

7-7-2. 物量バランス表一覽

ENERGY BALANCES IN INDONESIA CA 1969

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
	TOTAL OF COAL C61-C65 TCH	COAKING COAL TCH	STEAM COAL TON	ANTHRA- CITE TCH	LIGNITE TCH	TOTAL OF CRUDE OIL C66-C68 MBBL	ORIGINAL CRUDE OIL MBBL	REDUCED CRUDE OIL MBBL	PETROLE- UM PRODUCTS C69-C70 MBBL	DOMESTIC FUEL OIL C10-C20 KYL	GASOLINE C11-C14 KYL	AVIATION KYL	SUPER KYL	PACATUS KYL	JET FUEL KYL	KEROSENE KYL	DIESEL C17-C19 KYL	AVIATION KYL	INDUSTR. KYL	HEAVY FUEL OIL KYL	KAPHTER MBBL	LOW SUL- FUR RESIDUE MBBL	UNREF- INED KYL	52,000 KYL	
1 DOMESTIC PRODUCTION	0	0	0	0	NA	270951	270951	217	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2 EXPORT	0	0	0	0		217	0	0	-1582	-256	0	0	0	-256	-231	0	-153	-151	-2	-941	0	-21781	0	0	
3 IMPORT	0	0	0	0		-188817	-188817	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4 INTERNATIONAL CARRIER	0	0	NA	NA	NA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5 STOCK CHANGE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
6 PRIMARY ENERGY SUPPLY	0	0	0	0	0	82352	82352	217	-1582	-256	0	0	0	-256	-231	0	-153	-151	-2	-941	0	-21781	0	0	
7 REFINERY						-25921	-25703	-217	7654	1737	33	1	1784	282	2252	1331	767	342	2055	0	16764	21	24	24	
8 DISTILL., LPG																									
9 CHEMICAL ENERGY																									
10 PETROCHEMICAL LPG																									
11 PUBLIC UTILITY	0		NA						-220							-152	-134	-19	-68						
12 PUMP-UP USE																									
13 HYDRO GENERATION	0		0						-122								-122	-73	-49	0					
14 THERM GAS	0		NA						-5								-5	-3	-4	0					
15 COAL	0	0																							
16 OTHERS	0	0																							
17 TRANSFORMATION TOTAL	0	0	0	0	0	-25921	-25703	-217	7310	1737	33	1	1784	282	2252	1331	762	289	1987	0	16764	21	24	24	
18 CRUDE OIL FIELD						0	NA		0																
19 NATURAL GAS FIELD																									
20 REFINERY						0	0		0																
21 DSL PLANT																									
22 CHEMICAL ENERGY PLANT																									
23 PUBLIC UTILITY																									
24 THERM GAS																									
25 COAL PLANT																									
26 OTHERS																									
27 COAL MINE	0		NA	NA	NA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28 FLARE AND LOSSES	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
29 ENERGY SECTOR USE LOSSES	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
30 STATISTICAL DIFFERENCE	0	0	0	0	0	-4331	-4436	0	-11	4	-4	0	10	25	441	-142	-55	-47	-340	0	4121	0	0	0	0
31 FINAL CONSUMPTION	0	0	0	0	0				5710	1487	29	1	1457	75	2713	756	516	249	684	0				21	154
32 FINAL ENERGY USE	0	0	0	0	0				5710	1487	29	1	1457	75	2713	756	516	249	684	0				21	154
33 INDUSTRIAL									521							393	158	144	222	0					
34 AGRICULTURE FORESTRY									33							28	19	18	5	0					
35 FISHERY									0							0	0	0	0	0					
36 MINING (ENERGY SEC.)									81							0	0	0	0	0					
37 CONSTRUCTION									0							89	29	51	0	0					
38 MANUFACTURING									111							0	0	0	0	0					
39 FOODS									168							174	111	84	217	0					
40 TEXTILE									29							22	14	8	8	84					
41 PAPER									21							15	13	2	5	0					
42 PAPER, PULP									17							16	7	9	6	0					
43 CHEMISTRY (FUEL USE)									2							4	2	4	10	0					
44 CERAMICS, GLASS					NA				103							0	0	0	2	0	NA				
45 IRON, STEEL									0							22	5	17	80	0					
46 NON-FERROUS METALS									0							0	0	0	0	0					
47 METAL FABRI., MACHINERY									0							0	0	0	0	0					
48 SEWER, WATERS, OTHERS									139							0	0	0	0	0					
49 RESIDENT., COMM. (TOTAL)									2713							112	47	43	27	0					
50 RESIDENTIAL																									
51 COMMERCIAL																									
52 TRANSPORTATION TOTAL	0	0	0	0	0				2256	1487	29	1	1457	75	2713	756	516	249	684	0				21	154
53 AIR TRANSPORTATION									164	29	29	1	1457	75	2713	756	516	249	684	0				21	154
54 ROAD TRANSPORTATION									1549	1458															
55 RAILWAYS									170							110	118	2	0	0					
56 INTERNAL NAVIGATION									202							37	36	2	0	0					
57 INTERNATIONAL CARRIER									211							100	32	2	133	0					
58 OTHERS (GOVERN., FORCES, E)									224							26	8	18	115	0					
59 RAW MATER. USE IN CHEM.																189	173	7	41	0					
60 OTHER RAW-ENERGY USE																									
61 TOTAL USE IN CHEMISTRY																								21	154

ENERGY BALANCES IN INDONESIA CA 1970

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
	TOTAL OF	COAKING	STEAM	ANTHRA-	LIGNITE	TOTAL OF	ORIGINAL	REDUCED	PETROLE-	DOMESTIC	GASOLINE	AVIATION	SUPER	PREMIUM	JET FUEL	KEROSENE	DIESEL	AIRCRAFT	INDUST.	HEAVY	KAPITKA	LOW SUL-	LIQUID-	RESID
	COAL	COAL	COAL	HITE		CRUDE	CRUDE	CRUDE	UMS	FUEL OIL	C11-C14	KEL	KEL	KEL	KEL	KEL	C17-C19	KEL	KEL	FUEL OIL	KEL	WAXY	LIQUID-	RESID
	TON	TON	TON	TON	TON	COB-COB	TON	TON	COB-COB	TON	TON	TON	TON	TON	TON	TON	TON	TON	TON	TON	TON	TON	TON	TON
1 DOMESTIC PRODUCTION	0		0	0	NA	311510	311510			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2 EXPORT	0	0	0	0		2363	0	2363		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3 EXPORT	0	0	0	0		-228248	-228248			-1774	-361	-5	0	-354	-24	0	-32	-32	0	-1374	0	-23254	0	0
4 INTERNATIONAL WPLIFF	0	0	NA	NA	NA	-2021	0	-2021		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5 STOCK CHANGE	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6 PRIMARY ENERGY SUPPLY	0	0	0	0	0	83592	83250	342		-1774	-361	-5	0	-354	-24	0	-32	-32	0	-1374	0	-23254	0	0
7 REFINERY						-88825	-80483	-342		8351	1948	27	7	1913	146	2343	1835	782	172	2441	0	21803	17	19
8 BELONG, LPG																								
9 CHEMICAL ENERGY																								
10 PETROCHEMICAL LPG																								
11 PUBLIC UTILITY	0		NA							-271							-165	-167	-18	-85				
12 REFINERY USE																								
13 AVIATION GENERATION	0		0							-177							-177	-111	-68	0				
14 TECH GAS	0	0	NA							-6							-6	-1	-6	0				
15 COKE	0	0																						
16 BRIDGE	0	0																						
17 TRANSPORTATION TOTAL	0	0	0			-88825	-80483	-342		7810	1948	27	7	1913	146	2343	1835	683	381	2359	0	21803	17	19
18 CRUDE OIL FIELD							NA			0														
19 NATURAL GAS FIELD										0														
20 REFINERY										0														
21 OIL PLANT							0	0		0														
22 CHEMICAL ENERGY PLANT																								
23 PUBLIC UTILITY																								
24 TECH GAS																								
25 COKE PLANT																								
26 BRIDGE																								
27 COAL MINE			NA	NA	NA																			
28 FLARE AND LOSSES	0	0	NA	NA	NA	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29 ENERGY SECTOR USE LOSSES	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30 STATISTICAL DIFFERENCE	0	0	0	0	0	-2767	-2767	0		34	-13	-1	0	-13	-23	345	-124	-32	-81	-179	0	-517	0	0
31 FINAL CONSUMPTION	0									6123	1574	22	7	1544	188	2728	198	819	290	844	0			
32 FINAL ENERGY USE	0									6123	1574	22	7	1544	188	2728	198	819	290	844	0			
33 INDUSTRY																								
34 AGRICULTURE FORESTRY										745							442	242	200	274	0			
35 FISHERY										47							35	23	13	12	0			
36 MINING, ENERGY SEC.										0							0	0	0	0	0			
37 CONSTRUCTION										91							91	35	56	0	0			
38 MANUFACTURING										0							0	0	0	0	0			
39 FOODS										577							316	184	132	261	0			
40 TEXTILE										10							21	16	5	68	0			
41 RUBBER										33							25	20	5	8	0			
42 PAPER, PULP										37							29	15	15	8	0			
43 CHEMICALS (FUEL USED)										26							5	2	3	15	0			
44 CERAMICS, CEMENTS					NA					1							0	0	0	0	0			
45 IRON, STEEL										112							0	0	0	0	0	0		
46 NON-FERROUS METALS										0							23	6	14	50	0			
47 METAL FABR., MACHINERY										0							0	0	0	0	0			
48 SHIP, WARE, OTHERS										0							0	NA	0	0	0			
49 RESIDENT., COMM., TOTAL										284							212	125	87	72	0			
50 RESIDENTIAL																								
51 COMMERCIAL										2728						2728								
52 TRANSPORTATION TOTAL	0	0	0																					
53 AIR TRANSPORTATION										2518	1574	22	7	1544	188		373	234	87	569				
54 ROAD TRANSPORTATION										158	22	22	7	1544	168		0	0	0	0				
55 RAILWAYS										1746	1552		7	1544			154	151	3	0				
56 INTERNAL NAVIGATION										161							80	38	2	121				
57 INTERNATIONAL WPLIFF										198							89	36	53	100				
58 OTHERS (COMM., FORCES, ETC)										327							39	10	29	287				
59 RAW MATER. USE IN CREP.										165							143	140	3	22				
60 OTHER NON-ENERGY USE																								
61 TOTAL USE IN CREASITY																								

