial cooking) 181 Gas sales price (commercial AC) 182 Gas material cost	(Rp/m3) (Rp/m3) (Rp/m3) (Rp/m3)	1997 370 330 330 162	1998 413 330 330 168	1999 456 330 330 174	2000 499 330 330 183	2001 542 330 330 192	2002 585 330 330 199	2003 628 330 330 204	2004 671 330 330 209	2005 714 330 330 212	2006 757 330 330 216	2007 800 330 330 219	2008 800 330 330 223	2009 800 330 330 227	2010 800 330 330 230	2011 800 330 330 232	2012 800 330 330 237	2013 800 330 330 241	2014 800 330 330 246	2015 800 330 330 252	2016 800 330 330 257	2017 800 330 330 262	2018 800 330 330 267	2019 800 330 330 272	2020 800 330 330 277
:	(Financial Feasibility Analysis)										:	:		•												
	183 Gas sales 184 Gas material cost 185 Gross profit 186 Property tax 187 Labor cost 188 Administrative expenses 189 Maintenance & other expenses 190 Total investment 191 Before tax cash flow 192 IRR of before tax cash flow 193 NPV as of 104 194 NPV as of 154	(mi Rp) (mi Rp)	1997 0 0 0 2 560 168 54 2,723 -3,508 17,4 10,203 2,126	1998 2,583 1,309 1,274 4 790 237 95 2,002 -1,853	1999 3,265 1,681 1,585 4 1,068 320 117 1,120 -1,045	2000 7,712 4,102 3,610 4 1,217 365 132 733 1,159	2001 9,208 5,027 4,182 12 2,942 883 326 9,712 -9,693	2002 11,042 6,060 4,982 12 2,793 838 343 840 157	2003 12,841 7,054 5,787 10 2,415 724 345 105 2,187	2004 14,377 8,051 6,326 9 2,101 630 348 151 3,086	2005 15.603 8,802 6,801 8 2,020 606 349 87 3,730	2008 16,607 9,447 7,161 7 1,839 552 350 37 4,376	2007 17,182 9,856 7,327 6 1,558 467 354 176 4,765	2008 18,042 10,612 7,430 6 1,509 453 368 731 4,363	2009 18,640 11,203 7,437 6 1,344 403 392 1,206 4,085	2010 19,662 12,082 7,581 6 1,163 349 396 165 5,502	2011 20,459 12,722 7,737 5 1,114 334 399 165 5,719	2012 21,255 13,568 7,687 5 949 285 402 165 5,881	2013 22,052 14,379 7,673 4 933 280 406 165 5,885	2014 22,848 15,271 7,578 4 884 265 408 106 5,911	2015 24,016 16,535 7,481 3 752 225 408 29 6,063	2016 24,908 17,558 7,350 3 703 211 409 29 5,996	2017 25,801 18,608 7,193 3 587 176 420 564 5,443	2018 25.801 18.963 6.838 3 554 166 420 0 5,694	2019 25.801 19.318 6.483 2 506 152 420 0 5.403	2020 25,801 19,673 6,127 2 408 122 420 0 5,174
	(Down Side Sensitivity Analysis)			4885		***		***																		
	195 2N contingency sales Gross Profit 196 10N contingency total investment 197 Before tax cash flow 198 IRR of before tax cash flow 199 NPV as of 10N 200 NPV as of 15N	(mil Rp) (mil Rp) (mil Rp) (mil Rp) (mil Rp)	1997 0 2,996 -3,780 14.7% 6,733 -262	1998 1,222 2,202 -2,105	1999 1,519 1,232 -1,222	2000 3,456 806 931	2001 3,997 10,683 -10,848	2002 4,762 924 -148	2003 5,530 116 1,920	2004 6,038 167 2,784	2005 6,488 95 3,410	2006 6,828 41 4,040	2007 6,983 194 4,401	2008 7,069 804 3,979	2009 7,064 1,327 3,592	2010 7,187 182 5,092	2011 7,328 182 5,294	2012 7,262 182 5,440	2013 7,232 182 5,428	2014 7,121 116 5,443	2015 7,001 32 5,580	2016 6,852 32 5,495	2017 6,677 620 4,870	2018 6,322 0 5,178	2019 5.967 0 4.887	2020 5,611 0 4,658

	(Financial Analyses with In House Installation) 201 LPG bottle repurchase (residential) 202 In house pipeline installation (residential) 203 LPG bottle repurchase (commercial) 204 In house pipeline installation (cooking) 205 Before tax cash flow 206 IRR of before tax cash flow 207 NPV as of 104 208 NPV as of 154	(mil Rp) (mil Rp) (mil Rp) (mil Rp) (mil Rp) (mil Rp) (mil Rp)	1997 42 85 0 0 -3,550 15,8% 8,524 727	1998 186 372 0 0 -2,039	1999 575 1,150 0 0 -1,620	2000 483 966 0 0 676	2001 665 1,330 0 0 -10,358	2002 502 1,005 0 0 -345	2003 0 0 0 0 0 2,187	2004 32 65 0 0 3.054	2005 32 65 0 0 3.698	2006 0 0 0 0 0 4,376	2007 0 0 0 0 0 4,785	2008 0 0 0 0 4,363	2009 0 0 0 0 0 4,085	2010 0 0 0 0 0 5.502	2011 0 0 0 0 0 5,719	2012 0 0 0 0 0 5.881	2013 0 0 0 0 0 5,885	2014 0 0 0 0 0 0 5,911	2015 0 0 0 0 0 6,063	2016 0 0 0 0 0 5,996	2017 0 0 0 0 0 5,443	2018 0 0 0 0 5.694	2019 0 0 0 0 0 5,403	2020 : 0 0 0 0 0 0 5,174
	(Oown Side Sensitivity Analysis) 209 Before tax cash flow 210 IRR of before tax cash flow 211 NPV as of 10% 212 NPV as of 15%	(mil Rp) (mil Rp) (mil Rp)	1997 -3,823 13.3% 5,053 -1,661	1998 -2,291	1999 -1,797	2000 448	2001 -11,514	2002 650	2003 1,920	2004 2,751	2005 3,377	2006 4,040	2007 4,404	2008 3,929	2009 3,592	2010 5,092	2011 5,294	2012 5.440	2013 5.428	2014 5,443	2015 5,580	2016 5,495	2017 4.870	2018 5,178	2019 4,887	2020 4,658
	Gase 3:Residential distribution pipelines inv	ested by Go	overnment i	nhen gas i	sales price	remained	I the same	es now.															1, 1			
: .	(Price of Gas) 213 Gas sales price (residential) 214 Gas sales price (commercial cooking) 215 Gas sales price (commercial AC) 216 Gas material cost	(Rp/m3) (Rp/m3) (Rp/m3) (Rp/m3)	1997 370 330 330 162	1998 370 330 330 168	1999 370 330 330 174	2000 370 330 330 183	2001 370 330 330 192	2002 370 330 330 199	2003 370 339 330 204	2004 370 330 330 209	2005 370 330 330 212	2006 370 330 330 216	2007 370 330 330 219	2008 370 330 330 223	2009 370 330 330 227	2010 370 330 330 230	2011 370 330 330 232	2012 370 330 330 237	2013 370 330 330 241	2014 370 330 330 246	2015 370 330 330 252	2016 370 330 330 257	2017 370 330 330 262	2018 370 330 330 267	2019 370 330 330 272	2020 370 339 330 277
	(Financial Feasibility Analysis) 217 Gas sales 218 Gas material cost 219 Gross profit 220 Property tax 221 Labor cost 222 Administrative expenses 223 Maintenance & other expenses 224 Total investment 225 Before tax cash flow 226 IRR of before tax cash flow 227 NPV as of 10% 228 NPV as of 15%	(mil Rp)	1997 0 0 0 1 560 168 54 339 -1.122 38.0% 11,701 5,887	1998 2,577 1,309 1,269 3 790 237 95 103 41	1999 3,207 1,681 1,526 3 1,068 320 117 471 -454	2000 7,479 4,102 3,378 4 1,217 365 132 287 1,374	2001 8,750 5,027 3,723 5 2,942 883 326 378 -810	2002 10,195 6,060 4,135 5 2,793 833 343 312 -156	2003 11,593 7,054 4,539 5 2,415 724 345 67 983	2004 12,921 8,051 4,870 4 2,101 630 348 87 1,700	2005 13,906 8,802 5,104 4 2,020 606 349 49 2,076	2006 14,661 9,447 5,215 3 1,839 552 350 23 2,448	2007 15,020 9,856 5,165 3 1,558 467 354 106 2,677	2008 15,880 10,612 5,268 3 1,509 453 368 99 2,836	2009 16,478 11,203 5,275 4 1,344 403 392 137 2,995	2010 17,500 12,092 5,418 4 1,163 349 396 100 3,408	2011 18.297 12,722 5.575 3 1,114 334 399 100 3,625	2012 19,093 13,568 5,525 3 949 285 402 100 3,786	2013 19,890 14,379 5,511 3 933 280 406 100 3,790	2014 20,686 15,271 5,415 3 884 265 408 73 3,783	2015 21,854 16,535 5,319 2 752 225 408 28 3,904	2016 22,746 17,558 5,188 2 703 211 409 28 3,836	2017 23,639 18,608 5,031 2 537 176 420 0 3,846	2018 23,639 18,963 4,676 2 554 166 420 0 3,533	2019 23,639 19,318 4,320 2 506 152 420 0 3,241	2020 23,639 19,673 3,965 1 408 122 420 0 3,013
	(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 230 10% contingency total investment 231 Before tax cash flow 232 IRR of before tax cash flow 233 NPV as of 10% 234 NPV as of 15%	(mil Rp) (mil Rp) (mil Rp) (mil Rp) (mil Rp)	9,566 4,561	1,217 114 -20	1.462 518 -565	3,228 315 1,196	3,549 416 -1,023	3,932 343 -391	4,307 74 744	4,612 96 1,433	4,826 53 1,793	4,922 25 2,152	4,864 117 2,366	4,950 109 2,508	4,946 151 2,651	5,068 110 3,048	5,209 110 3,249	5,143 110 3,395	5.113 110 3,383	5.002 80 3,362	4,882 30 3,464	4,733 30 3,378	4,558 0 3,373	4,203 0 3,060	3.848 0 2,769	3,493 0 2,540
	(Financial Analyses with In House Installation)		4112							***	***		A 0.0.7		0000	***			ània	0014	AGIE	2016	2017	2018	2019	2020
	235 LPG bottle repurchase (residential) 236 In house pipeline installation (residential) 237 LPG bottle repurchase (commercial) 238 In house pipeline installation (cooking) 239 Before tax cash flow 240 IRR of before tax cash flow 241 NPV as of 10% 242 NPV as of 15%	(mit Rp) (mit Rp) (mit Rp) (mit Rp) (mit Rp) (mit Rp) (mit Rp)	1997 42 85 0 0 -1,165 28.3% 10,022 4,487	1998 186 372 0 0 -144	1999 575 1,150 0 -1,029	2000 483 966 0 0 891	2001 665 1,330 0 0 -1,475	2002 502 1,005 0 0 -658	2003 0 0 0 0 983	2004 32 65 0 0 1,668	2005 32 65 0 0 2,044	2006	2007 0 0 0 0 2.617	2008 0 0 0 0 2,836	2009 0 0 0 0 2,995	2010 0 0 0 0 0 3,408	2011 0 0 0 0 3,625	2012 0 0 0 0 0 3,786	2013 0 0 0 0 0 3,790	2014 0 0 0 0 3,783	2015 0 0 0 0 3,904	2016 0 0 0 0 3.836	0 0 0 0 3.846	0 0 0 0 3,533	0 0 0 0 3,241	0 0 0 0 0 3,013
	(Down Side Sensitivity Analysis)		4007	4000	4000	***	600.6	4004	/aàaa 1	8704	0006	Anáe	8007	8000	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
	243 Before tax cash flow 244 IRR of before tax cash flow 245 NPV as of 10% 246 NPV as of 15%	(mil Rp) (mil Rp) (mil Rp)	1997 -1,198 24.1% 7,887 3,162	1998 -206	1999 -1,140	2000 713	2001 -1,688	2002 -893	2003 744	2004 1,400	2005 1,761	2006 2,152	2007 2,366	2008 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
1	Case 4:Residential distribution pipelines in	vested by G	overnment	when gas	sales price	e to reside	ential sect	or goes up	to 800Rp	in ten yea	ire.							1								:
	(Price of Gas) 247 Gas sales price (residential) 248 Gas sales price (commercial cooking) 249 Gas sales price (commercial AC) 250 Gas material cost	(Rp/m3) (Rp/m3) (Rp/m3) (Rp/m3)	1997 370 330 330 162	1998 413 330 330 168	1939 456 330 330 174	2000 499 330 330 183	2001 542 330 330 192	2002 585 330 330 199	2003 628 330 330 204	2004 671 330 330 209	2005 714 330 330 212	2006 757 330 330 216	2007 800 330 330 219	2008 800 330 330 223	2009 800 330 330 227	2010 800 330 330 230	2011 800 330 330 232	2012 800 330 330 237	2013 800 330 330 241	2014 800 330 330 246	2015 800 330 330 252	2016 800 330 330 257	2017 800 330 330 262	2018 800 330 330 267	2019 800 330 330 272	2020 800 330 330 277
	(Financial Feasibility Analysis)	* .	1997	1998	1939	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
	251 Gas sales 252 Gas material cost 253 Gross profit 254 Property tax 255 Labor cost 256 Administrative expenses	(mil Rp) (mil Rp) (mil Rp) (mil Rp) (mil Rp) (mil Rp)	0 0 0 1 560 168	2,583 1,309 1,274 3 790 237	3,265 1,681 1,585 3 1,068 320	7,712 4,102 3,610 4 1,217 365	9,208 5,027 4,182 5 2,942 883	11,042 6,060 4,982 5 2,793 838	12,841 7,054 5,787 5 2,415 724	14,377 8,051 6,326 4 2,101 630	15,603 8,802 6,801 4 2,020 606	16,607 9,447 7,161 3 1,839 552	17,182 9,856 7,327 3 1,558 467	18,042 10,612 7,430 3 1,509 453	18,640 11,203 7,437 4 1,344 403	19,662 12,082 7,581 4 1,163 349	20,459 12,722 7,737 3 1,114 334	21,255 13,568 7,687 3 949 285	22,052 14,379 7,673 3 933 280	22,848 15,271 7,578 3 884 265	24,016 16,535 7,481 2 752 225	24,908 17,558 7,350 2 703 211	25,801 18,608 7,193 2 587 176	25,801 18,963 6,838 2 554 166	25,801 19,318 6,483 2 506 152	25.801 19.673 6,127 1 408 122