ENERGY BALANCES IN INDONESIA CA 1971

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
	TOTAL OF COAL C01-C05 T01	STEAM COAL T01	STEAM COAL T01	ANTHRACITE T01	LIGNITE T01	TOTAL OF CRUDE OIL C06-C08 M01	ORIGINAL CRUDE OIL M01	REDUCED CRUDE OIL M01	PETROLE- UM PRODUCTS C09-C20 M01	DOMESTIC FUEL OIL C10-C20 M01	GASOLINE C11-C14 M01	AVIATION M01	SUPER M01	PREMIX M01	JET FUEL M01	KEROSENE M01	DIESEL C17-C19 M01	AVIATION M01	INDUSTRIAL M01	HEAVY FUEL OIL M01	BAPTINA M01	LOW SUL- FUR RESIDUE M01	UNREFINED CRUDE M01	RESIDUE M01
1 DOMESTIC PRODUCTION	190256		190256	0	NA	325648	325648	2529		1011														
2 IMPORT	0	0				2529	0	2529		1011										100				
3 EXPORT	0					-239585	-239585			-801										-317				
4 INTERNATIONAL (NET)										-211										-317				
5 STOCK CHANGE	-51277		-51277	NA	NA	307	0	307		0										-1651				
6 PRIMARY ENERGY SUPPLY	146979	0	146979	0	0	89700	85514	2836		125	-10	-1	0	-17	0	823	0	0	-657	0	-27454	0	0	0
7 DEFERENT						-93614	-10210	-2614		8432	2017	32	10	1946	164	2362	1648	1151	194	2242	0	26749	13	0
8 RESIDUAL (P&G)																								
9 CHEMICAL ENERGY																								
10 PETROCHEMICAL (P&G)																								
11 PUBLIC UTILITY	0		NA							-302										-189				
12 POWER USE																								
13 AUTO GENERATION	-71636		-71636							-216										0				
14 THER GAS	0	0		NA						-10										0				
15 COKE	0	0																		0				
16 BRIDGE	0																			0				
17 TRANSPORTATION (TOTAL)	-71636	0	-71636			-93614	-10210	-2614		7101	2017	32	10	1946	164	2362	1229	811	183	2133	0	26749	13	0
18 CRUDE OIL FIELD						0	NA			0										0				
19 NATURAL GAS FIELD																				0				
20 REFINERY						0	0			0										0				
21 NSL PLANT																				0				
22 CHEMICAL ENERGY PLANT																				0				
23 PUBLIC UTILITY																				0				
24 THER GAS																				0				
25 COKE PLANT																				0				
26 BRIDGE																				0				
27 COAL DINE	-24810		-24810	NA	NA					0										0				
28 FLARE AND LOSSES	0	0	NA	NA	NA	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29 ENERGY SECTOR USE LOSSES	-24810	0	-24810	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30 STATISTICAL DIFFERENCE	51651	0	51651	0	0	4111	4135	-22		-1307	-231	-11	-2	-242	-10	-181	-128	-82	-66	-747	0	711	0	0
31 FINAL CONSUMPTION	101774		101774	0	0					6721	1711	21	16	1878	146	3024	1168	791	317	729	0			
32 FINAL ENERGY USE	101774		101774	0	0					6721	1711	21	16	1878	146	3024	1168	791	317	729	0			
33 INDUSTRY	53422		53422	0	0					843										0				
34 AGRICULTURE FORESTRY										59										0				
35 FISHERY										0										0				
36 MINING ENERGY SEC.	0		0	0						97										0				
37 CONSTRUCTION										0										0				
38 MANUFACTURING	53422		53422	0	0					0										0				
39 FOODS										484										0				
40 TEXTILE										117										0				
41 RUBBER										58										0				
42 PAPER, PULP										42										0				
43 CHEMISTRIE (P&G)										28										0				
44 CERAMICS, CEMENTS										3										0				
45 IRON, STEEL	49071		49071		NA					137										0				
46 NON-FERROUS METALS	0									0										0				
47 METAL FABR., MACHINERY										0										0				
48 SMALL VEHICLES, OTHERS	4351		4351							0										0				
49 RESIDENTIAL, COMMERCIAL (TOTAL)										298										0				
50 RESIDENTIAL																				0				
51 COMMERCIAL																				0				
52 TRANSPORTATION (TOTAL)	48354		48354							3924										0				
53 AIR TRANSPORTATION																				0				
54 ROAD TRANSPORTATION																				0				
55 RAILWAYS	48354		48354							2675	1711	21	16	1878	146	3024	1168	791	317	729	0			
56 INTERNAL NAVIGATION										166										0				
57 INTERNATIONAL (NET)										166										0				
58 OTHERS (TOTAL)										199										0				
59 ROAD VEHICLE, USE IN COUN.										241										0				
60 OTHER NON-ENERGY USE										182										0				
61 TOTAL USE IN CHEMISTRY																				0				