257 Maintenance & other expenses 258 Total investment 259 Before tax cash flow 260 fRR of before tax cash flow 261 NPV as of 10% 262 NPV as of 15%	(mil Rp) (mil Rp) (mil Rp) (mil Rp) (mil Rp)	54 339 -1,122 52,5% 21,600 11,623	95 103 47	117 471 ~395	132 287 1,606	326 378 -352	343 312 691	345 67 2,231	348 87 3,156	349 49 3,773	350 23 4,394	354 106 4,839	368 99 4,998	392 137 5,157	396 100 5.570	399 100 5,787	402 100 5,949	406 100 5,952	408 73 5.945	408 28 6,066	409 28 5.998	420 0 6,008	420 0 5,695	420 0 5,403	420 0 5,175
(Down Side Sensitivity Analysis) 263-2% contingency sales Gross Profit 264-10% contingency total investment 265 Before tax cash flow 266 IRR of before tax cash flow 267 NPV as of 10%	(mit Rp) (mit Rp) (mit Rp) (mit Rp) (mit Rp)	1997 0 373 -1,156 46.7% 19,267 10,183	1998 1,222 114 -15	1999 1,519 518 -508	2000 3,456 315 1,423	2001 3,997 416 -574	2002 4,762 343 439	2003 5,530 74 1,967	2004 6.038 96 2,859	2005 6,488 53 3,456	2006 6,828 25 4,059	2007 6,983 117 4,485	2008 7,069 109 4,627	2009 7.064 151 4,770	2010 7,187 110 5,167	2011 7,328 110 5,368	2012 7,262 110 5,513	2013 7,232 110 5,501	2014 7,121 80 5,480	2015 7,001 30 5,583	2016 6.852 30 5,497	2017 6,677 0 5,492	2018 6,322 0 5,179	2019 5.967 0 4.887	2020 5,611 0 4,659
(Financial Analyses with In House Installation 269 LPG bottle repurchase (residential) 270 In house pipeline installation (residential) 271 LPG bottle repurchase (commercial) 272 In house pipeline installation (cooking) 273 Before tax cash flow 274 IRR of before tax cash flow 275 NPV as of 10% 276 NPV as of 15%	(mil Rp)	1997 42 85 0 0 -1.165 41.1% 19.921 10.224	1998 186 372 0 0 -139	1999 575 1,150 0 0 -970	2000 483 966 0 0 1,123	2001 665 1,330 0 0 -1,017	2002 502 1,005 0 0 189	2003 0 0 0 0 0 2,231	2004 32 65 0 0 3,123	2005 32 65 0 0 3,740	2006 0 0 0 0 4,394	2007 0 0 0 0 0 4,839	2008 0 0 0 0 4,998	2009 0 0 0 0 5,157	2010 0 0 0 0 0 5,570	2011 0 0 0 0 5,787	2012 0 0 0 0 5,949	2013 0 0 0 0 5.952	2014 0 0 0 0 0 5,945	2015 0 0 0 0 0 6,066	2016 0 0 0 0 0 5.998	2017 0 0 0 0 6.003	2018 0 0 0 0 0 5.695	2019 0 0 0 0 0 5,403	2020 0 0 0 0 5.175
(Down Side Sensitivity Analysis) 277 Before tax cash flow 278 IRR of before tax cash flow 279 NPV as of 10% 280 NPV as of 15%	(mit Rp) (mit Rp) (mit Rp)	1997 -1,198 36.8N 17,588 8,784	1998 -201	1999 -1,083	2000 940	2001 -1,239	2002 -63	2003 1,967	2004 2,827	2005 3,424	2006 4,059	2007 4.485	2008 4,627	2009 4,770	2010 5,167	2011 5,368	2012 5.513	2013 5,501	2014 5.480	2015 5.583	2016 5,497	2017 5,492	2018 5,179	2019 4,887	2020 4,659
Gase 5: Separate utility Entity (Price of Gas) 281 Gas sales price (residential) 282 Gas sales price (commercial cooking) 283 Gas sales price (commercial AC) 284 Gas material cost	(Rp/m3) (Rp/m3) (Rp/m3) (Rp/m3)	1997 800 800 330 315	1938 800 800 330 315	1999 800 800 330 315	2000 800 800 330 315	2001 800 800 330 315	2002 800 800 330 315	2003 800 800 330 315	2004 800 800 330 315	2005 800 800 330 315	2006 800 800 330 315	2007 800 800 330 315	2008 800 800 330 315	2009 800 800 330 315	2010 800 800 330 315	2011 800 800 330 315	2012 800 800 330 315	2013 800 800 330 315	2014 800 800 330 315	2015 800 800 330 315	2016 800 800 330 315	2017 800 800 330 315	2018 800 800 330 315	2019 800 800 330 315	2020 800 800 330 315
(Financial Feasibility Analysis) 285 Gas sales 286 Gas material cost 287 Gross profit 288 Property tax 289 Labor cost 290 Administrative expenses 291 Maintenance & other expenses 292 Total investment 293 Before tax cash flow 294 IRR of before tax cash flow 295 NPV as of 10%	(mit Rp)	1997 0 0 0 2 100 30 48 2,381 -2,561 13,786 5,263	1998 3,065 2,455 609 3 229 69 78 1,542 -1,313	1999 4,103 3,035 1,068 4 479 144 101 1,120 -779	2000 9,509 7,071 2,438 4 588 177 116 733 820	2001 11,286 8,251 3,036 11 728 218 296 9,029 -7,246	2002 13,414 9,581 3,833 11 747 224 313 840 1,698	2003 15,351 10,831 4,469 9 628 188 315 105 3,224	2004 16.865 12.149 4.716 8.538 161 318 151 3.540	2005 18,035 13,086 4,950 7 528 158 320 87 3,850	2006 18,930 13,803 5,127 7 508 152 320 37 4,103	2007 19,341 14,145 5,196 6 4,28 128 324 176 4,134	2008 20,351 14,966 5,385 5 418 125 327 167 4,342	2009 21,065 15,537 5,528 6 398 119 351 1,206 3,447	2010 22,276 16,513 5,763 5 318 95 355 165 4,825	2011 23,217 17,273 5,944 5 308 92 358 165 5,016	2012 24,159 18,033 6,125 4 288 87 361 165 5,220	2013 25,100 18,794 6,307 4 288 87 365 165 5,398	2014 26,042 19,554 6,488 3 279 84 367 106 5,650	2015 27,263 20,669 6,594 3 208 62 367 29 5,924	2016 28,155 21,520 6,635 3 198 59 368 29 5,977	2017 29,048 22,372 6,676 2 193 59 368 0 6,047	2018 29.048 22.372 6.676 2 188 57 368 0 6.061	2019 29,048 22,372 6,676 2 169 51 368 0 6,086	2020 29,048 22,372 6,676 2 120 36 368 0 6,150
(Down Side Sensitivity Analysis) 297.2% contingency sales Gross Profit 298.16% contingency total investment 299.Before tax cash flow 300.IRR of before tax cash flow 301.NPV as of 10% 302.NPV as of 15%	(mil Rp) (mil Rp) (mil Rp) (mil Rp) (mil Rp)	1997 0 2.619 -2.799 18.8% 10.110 2.770	1998 548 1,696 -1,528	1999 986 1,232 -973	2000 2,243 806 557	2001 2,810 9,932 -8,375	2002 3,565 924 1,346	2003 4,162 116 2,906	2004 4,379 167 3,187	2005 4,589 95 3,480	2006 4,749 41 3,721	2007 4,809 194 3,729	2008 4,978 183 3,918	2009 5,106 1,327 2,905	2010 5,318 182 4,363	2011 5,480 182 4,535	2012 5,642 182 4,720	2013 5,805 182 4,879	2014 5.967 116 5.118	2015 6,049 32 5,376	2016 6,072 32 5,411	2017 6.095 0 5,466	2018 6,095 0 5,480	2019 6,095 0 5,505	2020 6,095 0 5,559
(Financial Analyses with In House Installation 303 LPG bottle repurchase (residential) 304 In house pipeline installation (residential) 305 LPG bottle repurchase (commercial) 306 In house pipeline installation (cooking) 307 Before tax cash flow 308 IRR of before tax cash flow 309 NPV as of 10% 310 NPV as of 15%	(mil Rp) af) (mil Rp) (mil Rp)	1997 42 85 3 47 -2,648 19.7% 11,765 3,613		1999 575 1,150 6 104 -1,452	2000 483 966 1 23 316	2001 665 1,330 1 23 -7,934	2002 502 1,005 2 33 1,164	2003 0 0 2 36 3,190	2004 32 65 2 42 3,468	2005 32 65 1 17 3.802	2006 0 0 1 13 4,091	2007 0 0 4 67 4,070	2008 0 0 4 65 4,281	2009 0 0 5 87 3,365	2010 0 0 4 63 4,765	2011 0 0 4 63 4.957	2012 0 0 4 63 5,161	2013 0 0 4 63 5,339	2014 0 0 2 30 5,622	2015 0 0 0 0 5.924	2016 0 0 0 0 0 5.977	2017 0 0 0 0 0 6,047	2018 0 0 0 0 0 0 6.061	2019 0 0 0 0 0 6.086	2020 0 0 0 0 0 5,150
(Oown Side Sensitivity Analysis) 311 Before tax cash flow 312 IRR of before tax cash flow 313 NPV as of 104 314 NPV as of 154	(mil Rp) (mil Rp) (mil Rp)	1997 -2,886 16.4% 8,088 1,120		1999 -1,646	2000 52	2001 -9,062	2002 812	2003 2,872	2004 3,116	2005 3,433	2006 3,708	2007 3,666	2008 3,857	2009 2,823	2010 4,303	2011 4,476	2012 4,661	2013 4,820	2014 5,090	2015 5.376	2016 5,411	2017 5,466	2018 5,480	2019 5,505	2020 5,569

(Profit & Less Account of Separate Utility) 315 Sales of gas (mil Rp) 316 Gas material cost (mil Rp) 317 Gross profit (mil Rp) 318 Depriciation (mil Rp) 319 Labor cost (mil Rp) 320 Administrative expenses (mil Rp) 321 Maintenance & other expenses (mil Rp) 322 Property tax (mil Rp) 323 Interest income (mil Rp) 324 Interest expenses (mil Rp) 325 Income before income taxes (mil Rp) 326 Income taxes (mil Rp) 327 Net income (mil Rp)	298 4 100 2 30 48 2 0 300 3 -777 -4	065 4,103 9,50	8,251 9,581 10,84 3,036 3,833 4,44 1,620 1,522 1,33 728 747 6,7 218 224 1,7 218 224 1,7 3 296 313 3,7 11 11 1,7 16 0 6,7 324 932 8,7 -146 8,4 1,14	1 16.865 18.035 18.930 11 12,149 13.086 13.803 19 4,716 4,950 5,127 15 1,195 1,057 930 18 538 528 508 18 161 158 152 15 318 320 320 9 8 7 7 15 77 139 215 17 1,844 2,418 2,954 0 503 725 886	2007 2008 2009 2010 2011 19,341 20,351 21,065 22,276 23,217 14,145 14,966 15,537 16,513 17,273 5,196 5,385 5,528 5,763 5,944 835 752 809 728 658 428 418 398 318 308 128 125 119 95 92 324 327 351 355 358 6 5 6 5 5 312 430 483 499 575 343 257 171 86 0 3,444 3,929 4,156 4,675 5,098 1,033 1,179 1,247 1,402 1,529 2,411 2,751 2,909 3,272 3,569	2012 2013 2014 2015 2018 24,159 25,100 26,042 27,263 28,155 18,033 18,794 19,554 20,669 21,520 6,125 6,307 6,488 6,594 6,635 596 542 488 430 380 288 288 279 208 193 87 87 84 62 59 361 365 367 367 368 4 4 3 3 3 683 750 1766 812 855 0 0 0 0 0 5,472 5,771 6,043 6,335 6,481 1,641 1,731 1,813 1,900 1,944 3,830 4,039 4,230 4,434 4,537	2017 2018 2019 2020 29,048 29,048 29,048 29,048 22,312 22,372 22,372 22,372 6,676 6,676 6,676 6,676 333 291 255 223 198 188 169 120 59 57 51 36 368 368 368 368 2 2 2 2 901 950 1,001 1,055 0 0 0 0 6,616 6,719 6,832 6,982 1,985 2,016 2,050 2,095 4,631 4,704 4,783 4,887
(Cash Flow Statement of Separate Utility) (Cash Out) 328 Investment (mil Rp) 329 Cash or Short term Debt (mil Rp) 330 Total (mil Rp) (Cash In) (mil Rp) 331 Net income (mil Rp) 332 Dividend (mil Rp) 333 Depriciation (mil Rp) 334 Equity (mil Rp) 335 Long term (Financing) (mil Rp) 336 (Prinople repayment) (mil Rp) 337 Total (mil Rp)	1,139 -5 3,520 9 -777 -4 0 298 4 1,000 1,0 3,000	3 1999 2000 542 1,120 73 570 -51 12 972 1,068 85 481 -468 72 0 0 0 453 537 56 000 1,000 0 0 0 0 0 -42 972 1,068 85	1 -1,984 338 1,99 1 7,045 1,177 2,10 1 -146 84 1,10 0 0 0 1 1,620 1,522 1,30 0 6,000 0 9 -429 -429 -4	05 151 87 37 08 1,099 1,378 1,675 133 1,250 1,464 1,712 137 1,340 1,693 2,068 0 0 0 0 15 1,196 1,057 930 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2007 2008 2009 2010 2011 176 167 1,206 165 165 2,213 2,478 -346 978 2,061 2,389 2,645 861 1,143 2,226 2,411 2,751 2,909 3,272 3,569 0 0 -2,000 -2,000 -2,000 -2,000 835 752 809 728 658 0 0 0 0 0 0 0 0 0 0 -857 -857 -857 -857 0 2,389 2,645 861 1,143 2,226	2012 2013 2014 2015 2016 165 165 106 29 29 2,261 417 612 836 888 2,426 582 718 865 917 3,830 4,039 4,230 4,434 4,537 -2,000 -4,000 -4,000 -4,000 -4,000 596 542 488 430 380 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 2,426 582 718 865 917	2017 2018 2019 2020 0 0 0 0 0 964 995 1,037 1,110 964 995 1,037 1,110 4.651 4,704 4,783 4,887 -4,000 -4,000 -4,000 -4,000 333 291 255 223 0 0 0 0 0 0 0 0 0 0 964 995 1,037 1,110
(Balance Sheet of Separate Utility) (Assets) 338 Cash (mil Rp) 339 Facilities (mil Rp) 340 Total (mil Rp) (Liabilities and Equity) 341 Long term debt (mil Rp) 342 Short term debt (mil Rp) 343 Equity (mil Rp) 344 Total (mil Rp) 345 Long term debt/Total investment 346 Equity/Total investment 347 Equity/Total investment 347 Equity/Total investment 348 IRR of equity investment	2,084 3,1 3,223 3,7 3,000 3,0	569 517 63 172 3,756 3,92 741 4,273 4,56 000 3,000 2,57 0 0 741 1,273 1,99 741 4,273 4,56	8 11,337 10,654 9,4 5 11,337 10,654 10,44 1 8,143 7,714 7,21 0 1,345 1,008 4 1,848 1,932 3,1	30 2,089 3,467 5,142 15 8,370 7,400 6,507 15 10,460 10,867 11,649 36 6,000 4,714 3,429 0 0 0 0 19 4,460 6,152 8,220	2007 2008 2009 2010 2011 7,354 9,833 9,487 10,465 12,527 5,848 5,263 5,661 5,098 4,605 13,203 15,096 15,148 15,563 17,132 2,571 1,714 857 0 0 0 0 0 0 0 0 0 10,631 13,382 14,291 15,563 17,132 13,203 15,096 15,148 15,563 17,132 0 0 2,000 2,000 2,000	2012 2013 2014 2015 2016 14,788 15,204 15,817 16,652 17,540 4,174 3,797 3,415 3,013 2,662 18,962 19,001 19,231 19,666 20,202 0 0 0 0 0 0 0 0 0 0 0 0 18,962 19,001 19,231 19,666 20,202 18,962 19,001 19,231 19,666 20,202 2,000 4,000 4,000 4,000 4,000	2017 2018 2019 2020 18,504 19,499 20,536 21,647 2,329 2,038 1,783 1,561 20,833 21,537 22,320 23,207 0 0 0 0 0 0 0 0 0 20,833 21,537 22,320 23,207 20,833 21,537 22,320 23,207 20,833 21,537 22,320 23,207 4,000 4,000 4,000 25,647
(Financial Feasibility of PGN in Separate Utility Case) 349 Gas sales price (Rp/m3) 350 Gas purchase price (Rp/m3) 351 Total gas sales (mil Rp) 352 Total gas purchased (mil Rp) 353 Gross profit (mil Rp) 354 Offtaker (mil Rp) 355 A governor (mil Rp) 355 Main pipeline (10bar) (mil Rp) 358 Main pipeline (10bar) (mil Rp) 358 Labor expx Salaries (mil Rp) 359 Pensions (mil Rp) 350 Total (mil Rp) 350 Total (mil Rp) 361 Administrative expenses (mil Rp) 362 Maintenance & other expenses (mil Rp) 363 Net cash flow (mil Rp) 365 NPV as of 10% (mil Rp) 366 NPV as of 15% (mil Rp)	162 1 0 2.4 0 1.3 0 1.1 0 1.19 223 4 342 4 359 3 36 395 4 118 1	315 315 31 168 174 18 455 3,035 7,07 309 1,681 4,10 147 1,355 2,96 0 0 0 460 0	192 199 2: 1 8.251 9.581 10.8: 2 5.027 6.060 7.00 9 3.224 3.522 3.8: 0 564 0 0 119 0 0 0 0 0 683 0 4 1.583 1.418 1.2: 2 158 142 1 6 1.742 1.580 1.3 4 522 468 4 2 16 16	15 315 315 315 14 209 212 216 31 12.149 13.086 13.803 154 8.051 8.802 9,447 127 4.098 4.283 4.356 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 10 0 0 1	2007 2008 2009 2010 2011 315 315 315 315 315 249 223 227 230 232 14,145 14,966 15,537 16,513 17,273 9,856 10,612 11,203 12,082 12,722 4,290 4,354 4,334 4,431 4,551 0 564 0 0 0 0 0 0 0 0 0 0 0 0 0 <t< td=""><td>2012 2013 2014 2015 2016 315 315 315 315 315 315 237 241 246 252 257 18,033 18,794 19,554 20,669 21,520 13,568 14,379 15,271 16,535 17,558 4,465 4,415 4,283 4,134 3,962 0</td><td>2017 2018 2019 2020 315 315 315 315 262 267 272 217 22,372 22,372 22,372 22,372 18,608 18,963 19,318 19,673 3,764 3,409 3,054 2,699 564 0 0 0 0 0 0 0 564 0 0 0 0 0 0 0 236 221 206 192 24 22 21 19 259 243 227 211 78 73 68 63 39 39 39 39 2,824 3,054 2,720 2,386</td></t<>	2012 2013 2014 2015 2016 315 315 315 315 315 315 237 241 246 252 257 18,033 18,794 19,554 20,669 21,520 13,568 14,379 15,271 16,535 17,558 4,465 4,415 4,283 4,134 3,962 0	2017 2018 2019 2020 315 315 315 315 262 267 272 217 22,372 22,372 22,372 22,372 18,608 18,963 19,318 19,673 3,764 3,409 3,054 2,699 564 0 0 0 0 0 0 0 564 0 0 0 0 0 0 0 236 221 206 192 24 22 21 19 259 243 227 211 78 73 68 63 39 39 39 39 2,824 3,054 2,720 2,386