ENERGY BALANCES IN INDONESIA EA 1972

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
	TOTAL OF COAL	COAL COAL	STEAM COAL	ANTHRA- CITE	LIGNITE	TOTAL OF CRUDE OIL	ORIGINAL CRUDE OIL	REDUCED CRUDE OIL	PETROLE- UM PRODUCTS	DOMESTIC FUEL OIL	RESOLINE C11-C14	AVIATION KEL	SUPER KEL	PREMIUM KEL	JET FUEL KEL	KEROSENE KEL	DIESEL C17-C19 KEL	AVIATION KEL	INDUSTRIAL KEL	HEAVY FUEL OIL KEL	KAPHTHA KEL	LOW SUL- FUR RESIDUE KEL	LOSS- ES KEL	EXTRA KEL
1 DOMESTIC PRODUCTION	179240		179240	0	NA	355560	355560	710		1392	0	0	0	0	18	395	0	0	0	927	0	-39568	42	1
2 EXPORT	11885	11885		0		710	0	710		-558	0	0	0	0	0	0	0	0	0	0	0	-39568	42	1
3 EXPORT	0		0	0		-294148	-294148			-1553	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4 INTERNATIONAL UNLIFTED																								
5 STOCK CHANGE	17244	0	15740	1565	NA	446	0	446		0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
6 PRIMARY ENERGY SUPPLY	200371	11885	194981	1565	0	182576	161412	1164		834	0	0	0	0	18	395	0	0	0	428	0	-39568	42	1
7 DEFERENT						-101576	-108412	-1164		7918	1814	20	33	1761	188	2437	2047	1275	272	1431	1980	39658	31	10
8 RES(LNG, LPG)																								
9 CHEMICAL ENERGY																								
10 PETROCHEMICAL LPG																								
11 PUBLIC UTILITY	0		NA							-259							-188	-143	-48	-72				
12 PUMP-UP USE																								
13 AUTO GENERATION	-73986		-73986							-241							-241	-163	-78	0				
14 TOWN GAS	-11885	-11885	NA							-13							-13	-1	-12	0				
15 COKE	0	0																						
16 BRIDGE	0	0	0																					
17 TRANSFORMATION TOTAL	-85871	-11885	-73986			-101576	-108412	-1164		7405	1814	20	33	1761	188	2437	1688	961	442	1359	1960	39658	31	10
18 CRUDE OIL FIELD						0	NA			0										0				
19 NATURAL GAS FIELD																								
20 REFINERY						0	0			0										0	0	0	0	0
21 RES PLANT																								
22 CHEMICAL ENERGY PLANT																								
23 PUBLIC UTILITY																								
24 TOWN GAS																								
25 COKE PLANT																								
26 BRIDGE																								
27 COAL BINE	-135410		-135410	NA	NA	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28 FLARE AND LOSSES	0	0	NA	NA	NA	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29 ENERGY SECTOR USE LOSSES	-135410	0	-135410	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30 STATISTICAL DIFFERENCE	9364	0	9364	0	0	-1660	-1660	0		-790	-50	-2	-1	-18	-8	459	-187	168	-313	-1004	-1580	-150	0	0
31 FINAL CONSUMPTION	8654		85149	1565	0					7449	1764	19	32	1714	191	3291	1419	1124	296	783	0			73
32 FINAL ENERGY USE	85149		85149	0	0					7449	1764	19	32	1714	191	3291	1419	1124	296	783	0			73
33 EXISTING	55101		55101	0	0																			
34 AGRICULTURE FORESTRY										1921							544	355	230	149	0			
35 FISHERY										41							45	31	12	14	0			
36 MINISTRY ENERGY SEC.)	0		0	0						0							0	0	0	0	0			
37 CONSTRUCTION										189							98	48	57	3	0			
38 MANUFACTURING	55101		55101	0	0					0							0	0	0	0	0			
39 FOODS										892							142	281	160	450	0			
40 TEXTILE										128							48	34	13	80	0			
41 RUBBER										106							77	37	40	29	0			
42 PAPER, PULP										55							42	25	17	13	0			
43 CHEMISTRY (FUEL USED)										36							15	6	5	25	0			
44 CERAMICS, CEMENTS	50383		50383	NA						87							5	5	0	82	NA			
45 IRON, STEEL										225							45	8	37	180	0			
46 NON-FERROUS METALS	0			0						9							4	3	0	5	0			
47 METAL FABRIC., MACHINERY										0							0	NA	0	0	0			
48 SHAPE, WARE, OTHERS	4710		4710							0							0	0	0	0	0			
49 RESIDENT., COMM., TOTAL										263							218	114	47	55	0			
50 RESIDENTIAL										3211							3211							
51 COMMERCIAL																								
52 TRANSPORTATION TOTAL	38218		38218																					
53 AIR TRANSPORTATION										2118	1764	19	32	1714	191		492	643	49	270				
54 ROAD TRANSPORTATION										269	19	19					0	0	0	0				
55 RAILWAYS	38218		38218							2118	1764		32	1714	191		492	643	49	270				
56 INTERNAL NAVIGATION										141							149	115	3	0				
57 INTERNATIONAL UNLIFTED										217							34	33	1	187				
58 OTHERS (SEAF., FORCES E)										155							209	114	45	8				
59 RAW MATER. USE IN CHEM.										181							143	126	17	41				
60 OTHER NON-ENERGY USE	1565			1565																				
61 TOTAL USE IN CHEMISTRY																								

ENERGY BALANCES IN INDONESIA CA 1973

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
	TOTAL OF	COALING	STEAM	ANTHRACITE	LIGNITE	TOTAL OF	ORIGINAL	REDUCED	PETROLEUM	DOMESTIC	GASOLINE	AVIATION	SUPER	PREMIUM	JET FUEL	KEROSENE	DIESEL	AUTOMOT.	INDUSTRIAL	HEAVY	REFINERY	LOSS	LOSS	LOSS
	COAL	COAL	COAL	COAL	COAL	COAL	CRUDE OIL	CRUDE OIL	PRODUCTS	FUEL OIL	C10-C10	AVIATION	SUPER	PREMIUM	JET FUEL	KEROSENE	DIESEL	AUTOMOT.	INDUSTRIAL	FUEL OIL	REFINERY	LOSS	LOSS	LOSS
	TON	TON	TON	TON	TON	TON	TON	TON	TON	TON	TON	TON	TON	TON	TON	TON	TON	TON	TON	TON	TON	TON	TON	TON
1 DOMESTIC PRODUCTION	148924		145170	3358	NA	408534	418534	978		1810					122	310	246	246			1163			47
2 IMPORT	2510	2510				978				-47														
3 EXPORT																								
4 INTERNATIONAL WPLIFF						-349513	-349513			(-175)														
5 STOCK CHANGE	33707		33707	-90	NA	907		907																
6 PRIMARY ENERGY SUPPLY	185123	2510	179267	3268		124878	118973	1885		1791					122	310	246	246			1114		-53760	47
7 REFINERY						-124540	-118455	-1885		8207	2011	5	61	1800	153	3100	2370	1723	645	540	1041	53424	32	NA
8 WELLS, LPG																								
9 CHEMICAL ENERGY																								
10 PETROCHEMICAL LFS																								
11 PUBLIC UTILITY																								
12 WPLIFF USE																								
13 AUTO GENERATION	-48155		-48155																					
14 THERM GAS	-2510	-2510																						
15 COKE																								
16 WPLIFF																								
17 TRANSFORMATION TOTAL	-50705	-2510	-48155			-124540	-118455	-1885		2552	2011	5	61	1800	153	3100	2370	1723	645	540	1041	53424	32	NA
18 CRUDE OIL FIELD																								
19 NATURAL GAS FIELD																								
20 REFINERY																								
21 WPLIFF PLANT																								
22 CHEMICAL ENERGY PLANT																								
23 PUBLIC UTILITY																								
24 THERM GAS																								
25 COKE PLANT																								
26 WPLIFF																								
27 COAL WPLIFF	-13478		-13478	NA	NA																			
28 FLARE AND LOSSES																								
29 ENERGY SECTOR USE LOSSES	-13478		-13478																					
30 STATISTICAL DIFFERENCE	-33707		-32883	-924		-338	-338			-497	-97	-2	-3	-92	-11	274	-177	-48	-129	-688	-1041	374		
31 FINAL CONSUMPTION	84551		84551	2310						8445	1917	3	58	1808	264	3105	1843	1548	359	824			79	174
32 FINAL ENERGY USE	84551		84551							8445	1917	3	58	1808	264	3105	1843	1548	359	824				
33 RESIDENTIAL	45207		45207							1283							251	475	279	530				
34 AGRICULTURE FORESTRY										77							59	41	14	18				
35 FISHERY																								
36 MINING (EXCL. ENERGY SEC.)										126														
37 CONSTRUCTION																	123	51	70	3				
38 MANUFACTURING	45207		45207																					
39 FOODS										1189														
40 TEXTILE										153														
41 WOOD										131														
42 PAPER, PULP										69														
43 CHEMISTRY (EXCL. FUEL)										92														
44 CERAMICS, CEMENTS	43184		43184		NA					77														
45 IRON, STEEL										259														
46 NON-FERROUS METALS										11														
47 METAL FABRI., MACHINERY																								
48 SPALN, WOODS, OTHERS	5021		5021																					
49 RESIDENTIAL, COMMERCIAL TOTAL										3155							274	219	57	42				
50 RESIDENTIAL																								
51 COMMERCIAL																								
52 TRANSFORMATION TOTAL	39384		39384																					
53 AIR TRANSPORTATION										3188	1700	3	57	1610	264		920	843	59	304				
54 ROAD TRANSPORTATION										267	3	3												
55 RAILWAYS	39384		39384							2297	1497		57	1610	264									
56 INTERNAL NAVIGATION										166							680	596	4	0				
57 INTERNATIONAL WPLIFF										283							274	220	54	175				
58 OTHER SECTOR, WPLIFF										175														
59 OTHER SECTOR, WPLIFF										437	217	0	1	248	0		190	187	21	50				
60 OTHER NON-ENERGY USE	2310				2310																			
61 TOTAL USE IN ECONOMY																								