Feasibility Study at BSD	Case:A	ir Cond	itioning	Demar	nd 50%	Develo	onient																		
(Gas Demand) 1 Residential 2 Commerci (cooking)	(1000m3) (1000m3) (5 (1000m3) (1000m3) (1000m3)	1997 0 0 0 0	1998 126 921 3,374 4,421 6,747	1999 679 1,286 3,836 5,800 7,672	2000 1,800 2,670 8,988 13,459 17,977	2001 2,665 2,958 10,285 15,908 20,569	2002 3,939 3,245 11,616 18,801 23,233	2003 4,836 3,571 13,068 21,475 26,137	2004 4,836 3,968 14,882 23,686 29,764	2005 4,932 4,273 16,168 25,373 32,337	2006 5,028 4,483 17,154 26,665 34,308	2007 5.028 4,594 17,642 27,264 35,284	2008 5,028 4,912 18,786 28,726 37,573	2009 5,028 5,159 19,568 29,756 39,137	2010 5,028 5,561 20,916 31,505 41,833	2011 5,028 5,869 21,969 32,866 43,938	2012 5.028 6,178 23,021 34,227 46,043	2013 5,028 6,486 24,074 35,538 48,147	2014 5,028 6,795 25,126 36,949 50,252	2015 5,028 6,908 26,839 38,776 53,678	2016 5,028 6,908 28,191 40,128 56,382	2017 5.028 6,908 29,543 41,480 59,087	2018 5,028 6,908 29,543 41,480 59,087	2019 5,028 6,908 29,543 41,480 59,087	2020 5,028 6,908 29,543 41,480 59,087
(Number of Customers) 6 Residential 7 Commerci (cooking) 8 (AC) 9 Gas demand Total	(units) (units) (units) (units)	1997 0 0 0 0	1998 212 13 7 232	1999 1,142 17 8 1,166	2000 4,017 46 22 4,084	2001 6,431 53 25 6,509	2002 9,757 60 28 9,845	2003 12,269 69 33 12,371	2004 12,269 79 38 12,386	2005 12,431 91 43 12,565	2006 12,592 95 46 12,733	2007 12,592 99 47 12,739	2008 12,592 118 55 12,766	2009 12,592 136 63 12,791	2010 12,592 161 73 12,826	2011 12,592 179 80 12,851	2012 12,592 197 88 12,876	2013 12,592 214 95 12,901	2014 12,592 232 103 12,927	2015 12,592 240 103 12,941	2016 12,592 240 110 12,943	2017 12,592 240 112 12,945	2018 12,592 240 112 12,945	2019 12,592 240 112 12,945	2020 12,592 240 112 12,945
(Sales Volume per Customer) 10 Residential 11 Commerci (cooking) 12 (AC) 13 Gas demand Total	(1000m3) (1000m3) (1000m3) (1000m3)	1997 0 0 0 0	1998 0.59 69.62 472.87 19.03	1999 0.59 76.24 488.44 4.97	2000 0.45 57.54 416.71 3.30	2001 0.41 55.85 411.86 2.44	2002 0.40 54.52 409.47 1.91	2003 0.39 51.81 397.04 1.74	2004 0.39 50.21 391.85 1.91	2005 0.40 47.06 373.54 2.02	2006 0.40 46.95 375.17 2.09	2007 0.40 46.32 371.82 2.14	2008 0.40 41.57 339.50 2.25	2009 0.40 37.81 312.08 2.33	2010 0.40 34.52 286.96 2.46	2011 0.40 32.82 273.59 2.56	2012 0.40 31.43 262.48 2.66	2013 0.40 30.27 253.10 2.76	2014 0.40 29.29 245.08 2.86	2015 0.40 28.73 248.29 3.00	2016 0.40 28.73 255.63 3.10	2017 0.40 28.73 262.69 3.20	2018 0.40 28.73 262.69 3.20	2019 0.40 28.73 262.69 3.20	2020 0.40 28.73 262.69 3.20
(Investment Plan) 14 Cumulative main pipeline length (10bar) 15 Cumulative main pipeline length (1bar) 16 Cumulative distribution pipeline length 17 Cumulative offtaker 18 Cumulative A governor 19 Cumulative B governor 20 Phase 1 Main pipeline (10bar) 21 Main pipeline (1bar) 22 Distribution pipeline 23 Phase 2 Main pipeline (10bar) 24 Main pipeline (10bar) 25 Distribution pipeline	(km) (km) (km) (units) (units) (units) (mit Rp)	1997 1.6 4.7 22.8 0 1 1.1 223 779 1.351	1998 4.1 11.6 22.8 0 1 2 460 1,250	1999 4.1 11.6 22.8 0 1 5	2000 4.1 11.6 22.8 0 1	2001 4.1 14.7 151.2 0 2 10	2002 4.1 14.7 151.2 0 2 13	2003 4.1 14.7 151.2 0 2 13	2004 4.1 14.7 151.2 1 2 13	2005 4.1 14.7 151.2 1 2 13	2006 4.1 14.7 151.2 1 2 13	2007 4.1 14.7 151.2 1 2 13	2008 4.1 14.7 151.2 1 2 13	2009 4.1 20.5 151.2 1 2 13	2010 4.1 20.5 151.2 1 2 13	2011 4.1 20.5 151.2 1 2 13	2012 4.1 20.5 151.2 1 2 13	2013 4.1 20.5 151.2 1 2 13	2014 4.1 20.5 151.2 1 2 13	2015 4.1 20.5 151.2 1 2 13	2016 4.1 20.5 151.2 1 2 13	2017 4.1 20.5 151.2 1 2 13	2018 4.1 20.5 151.2 1 2 13	2019 4.1 20.5 151.2 1 2	2020 4.1 20.5 151.2 1 2 13
26 Phase 3 Main pipeline 27 Distribution pipeline 28 Phase 4 Main pipeline 29 Distribution pipeline 30 Residential SP 31 Residential HR+meter 32 Commercial SP (cooking) 33 Commercial SP valve 35 Commercial SP valve 35 Commercial SP (AC) 36 Commercial SP (AC) 37 Offtaker 38 A governor 39 B governor 40 Total investment (Case 1 and 2) 41 Cumulative investment (Case 1 and 2) 42 Depriciation (Case 1 and 2) 43 Cumurative depriciation (Case 1 and 2) 44 Net property (case 1 and 2)	(mil Rp)	21 27 5 45 5 9 81 0 119 59 2,723 2,723 2,723 340 340 2,383	93 117 1 12 1 1 8 0 0 59 2,002 4,725 548 889 3,837	288 352 11 100 10 17 155 0 0 176 1.120 5.845 620 1.508 4.337	241 304 22 22 4 39 0 0 117 733 6.578 634 2.142	423 7,608 333 419 2 22 2 4 38 0 119 176 9,148 15,726 1,698 3,840 11,886	251 317 3 32 3 6 51 0 0 176 840 16,565 1,591 5,430	0 0 4 34 4 6 57 0 0 0 105 16,671 1,405 6,836 9,835	16 20 4 40 4 7 60 564 0 715 17,386 1,319 8,154 9,232	16 20 2 16 2 3 28 0 0 0 0 87 17,473 1,165 9,319 8,154	0 0 1 13 1 2 20 0 0 0 37 17,510 1,024 10,343 7,167	0 0 7 65 6 10 89 0 0 17 686 918 11,261 6,425	0 0 7 7 62 5 9 83 0 0 0 167 17,853 824 12,085 5,768	978 0 0 0 9 84 7 13 115 0 0 1,206 19,059 872 12,957 6,102	0 0 6 60 5 9 84 0 0 165 19,224 783 13,740 5,484	0 0 6 60 5 9 84 0 0 0 165 19,389 706 14,446 4,943	0 0 6 6 60 5 9 84 0 0 0 165 19,555 639 15,085	0 0 6 60 5 9 84 0 0 0 165 19,720 579 15,664 4,056	0 0 3 29 4 7 63 0 0 0 106 19,826 520 16,184 3,641	0 0 0 0 2 3 25 0 0 0 29 19.855 459 16.643 3.212	0 0 0 0 2 3 25 0 0 0 29 19.884 405 17.048 2,836	0 0 0 0 0 0 0 0 0 0 0 0 0 19.884 354 17.403 2,481	0 0 0 0 0 0 0 0 0 0 0 19,884 310 17,713 2,171	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 19.884 271 17.984 1,900	0 0 0 0 0 0 0 0 0 0 0 0 0 0 19.884 237 18.222 1,662
45 Total investment (Case 3 and 4) 46 Cumulative investment (Case 3 and 4) 47 Depriciation (Case 3 and 4) 48 Cumulative depriciation (Case 3 and 4) 49 Net property (Case 3 and 4)	(mil Rp) (mil Rp) (mil Rp) (mil Rp) (mil Rp)	1,372 1,372 172 172 1,201	2,002 3,374 400 572 2,802	1.120 4.494 490 1.062 3.432	733 5,227 521 1,583 3,644	1,540 6,767 648 2,231 4,536	840 7,606 672 2,903 4,704	105 7,712 601 3,504 4,208	715 8,427 615 4,119 4,308	8,514 - 549 4,669 3,845	37 8,551 485 5,154 3,397	176 8,727 447 5,600 3,126	167 8,894 412 6,012 2,882	1,206 10,100 511 6,523 3,577	165 10,265 468 6,991 3,274	165 10,430 430 7,421 3,010	165 10,596 397 7,818 2,778	165 10,761 368 8,186 2,575	106 10,867 335 8,521 2,346	29 10,895 297 8,818 2,078	29 10,925 263 9,081 1,844	0 10,925 230 9,312 1,613	0 10,925 202 9,513 1,412	0 10,925 176 9,690 1,235	0 10,925 154 9,844 1,081
50 Total investment of separate utility 51 Cumulative investment of separate utilit 52 Depriciation of separate utility 53 Cumulative depriciation of separate utility 54 Net property of separate utility	(mil Rp)	2,381 2,381 298 298 2,084	1,542 3,923 453 751 3,172	1,120 5,043 537 1,287 3,756	733 5,776 561 1,848 3,928	9,029 14,805 1,620 3,468 11,337	840 15,644 1,522 4,990 10,654	105 15,750 1,345 6,335 9,415	151 15,901 1,196 7,531 8,370	87 15,988 1,057 8,588 7,400	37 16,025 930 9,518 6,507	176 16,201 835 10,353 5,848	167 16,368 752 11,105 5,263	1,206 17,574 809 11,913 5,661	165 17,739 728 12,642 5,098	165 17,905 658 13,300 4,605	165 18,070 596 13,896 4,174	165 18,235 542 14,438 3,797	106 18,341 488 14,926 3,415	18,370 430 15,357 3,013	29 18,399 380 15,737 2,662	0 18,399 333 16,070 2,329	0 18,399 291 16,361 2,038	0 18,399 255 16,616 1,783	0 18,399 223 16,839 1,561
(Imported facilities in dollar term) 55 Residential HR4 meter 56 Commercial HR4 meter (cooking) 57 Commercial HR9 valve 58 Commercial meter (AC) 59 Offtaker 60 A governor 61 B governor 62 Turbo chiller (deducted) 63 Absorption chiller 64 Total 65 Exchange rate	(1000\$) (1000\$) (1000\$) (1000\$) (1000\$) (1000\$) (1000\$) (1000\$) (1000\$) (Rp/\$)	1997 11 19 2 34 0 51 25 7,216 7,735 662 2,350	1998 50 5 0 3 0 0 25 727 779 136 2,350	1,340	2000 129 9 1 16 0 0 50 3,440 3,688 454 2,350	2001 178 9 1 16 0 51 75 3,437 3,685 578 2,350	2002 135 14 1 22 0 0 75 4.597 4.927 577 2.350	2003 0 15 2 24 0 0 5,123 5,492 409 2,350	2004 9 17 2 26 240 0 0 5,366 5,752 679 2,350	2005 9 7 1 12 0 0 0 2,468 2,645 205 2,350	2006 0 5 1 8 0 0 0 1,744 1,869 140 2,350	2007 0 27 2 38 0 0 0 7,979 8,553 642 2,350	2008 0 26 2 36 0 0 0 7,452 7,988 600 2,350	2009 0 36 3 49 0 0 0 10,304 11,045 829 2,350	2010 0 26 2 36 0 0 0 7,494 8,033 603 2,350	2011 0 26 2 36 0 0 0 7,494 8,033 603 2,350	2012 0 26 2 36 0 0 0 7,494 8,033 603 2,350	2013 0 26 2 36 0 0 7,494 8,033 603 2,350	2014 0 12 2 27 0 0 0 5,635 6,041 446 2,350	2015 0 0 1 11 0 0 0 2,211 2,370 170 2,350	2016 0 0 1 11 0 0 0 2,211 2,370 170 2,350	2017	2018 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2019 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2020 0 0 0 0 0 0 0 0 0 0 0 0