25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	
TECH DESC, QTY, U GR	REFINER- Y CODE	REFINERY EAS	LPG M3PL	NATURAL GAS M3CF	MOL (CONDEN- SATES) M3PL	LNG M3	METHANOL TON	TOUR GAS M3	COKE TON	COKE OPER EAS M3	BLAST FURNACE EAS M3	BRIDGE TON	WOOD M3	CHARCOAL TON	FUEL EXHAUST FROM BIOMASS TON	AGRI- CULTURAL WASTES M3	HYDRO GENERATION PUBLIC UTILITY GWH	AUTO GENERAT. GWH	NUCLEAR GENERAT- TION GWH	GEOTHERM. PUBLIC UTILITY GWH	GENERAT. AUTO GENERAT. GWH	OTHER GENERATION PUBLIC UTILITY GWH	AUTO GENERAT. GWH	TOTAL OF ELEC- TRICITY GWH	PUBLIC UTILITY GWH	AUTO GENERAT- TION GWH	GRAND TOTAL	
				186137									59157	NA	0	98897	1385	0	0	0	0	0	0					
71			0																									
0	EA		0											NA	NA													
-54	0		-3	186137									59157	0	0	98897	1385	0	0	0	0	0	0					
124	149	7418	184																									
			0	-7201																								

ENERGY BALANCES IN INDUSTRY CA 1974

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
	TOTAL OF COAL TCH	CRACKING COAL TCH	STEAM COAL TCH	ANTRAC- HITE TCH	LIGNITE TCH	TOTAL OF CRUDE OIL TCH	ORIGINAL CRUDE OIL TCH	REDUCED CRUDE OIL TCH	PEOPLE- IN PRODUCTS C69-C78	DOMESTIC FUEL OIL C10-C20 TCH	GASOLINE C11-C18 TCH	AVIATION TCH	SUPER TCH	PREMIUM TCH	JET FUEL TCH	KEROSENE TCH	DIESEL C17-C19 TCH	AVIATION TCH	INDUSTR. TCH	HEAVY FUEL OIL TCH	KAPHTHA TCH	LOW SUL- FUR RESIDUE TCH	HEAVY RESIDUE TCH	NET	
1 DOMESTIC PRODUCTION	156119		149725	7424	NA	501837	501837			2461					161	875	339	339		666				75	
2 IMPORT	983	983				851	0	851		-434	-434														
3 EXPORT	0					-378765	-378765																		
4 INTERNATIONAL OPLIFT																									
5 STOCK CHANGE	-7825		-7825	-354	NA	-7757	-7757	116																	
6 PRIMARY ENERGY SUPPLY	149397	983	141251	7070	0	116039	115019	1030		1827	-434	0	0	-434	161	875	339	339	0	666	0	-4303		75	
7 REFINERY						-126067	-119937	-1030		9777	2052	24	73	1955	216	3357	2888	2148	720	1284	8420	4322		29	
8 USULNG, LFG																									
9 CHEMICAL ENERGY																									
10 PETROCHEMICAL LFG																									
11 PUBLIC UTILITY	0		NA							-310															
12 PUMP-UP USE																									
13 AUTO GENERATION	-49247		-49247							-140															
14 TCH GAS	-583	-583	NA							-17															
15 LFG	0	0																							
16 BRIDGE	0	0																							
17 TRANSPORTATION(TOTAL)	-61232	-983	-49247			-126067	-119937	-1030		9189	2052	24	73	1955	216	3357	2337	1790	519	1217	8420	4322		29	
18 CRUDE OIL FIELD						-2518	-2518			0															
19 NATURAL GAS FIELD										0															
20 REFINERY						0	0			0															
21 USL PLANT																									
22 CHEMICAL ENERGY PLANT																									
23 PUBLIC UTILITY										0															
24 TCH GAS										0															
25 COTE PLANT																									
26 BRIDGE																									
27 COAL BINE	-10820		-10820	NA	NA	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28 FLARE AND LOSSES	0	0	NA	NA	NA	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29 ENERGY SECTOR USE LOSSES	-10820	0	-10820	0	0	-2518	-2518	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30 STATISTICAL DIFFERENCE	8564	0	9418	-1164	0	4516	4516	0		-812	585	-2	6	581	-35	4	-436	-290	-144	-923	-4420	-2519	0	0	0
31 FINAL CONSUMPTION	8519		7853	576	0					10604	2203	22	77	2102	312	4258	2242	1839	403	959	0			111	17
32 FINAL ENERGY USE	7853		7853	0	0					10604	2203	22	77	2102	312	4258	2242	1839	403	959	0				
33 INDUSTRY	45330		45330	0	0					1207															
34 AGRICULTURE FORESTRY										110															
35 FISHERY										0															
36 MINING(ENRGY SEC.)	0		0	0						169															
37 CONSTRUCTION										4															
38 MANUFACTURING	45330		45330	0	0					925															
39 FOODS										164															
40 TEXTILE										190															
41 PAPER										69															
42 PAPER,PULP										43															
43 CHEMISTRY(ENRGY USED)										124															
44 CERAMICS,CEMENTS	39619		39619		NA					342															
45 IRON,STEEL										27															
46 NON-FERROUS METALS	0			0						0															
47 METAL FABR.,MACHINERY										2															
48 SMALL WARE,OTHERS	5131		5131							2															
49 RESIDENT, COMMER.(TOTAL)										4258															
50 RESIDENTIAL																									
51 COMMERCIAL																									
52 TRANSPORTATION(TOTAL)	34523		34523							4284	1988	18	77	1871	317		1484	1371	90	316					
53 AIR TRANSPORTATION										243	14	14													
54 ROAD TRANSPORTATION										3515	1949		77	1870	231										
55 RAILWAYS	34523		34523							133															
56 INTERNAL NAVIGATION										271															
57 INTERNATIONAL OPLIFT										312	2	2													
58 OTHERS(ENRGY, LOSS) BY										456	237	6	0	231	24		155	111	9	39					
59 RAW MATER. USE IN ENR.																									
60 OTHER ENR-ENERGY USE	576					576																			
61 TOTAL USE IN CHEMISTRY																									

24	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52
PETROLEUM REFINERY	PETROLEUM REFINERY	LPG	NATURAL GAS	MOL (CONDENSATES)	LNG	METHANOL	TOUR GAS	COKE	COKE OVEN GAS	BLAST FURNACE GAS	BRIQUET	WOOD	CHARCOAL	FUEL ETHANOL FROM DISTRESS	AGRI-CULTURAL WASTES	HYDRO GENERATION	AUTO GENERATION	NUCLEAR GENERATION	SOLAR GENERATION	AUTO GENERATION	PUBLIC UTILITY	PUBLIC UTILITY	PUBLIC UTILITY	PUBLIC UTILITY	PUBLIC UTILITY	GRAND TOTAL
MMBtu	MMBtu	MMBtu	MMBtu	MMBtu	MMBtu	MMBtu	MMBtu	MMBtu	MMBtu	MMBtu	MMBtu	MMBtu	MMBtu	MMBtu	MMBtu	MMBtu	MMBtu	MMBtu	MMBtu	MMBtu	MMBtu	MMBtu	MMBtu	MMBtu	MMBtu	MMBtu
			191979									44657	NA		14758	1829										
			191979									44657			14758	1829										
157	7481	222	-7108																							