(Number of Workers)																			004F	. منم	4043		0040	6060
66 Administrative staff (Except Safety) (persons) 67 Administrative workers (Except Safety) (persons) 68 Administrative staff (for Safety) (persons) 69 Administrative workers (for Safety) (persons) 70 Safes (persons) 71 Meter reading (persons) 72 Collecting (persons) 73 High-medium pressure (Safety) (persons) 74 Low pressure (Safety) (persons) 75 Meter administration (persons) 76 Total (persons) 77 White collar (except safety) (persons) 78 Blue collar (except safety) (persons) 79 White collar (for safety) (persons) 80 Blue collar (for safety) (persons) 81 Safary per a white collar (separate utility) 82 Saraly per a white collar (separate utility) 83 Safary per a white collar (PGN) (1000Rp/y 84 Saraly per a blue collar (PGN) (1000Rp/y	1997 1 3 2 4 1 1 0 10 1 22 1 5 2 14 50,842 9,829 76,262 14,744	1998 2 5 2 4 4 1 1 2 9 2 32 2 13 2 15 50.842 9,829 76,262 14,744	1999 4 9 1 2 9 1 2 2 8 7 45 4 28 1 12 50.842 9.829 76.262 14.744	2000 5 10 1 1 7 3 4 1 8 10 50 5 34 1 10 50,842 9,829 76,262 14,744	2001 6 11 8 14 9 4 6 2 50 13 123 6 43 8 66 50.842 9.829 76.262 14.744	2002 6 10 7 11 7 5 8 2 47 15 118 6 45 7 60 50,842 9,829 76,262 14,744	2003 5 8 6 9 1 6 9 1 44 103 5 38 6 54 50.842 9.829 76.262 14.744	2004 6 5 7 1 5 8 1 41 14 92 4 34 5 49 50.842 9.829 76.252 14.744	2005 4 6 5 6 1 5 8 1 38 13 87 4 33 5 45 5 9,829 76,262 14,744	2006 4 6 4 5 1 1 5 7 1 35 12 80 4 31 41 50.842 9.829 76.252 14.744	2007 3 4 3 3 3 1 5 7 1 3 3 11 7 11 3 28 3 3 7 5 5,842 9,829 76,262 14,744	2008 3 4 3 3 1 4 7 1 31 11 68 3 27 3 35 50,842 9,829 76,262 14,744	2009 3 4 2 2 1 4 6 1 29 10 62 3 25 2 32 50.842 9.829 76.262 14,744	2010 2 2 2 2 1 1 4 6 1 27 9 55 2 22 29 50.842 9.829 76.262 14.744	2011 2 2 2 2 1 1 4 5 1 25 9 52 2 21 2 27 50.842 9.829 76.262 14,744	2012 2 2 1 0 1 3 5 1 23 8 46 2 19 1 24 50.842 9.829 76,262 14,744	2013 2 2 1 0 1 3 5 1 22 8 45 2 19 1 23 50,842 9,829 76,262 14,744	2014 2 2 1 0 1 3 5 1 20 7 42 2 18 1 21 50.842 9,829 76,262 14,744	2015 1 1 0 1 3 4 1 19 7 38 1 16 1 20 50,842 9,829 76,262 14,744	2016 1 1 0 1 3 4 1 17 6 35 1 18 50,842 9,829 76,262 14,744	2017 1 1 0 0 1 1 3 4 0 16 6 32 1 15 0 16 50.842 9.829 76,262 14,744	2018 1 1 0 0 1 2 4 0 15 6 30 1 14 0 15 50.842 9.829 76.262 14.744	2019 1 1 0 0 1 2 3 0 14 5 27 1 12 0 14 50.842 9.829 76.262 14.744	2020 1 1 0 0 0 2 3 0 13 1 21 1 7 0 13 50.842 9.829 76.262 14,744
85 Total salary(White, case 1 to 4) (mil Rp) 86 Total salary(blue, case 1 to 4) (mil Rp) 87 Total salary of separate utility(white, case (mil Rp) 88 Total salary of separate utility(blue, case 5 (mil Rp) 89 Total salary of PGN(white, case 1) (mil Rp) 90 Total salary of PGN(blue, case 1) (mil Rp)	229 280 51 49 153 206	305 413 102 128 153 221	381 590 203 275 76 177	458 649 254 334 76 147	1,068 1,607 305 423 610 973	991 1,548 305 442 534 885	839 1,356 254 374 458 798	686 1,224 203 334 381 722	686 1,150 203 324 381 663	610 1,062 203 305 305 604	458 958 153 275 229 546	458 914 153 265 229 516	381 840 153 246 153 472	305 752 102 216 153 428	305 708 102 206 153 398	229 634 102 187 76 354	229 619 102 187 76 339	229 575 102 177 76 310	153 531 51 157 76 295	153 487 51 147 76 265	76 457 51 147 0 236	76 428 51 138 0 221	76 383 51 118 0 206	76 295 51 69 0 192
(Social benefit & loss analyses:case 1 to 4) 91 Social benefit for residential customers 92 Social benefit for commercial cooking (Rp/m3) 93 Social benefit for commercial AC (Rp/m3) 94 Total social benefit from gas sales (MMRp) 95 Social loss for gas supplied (Rp/m3) 96 Total social loss from gas supplied (mil Rp) 97 Gross social benefit (mil Rp) 98 Total investment (mil Rp) 99 LPG bottle repurchase (residential) (mil Rp) 100 In house pipeline installation (residential) 101 LPG bottle repurchase (conmercial) (mil Rp) 102 In house pipeline installation (cooking) (mil Rp) 103 In house pipeline installation (AC) (mil Rp) 104 Turbo chiller (mil Rp) 105 Absorption chiller (mil Rp) 106 Imported facilites (included) (mil Rp) 107 Imported facilites (included) (mil Rp) 109 Labor cost (mil Rp) 110 Income tax (included) (mil Rp) 111 Administrative expenses (mil Rp) 112 Maintenance & other expenses (mil Rp) 113 Value tax (included) (mil Rp) 114 Net social benefit (mil Rp) 115 EIRR 116 NPV as of 104 (mil Rp) 117 NPV as of 15% (mil Rp)	1997 800 800 528 0 167 0 2,723 42 85 3 47 95 16,958 18,178 1,555 0 3,987 560 62 168 54 168 54 33 16,958	1998 800 800 528 2,619 167 738 1,881 2,002 186 372 1 13 10 1,709 1,832 320 0 2,137 790 87 237 95 33 -1,257	1999 800 800 800 528 3,597 167 969 2,628 1,120 575 1,150 6 104 183 32,605 34,950 3,150 0 3,564 1,068 1,166	2000 800 800 528 8,322 167 2,248 6,074 733 483 966 1 23 45 8,085 8,667 1,067 0 1,337 1,217 1,34 365 132 50 3,208	2001 800 809 528 9,929 167 2,657 7,272 9,148 665 1,330 45 8,078 8,059 1,359 0 9,751 2,942 321 88,3 315 120 -6,177	2002 800 800 528 11,881 174 3,271 8,610 840 502 1,005 2 33 60 10,802 11,579 1,356 0 1,648 2,793 304 838 331 117 3,419	2003 800 800 528 13,626 178 3,823 9,803 105 0 0 2 36 67 12,906 962 0 1,005 2,415 261 724 333 106 5,692	2004 800 800 528 14,901 182 4,311 10,590 715 32 65 2 42 71 12,610 13,517 1,595 0 1,662 2,101 225 630 348 98 6,172	2005 800 800 528 15,901 186 4,719 11,182 87 32 65 1 17 32 5,799 6,216 483 0 5,19 2,020 2,18 606 349 96 8,000	2006 800 800 528 16,666 190 5,066 11,600 37 0 0 1 13 23 4,098 4,393 328 0 344 1,839 198 552 350 90 8,803	2007 800 800 528 17,013 193 5,262 11,751 176 0 4 67 105 18,750 20,099 1,508 0 1,589 1,558 1,558 1,564 4,67 354 8,030	2008 800 800 528 17,871 197 5,659 12,212 167 0 4 65 98 17,513 18,772 1,411 0 1,488 1,509 453 357 81 8,647	2009 800 800 528 18,482 210 6,249 12,233 1,206 0 0 5,87 136 24,214 25,956 1,948 0 3,030 1,344 141 403 381 7,294	2010 800 800 528 19.515 217 6.837 12.678 165 0 4 63 99 17.660 18.877 1.416 0 1.491 1.163 349 384 73 9,485	2011 800 800 528 20,317 222 7,296 13,021 165 0 4 63 99 17,610 18,877 1,416 0 1,491 1,114 314 388 72 9,883	2012 800 528 21,120 227 7,770 13,350 165 0 4 63 99 17,610 18,877 1,416 0 1,491 949 98 285 391 10,400	2013 800 800 528 21,923 231 13,702 165 0 4 63 99 17,610 18,877 1,416 0 1,491 933 96 280 394 67 10,767	2014 800 800 528 22,725 236 8,720 14,005 106 0 2 30 74 13,243 14,196 1,048 0 1,086 884 92 265 397 66 11,531	2015 800 800 528 23,720 242 9,384 14,337 29 0 0 0 29 5,195 5,569 400 0 403 752 76 225 397 62 12,698	2016 800 800 528 24,434 247 9,912 14,523 29 0 0 0 29 5,195 5,569 400 0 403 703 72 211 398 61 12,941	2017 800 800 528 25,148 252 10,453 14,695 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2018 800 800 528 25,148 257 10,660 14,488 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2019 800 528 25,148 262 10,868 14,280 0 0 0 0 0 0 0 0 0 0 0 0 0 506 50 152 398 55 13,330	2020 800 528 25,148 267 11,075 14,073 0 0 0 0 0 0 0 0 0 0 0 0 0
(Social benefit & loss analyses case 5) 118 Social benefit for residential customers 119 Social benefit for commercial cooking 120 Social benefit for commercial AC (Rp/m3) 121 Total social benefit from gas sales (MMRp) 122 Social boss for gas supplied (Rp/m3) 123 Total social benefit from gas supplied (Rp/m3) 124 Gross social benefit (mil Rp) 125 Total investment (mil Rp) 126 LPG bottle repurchase (residential) (mil Rp) 127 In house pipeline installation (residential) (mil Rp) 128 LPG bottle repurchase (commercial) (mil Rp) 129 In house pipeline installation (cooking) (mil Rp) 130 In house pipeline installation (AG) (mil Rp) 131 Turbo chiller (mil Rp) 132 Absorption chiller (mil Rp) 133 Imported facilites (included) (mil Rp) 134 Insported tax (mil Rp) 135 Net social loss for facilities (mil Rp) 136 Labor cost (mil Rp) 137 Income tax (included) (mil Rp) 138 Administrative exponses (mil Rp) 139 Maintenance & other exponses (mil Rp) 140 Value tax (included) (mil Rp) 141 Net social benefit (mil Rp)	1997 800 800 528 0 167 0 0 2,723 42 85 3 47 95 16,958 18,178 1,555 0 3,987 495 56 148 20 -4,609	1998 800 528 2,619 167 738 1,881 2,002 186 372 1 13 10 1,709 1,832 320 0 2,137 641 73 192 29 -1,082	1999 800 800 528 3,597 167 969 2,628 1,120 575 1,150 6 104 183 32,605 34,950 3,150 0 3,564 757 87 227 117 34 -1,915	2000 800 528 8,322 167 2,248 6,074 733 483 966 1 23 45 8,085 8,667 1,067 0 1,337 834 98 250 132 38 3,657	2001 800 800 528 9,929 167 7,272 9,148 665 1,330 1 23 45 8,659 1,359 0 9,751 2,469 277 741 315 106 -5,621	2002 800 800 528 11,881 174 3,271 8,610 840 502 1,005 2 33 60 10,802 11,579 1,356 0 1,648 2,308 259 692 331 102 3,991	2003 800 800 528 13,626 178 3,823 9,803 105 0 2 36 67 12,039 12,906 952 0 1,005 2,007 224 602 333 94 6,173	2004 800 800 528 14,901 182 4,311 10,590 715 32 65 2 42 71 12,610 13,517 1,595 0 1,662 1,752 193 526 348 87 6,584	2005 800 528 15,901 186 4,719 11,182 87 32 65 1 17 32 5,799 6,216 433 0 519 1,677 186 503 349 85 8,404	2006 800 528 16,656 190 5,066 11,600 1 1,33 2,4,038 4,393 3,28 0 3,44 1,509 167 453 80 9,192	2007 800 800 528 17,013 193 5,262 11,751 176 0 4 67 105 18,750 20,099 1,508 0 1,589 1,279 139 384 74 8,358	2008 800 528 17,871 197 5,659 12,212 167 0 4 65 98 17,513 18,772 1,411 0 1,488 1,237 135 371 357 73 8,967	2009 800 528 18,482 210 6,249 12,233 1,206 0 5 87 136 24,214 25,956 1,948 0 3,030 1,085 118 326 381 71 7,599	2010 800 528 19.515 217 6.837 12.678 165 0 4 63 99 17.610 18.877 1.416 0 1.491 956 103 287 384 67 9,729	2011 800 800 528 20,317 222 7,296 13,021 165 0 4 63 99 17,610 18,877 1,416 0 1,491 914 99 274 388 66 10,119	2012 800 528 21,120 227 7,770 13,350 165 0 4 63 99 17,610 18,877 1,416 0 1,491 762 81 228 391 62 10,621	2013 800 800 528 21,923 231 8,221 13,702 165 0 4 63 99 17,610 18,877 1,416 0 1,491 745 79 224 394 62 10,988	2014 800 800 528 22,725 236 8,720 14,005 106 0 0 2 30 74 13,243 14,196 1,048 703 75 211 397 61 111,744	2015 800 528 23,720 242 9,384 14,337 0 0 0 0 29 5,195 5,569 400 0 403 616 64 185 397 58 12,858	2016 800 528 24,434 247 9,912 14,523 0 0 0 0 0 29 5,195 5,569 400 0 403 574 60 172 398 57 13,093	2017 800 800 528 25,148 252 10,453 14,695 0 0 0 0 0 0 0 0 0 0 0 0 0	2018 800 800 528 25,148 257 10,660 14,488 0 0 0 0 0 0 0 0 0 0 432 44 130 398 53	2019 800 800 528 25,148 262 10,868 14,280 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2020 800 528 25,148 267 11,075 14,073 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

	142 EIRR 143 NPV as of 10% 144 NPV as of 15%	(mil Rp) (mil Rp)	32.9% 38,099 18,575		•																					
	Cast:PGN operates, when gas sales price (Price of Gas)	of residentia						****	***		8005	0005	2007	2004	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
	145 Gas sales price (residential) 146 Gas sales price (commercial cooking) 147 Gas sales price (commercial AC) 148 Gas material cost	(Rp/m3) (Rp/m3) (Rp/m3) (Rp/m3)	1997 370 330 330 162	1998 370 330 330 168	370 330 330 174	2000 370 330 330 183	2001 370 330 330 192	2002 370 330 330 199	2003 370 330 330 204	2004 370 330 330 209	2005 370 330 330 212	2006 370 330 330 216	2007 370 330 330 219	2008 370 330 330 223	370 330 330 227	370 330 330 230	370 330 330 232	370 330 330 237	370 330 330 241	370 330 330 246	370 330 330 252	370 330 330 257	370 330 330 282	370 330 330 267	370 330 330 272	370 330 330 277
1.	(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 150 Gas material cost 151 Gross profit 152 Property tax 153 Labor cost 154 Administrative expenses 155 Maintenance & other expenses 156 Total investment 157 Before tax cash flow 158 IRR of before tax cash flow 159 NPV as of 10% 160 NPV as of 15%	(mil Rp) 3 (mil Rp)	0 0 0 2 560 168 54 2,723 -3,508 #NUM! -11,832 -11,377	1,464 742 722 4 790 237 95 2,002 -2,405	1,941 1,012 929 4 1,068 320 117 1,120 -1,700	4,513 2,459 2,054 4 1,217 365 192 733 -397	5,356 3,053 2,303 12 2,942 883 315 9,148 -10,996	6,362 3,746 2,616 11 2,793 838 331 840 -2,197	7,280 4,385 2,895 10 2,415 724 333 105 -693	8,010 4,944 3,066 9 2,101 630 348 715 -738	8,571 5,376 3,194 8 2,020 606 349 87 124	9,000 5,748 3,252 7 1,839 552 350 37 467	9,198 5,984 3,215 6 1,558 467 354 176 653	9,681 6,416 3,265 6 1,509 453 357 167 773	10,020 6,758 3,262 6 1,344 403 381 1,206 -78	10,598 7,261 3,337 5 1,163 349 384 165 1,270	11,047 7,625 3,422 5 1,114 334 388 165 1,416	11,496 8,112 3,384 4 949 285 391 165 1,590	11,945 8,577 3,368 4 933 280 394 165 1,592	12,394 9,090 3,305 4 884 265 397 106 1,650	12.997 9,771 3.226 3 752 225 397 29 1,819	13,443 10,313 3,130 3 703 211 398 29 1,787	13,839 10,868 3,022 2 587 176 398 0 1,859	13,889 11,075 2,814 2 554 166 398 0 1,694	13.889 11,283 2,607 2 506 152 398 0 1,550	13,889 11,490 2,400 2 408 122 398 0 1,469
	(Down Side Sensitivity Analysis)		1997	1998	1999	2000	2001	2002	2003 2,749	2004 2,905	2005 3,023	2006 3,072	2007 3,031	2008 3,071	2009 3,062	2010 3,125	2011 3,201	2012 3,154	2013 3,130	2014 3,057	2015 2,966	2016 2,862	2017 2,744	2018 2,537	2019 2,329	2020 2,122
:	161 2% contingency sales Gross Profit 162 10% contingency total investment 163 Before tax cash flow 164 IRR of before tax cash flow 165 NPV as of 10% 166 NPV as of 15%	(mil Rp) (mil Rp) (mil Rp) (mil Rp) (mil Rp)	0 2,996 -3,780 #DIV/0! -14,296 -13,161	692 2,202 -2,635	891 1,232 -1,851	1,964 806 -561	2,196 10,062 -12,018	2,489 924 -2,409	116 -849	787 -970	95 -56	41 284	194 452	183 563	1.327 -399	182 1,042	182 1,178	182 1.343	182 1,337	116 1,391	32 1,556	32 1,515	0 1,581	0 1,416	1,272	0 1.192
13	(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) 168 In house pipeline installation (residential) 169 LPG bottle repurchase (commercial) 170 In house pipeline installation (cooking) 171 Before tax dash flow 172 IRR of before tax dash flow 173 NPV as of 10%	(mit Rp)	42 85 0 0 -3.550 #NUM! -13.511 -12,776	186 372 0 0 -2,591	575 1,150 0 0 -2,275	483 966 0 0 -880	665 1,330 0 0 -11,661	502 1,005 0 0 -2,700	0 0 0 0 -693	32 65 0 -770	32 65 0 0 92	0 0 0 0 467	0 0 0 0 653	0 0 0 0 773	0 0 0 0 -78	0 0 0 0 1,270	0 0 0 0 1,416	0 0 0 0 1,590	0 0 0 0 1,592	0 0 0 1,650	0 0 0 0 1,819	0 0 0 0 1.787	0 0 0 1,859	0 0 0 1.694	0 0 0 0 1,550	0 0 0 0 1,463
	(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 176 IRR of before tax cash flow 177 NPV as of 10\ 178 NPV as of 15\	(mil Rp) (mil Rp) (mil Rp)	-3,823 #DIV/0! -15,975 -14,561	-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	1,192
:	Gasa 2.PGN operates when gas sales price (Price of Gas)	of resident	-		100			-3			, ,		****	0000	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
	179 Gas sales price (residential) 180 Gas sales price (commercial cooking) 181 Gas sales price (commercial AC) 182 Gas material cost	(Rp/m3) (Rp/m3) (Rp/m3) (Rp/m3)	1997 370 330 330 162	1998 413 330 330 168	1999 456 330 330 174	2000 499 330 330 183	2001 542 330 330 192	2002 585 330 330 199	2003 628 330 330 204	2004 671 330 330 209	2005 714 330 330 212	2006 757 330 330 216	2007 800 330 330 219	2008 800 330 330 223	800 330 330 227	800 330 330 230	800 330 330 232	800 330 330 237	800 330 330 241	800 330 330 246	800 330 330 252	800 330 330 257	800 330 330 262	800 330 330 267	800 330 330 272	800 330 330 277
	(Financial Feasibility Analysis)	1	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 184 Gas material cost 185 Gross profit 186 Property tax 187 Labor cost 188 Administrative expenses 189 Maintenance & other expenses 190 Total investment 191 Before tax cash flow 192 IRR of before tax cash flow 193 NPV as of 10%	(mit Rp) 3 (mit Rp)	0 0 0 550 168 54 2,723 -3,508 8,6% -1,932 -5,640	1,469 742 727 4 790 237 95 2,002 -2,400	2,000 1,012 988 4 1,068 320 117 1,120 -1,642	4,746 2,459 2,286 4 1,217 365 132 733 -165	5.814 3.053 2.761 12 2.942 883 315 9.148 -10.537	7,209 3,746 3,463 11 2,793 838 331 840 -1,350	8.528 4,385 4,143 10 2,415 724 333 105 555	9,465 4,944 4,521 9 2,101 630 348 715 718	10,267 5,376 4,891 8 2,020 606 349 87 1,821	10.946 5.748 5.198 7 1.839 552 350 37 2.413	11,360 5,984 5,377 6 1,558 467 354 176 2,815	11,843 6,416 5,427 6 1,509 459 357 167 2,936	12,183 6,758 5,424 6 1,344 403 381 1,206 2,084	12,760 7,261 5,499 5 1,163 349 384 165 3,432	13,209 7,625 5,584 1,114 334 388 165 3,578	13,658 8,112 5,546 4 949 285 391 165 3,752	14,107 8,577 5,531 4 933 280 394 165 3,754	14,556 9,090 5,467 4 884 265 397 106 3,812	15,159 9,771 5,388 3 752 225 397 29 3,981	15,605 10,313 5,293 3 703 211 398 29 3,949	16,052 10,868 5,184 2 587 176 398 0 4,021	16,052 11,075 4,976 2 554 166 398 0 3,856	16,052 11,283 4,769 2 506 152 398 0 3,712	16,052 11,490 4,562 2 408 122 398 0 3,632
٠	(Down Side Sensitivity Analysis)		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015 5,085	2016 4,980	2017 4,863	2018 4,655	2019 4,448	2020 4,241
•	195.2% contingency sales Gross Profit 196.10% contingency total investment 197.Before tax cash flow 198.IRR of before tax cash flow 199.NPV as of 10% 200.NPV as of 15%	(mil Rp) (mil Rp) (mil Rp) (mil Rp) (mil Rp)	0 2,996 -3,780 6.7% -4,594 -7,539	698 2,202 -2,629	948 1,232 -1,794	2,191 806 -333	2,645 10,062 -11,569	3,319 924 -1,579	3,972 116 374	4,332 787 457	4,685 95 1,607	4,979 41 2,191	5,149 194 2,571	5,190 183 2,682	5,181 1,327 1,719	5,244 182 3,160	5,320 182 3,297	5,273 182 3,462	5,248 182 3,455	5,176 116 3,510	32 3,675	32 3.634	3,700	3,535	3,391	3,311

(Cinneth Andreas with to these transferior)																						**		•	•
202 In house pipeline installation (residential) 203 LPG bottle repurchase (commorcial) 204 In house pipeline installation (cooking) 205 Before tax cash flow 206 IRR of before tax cash flow 207 NPV as of 104	(mit Rp) (mit Rp) (mit Rp) (mit Rp) (mit Rp) (mit Rp) (mit Rp)	1997 42 85 0 0 -3.550 7.5% -3.612 -7.040	1998 186 372 0 0 -2,585	1999 575 1,150 0 0 -2,217	2000 483 966 0 0 -648	2001 665 1,330 0 0 -11,203	2002 502 1,006 0 0 -1,853	2003 0 0 0 0 0 555	2004 32 65 0 0 685	2005 32 65 0 0 1,788	2006 0 0 0 0 2.413	2007 0 0 0 0 0 2.815	2008 0 0 0 0 0 2,936	2009 0 0 0 0 2,084	2010 0 0 0 0 3.432	2011 0 0 0 0 0 3,518	2012 0 0 0 0 0 0 3,752	2013 0 0 0 0 0 3,754	2014 0 0 0 0 0 3,812	2015 0 0 0 0 0 3,981	2016 0 0 0 0 0 0 3,949	2017 0 0 0 0 4,021	2018 0 0 0 0 0 3.856	2019 0 0 0 0 0 3,712	2020 0 0 0 0 3,632
210 IRR of before tax cash flow 211 NPV as of 10%	(mit Rp) (mit Rp) (mit Rp)	1997 -3,823 5.8% -6,274 -8,939	1998 -2,815	1999 -2,369	2000 -816	2001 -12,234	2002 -2,081	2003 374	2004 424	2005 -1,574	2006 2,191	2007 2,571	2008 2,682	2009 1,719	2010 3,160	2011 3,297	2012 3,462	2013 3,455	2014 3.510	2015 3,675	2016 3,634	2017 3,700	2018 3,535	2019 3,391	2020 3,311
Gase 3 Residential distribution pipelines inve	ested by Gov	vernment v	vhen gas i	ales price	remained	the same	as now.															* .			
 214 Gas sales price (commercial cooking) 215 Gas sales price (commercial AC)	(Rp/m3) (Rp/m3) (Rp/m3) (Rp/m3)	1997 370 330 330 162	1998 370 330 330 168	1999 370 330 330 174	2000 370 330 330 183	2001 370 330 330 192	2002 370 330 330 199	2003 370 330 330 204	2004 370 330 330 209	2005 370 330 330 212	2006 370 330 330 216	2007 370 330 330 219	2008 370 330 330 223	2009 370 330 330 227	2010 370 330 330 230	2011 370 330 330 232	2012 370 330 330 237	2013 370 330 330 241	2014 370 330 330 246	2015 370 330 330 252	2016 370 330 330 257	2017 370 330 330 262	2018 370 330 330 267	2019 370 330 330 272	2020 370 330 330 277
218 Gas material cost 3	(mit Rp)	1997 0 0 0 1 560 168 54 339 -1,122 8.5% -777 -2,111	1998 1,464 742 722 3 790 237 95 103 -505	1999 1,941 1,012 929 3 1,068 320 117 471 -1,050	2000 4,513 2,459 2,054 4 1,217 365 132 287 50	2001 5,356 3,053 2,303 5 2,942 883 315 378 -2,219	2002 6,362 3,746 2,616 5 2,793 838 331 312 -1,663	2003 7,280 4,385 2,895 4 2,415 724 333 67 -649	2004 8,010 4,944 3,066 4 2,101 630 348 87 -105	2005 8,571 5,376 3,194 4 2,020 606 349 49 166	2006 9,000 5,748 3,252 3 1,839 552 350 23 485	2007 9,198 5,984 3,215 3 1,558 467 354 106 727	2008 9.681 6,416 3,265 3 1,509 453 357 99 844	2009 10.020 6,758 3,262 4 1,344 403 381 137 993	2010 10,598 7,261 3,337 3 1,163 349 384 100 1,338	2011 11,047 7,625 3,422 3 1,114 334 388 100 1,483	2012 11,496 8,112 3,334 3 949 285 391 100 1,657	2013 11,945 8.577 3.368 3 933 280 394 100 1,659	2014 12,394 9,090 3,305 2 884 265 397 73 1,683	2015 12,997 9,771 3,226 2 752 225 397 28 1,822	2016 13,443 10,313 3,130 2 703 211 398 28 1,790	2017 13,889 10,868 3,022 2 587 176 398 0 1,860	2018 13.889 11.075 2.814 1 554 166 398 0 1,695	2019 13,889 11,283 2,697 1 506 152 398 0 1,551	2020 13,889 11,490 2,400 1 408 122 398 0 1,470
(Down Side Sensitivity Analysis) 229 2% contingency sales Gross Profit 230 10% contingency total investment 231 Before tax cash flow 232 IRR of before tax cash flow 233 NPV as of 10% 234 NPV as of 15%	(mil Rp) (mil Rp) (mil Rp) (mil Rp) (mil Rp)	1997 0 373 -1,156 5.8% -2,138 -2,970	1938 692 114 -545	1999 891 518 -1,135	2000 1,964 315 -69	2001 2,196 416 -2,363	2002 2,489 343 -1,821	2003 2,749 74 -802	2004 2,905 96 -274	2005 3,023 53 -10	2006 3,072 25 303	2007 3.031 117 532	2008 3,071 109 640	2009 3,062 151 779	2010 3,125 110 1,116	2011 3,201 110 1,252	2012 3,154 110 1,417	2013 3,130 110 1,410	2014 3,057 80 1,428	2015 2,966 30 1,559	2016 2,862 30 1,518	2017 2,744 0 1,582	2018 2.537 0 1,417	2019 2,329 0 1,273	2020 2,122 0 1,192
(Financial Analyses with In House Installation) 235 LPG bottle repurchase (residential) 236 In house pipeline installation (residential) 237 LPG bottle repurchase (commercial) 238 In house pipeline installation (cooking) 239 Before tax cash flow 240 IRR of before tax cash flow 241 NPV as of 10%	(mil Rp)	1997 42 85 0 0 -1,165 6.04 -2,457 -3,510	1998 186 372 0 0 -691	1999 575 1,150 0 0 -1,625	2000 483 966 0 0 -433	2001 665 1,330 0 0 -2,884	2002 502 1,005 0 0 -2,165	2003 0 0 0 0 0 -649	2004 32 65 0 0 -137	2005 32 65 0 0 134	2006 0 0 0 0 485	2007 0 0 0 0 0 727	2008 0 0 0 0 0 844	2009 0 0 0 0 993	2010 0 0 0 0 0 1,338	2011 0 0 0 0 0 1,483	2012 0 0 0 0 1,657	2013 0 0 0 0 0 1,659	2014 0 0 0 0 0 1,683	2015	2016 0 0 0 0 0 1,790	2017 0 0 0 0 1,860	2018 0 0 0 0 0 1,695	2019 0 0 0 0 1,551	2020 0 0 0 0 1,470
(Down Side Sensitivity Analysis) 243 Before tax cash flow 244 IRR of before tax cash flow 245 NPV as of 10% 246 NPV as of 15%	(mil Rp) (mil Rp) (mil Rp)	1997 -1,198 -3,7% -3,618 -4,370	1998 -731	1999 -1,711	2000 -552	2001 -3,029	2002 -2,324	2003 -802	2004 -306	2005 -42	2006 303	2007 532	2008 640	2009 779	2010 1,116	2011 1,252	2012 1,417	2013 1,410	2014 1,428	2015 1,559	2016 1.518	2017 1,582	2018 1,417	2019 1,273	2020 1,192
Case 4:Residential distribution pipelines invo (Price of Gas) 247 Gas sales price (residential) 248 Gas sales price (commercial cooking) 249 Gas sales price (commercial AG) 250 Gas material cost	(Rp/m3) (Rp/m3) (Rp/m3) (Rp/m3)	1997 370 330 330 162	when gas 1998 413 330 330 168	esies price 1999 456 330 330 174	2000 2000 499 330 330 183	ntial sect 2001 542 330 330 192	2002 585 330 330 199	2003 628 330 330 204	2004 671 330 330 209	2005 714 330 330 212	2006 757 330 330 216	2007 800 330 330 219	2008 800 330 330 223	2009 800 330 330 227	2010 800 330 330 230	2011 800 330 330 232	2012 800 330 330 237	2013 800 330 330 241	2014 800 330 330 246	2015 800 330 330 252	2016 800 330 330 257	2017 800 330 330 262	2018 800 330 330 267	2019 800 330 330 272	2020 800 330 330 277
(Financial Fessibility Analysis) 251 Gas sales 252 Gas material cost 253 Gross profit 254 Property tax 255 Labor cost 256 Administrative expenses	(mil Rp) 3 (mil Rp) (mil Rp) (mil Rp) (mil Rp) (mil Rp) (mil Rp)	1997 0 0 0 1 560 168	1998 1,469 742 727 3 790 237	1999 2,000 1,012 988 3 1,068 320	2000 4,746 2,459 2,286 4 1,217 365	2001 5.814 3.053 2,761 5 2,942 883	2002 7,209 3,746 3,463 5 2,793 838	2003 8,528 4,385 4,143 4 2,415 724	2004 9,465 4,944 4,521 4 2,101 630	2005 10,267 5,376 4,891 4 2,020 606	2006 10,946 5,748 5,198 3 1,839 552	2007 11,350 5,984 5,977 3 1,558 467	2008 11,843 6,416 5,427 3 1,509 453	2009 12,183 6,758 5,424 4 1,344 403	2010 12,760 7,261 5,499 3 1,163 349	2011 13,209 7,625 5,584 3 1,114	2012 13,658 8,112 5,546 3 949 285	2013 14,107 8,577 5,531 3 933 280	2014 14,556 9,090 5,467 2 884 265	2015 15,159 9,771 5,388 2 752 225	2016 15,605 10,313 5,293 2 703 211	2017 16,052 10,868 5,184 2 587 176	2018 16,052 11,075 4,976 1 554 166	2019 16,052 11,283 4,769 1 506 152	2020 16,052 11,490 4,562 1 408 122