ENERGY BALANCES IN INDONESIA CA 1975

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
	TOTAL OF COAL C01-C05 TON	COOKING COAL TON	STEAM COAL TON	ANTHRACITE TON	LIGNITE TON	TOTAL OF CRUDE OIL C06-C08 M3BL	ORIGINAL CRUDE OIL M3BL	REDUCED CRUDE OIL M3BL	PETROLEUM PRODUCTS C09-C20	DOMESTIC FUEL OIL C10-C20 M3BL	BASOLINE C11-C14 M3BL	AVIATION M3BL	SUPER M3BL	PREMIUM M3BL	JET FUEL M3BL	KEROSENE M3BL	DIESEL C17-C19 M3BL	AVIATION M3BL	INDUSTRIAL M3BL	HEAVY FUEL OIL M3BL	MAPHRA M3BL	LOW SULFUR RESIDUE M3BL	LOSS COALS M3BL	LOSS OIL M3BL	
1 DOMESTIC PRODUCTION	204390		198963	7427	NA	476555	476555	540		2069	0	0	0	0	353	990	701	701	0	25				17	0
2 IMPORT	5731	5731				540	0			-694	-694			-694	0	0	0	0	0	0					0
3 EXPORT	0		0	0		-363067	-363067																		
4 INTERNATIONAL (W/LIFE)																									
5 STOCK CHANGE	-3413	0	-3102	-341	NA	-1774	-1751	-23																	
6 PRIMARY ENERGY SUPPLY	200977	5731	195861	7086	0	112552	112035	517		1465	-694	0	0	-694	353	990	701	701	0	25	-3891	-32614		17	0
7 REFINERY						-100202	-107765	-517		900	2329	29	101	2200	76	3368	2993	2231	762	1133	4265	32769		31	0
8 ISOLERS, LPG																									
9 CHEMICAL ENERGY																									
10 PETROCHEMICAL LFS																									
11 PUBLIC UTILITY	0		NA							-587							-343	-291	-19	-241					
12 PUMP-UP USE																									
13 AUTO GENERATION	-83763		-83763							-297							-297	-169	-129	0					
14 TOWN GAS	-5731	-5731	NA							-15							-15	-1	-14	0					
15 COKE	0	0																							
16 TRUCKET	0		0																						
17 TRANSPORTATION (TOTAL)	-8761	-5731	-83943			-100202	-107765	-517		900	2329	29	101	2200	76	3368	2338	1768	570	889	4265	32769		31	0
18 CRUDE OIL FIELD						-2522	-2522			0															
19 NATURAL GAS FIELD																									
20 REFINERY						0	0			0															
21 OIL PLANT																									
22 CHEMICAL ENERGY PLANT																									
23 PUBLIC UTILITY																									
24 TOWN GAS																									
25 COKE PLANT																									
26 TRUCKET																									
27 COAL WASTE	-7816		-7816	NA	NA	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28 FLARE AND LOSSES	0	0	NA	NA	NA	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29 ENERGY SECTOR USE LOSSES	-7816	0	-7816	0	0	-2522	-2522	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30 STATISTICAL DIFFERENCE	-5201	0	-1109	-1193	0	-1743	-1743	0		676	699	-6	4	701	-17	460	-210	-143	-68	-37	-401	-248		0	0
31 FINAL CONSUMPTION	105910		100813	5891	0					11355	2423	22	105	2296	410	4810	2029	2325	504	875	0			18	0
32 FINAL ENERGY USE	105910		100813	0	0					11355	2423	22	105	2296	410	4810	2029	2325	504	875	0			18	0
33 INDUSTRY	41123		41123	0	0					9329															
34 AGRICULTURE FORESTRY										114							247	366	381	581	0				
35 FISHERY										0							91	75	16	23	0				
36 MINING (EXCL. ENERGY SEC.)	0		0	0						120							0	0	0	0	0				
37 CONSTRUCTION										1							119	63	54	0					
38 MANUFACTURING	41123		41123	0	0					1699							4	0	4	0	0				
39 FOODS										195							533	228	305	557	0				
40 TEXTILE										257							92	12	50	102	0				
41 RUBBER										68							204	92	114	52	0				
42 PAPER, PULP										47							60	34	24	0	0				
43 CHEMISTRY (FUEL USE)										126							18	0	9	29	0				
44 CERAMICS, CEMENTS					NA					319							22	17	4	184	NA				
45 IRON, STEEL										43							181	20	81	248	0				
46 NON-FERROUS METALS	0			0						0							30	12	17	13	0				
47 METAL FABR., MACHINERY										1							0	NA	0	0	0				
48 SMALL BARES, OTHERS	5203		5203							3							3	0	3	0	0				
49 RESIDENTIAL, (EXCL. TOTAL)																									
50 RESIDENTIAL										4810							4810								
51 COMMERCIAL																									
52 TRANSPORTATION (TOTAL)	50920		50920																						
53 AIR TRANSPORTATION										4183	2102	15	105	2042	370		1888	1727	111	213					
54 ROAD TRANSPORTATION										309	13	13			287		0	0	0	0					
55 RAILWAYS	50920		50920							3189	2116		105	2042			1334	1517	17	0					
56 INTERNAL NAVIGATION										117							41	10	1	71					
57 INTERNATIONAL DELIVERED										201	0						260	215	41	2					
58 OTHERS (SEVERAL, FORCED BY)										364	2	2			103		33	5	28	145					
59 RAW MATERIAL, USE IN COKE										925	201	7	0	255	20		493	102	12	30					
60 OTHER NON-ENERGY USE	5091																								
61 TOTAL USE IN CHEMISTRY																									

25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52		
RES. USE, EPL, RE	PEOPLE-OR CODE	REFINERY EAS	LPG	NATURAL GAS	MSL (CONDENSATES)	LNG	METHANOL	TOWN GAS	COKE	COKE OVEN GAS	BLAST FURNACE GAS	DRIQUEX	WOOD	CHARCOAL	FUEL ETHANOL FROM BIOMASS	AGRI-CULTURAL WASTES	HYDRO GENERATION	AUTO GENERAT. EWH	NUCLEAR GENERATION	PUBLIC UTILITY EWH	GEOTHERM. GENERAT. EWH	AUTO GENERAT. EWH	PUBLIC UTILITY EWH	AUTO GENERAT. EWH	TOTAL OF ELECTRICITY EWH	PUBLIC UTILITY EWH	AUTO GENERAT. EWH	GRAND TOTAL	
				211531									47691	NA	0	91779	1985	0	0	0	0	0	0	0	0	0	0		
20	NA		0		0	0	0		0				NA	NA	0														
44	0		-42	211531	0	0	0		0				47691	0	0	91779	1985	0	0	0	0	0	0	0	0	0	0		
45	241	4891	319	-5108	0	0	0		0																				
			24																										
				NA																									
				0																									
45	241	4891	374	-5108	0	0	0	35432	0	0																			
				-36978																									
				-4337																									
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ENERGY BALANCES IN INDONESIA CA 1976