257 Maintenance & other expenses 258 Total investment 259 Before tax cash flow 260 IRR of before tax cash flow 261 NPV as of 10% 262 NPV as of 15%	(mil Rp) (mil Rp) (mil Rp) (mil Rp) (mil Rp)	54 339 -1,122 24.1% 9,122 3,626	95 103 -500	117 471 -992	132 287 282	315 378 -1,760	331 312 -816	333 67 598	348 87 1,351	349 49 1,863	350 23 2,431	354 106 2.889	357 99 3,006	381 137 3,155	384 100 3,500	388 100 3.645	391 100 3.819	394 100 3,821	397 73 3.846	397 28 3,934	398 28 3,952	398 0 4,022	398 0 3,857	398 0 3,713	398 0 3,632
(Down Side Sensitivity Analysis) 263-2% contingency sales Gross Profit 264-10% contingency total investment 265 Before tax cash flow 266 IRR of before tax cash flow 267 NPV as of 10% 268 NPV as of 15%	(mil Rp) (mil Rp) (mil Rp) (mil Rp) (mil Rp)	1997 0 373 -1,156 21,6% 7,563 2,652	1998 698 114 -540	1999 948 518 -1.079	2000 2,191 315 159	2001 2,645 416 -1,914	2002 3,319 343 -991	2003 3,972 74 421	2004 4,332 96 1,153	2005 4,685 53 1,653	2006 4,979 25 2,210	2007 5,149 117 2,651	2008 5,190 109 2,759	2009 5,181 151 2,898	2010 5,244 110 3,235	2011 5.320 110 3.371	2012 5,273 110 3,536	2013 5,248 110 3,529	2014 5.176 80 3.547	2015 5,085 30 3,678	2016 4,980 30 3,637	2017 4,863 0 3,701	2018 4,655 0 3,536	2019 4.448 0 3.392	2020 4.241 0 3.311
(Financial Analyses with In House Installation) 269 LPG bottle repurchase (residential) 270 In house pipeline installation (residential) 271 LPG bottle repurchase (commercial) 272 In house pipeline installation (cooking) 273 Before tax cash flow 274 IRR of before tax cash flow 275 NPV as of 10% 276 NPV as of 15%	(mil Rp) (mil Rp) (mil Rp) (mil Rp) (mil Rp) (mil Rp) (mil Rp)	1997 42 85 0 0 -1,165 19,7% 7,443 2,227	1998 186 372 0 0 -636	1999 575 1,150 0 0 -1,567	2000 483 966 0 0 -200	2001 665 1,330 0 0 -2,425	2002 502 1,005 0 0 -1,318	2003 0 0 0 0 0 598	2004 32 65 0 0 1,318	2005 32 65 0 0 1,831	2006 0 0 0 0 0 2,431	2007 0 0 0 0 0 2.889	2008 0 0 0 0 0 3,006	2009 0 0 0 0 0 3,155	2010 0 0 0 0 0 3,500	2011 0 0 0 0 0 3.645	2012 0 0 0 0 0 3.819	2013 0 0 0 0 0 3,821	2014 0 0 0 0 0 3,846	2015 0 0 0 0 0 3,984	2016 0 0 0 0 0 3,952	2017 0 0 0 0 4.022	2018 0 0 0 0 0 3.857	2019 0 0 0 0 0 3,713	2020 0 0 0 0 0 3,632
\$ (Down Side Sensitivity Analysis) 277 Before tax cash flow 278 IRR of before tax cash flow 279 NPV as of 10% 280 NPV as of 15%	(mil Rp) (mil Rp) (mil Rp)	1997 -1,198 17.6% 5.884 1,252	1998 -726	1999 -1,654	2000 -324	2001 -2,579	2002 -1,494	2003 421	2004 1,120	2005 1,620	2006 2,210	2007 2,651	2008 2,759	2009 2,898	2010 3,235	2011 3,371	2012 3,536	2013 3,529	2014 3,547	2015 3,678	2016 3,637	2017 3,701	2018 3,536	2019 3,392	2020 3,311
Case 5:Separate utility Entity (Price of Gas) 281 Gas sales price (residential) 282 Gas sales price (commercial cooking) 283 Gas sales price (commercial AC) 284 Gas material cost	(Rp/m3) (Rp/m3) (Rp/m3) (Rp/m3)	1997 800 800 330 315	1998 800 800 330 315	1999 800 800 330 315	2000 800 800 330 315	2001 800 800 330 315	2002 800 800 330 315	2003 800 800 330 315	2004 800 800 330 315	2005 800 800 330 315	2006 800 800 330 315	2007 800 800 330 315	2008 800 800 330 315	2009 800 800 330 315	2010 800 800 330 315	2011 800 800 330 315	2012 800 800 330 315	2013 800 800 330 315	2014 800 800 330 315	2015 800 800 330 315	2016 800 800 330 315	2017 800 800 330 315	2018 800 800 330 315	2019 800 800 330 315	2020 800 800 330 315
(Financial Feasibility Analysis) 285 Gas sales 286 Gas material cost 287 Groes profit 288 Property tax 289 Labor cost 290 Administrative expenses 291 Maintenance & other expenses 292 Total investment 293 Before tax cash flow 294 IRR of before tax cash flow 295 NPV as of 10% 296 NPV as of 15%	(mil Rp) 3 (mil Rp) 4 (mil Rp) 6 (mil Rp)	1997 0 0 2 100 30 48 2,381 -2,561 21,2% 12,027 4,204	1998 1,951 1,393 559 3 229 69 78 1,542 -1,363	1999 2,837 1,827 1,010 4 479 144 101 1,120 -836	2000 6,542 4,239 2,303 4 588 177 116 733 686	2001 7,892 5,011 2,881 11 728 218 296 9,029 -7,401	2002 9,581 5,922 3,659 11 747 224 313 840 1,524	2003 11,038 6,765 4,273 9 628 188 315 105 3,028	2004 11,954 7,461 4,493 8 538 161 318 151 3,316	2005 12,700 7,993 4,707 7 528 158 320 87 3,607	2006 13,269 8,399 4,870 7 508 152 320 37 3,846	2007 13,520 8,588 4,931 6 428 128 324 176 3,869	2008 14,152 9,049 5,103 5 418 125 327 167 4,060	2009 14,607 9,373 5,234 6 398 119 351 1,206 3,153	2010 15,373 9,924 5,449 5 318 95 355 165 4,511	2011 15.968 10.353 5.615 5 308 92 358 165 4.686	2012 16,562 10,782 5,780 4 288 87 361 165 4,874	2013 17,156 11,210 5,946 4 288 87 365 165 5,037	2014 17,750 11,639 6,111 3 279 84 367 106 5,273	2015 18,406 12,214 6,192 3 208 62 367 29 5,522	2016 18,852 12,640 6,212 3 198 59 368 29 5,555	2017 19,298 13,066 6,232 2 198 59 368 0 5,604	2018 19,298 13,066 6,292 2 188 57 368 0 5,617	2019 19.298 13.065 6.232 2 169 51 368 0 5.643	2020 19.298 13.066 6.232 2 120 36 368 0 5.707
(Down Side Sensitivity Analysis) 297 2% contingency sales Gross Profit 293 10% contingency total investment 299 Before tax cash flow 300 IRR of before tax cash flow 301 NPV as of 10% 302 NPV as of 15%	(mil Rp) (mil Rp) (mil Rp) (mil Rp) (mil Rp)	1997 0 2,619 -2,799 18.04 9,125 2,177	1998 520 1,698 -1,557	1999 953 1,232 -1,005	2000 2,172 806 481	2001 2,724 9,932 -8,461	2002 3,467 924 1,248	2003 4,053 116 2,796	2004 4,254 167 3,062	2005 4,453 95 3,345	2006 4,605 41 3,577	2007 4,661 194 3,581	2008 4,820 183 3,760	2009 4,942 1,327 2,740	2010 5.142 182 4.187	2011 5,295 182 4,350	2012 5,449 182 4,527	2013 5,603 182 4,677	2014 5,755 116 4,907	2015 5,824 32 5,151	2016 5,835 32 5,175	2017 5,846 0 5,218	2018 5,846 0 5,231	2019 5.846 0 5.257	2020 5.846 0 5.321
(Financial Analyses with In House Installation) 303 LPG bottle repurchase (residential) 304 In house pipeline installation (residential) 305 LPG bottle repurchase (commercial) 306 In house pipeline installation (cooking) 307 Before tax cash flow 308 IRR of before tax cash flow 309 NPV as of 10% 310 NPV as of 15%	(mil Ro)	1997 42 85 3 47 -2,648 18,44 10,006 2,555	1998 186 372 1 13 -1,561	1999 575 1,150 6 104 -1,510	2000 483 966 1 23 181	2001 665 1,330 1 23 -8,088	2002 502 1,005 2 33 990	2003 0 0 2 36 2,994	2004 32 65 2 42 3,245	2005 32 65 1 17 3,559	2006 0 0 1 13 3,833	2007 0 0 4 67 3,806	2008 0 0 4 65 3,999	2009 0 0 5 87 3,071	2010 0 0 4 63 4,452	2011 0 0 4 63 4.627	2012 0 0 4 63 4,815	2013 0 0 4 63 4,978	2014 0 0 2 30 5,245	2015 0 0 0 0 5.522	2016 0 0 0 0 5,555	2017 0 0 0 0 5,604	2018 0 0 0 0 5,617	2019 0 0 0 0 5,643	2020 0 0 0 0 5,707
(Down Side Sensitivity Analysis) 311 Before tax cash flow 312 IRR of before tax cash flow 313 NPV as of 104 314 NPV as of 154	(mil Rp) (mil Rp) (mil Rp)	1997 -2,886 15,7% 7,103 527	1998 -1,755	1999 -1,678	2000 -23	2001 -9,149	2002 715	2003 2,763	2004 2,991	2005 3,297	2006 3,564	2007 3,518	2008 3,699	2009 2,658	2010 4,128	2011 4,291	2012 4,467	2013 4,618	2014 4,879	2015 5.151	2016 5,175	2017 5,218	2018 5,231	2019 5,257	2020 5,321

(Profit & Loss Account of Separate Utility)																	5047	. 40.45		
	1997 199		2000 2001	2002 2003	2004	2005 2000		2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
315 Sales of gas (mit Rp)		.951 2.837	6,542 7,892	9,581 11,038	11,954	12,700 13,			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 Ro)		,393 1,827	4,239 5,011	5,922 6,765	7,461		99 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		70 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 Depriciation (mil Rp)	298	453 537	561 1,620	1,522 1,345	1,196	1,057	30 835	752	809	728	658	\$ 96	542	488	430	380	333	291	255	223
319 Labor cost (mil Rp)	100	229 479	588 728	747 628	538	528	08 428	418	398	318	308	288	288	279	208	198	193	183	-169	120
320 Administrative expenses (mil Rp)	30	69 144	177 218	224 138	161	158	52 128	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	20 324	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)	Õ	41 23	20 10	0 2	23	71	36 222	326	365	366	426	517	565	571	586	606	628	652	676	703
324 Interest expenses (mil Rp)	300	300 300	300 346	987 855			71 343	257	171	86	0	0	0	0	0	0 :	0	0	0	0
325 Income before income taxes (mil Ro)		-533 -530	577 -328	-146 934			18 3,039	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)	770	~~~	0 0	0 0			85 927	1,063	1,123	1,268	1,386	1,488	1,567	1,639	1.712	1,743	1,770	1.793	1,819	1,856
327 Net income (mil Rp)	. •	-533 -530	577 -328	-146 934			33 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
25) Met moone (mm mp)	""	505 500	377 020	115 001	1,020	1,,,,,	2,,,,	2,14	-1	_,,,,,	0.24.	•	4,500					•		
(Cash Flow Statement of Separate Utility)																				
(Cash Out)	1997 199	98 1999	2000 2001	2002 2003	2004	2005 2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
		.542 1,120	733 9.029	840 105		87	37 176		1,206	165	165	165	165	106	29	29	0	0	0	0
		622 -113	-23 -2.166	108 1.745			40 1,964	2,209	-634	666	1,726	1,903	34	205	396	418	463	476	500	554
		920 1,006	710 6,862	948 1,851	933		76 2,140	2,375	573	831	1,891	2.068	200	311	425	447	463	476	500	554
	3,320	320 1,000	710 0,002	340 1,001	200	1,677	20 2,110	2,0,0	. 070	•••	1,031	2,000	200	• • • • • • • • • • • • • • • • • • • •		•••	,,,		•	
331 (Cash In) 332 Net income (mil Rp)	-777	-533 -530	577 -328	-146 934	1,023	1,476	33 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
	-///	0 0	0 0	0 0	1,013	1.7.0	0 0	-,100	-2,000	-2,000	-2 000	-2.000	-4,000	-4,000	-4,000	-4,000	-4,000	-4.000	4,000	-4,000
		453 537	561 1,620	1,522 1,345	-	•	30 835	•	809	728	658	596	542	488	430	380	333	291	255	223
		,000 1,000	0 0	0 : 0	1,190	0	0 0		0	0	0	Õ	0	0	0	ŏŏ	. 0	Ô		0
		.000	0 6,000	0 0	•	ŏ	0 0	ŏ	ň	ŏ	ň	·ŏ	ŏ	ň	ŏ	ň	ŏ	ŏ	ŏ	· ŏ
336 Long term (Financing) (mil Rp)	3,000	0 0	-429 -429	-429 -429	•	-1,286 -1,		-857	-857	-857	ň	ŏ	ŏ	. ŏ	ŏ	ŏ	Ŏ	· ŏ	ŏ	· ŏ
337 (Princple repayment) (mil Rp) 338 Total (mil Rp)		920 1,006	710 6,862	948 1,851	933		76 2,140		573	831	1.891	2,068	200	311	425	447	463	476	500	554
338 Total (mil Rp)	3,320	920 1,000	. 110 0,002	340 1,031	300	1,277 1,	2,140	6,070	0,0	551	7,001	1,000	105	J.,	720	• • • • • • • • • • • • • • • • • • • •				
(Balance Sheet of Separate Utility)															:			100		
	1997 199	38 1999	2000 2001	2002 2003	2004	2005 2004	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
(Assets) 339 Gash (mil Rp)		517 404	380 0	0 67	849		49 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)		172 3.756	3,928 11,337	10,654 9,415			07 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
341 Total (mil Rp)		690 4,159	4,308 11,337	10,654 9,482			56 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
(Liabilities and Equity)	3,223 0	1,100	4,000 (1,00)	10,001 5,102	0,610	V.100		12,001	12,010	10, 0,		10,100			,	,	, 0,			
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,	29 2,571	1.714	857	ัด	0	0	0	0	. 0	0	0	0	. 0	. 0
343 Short term debt (mil Rp)	0.000	0 0	0 1,786	1,678 0			0 0		0,	ň	ŏ	ŏ	Ŏ	Õ	ŏ	. 0	ò	ō	o	0
344 Equity (mil Rp)	•	690 1.159	1.737 1.408	1,262 2,196	_	. •	27 8,689		11,791	12,751	13,984	15,456	15,114	14,937	14,931	14.938	15.128	15.313	15,558	15.889
345 Total (mil Rp)		690 4,159	4,308 11,337	10,654 9,482			56 11,261	12.884	12,643	12,751	13,984	15,456	15,114	14,937	14,931	14,998	15,128	15.313	15,558	15.889
345 Long term debt/Total investment	48.9%	,000 4,100	1,000	10.001	0,010	0,100	,		12,010			,	10,111							
347 Equity/Total investment	16.3			er e			•								•					
348 Equity cash flow (mil Rp)		.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%	,000			•					,,,,,	-,									1
OTS HAT OF EQUITY HITOSOFETH		100												200						
(Financial Fessibility of PGN in Separate Utility Case)	1				1000	4.44									1					
	1997 199	98 1999	2000 2001	2002 2003	2004	2005 2009	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	15 315	315	315	315	315	315	315	315	315	315	315	315	315	315
351 Gas purchase price (Rp/m3)		168 174	183 192	199 204	209	212	16 219	223	227	230	232	237	241	246	252	257	262	267	272	277
352 Total gas sales (mil Rp)		.393 1.827	4,239 5,011	5,922 6,765	7,461	7,993 8,	99 8,588	9,049	9,373	9,924	10,353	10,782	11,210	11,639	12,214	12,610	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,	48 5,984	6,416	6,753	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		51 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	Ō	0:
357 Main pipeline (10bar) (mit Rp)	223	450 0	0 0	0 0	0	0	0 0	0	•	0	• 0	0	0	0	. 0	0	0	0	. 0	. 0 :
358 Labor expc Salaries (mil Ro)	359	374 253	224 1,583	1,418 1,254	1,104	1.045	10 774	745	624	580	551	430	415	386	371	342	236	321	206	192
359 Pensions (mil Rp)	36	37 25	22 158	142 125		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,	00 852	819	687	638	606	473	457	424	408	376	259	243	227	211
361 Administrative expenses (mil Rp)	118	123 84	74 522	468 414	364	345	00 256	216	206	191	182	142	137	127	122	113	78	. 73	68	63
362 Maintenance & other expenses (mil Rp)	2	2 2	2 5	5 5	16	16	16 - 16	16	16	16	16	16	16	16	16	16	16	16	16	16
363 Net cash flow (mil Rp)	-858 -	-346 451	1,458 -430	144 582	359	1,106 1,	34 1,481	1,551	1,706	1.817	1,924	2 039	2,024	1,982	1,896	1,823	1,845	1,659	1,472	1,286
364 FIRR	40.6%					•									1,000					
365 NPV as of 10% (mil Rp)	6,509										•					4.1				
366 NPV as of 155 (mil Ro)	3 419					The second second			44 11							1.7			-	

(m3 Cost Base Case)