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
	TOTAL OF COAL	STEAM COAL	STEAM COAL	ANTHRACITE	LIGNITE	TOTAL OF CRUDE OIL	ORIGINAL CRUDE OIL	REDUCED CRUDE OIL	PETROLEUM PRODUCTS	DOMESTIC FUEL OIL	GASOLINE	AVIATION	SUPER	PREMIUM	JET FUEL	KEROSENE	DIESEL	AUTOMOT.	INDUSTRIAL	HEAVY FUEL OIL	KAPHTHA	LOW SULFUR FUEL OIL	OTHER	
	COAL	COAL	COAL	COAL	COAL	COAL	COAL	COAL	COAL	COAL	COAL	COAL	COAL	COAL	COAL	COAL	COAL	COAL	COAL	COAL	COAL	COAL	COAL	COAL
1 DOMESTIC PRODUCTION	19216		164582	18328	NA	558318	559318	260		5145	300	0	0	300	416	2327	2003	1654	187	0	-442	-35221	41	
2 IMPORT	1137	1137				2597	2737			-56	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3 EXPORT	-7693		0	-7693		-449471	-449471			-3177	-13	-13			-1977		-69	-10	-50	-143				
4 INTERNATIONAL SPLIT																								
5 STOCK CHANGE	-3920	0	-2849	-180	NA	-1458	-1545	197		-101	42	5	1	36	-5	23	-26	-48	2	-55	-1197	-815	2	
6 PRIMARY ENERGY SUPPLY	173224	1137	161742	18345	0	107386	107819	367		4997	342	5	1	336	411	2350	1937	1768	149	-451	-1629	-35159	42	
7 DEFICIT						-107837	-107170	-367		10174	2271	21	112	2139	55	3174	2808	2023	783	1878	1500	35615	14	
8 RESERVE, LFO																								
9 CHEMICAL ENERGY																								
10 PETROCHEMICAL LFO																								
11 PUBLIC UTILITY	0		NA							-633							-547	-500	-48	-308				
12 PUMP-UP USE																								
13 AUTO GENERATION	-27817		-27817							-115							-185	-317	-148	0				
14 TECH GAS	-1137	-1137	NA							-15							-15	-1	-14	0				
15 COKE	0	0	0																					
16 TRAFFIC	0	0	0																					
17 TRANSPORTATION (TOTAL)	-70284	-1137	-27817			-107837	-107170	-367		6222	2271	21	112	2139	55	3174	1758	1195	523	1544	1500	35615	14	
18 CRUDE OIL FIELD						-3212	-3212			0							0	0	0	0				
19 NATURAL GAS FIELD										0							0	0	0	0				
20 REFINERY						0	0			0							0	0	0	0				
21 RES. PLANT																								
22 CHEMICAL ENERGY PLANT																								
23 PUBLIC UTILITY										0							0	0	0	0				
24 TECH GAS										0							0	0	0	0				
25 COKE PLANT																								
26 TRAFFIC																								
27 COAL PIPE	-2849		-2849	NA	NA	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28 FLARE AND LOSSES	0	0	NA	NA	NA	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29 ENERGY SECTOR USE LOSSES	-2849	0	-2849	0	0	-3212	-3212	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30 STATISTICAL DIFFERENCE	-1514	0	-1224	-214	0	5683	5683	0		-981	1	-1	1	4	-37	-238	-217	-68	-127	-413	129	214	0	1
31 FINAL CONSUMPTION	8165		8165	18355	0					12837	2414	21	113	2479	429	5286	3478	2655	593	1604	0		54	
32 FINAL ENERGY USE	8165		8165	0	0					12837	2414	21	113	2479	429	5286	3478	2655	593	1604	0		54	
33 INDUSTRY	37354		37354	0	0					1864							1172	733	439	713	0			
34 AGRICULTURE FORESTRY										219							227	207	20	22	0			
35 FISHERY										0							0	0	0	0	0			
36 MINING/ENERGY SEC.	0		0	0						117							79	49	9	39	0			
37 CONSTRUCTION										52							51	45	5	2	0			
38 MANUFACTURING	37354		37354	0	0					1466							815	411	485	650	0			
39 FOODS										281							147	94	53	132	0			
40 TEXTILE										311							254	132	122	57	0			
41 RUBBER										75							65	45	29	9	0			
42 PAPER/PULP										51							22	10	12	28	0			
43 CHEMICALS/FUEL USED										111							33	24	9	58	NA			
44 CERAMICS/CEMENTS	32659		32659	0	NA					433							292	46	158	281	0			
45 IRON/STEEL										78							54	24	28	24	0			
46 NON-FERROUS METALS	0									27							9	9	0	0	0			
47 TEXTILE FABRI./MACHINERY										12							12	11	2	0	0			
48 SHALV TAPES, OTHERS	5295		5295							18							15	12	3	3	0			
49 RESIDENTIAL (TOTAL)										5726							5286							
50 RESIDENTIAL																								
51 RESIDENTIAL																								
52 TRANSPORTATION (TOTAL)	43257		43257							4512	2361	13	112	2235	488		1904	1764	145	210				
53 AIR TRANSPORTATION										316	12	12					3	3						
54 ROAD TRANSPORTATION										315	210													
55 RAILWAYS	43257		43257							123							1458	1438	19	0				
56 INTERNAL NAVIGATION										343							45	43	3	78				
57 INTERNATIONAL SPLIT										319	1	1					329	270	59	19				
58 OVERSEAS/SEAS, FORCES BY										226	253	0	1	241	21		68	10	58	143				
59 NON-ENERGY USE IN COEN.																								
60 OTHER NON-ENERGY USE	16055																					NA		
61 TOTAL USE IN ECONOMY																								

ENERGY BALANCES IN INDONESIA CA 1977

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
	TOTAL OF COAL	STEAM COAL	STEAM COAL	ANTHRA- CITE	LIGNITE	TOTAL OF CRUDE OIL	ORIGINAL CRUDE OIL	REDUCED CRUDE OIL	PETROLE- UM PRODUCTS	DOMESTIC FUEL OIL	GASOLINE	AVIATION	SUPER	PREMIUM	JET FUEL	KEROSENE	DIESEL	AUTOMOT.	INDUSTRI.	HEAVY FUEL OIL	KAPHTHA	LOW SUL- FUR RESIDUE	LOSS- CRIBS	RESID.	
	TON	TON	TON	TON	TON	TON	TON	TON	TON	TON	TON	TON	TON	TON	TON	TON	TON	TON	TON	TON	TON	TON	TON	TON	
1 DOMESTIC PRODUCTION	239627		198889	32938	NA	615121	615121	133		2925	48	4	0	62	477	770	1592	1410	182	0	-4863	-42923	35	0	
2 IMPORT	0	0				29755	29755			-659	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
3 EXPORT	-7644		-7644	0		-155285	-155285			(-618)	(-23)	(-2)	0	(-117)	(-22)	(-151)	(-42)	(-11)	(-50)	(-239)	793	1269	2	0	
4 INTERNATIONAL SPLIT																									
5 STOCK CHANGE	-32172	0	-2192	-9270	NA	16641	9935	106																	
6 PRIMARY ENERGY SUPPLY	219791	0	187523	23268	0	169631	169392	239		2472	25	1	0	24	455	439	1809	1376	233	-555	-4159	-40734	37	0	
7 REFINERY						-151692	-151363	-239		11136	2110	18	114	2778	9	4828	4034	3161	872	2455	5279	42657	26	20	
8 INCLUDING LPG																									
9 CHEMICAL ENERGY																									
10 PETROCHEMICAL LPG										-1035							-705	-451	-44	-331					
11 PUBLIC UTILITY	0		NA																						
12 FIRM-USE																									
13 AND GENERATION	-83336		-83336																						
14 TOWN GAS	0		NA																						
15 CORE	0																								
16 BRIDGE	0																								
17 TRANSFORMATION TOTAL	-83336	0	-83336			-151692	-151363	-239		12715	2110	18	114	2778	9	4828	2717	2099	419	-2322	5279	42657	26	20	
18 CRUDE OIL FIELD						-2114	-2114	0		0							0	0	0	0					
19 NATURAL GAS FIELD										0							0	0	0	0					
20 REFINERY										0							0	0	0	0					
21 PULP PLANT										0							0	0	0	0					
22 CHEMICAL ENERGY PLANT										0							0	0	0	0					
23 PUBLIC UTILITY										0							0	0	0	0					
24 TOWN GAS										0							0	0	0	0					
25 CORE PLANT										0							0	0	0	0					
26 BRIDGE										0							0	0	0	0					
27 COAL DINE	-5261		-5261	NA	NA	0	0	0		0	0	0	0	0	0	0	0	0	0	0					
28 FLARE AND LOSSES	0		NA	NA	NA	0	0	0		0	0	0	0	0	0	0	0	0	0	0					
29 ENERGY SECTOR USE LOSSES	-5261	0	-5261	0	0	-2114	-2114	0		0	0	0	0	0	0	0	0	0	0	0					
30 STATISTICAL DIFFERENCE	-4987	0	-131	-4856	0	-15915	-15915	0		-542	-20	1	0	-22	-1	499	-335	-233	-182	-588	-3129	-1323	0	1	
31 FINAL CONSUMPTION	115297		98795	16412	0					14416	2914	20	118	2779	444	5867	3193	3243	750	1181	0			13	
32 FINAL ENERGY USE	98795		98795	0	0					14416	2914	20	118	2779	444	5867	3193	3243	750	1181	0			13	
33 INDUSTRY	55742		55742	0	0					2257							1452	865	584	825	0				
34 AGRICULTURE FORESTRY										254							235	218	19	18	0				
35 FISHERY										0							0	0	0	0	0				
36 MINING, ENERGY SEC.	0		0	0	0					181							142	78	61	48	0				
37 CONSTRUCTION										49							65	58	8	3	0				
38 MANUFACTURING	55742		55742	0	0					1742							1607	512	455	735	0				
39 FOODS										329							179	112	87	150	0				
40 TEXTILE										365							358	174	137	57	0				
41 OTHER										28							70	51	19	9	0				
42 PAPER, PULP										66							39	15	15	34	0				
43 CHEMISTRY (FUEL USED)										169							47	37	10	113	NA				
44 CERAMICS, CEMENTS	50261		50261		NA					555							242	54	297	333	0				
45 IRON, STEEL										93							47	35	32	24	0				
46 NON-FERROUS METALS	0			0						14							8	8	0	0	0				
47 METAL FABR., MACHINERY										14							11	12	2	0	0				
48 SPALL WARES, OTHERS	5181		5181							24							20	18	8	6	0				
49 RESIDENT., COMM. TOTAL										5817															
50 RESIDENTIAL																									
51 COMMERCIAL																									
52 TRANSPORTATION TOTAL	43653		43653							5358	2657	13	113	2531	431		2139	1955	134	341					
53 AIR TRANSPORTATION										327	11						2	2							
54 ROAD TRANSPORTATION										4351	2443	11					2	2							
55 RAILWAYS	43653		43653							165							1768	1889	25	0					
56 INTERNAL NAVIGATION										355	1						18	15	2	58					
57 INTERNATIONAL SPLIT										419	2	2					42	11	50	239					
58 OTHERS (OVER, FORCED BY)										234	257	0	0	210	33		419	379	30	35					
59 NON-ENERGY USE IN CHEM.																									
60 OTHER NON-ENERGY USE	16412			16412																					
61 TOTAL USE IN CHEMISTRY																									