	Geotaterial Geotaterial	1,230 85 4,058 3,232 24,156 63,211		1,642,015 12,724 1,272 461 4,199 17,621 131,730 1,810,002 250	1,668,813 93,202 9,320 9,320 874 30,757 33,398 249,639 2,285,004 277																							
	(NPV of 15s) 10 Gas material cost/incremetal) 11 Property Tex 12 Labor cost (incremen Staffs 13 Workers 14 Pensions 15 Total 16 Administrative expenses 17 Maintenance & other expenses 18 Total investment	(mã Rp) (mã Rp) (mã Rp) (mã Rp) (mã Rp) (mã Rp) (mã Rp)	1,869,813 874 34,131 59,071 9,320 102,523 30,757 33,398 249,639 2,286,004							·									·									
	20 Commercial Cooking 21 Boils+Air 22 Total 23 Industrial	(1000m3) (1000m3) (1000m3) (1000m3) (1000m3) (1000m3)	793,727 80,070 626,449 706,519 7,241,758 8,242,004	Om3/hour) (5 225 944 80 070 208 816 826 685	Supplying hour 1,300 1,000 3,000 8,760	r/year)																						
		(6) (6) (6) (6) (6) (6) (6) (6) (6) (6)		there % lesidential C 73.8% OCS OCS OCS	Cookin Co 28 28 0 0% 0 0% 100 0% 100 0% 0 0% 0 0%	00% AC lov 00% 100.0% 100.0% 100.0% 100.0%	100.0% 100.0% 100.0% 100.0% 100.0% 100.0% 100.0% 100.0% 100.0%		Sociation of easistantial Confession of easistantial Confession of the Confession of		13.455 0 13.455 0 14.568 0 368 209 3.287 0 0 0	3.406 81.207 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	otal 83.824 13.455 3.406 81.207 14.566 213 2.010 366 209 3.287 516 1.178 3.141 1.225 6.400 33.518 1.120 0	83,824 13,455 3,406 81,207 14,566 213 2,910 356 209 3,287 516 1,178 1,125 6,400 33,518 1,120														
(:	(Gas Material Cost) 43 Gas material cost 44 Gas material cost(incremental)		1995	1995	1997 155.550 0	1998 177,062 18,512	1929 203 2 79 44,728	2,000 245,724 87,174	2,001 292,928 134,377	2 002 340 605 182 055	2,003 350,280 221,729	2,004 423,105 264,555	2005 457,818 299,068	2006 504,926 345,776	2007 562.678 404.128	2008 833,360 474,810	2008 717,993 559,443	2010 611,051 652,501	2011 876,868 720,317	2012 1,009,210 850,659	2013 1,150,615 992,265					2018 2,207,691 2,049,141	2019 2.519,967 2.381,437	
		(1000m3) (1000m3) (1000m3) (1000m3) (1000m3) (1000m3)	1995 2,490 3,331 4,138 7,469 750,734 760,893	1996 2:274 4:564 5:670 10:234 877,599 890,107	1097 2.768 4.708 8.508 13.212 960.411 976.389	1995 4,889 5,512 10,899 16,411 1,033,211 1,054,611	1999 9,181 6,319 (5,076 21,395 1,134,611 1,165,387	2,000 16,963 7,125 21,038 28,163 1,299,611 1,344,738	2,001 25,268 8,306 31,502 39,810 1,451,211 1,526,290	2,002 33,184 9,858 44,988 54,654 1,621,827 1,709,665	2,003 41,179 11,805 61,488 73,293 1,747,787 1,862,259	2,004 49,256 14,118 81,011 95,129 1,882,587 2,026,972	2005 57,188 18,808 103,553 120,381 1,982,187 2,159,718			2008 82 943 25,665 179,102 204,969 2,547,736 2,835,647	2009 91,700 29,251 207,216 236,468 2,832,990 3,461,158					2014 136,761 49,540 374,773 424,313 4,829,280 5,392,354				2018 174,368 20,298 549,120 619,916 7,474,221 8,268,505		2020 192,043 83,518 653,087 738,605 9,375,594 10,304,243
		(1000m3) (1000m3) (1000m3) (1000m3) (1000m3) (1000m3)	1995	1998	1397 0 0 0 0 0	1998 2,223 806 2,393 3,199 72,800 78,222 6,00	1999 6,415 1,612 6,570 8,163 174,400 186,928 16,93	2,000 14,197 2,419 12,532 14,651 339,200 368,349 36,89	2,001 22,503 3,602 22,998 26,598 500,800 549,901 58,00	2,002 30,418 5,162 36,480 41,642 661,216 733,276 78,00	2,009 38,413 7,098 52,989 65,081 787,376 865,870 98,00	2,004 46,490 9,412 72,505 81,917 922,176 1,050,583 118,00	2005 54,422 12,102 95,047 107,149 1,021,758 1,183,327 138,00			2008 80,177 21,160 170,597 191,757 1,587,325 1,859,258 198,00	2009 88.934 24.545 198.711 223.256 1.872.579 2.184.769 2.18.00	2010 97,818 28,132 228,447 256,579 2,185,288 2,542,685 238,00	2011 108,700 31,940 259,952 291,892 2,404,925 2,803,517 258,00	2012 115,690 35,982 293,341 329,324 2,836,868 3,281,879 278,00	2013 124,788 40,275 328,797 369,011 3,304,979 3,798,778 298,00	4,413,965				2018 171,602 65,090 540,614 606,704 6,513,810 7,292,136 394,00		2020 189:277 78:812 644:581 723:393 8:415:183 9:327:654 438:00
	(Cumulative Workers for residential) 58 Administrative steff 59 Administrative workers 60 Sales 61 Meter reading 62 CoSocting 63 High-modium pressure 64 Low pressure	(persons) (persons) (persons) (persons) (persons) (persons)	1995	1998	1997 2 4 21	1998 17 37 36 3 5	1,999 35 76 61 8 14	2,000 53 101 81 15 26	2001 62 110 54 23 40	2,002 69 113 50 30 50	2,003 72 11) 47 35 60 272	2004 72 103 42 43 68	2005 73 98 42 43 73	2008 72 89 38 48 80	2007 69 80 35 50 84	2008 65 71 33 52 67	2009 61 62 31 53 90	2010 57 54 29 54 91 375	2011 52 46 27 54 92 368 179	2012 47 39 25 53 91 359 179	2013 42 32 23 52 89 350 179	2014 37 27 22 50 88 340	2015 33 22 20 49 88 329 175	2018 29 18 19 47 83 319 172	2017 25 15 18 45 81 308	2018 22 12 16 44 79 298 166	2019 19 9 12 42 76	2020 15 7 41 74 268 150
	65 Moter administration 68 Total 67 Total salary 68 NPV	(persons) (persons)			10 59 933 67,372	27 : 182 3,723	55 354 7.528	80 497 10,818	101 590 12:512	116 630 14.099	133 730 15 190	144 762 15,660	155 808 16,414	162 830 18,641	169 848 18,625	173 845 16,473	176 844 16217	639 15,883	818 15,268	793 14,576	767 13,890	741 13,220	714 12,568	688 11,925	662 11,316	636 10.73 I	607 10,097	555 9,076

(Cumulative Workers for cooking) 69 Administrative staff 70 Administrative workers 71 Sales (persons) 72 Meter reading (persons) 73 Cotlecting (persons) 74 High-medium pressure (persons) 75 New pressure (persons) 76 Meter administration (persons) 77 Total (persons) 78 Total solary (persons)	1995	1996 199	2 4 9 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1,099 7 15 0 0 0 37 0 60 1,338	2,000 10 19 0 0 0 54 0 85 1,872	2001 2 12 21 0 0 0 0 0 68 0 102 2,240	13 22 0 1 0 80 0 116 2512	2.603 14 21 0 1 0 90 90 126 2.706	2004 14 20 0 1 0 93 1 134 2.827	2005 14 19 0 1 0 105 1 140 2,919	2006 14 17 0 1 0 110 1 144 2,960	2007 13 16 0 1 0 114 1 146 2,969	2008 13 14 0 1 0 18 18 1 147 2,954	2009 12 12 0 1 0 120 1 147 2,919	2010 11 11 0 2 1 1 121 1 147 2,870	2011 11 10 0 2 1 1 122 1 146 2,809	2012 10 8 0 2 1 122 1 144 2,740	2013 8 7 0 2 1 121 142 2.664	2014 8 0 2 1 120 1 139 2.584	2015 6 5 0 2 1 119 1 135 2.502	2018 7 5 0 2 1 117 1 133 2,417	2017 7 4 0 2 1 115 1 130 2.332	2018 6 3 0 2 1 113 1 127 2248	2019 6 3 0 2 1 109 1 122 2,145	2020 5 2 2 1 102 1 113 1,068
79 NPV (Cumulative Workers for AC) 80 Administrative staff (persons) 81 Administrative workers (persons) 82 Safes (persons) 83 Moter reading (persons) 84 Collecting (persons) 85 High-medium pressure (persons) 85 High-medium pressure (persons) 86 Love pressure (persons) 87 Meter administration (persons) 88 Total (persons) 99 Total safery	1995	1996 195	7 1998 1 1 2 3 0 0 0 0 3 8 0 0 6 10 54 94	1999 2 3 0 0 0 0 8 0 13	2,000 2 4 0 0 0 10 0 18 18	200) 2 4 0 0 0 12 0 18 157	2002 2 4 0 0 0 13 0 12	2.003 2 3 0 0 0 14 0 21 159	2004 2 3 0 0 0 15 0 22 169	2005 2 3 0 0 0 18 0 22 187	2008 2 3 0 0 0 17 0 23 162	2007 2 2 0 1 0 17 0 23 158	2008 2 2 0 1 0 17 0 23 149	2009 2 2 2 0 1 0 18 0 23 141	2010 2 2 0 1 0 18 1 23 133	2011 2 1 0 1 0 18 1 22 124	2012 2 1 0 1 0 18 1 22 116	2013 1 1 0 1 0 17 1 22 108	2014 1 0 1 0 17 1 21 100	2015 1 0 1 0 17 1 21 92	2018 1 0 1 0 17 17 20 84	2017 1 1 0 1 0 18 1 20 77	2018 1 1 0 1 0 18 1 19 71	2019	2020 1 0 1 0 1 0 14 1 18 58
(Cumulative Workers for Industrial sector) 91 Administrative staff (persons) 92 Administrative workers (persons) 93 Sales (persons) 94 Moter reading (persons) 95 Collecting (persons) 95 High-medium pressure (persons) 97 Low pressure (persons) 98 Moter administration (persons) 99 Total (persons) 100 Total salary 101 NPV	1995	1995 198	11 12 26 27 0 0 1 1 0 0 6 11 0 43 51 862 849	0 1 0 15	2,000 14 26 0 2 0 19 0 61 1,057	2,001 2 13 24 0 2 0 18 8 0 55 1,029	2,002 13 22 0 2 0 17 0 54 1,002	2,003 13 20 0 3 0 16 0 51	2004 13 18 0 3 0 15 0 49 955	2005 12 16 0 3 0 14 0 45 937	2008 12 15 0 3 0 13 0 44 920	2007 12 14 0 3 0 13 0 42 907	2008 12 13 0 4 0 12 0 41 895	2009 12 12 0 4 0 12 0 40 885	2010 11 11 0 4 0 11 0 38 873	2011 11 10 0 5 0 10	2012 11 8 0 5 0 10 0 36 858	2013 11 9 0 5 0 9 0 35 652	2014 11 8 0 6 0 9	2015 11 7 0 8 0 8	2018 11 7 0 6 0 8	2017 11 6 0 7 0 8 1 33 831	2018 11 6 0 7 0 8 8	2019 11 5 0 8 0 7	2020 11 5 7 0 7 1 31 815
(Total workers) 102 Administrative staff (persons) 103 Administrative workers (persons) 104 Sales (persons) 105 Meter racking (persons) 106 Collecting (persons) 107 High-modium pressure (persons) 108 Lew pressure (persons) 109 Meter administration (persons) 110 Total (persons)	1995	1996 19	97 1998 18 35 38 75 21 36 0 3 0 3 0 5 9 17 28 75 10 27 120 273	122 51 9 14 23 140 55	2,000 79 150 61 17 26 20 215 81 658	2.001 2 90 158 54 26 40 30 269 101 763	2,002 97 180 50 33 50 30 321 119 860	2,003 101 155 47 39 60 30 382 133 928	2004 101 145 43 44 88 30 390 145	2005 102 138 42 47 73 30 430 156 1,018	99 124 38 52 81 30 452 164 1,040	2007 98 812 38 55 85 30 469 170	2008 92 100 33 57 88 30 481 175 1,058	2009 87 88 31 59 91 29 490 178	2010 82 78 29 81 92 29 496 180	2011 76 87 27 61 93 28 489 181 1,023	2012 70 58 25 41 92 27 481 181	2013 64 49 24 60 91 27 471 181 968	2014 58 42 22 59 89 26 480 179 938	2015 53 36 24 58 87 25 448 177 905	2016 43 30 19 56 85 25 436 175 874	2017 44 28 18 55 82 24 423 172 845	2018 40 22 17 54 80 23 410 169 815	2019 38 18 13 53 78 23 397 164 780	2020 31 15 0 51 75 21 370 153 718

(m3 Cost High Case)

(Cumulative Workers for ecoking)	1995	1998	1997	1998	1,999	2,000	2.001	2.002	2.003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
69 Administrative staff 70 Administrative workers (persons) 71 Safes (persons) 72 Meter reading (persons) 73 CoBooting (persons) 74 High-modium pressure (persons) 75 Low pressure (persons) 75 Meter administration (persons)	, 1887	1830	2 4 0	4 9 0 0 0	7 15 0 0 0	10 19 0 0 0	12 21 0 0 0	13 22 0 1 0	14 21 0 1 0	14 20 0 1 0	14 19 0 1 0	14 17 0 1 0	13 16 0 1 0	13 14 0 1 0	12 12 0 1 0	12 11 0 2 1	11 10 0 2 1	10 8 0 2 1	9 7 0 2 1	121 1	8 5 0 2 1	7 5 0 2 1 118 1	7 4 0 2 1	8 3 0 2 1	6 3 0 2 1	5 2 2 1 104
76 Motor administration (persons) 77 Total (persons) 76 Total salary (persons) 79 NPV			13 284 12,406	31 706	80 1,352	85 1,888	103 2,257	2,531	127 2,727	135 2,860	141 2.942	145 2,984	147 2,994	148 2,976	149 2,944	148 2,894	147 2,833	145 2,784	143 2.589	140 2,609	138 2.527	135 2,443	131 2,358	, 128 2 273	125 2.189	115 2,007
(Oumulative Workers for AC) 80 Administrative staff (persons)	1995	1998	1997	1998	1,999	2 000 2	2 001	2.002	2,003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017 1	2018	2019 1 0	2020
81 Administrative workers (persons) 82 Sales (persons) 83 Meter reading (persons) 84 Collecting (persons)			9	3 0 0	3 0 0	0	0	0	3 0 0	0	0	0 0 0	0	0 1 0	0 1 0	0 0	0	1	0	0	0	1	0 1 0	0	0	- 1
85 High-modium pressure (persons) 88 Low pressure (parsons) 67 Meter administration (persons)			3	6 0 10	6 0 13	10 0 18	12 0 18	13 0 19	14 0 21	15 0 22	16 0 22	17 0 23	17 0 23	17 0 23	18 0 23	18 1 23	18 1 22	18 1 22	17 1 22	1 1 21	17 1 21	17 1 21	16 1 20	18 1 20	15 1	14 1 18
68 Total (parsons) 89 Total salary 90 NPV			54 811	94	123	144	157	165	169	170	187	163	157	149	142	133	125	116	108	100	92	85	78	n	67	59
(Cumulative Workers for Industrial sector)	1995	1998	1997	1998	1,999	2,000	2,001	2.002	2,003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2015	2017	2018	2019	2020
91 Administrative staff (persona) 92 Administrative workers (persona) 93 Sales (persona) 94 Meter reading (persona) 95 Collecting (persona)	1993	1330	11 26 0	12 27 0 1	13 27 0 2 0	14 26 0 2 0	14 24 0 3 0	13 22 0 3 0	13 20 0 3 0	13 18 0 3 0	12 17 0 3 0	12 15 0 4 0	12 14 0 4 0	12 13 0 4 0	12 12 0 5	12 11 0 5 0	11 10 0 6 0	11 9 0 7 0	11 9 0 8 0	11 8 0 9 0	11 8 0 9 0	11 7 0 10 0	11 7 0 12 1 8	11 6 0 13 1 8	11 6 0 14 1	11 5 13 1
98 High-medium pressure (persons) 97 Low pressure (persons) 98 Moter administration (persons) 99 Yotal (persons)		: !	0 43	0 51	0 57	0 62	0 59	0 55	52	0 50 984	0 47 944	0 45 927	0 43 913	0 42 902	0 41 893	0 39 581	. 1 39 876	38 870	1 38 867	1 38 884	1 37 856	38 854	1 39 853	1 39 852	1 40 850	1 38 839
100 Total selary 101 NPV			863 6,129	952	1,018	1,054	1,037	1.011	957		344	921	•13	972			0.0				:				+ + + ±	
(Total workers)	1995	1895	1997	1998	1,999	2,000	2,001	2,002	2.003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	201 5 53	2018 48	2017	2018	2019 38	2020
102 Administrative staff (persons) 103 Administrative workers (persons) 104 Sates (persons) 105 Mater reading (persons)			16 36 21 0	35 75 36 3	60 122 62	79 150 81 17	90 158 54 28	97 180 50 33	101 155 47 39	101 145 44 44	101 136 41 47	99 124 38 52	96 112 36 55	92 100 33 57	87 88 31 59	62 78 29 61	76 67 27 61	70 58 25 61	84 49 24 80	58 42 22 59	38 21 58	30 19 58	26 18 55	22 17 54	18 18 53	15 0 51
108 Coffecting (personal 107 High-modium pressure (personal 108 Low pressure (personal 109 Meter administration (personal			0 9 28 10	5 17 75 27	14 23 140 55	26 29 215 81	40 30 269 101	50 30 321 119	60 30 362 134	68 30 390 148	73 39 430 156	81 30 452 164	85 30 459 170	68 30 481 175	91 29 490 178	92 29 496 180	93 28 489 182	92 27 451 182	91 27 471 181	89 26 460 180	87 25 443 178	85 25 438 175	82 24 423 173	80 23 410 169	78 23 397 168	75 21 370 155
110 Total (persons)			121	273	485	658	768	880	928	968	1,015	1,041	1.052	1.058	1,054	1,046	1.024	995	965	937	908	875	845	816	788	718

(m3 Cost Low Case)

	1 GasMaterial 2 lebor 3 pensions 4 Property tax 5 Admin 6 MaintSother 7 Investment 8 Total 9 Cost/m3	63,226 68,921 8,692 211 22,084 8,18 58,915 228,214	12,157 1,216 1 84 5 4,012 1 3,248 5 23,433 1 61,749	137,574 809 81 113 267 4,384 31,647 174,674	1,149,620 10,812 1,081 393 3,568 15,213 109,829 1,290,518 257	1,368,023 90,701 8,070 800 29,931 31,003 223,824 1,753,353 293				·																			
0	NPV of 15%) 10 Gas material cost/ 11 Property Tax 12 Labor cost (increm) 13 14 15 16 Administrative exp 17 Maintenance & oth 18 Total investment	(Incremotel) monSteffs Workers Pensions Total penses	(mil Rp) (mil Rp) (mil Rp) (mil Rp) (mil Rp) (mil Rp) (mil Rp)	1,368 023 800 33 259 57,442 9070 99,771 29,931 31,003 223,824 1,753,353							. 3						:												
N	NPV of Gas demand(15)	N)	e a gradua																			÷				• :			. *
	19 Residential 20 Commercial 21 22 23 Industrial 24 Total		(1000m3) (1000m3) (1000m3) (1000m3) (1000m3)	276.616 77,005 601,871 678.877 5,018.933 5,964.964	0m3/hour3 (1 212 782 77.005 200 824 572 938	Supplying hou 1,300 1,000 3,000 8,760	r/year)									:													· · · · · · · · · · · · · · · · · · ·
	Distribution of investment of the commercial distribution of 27 Industrial distribution of the commercial distribution of the commercial distribution of the commercial cooking the commercial AC of the commercial action	nors bution tion scion scion ing SP ing meter+HR other actor actor actor	(mit Rp) (mit Rp) (mit Rp) (mit Rp) (mit Rp) (mit Rp)	Total NPV 6 80.235 19,412 2,199 73,291 14,568 202 1,910 347 199 3,123 333 761 2,078 6,114 22,837 1,083 223,824	Chare % Cesidential C 73.4% 0.0% 0.0%	00% Cookin C 28 6% 00% 100 0% 100 0% 00% 00%	0 0% 100 0% 0 0% 0 0% 100 0% 100 0% 100 0%	100 0% 100 0% 100 0% 100 0% 100 0% 100 0% 100 0% 100 0%		Uncation of a state		om AO in 13,412 0 0 14,568 0 0 0 347 199 3,123 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	333 761 22837 1.083 0	Fotal 80,236 13,412 2,199 79,291 14,566 202 1,910 347 159 3,123 333 761 2,028 1,164 8,114 22,897 1,083 0	50,236 13,412 2,199 73,241 14,566 202 1,910 347 199 3,123 333 761 2,028 1,164 6,114 22,837 1,063														
()	(Ges Material Coct) 43 Ges material cost 44 Ges material cost			1995	1995	1997 158,550 0	1993 172,784 14,234	1999 193,005 34,454	2,000 225,911 67,361	2,001 262,528 103,976	2,002 299,765 141,214	2,003 331,177 172,627	2,004 365,128 206,578	2005 412,817 254,068	2008 445,736 290,188	2007 494,528 335,978	2008 549,920 381,370	2009 815,703 457,153	2010 676.015 517.484	2011 703.972 545.422	2012 799,121 640,571	2013 878.679 720.129	2014 974,894 816,343	2015 1,065,492 926,841		2017 1,249,892 1,091,342	2018 1,384,200 1,225,649		2020 1,652,968 1,494,418
(((Gas Demand) 45 Residential 48 Commercial 47 48 49 Industrial 50 Total		(1000m3) (1000m3) ir (1000m3) (1000m3) (1000m3) (1000m3)	1995 2,490 3,331 4,138 7,469 750,734 760,693	1996 2,274 4,564 5,670 10,234 877,599 890,107	1997 2.766 4.708 8.506 13.212 960.411 976.369	1998 4,654 5,512 10,869 18,411 1,015,011 1,036,534	1990 8,189 8,319 15,076 21,395 1,091,211 1,121,975	2,000 15,854 7,125 21,038 28,163 1,214,611 1,261,021	2,001 24,381 8,224 31,383 39,677 1,338,011 1,401,843	2 002 31,751 9,824 44,630 54,454 1,456,323 1,545,072	2,603 40,001 11,716 60,777 72,493 1,550,943 1,665,888	2,004 41,910 13,970 79,825 93,795 1,652,043 1,798,471	2005 54,965 16,586 101,773 118,360 1,801,922 1,979,118		2007 72,893 22,250 149,134 171,384 2,051,015 2,294,161	2008 81,168 25,315 174,690 199,995 2,228,307 2,507,209	2009 69.526 28.547 201.567 230.114 2.443.336 2,769.219		2011 106,376 35,527 259,485 205,012 2,704,717 3,099,717							2018 150,385 65,781 508,893 574,674 4,445,598 5,184,269		2020 163,920 76,365 595,575 672,260 5,111,925 5,967,386
	Cincremental gas deman 51 Residential 52 Commercial 53 54 55 Industrial 55 Total 57 Industrial pumb	Cooking Bollart A Total	(1000m3) (1000m3) (1000m3) (1000m3) (1000m3) (1000m3)	1995	1998	1997 0 0 0 0 0	1998 1,858 806 2,393 3,193 54,600 60,145 5,96	1999 5,423 1,812 8,570 8,183 130,800 145,588 18,89	2,000 13,088 2,419 12,532 14,951 254,400 284,632 33,99	2001 21,615 3,587 22,878 28,465 375,600 425,459 58,00	2,002 28,935 5,117 36,124 41,242 495,912 568,683 74,90	2,003 37,235 7,010 52,271 59,281 590,532 889,500 95,97	2,004 45,144 9,264 71,319 80,583 691,632 620,082 118,05	2005 52,199 11,880 93,268 105,148 641,511 1,002,729 133,84		2007 20,127 17,544 140,628 158,172 1,090,604 1,317,772 178,00		2009 66,760 23,841 193,062 216,902 1,482,925 1,783,830 218,00	2010 \$5,200 27,249 221,368 243,615 1,674,227 2,015,793 238,00	2011 103,510 30,821 250,879 281,800 1,741,308 2,123,328 258,00	318,526 1,970,883				2 799 070 3 414 660	3,128,311	2018 147,619 61,074 500,387 581,462 3,485,167 4,207,880 357,62		2020 180,254 71,679 587,370 659,048 4,150,814 4,190,997 385,23
	Comulative Workers for 58 Administrative of 59 Administrative wo 69 Sales 61 Moter reading 62 Coffecting 63 High-modium pra- 64 Low pressure 65 Noter administrat 66 Total	aff orkers issure	(persons) (persons) (persons) (persons) (persons) (persons) (persons) (persons) (persons)	1995	1996	1997 2 4 21 21 10 59	1998 17 37 36 3 5 56 27	1,999 36 72 53 8 14 105 50 335	2,000 54 101 83 15 28 162 77 499	2,003 61 108 51 24 40 202 97 583	2,002 69 113 53 30 50 242 118 672	2 003 72 111 47 38 60 273 130 728	2004 71 102 39 41 68 293 140 754	2005 74 99 49 44 73 323 155 816	2006 71 89 38 45 80 340 162 829	2007 69 80 35 51 84 352 169 840	2008 65 71 33 53 87 362 173 844	2009 61 62 31 54 90 369 176 843	2010 57 54 29 55 91 973 178 838	2011 51 45 20 56 92 368 176 809	2012 46 38 18 55 91 361 173 783	2013 41 32 17 54 90 354 169 757	2014 37 28 18 53 88 348 185 731	2015 32 22 14 52 85 337 161 704	2016 28 18 13 50 83 328 157 678	2017 25 14 12 49 81 318 152 652	2018 21 12 12 47 79 309 148 627	2019 18 9 10 46 76 298 143 602	2020 14 7 45 74 276 133 552
٠	87 Total salary 68 NPV			٠		984 68,923	3,714	7,170	10.649	12 350	14,139	15,154	15,497	15,584	16.513	18,539	16,449	18,197	15,870	15,080	14,376	13,694	13,029	12,355	11,744	11,144	10,570	60,008	9.028

(Cumulative Workers for cooking)		1995	1995	1997	1998	1,999	2,000	2,001	2.002	2.003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2015	2017	2018	2019	2020
69 Administrative staff 70 Administrative workers 71 Sales 72 Mater reading 73 Collecting	(persons) (persons) (persons) (persons)			2 4 0	9 0	7 14 0 0	19 0 0	12 21 0 0	13 21 0 1 0	14 21 0 1 0	14 20 0 1	14 19 0 1	14 17 0 1	14 18 0 1	13 14 0 1 0	12 13 0 1 0	12 11 0 1	14 9 0 2 1	10 8 0 2 1	9 7 0 2 1	6 0 2 1	5 0 2	4 0 2 1	4 0 2	3 0 2 1	3 0 2 1	2
74 High-medium pressure 75 Lew pressure 78 Moter administration 77 Total 78 Total salary 79 NPV	(parsons) (parsons) (parsons) (parsons)			7 0 13 284 12,157	18 0 32 710	35 0 58 1,257	53 0 83 1,836	67 0 100 2,165	80 0 115 2,498	90 0 126 2.703	97 1 132 2.796	107 1 142 2.953	112 1 146 3,004	118 1 148 3,013	119 1 149 2998	122 1 149 2,962	123 1 149 2,911	121 1 145 2,797	119 1 141 2,680	117 1 134 2.565	114 1 132 2,453	111 1 127 2,340	108 1 123 2,234	105 1 119 2,131	102 1 114 2,032	98 1 110 1,936	92 1 102 1,775
(Cumulative Workers for AC)				-2										****	0000	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
80 Administrative staff	(persons)	1995	1998	1997	1998	1,999	2,000	2,001	2,002	2,003	2004	2005	2008	2007	2005	2000	2010	2011	2012	2013	1	1	1010	1	1		1
81 Administrative workers	(persons)			2	3	3	- ă	į	4	3	3	3	3	2	2	2	2	1	1	1		. 1	1	1	1	. 0	•
B2 Sales	(persona)			٥	0	0	0	. 0	0	0	. 0	Ų A	ů	v	1	, v	1	1		, v	ĭ	ĭ	ĭ	ĭ	ĭ	· í	1
83 Moter reading	(parsons)				0	. 0	. 0	V	0	ŏ	ă	ŏ	ŏ	ŏ	0	ė	ò	ò	· i	ō	į o	0	Ó	0	. 0	: 0	0
84 Collecting	(persons)	100		3	×	, a	10	12	13	14	13	38	17	17	17	18	18	18	18	17	17	17	17	16	18	15	14
85 High-madium pressure 86 Low pressure	(persons)			J	•	. •	•													4_		_					
87 Motor administration	(persons)			0	0	. •	0	0	0	0	. 0	٥	0	0	. 0		0	1	. 1	. 22	1 21	21	20	20	19	19	17
85 Total	(persons)			. 6	10	13	16	18	19	21	22	. 22	23	23 156	23 149	23 141	23 133	22 124	22 118	107	99	91	84	77	70	68	57
89 Total salary 90 NPV	•			54 809	94	123	144	157	165	169	159	167	152	156	159	791	133	124		107	. 23	•	-	••			
(Cumulative Workers for Industria	l sector)			4007	1000	1999	2,000	2.001	2.002	2,003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	5018	2020
91 Administrative staff	(parsons)	1995	1998	1997	1998 12	1399	2,000	13	13	13	12	12	12	12	12	11	11	11	- 11	11	1,1	11	11	11	11	13	10
92 Administrative scarr	(persons)			26	27	27	28	- 24	22	20	. 18	16	15	14	13	12	11 .	10	•	8	8	7	7	6	6	5 :	5
93 Seins	(persons)			0	0	0	0	0	• •	0	0	0	0	0	0	. 0	0	0	0	0	. 0	0	0			4	4
94 Motor reading	(persons)	:			1	1	1	. 2	2	2	2	2	2	3	. 3		0	0	. 0		à	ŏ		ò	ò	0	. 0
95 Collecting	(persona)				. 11			18	17	18	15	14	13	13	12	12	11	10	10	9	i	8	. 8	8	. 8	: 7	7
93 High-medium pressure 97 Low pressure	(persons)			. •	• ••	13		,,,	•		••										1 4			•			
98 Meter administration	(persons)		1	. 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	58	60	. 57	53	50	48	45	43	41	43	38 877	36 883	35 85 5	34 846	33 839	32 833	30 824	30 819	29 815	28 910	27 806	26 801
100 Total salary 101 NSV				862 8,045	946 .	1,007	1,050	1 022	994	970	950	931	914	900	883	877	503	. 603		. 638	633	644	. 018	013		•••	
(Total workers)							4 Mg 4 G						-	7 1					. 42-1						20.0	2010	2222
		1995	1998	1997	1995	1 999	2 000	2,001	2.002	2 003	2004	2005	2006	2007	2008	2009 87	2010	2011 75	2012	2013 83	2014 57	2015 52	2018	2017 43	2018 33	2019	2020
102 Administrative staff	(persons)			16	35	57	79	88 156	97 180	100 155	100 : 143	· 103	99 124	95 112	100	83	7A	. 68	57	43	41	35	20	25	21	18	14
103 Administrative workers	(persons)			38 21	75 38	1 i i i i i i i i i i i i i i i i i i i	150 63	139 51	53	47	39	49	. 38	38	23	31	29	20	18	17	16	14	. 14	. 13	12	- 11	0
104 Sales 105 Meter reading	(persons)				30	23	17	26	33	39	44	47	52	55	51	59	: 61	61	61	60	59	. 58	56	55	54	53	51
106 Collecting	(persons)			ŏ	5	14	26	. 40	50	60	68	73	81.	85	83	91	92	93	92	91	69	67	85	82	80	78	75
107 High-modium pressure	(parsons)		. 1	9	17	23	29	30	30	30	30	30	30	30	. 30	29	29	28	27 451	27 471	28 460	25 448	, 25 438	24 423	23 410	23 397	21 370
108 Low pressure	(persons)			28	75	140	215	269	321	362	300	430	452 164	469 170	461 175	490 178	49 5 180	499 178	491	175	168	163	159	154	: 150	145	135
109 Meter administration	(parsons)			10	27 273	51 484	78 658	97 757	815 860	131 925	141 958	156 1,028	1,040	1,052	1.058	1,054	1,048	1,011	979	947	915	882	851	820	789	758	698
110 Yotal	(persons)		. :	120	2/3	404	036	.31	500	763			,			-,							1 1 1				