26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	
PEOPLE- IN CODE M3L	REFINERY GAS REF	LPG M3L	NATURAL GAS M3CF	MSL (LICENSE- SALES) M3L	LNG M3S	METHANOL TON	TOWN GAS M3S	COKE TON	COKE OVER GAS M3S	BLAST FURNACE GAS M3S	BRIDGEY TON	WOOD M3S	CHARCOAL TON	FUEL ETHANOL FROM BIODIGEST TON	AGRI- CULTURAL WASTES M3S	HYDRO GENERATION PUBLIC UTILITY GWH	AUTO GENERAT. GWH	NUCLEAR GENERAT -TICK GWH	GEOTHERM. GENERAT. GWH	AUTO GENERAT. GWH	OTHER GENERATION PUBLIC UTILITY GWH	AUTO GENERAT. GWH	TOTAL OF ELEC- TRICITY GWH	PUBLIC UTILITY GWH	AUTO GENERAT -TICK GWH	GRAND TOTAL	
		78	517450					0				56300	NA	0	84876	1851	0	0	0	0	0	0	0	0	0	0	0
10				-1150	-1340	0		0						0													
33	NA	2						0			0	NA	NA	0													
31	0	-3243	517450	-1150	-1340	0		0			0	56300	0	0	84876	1851	0	0	0	0	0	0	0	0	0	0	
12	150	2177	372 3315	-132322	1150	1727		0																			
				NA																							
				0												-1861		0	0	0	0	0	4507	4507			
				0			35156	0	0													2659	0	2659			
12	110	2177	3697	-132322	1150	1727	0	35156	0	0																	
				-107162																							
	0	-2177	0	-6169																							
				0																							
				-234584				-12937																			
		-2177	0	-147915				-12937																			
				0				0																			
				0				-397																			
737	110		445	37253			0	22219	0			0	56300	0	0	84876											
			445	19379			0	22219	0			0	56300	0	0	84876											
			0	19333			0	0	0			0	13119			19037											
			NA										8307			12592											
			0	19333			0	0	0			0	4842			7345											
				17074			0	0	0			0	4842			7345											
	NA			1459				0	0																		
			NA	0					0																		
			445	45				22219				0	43968	NA		84769											
				0										93													
				0										93													
				17074																							
737	110																										
				35740																							

ENERGY BALANCES IN INDONESIA CA 1978

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
	TOTAL OF COAL	COAL	STEAM COAL	ANTHRA- CITE	LIGNITE	TOTAL OF CRUDE OIL	ORIGINAL CRUDE OIL	REDUCED CRUDE OIL	PEATRUC- UM PRODUCTS	DOMESTIC FUEL OIL	BASOLINE	AVIATION	SUPER	PREMIUM	JET FUEL	KEROSENE	DIESEL	AUTOMOT.	INDUSTR.	BEAVY FUEL OIL	NAPHTHA	LOW SUL- PHUR RESIDUE	LIQUID- CANTS	SOLIDS	
	CO1-C05 TGR	TGR	TGR	TGR	TGR	CO6-C09 M3BL	M3BL	M3BL	CO9-C28	CO10-C20 M3L	CO11-C14 M3L	M3L	M3L	M3L	M3L	M3L	M3L	M3L	M3L	M3L	M3L	M3L	M3L	M3L	M3L
1 DOMESTIC PRODUCTION	244181		213691	56589	NA	576679	576679			2493	3	0	0	3	474	695	1501	1501	0	0				44	1
2 IMPORT	0	0				31059	31059	0		-219	0	0	0	0	0	0	0	0	0	-270		-1507	-34271		1
3 EXPORT	-25449		-3339	-22149		-461910	-461910			-407	-11	-11			-1533		-513	-9	-413	-2381					
4 INTERNATIONAL SPLIFD																									
5 STOCK CHANGE	-41244	0	-24315	-14639	NA	-2755	-2761	6			-192	0	-3	-92	12	-66	-117	-147	20	-135	210	-10	-84		
6 PRIMARY ENERGY SUPPLY	192518	0	183958	43562	0	143024	143078	6		1573	-99	0	-3	-74	594	630	1382	1354	20	-424	-1297	-34319	-11		
7 REFINERY						-157854	-157770	-6		14974	3111	23	112	2777	19	4752	4742	3421	1141	3433	5781	35578	118		
8 SOLID, LPG																									
9 CHEMICAL ENERGY																									
10 PETROCHEMICAL LPG																									
11 PUBLIC UTILITY	0		NA							-1311							-861	-825	-36	-450					
12 PUMP-UP USE																									
13 AUTO GENERATION	-82781		-82781							-718							-748	-187	-217	0					
14 TOWN GAS	0	0	0	NA						-18						0	-18	-5	-13	0					
15 COPE	0	0	0																						
16 BRINJEL	0	0	0																						
17 TRANSFORMATION TOTAL	-82781	0	-82781			-155824	-157770	-6		14039	3111	23	112	2777	19	4752	4742	2302	872	2583	5781	35578	118		
18 CRUDE OIL FIELD						-1257	-1257	0		0															
19 NATURAL GAS FIELD																									
20 REFINERY																									
21 USE PLANT																									
22 CHEMICAL ENERGY PLANT																									
23 PUBLIC UTILITY																									
24 TOWN GAS																									
25 COPE PLANT																									
26 BRINJEL																									
27 COAL MINE	-8220		-8220	NA																					
28 FLARE AND LOSSES	0	0	NA	NA	NA	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29 ENERGY SECTOR USE LOSSES	-8220	0	-8220	0	0	-1257	-1257	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30 STATES TICAL DIFFERENCE	797	0	-7772	8479	0	-2623	-2623	0		159	253	-2	9	245	27	1181	-53	28	-81	-1258	-4482	-3249	0	0	0
31 FINAL CONSUMPTION	107221		8183	22241	0					16193	3245	22	117	3126	553	4543	1593	3693	820	1347	0			127	74
32 FINAL ENERGY USE	81783		81783	0	0					16191	3245	22	117	3126	553	4543	1593	3683	820	1347	0				
33 INDUSTRY	54235		54235	0	0					2471							1711	1643	618	940					
34 AGRICULTURE FORESTRY										217							291	265	24	6					
35 FISHERY										0							0	0	0	0					
36 MINING, ENERGY SEC.	0		0	0						116							121	78	43	45					
37 CONSTRUCTION										75							74	49	5	1					
38 MANUFACTURING	54235		54235	0	0					2133							1225	651	579	988					
39 FOODS										412							227	142	95	165					
40 TEXTILE										419							315	213	153	51					
41 RUBBER										89							79	45	19	10					
42 PAPER, PULP										94							51	27	24	43					
43 CHEMISTICALS USED	42219		42219		NA					210							72	59	13	138	NA				
44 CERAMICS, CEMENTS										158							305	74	229	397					
45 IRON, STEEL										7							82	41	41	76					
46 NON-FERROUS METALS	0									21							6	6	41	26					
47 METAL FABR., EQUIPMENT										20							17	10	9	1					
48 SMALL MACHS, OTHERS	7814		7814							20							20	18	2	2					
49 RESIDENT., COMMER. TOTAL										4543							17	10	9	1					
50 RESIDENTIAL																									
51 COMMERCIAL																									
52 TRANSPORTATION TOTAL	39748		39748																						
53 AIR TRANSPORTATION										4311	3928	12	116	2910	512		2343	2239	132	318					
54 ROAD TRANSPORTATION										372	11	11					2	2							
55 RAILWAYS	39748		39748							4339	3876		116	2910			1914	1695							
56 INTERNAL NAVIGATION										110							49	58							
57 INTERNATIONAL SPLIFD										354	0						334	248	78	20					
58 OTHERS (GOVERN., FORCES E)										143	1	1					51	9	41	238					
59 RAW MATER. USE IN COMER.										714	237	9	1	224	41		430	398	10	37					
60 OTHER NON-ENERGY USE	22241			22241																		NA			
61 TOTAL USE IN CHEMISTRY																								127	74
										218							72	39	13	138	0				

ENERGY BALANCES IN INDONESIA CA 1979

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
	TOTAL OF COAL TGN	COALING COAL TGN	STEAM COAL TGN	ANTHRA- CITE TGN	LIGNITE TGN	TOTAL OF CRUDE OIL C05-C08 MML	ORIGINAL CRUDE OIL MML	PRODUCED CRUDE OIL MML	PETROLE- UM PRODUCTS C09-C20 MML	DOMESTIC FUEL OIL C10-C20 MML	BASULINE C11-C14 MML	AVIATION MML	SUPER MML	PREMIUM MML	JET FUEL MML	KEROSENE MML	DIESEL C17-C19 MML	AUTOMOB. MML	INDUSTRI. MML	HEAVY FUEL OIL MML	KAPHTHA MML	LOW SUL- FUR RESIDUE MML	BITUM- ENOUS MML	WAXES MML	
1 DOMESTIC PRODUCTION	278587		214708	63681	NA	559274	559274	959	2199	0	0	0	0	0	270	903	1218	1177	41	0					
2 IMPORT	0	0				31369	31369		-476	-7	-7				-145		-111	-72	-39	-213	-11644	-42855	0	0	0
3 EXPORT	-53580		-45028	-8152		-374349	-374349		-3541	-11	-11				-1661		-473	-83	-393	-1409					
4 (INTERNATIONAL UNLDFD)									264	93	1				-16	-188	234	243	-9	81	279	1089	28	2	
5 STOCK CHANGE	-73077	0	5285	-78362	NA	12958	12958	0																	
6 PRIMARY ENERGY SUPPLY	151532	0	171365	-22033	0	268340	267131	959	2110	97	-6	9	83	169	715	535	1348	1348	-7	-133	-11365	-42765	28	2	
7 REFINERY						-192444	-192444	0	16814	3546	25	104	3415	174	5335	5350	4284	1067	2239	6345	55204	511	12		
8 WELLS, LPG)																									
9 CHEMICAL ENERGY																									
10 PETROCHEMICAL LPG																									
11 PUBLIC UTILITY	0		NA						-1548								-742	-713	-29	-765					
12 PUMP-UP USE																									
13 AUTO GENERATION	-81892		-81892						-744								-914	-658	-285	0					
14 TOWN GAS	0	0	NA						-20								-20	-6	-14	0					
15 COKE	0	0																							
16 BIOMASS	0	0																							
17 TRANSPORTATION(TOTAL)	-61892	0	-61892			-192444	-192444	0	14372	3546	25	104	3415	174	5335	5350	2907	738	1472	6365	55204	511	12		
18 CRUDE OIL FIELD						-1350	-1350		-326								-129	-110	-11	-6					
19 NATURAL GAS FIELD																									
20 REFINERY						-3598	-3598		-714								-144	-70	-74	-572	0	-9	0	1	
21 WEL PLANT																									
22 CHEMICAL ENERGY PLANT																									
23 PUBLIC UTILITY									0								0	0	0	0	0	0	0	0	0
24 TOWN GAS									0								0	0	0	0	0	0	0	0	0
25 COKE PLANT																									
26 BIOMASS																									
27 COAL WASTE	-360		-360	NA					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28 FLARE AND LOSSES	-14310	0	-14310	NA	NA	-364	-364	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29 ENERGY SECTOR USE LOSSES	-14670	0	-14670	0	0	-5262	-5262	0	-143	0	0	0	0	0	0	0	-245	-179	-85	-578	0	-9	0	0	0
30 STATISTICAL DIFFERENCE	57380	0	8790	13510	0	-24634	-19225	-959	2277	49	3	-14	53	319	914	334	71	263	570	4789	-7429	911	1		
31 FINAL CONSUMPTION	130360		101893	25477	0				17925	3672	22	99	3551	423	7244	5054	4145	908	1331	0					
32 FINAL ENERGY USE	104493		104493	0	0				17925	3672	22	99	3551	423	7244	5054	4145	908	1331	0					
33 INDUSTRY	76558		76558	0	0				3889								2013	1251	762	1076	0				
34 AGRICULTURE FORESTRY									350								342	314	28	8					
35 FISHERY									0								0	0	0	0					
36 MINING(ER.ENERGY SEC.)	12559		12559	0	0				197								0	0	0	0					
37 CONSTRUCTION									72								137	85	51	59					
38 MANUFACTURING	46440		46440	0	0				424								1451	719	473	1069	0				
39 FOODS									447								283	156	107	141					
40 TEXTILE									95								392	242	150	55					
41 RUBBER									114								85	47	18	11					
42 PAPER,PULP									239								51	24	20	54					
43 CHEMISTRY(FUEL USE)									665								186	78	20	137	NA				
44 CERAMICS,CEMENTS	54874		54874	NA					171								239	38	200	447					
45 IRON,STEEL									23								78	39	39	93					
46 NON-FERROUS METALS	0								8								4	4	0	0					
47 METAL FABRI.,MACHINERY									23								22	20	2	1					
48 SMALL UNITS,OTHERS	9112		9112						273								215	116	99	58					
49 RESIDENT.,COMMERCIAL(TOTAL)									2244								7244								
50 RESIDENTIAL																									
51 COMMERCIAL																									
52 TRANSPORTATION(TOTAL)	26125		26125						2482	3654	15	18	3344	593			2019	2691	129	215					
53 AIR TRANSPORTATION									443	19							2	2							
54 ROAD TRANSPORTATION									5747	3437															
55 RAILWAYS	26125		26125						105								2328	2316	11	0					
56 INTERNAL NAVIGATION									313	0							69	45	4	36					
57 INTERNATIONAL SHIP									354	1	1						371	219	24	19					
58 OTHERS(GOVERN.,FORCES E)																	47	8	39	180					
59 NON ENERGI. USE IN OTHER									510	219	7	1	211	29			222	204	10	40					
60 OTHER NON-ENERGY USE	25677					25677															NA				
61 TOTAL USE IN CHEMISTRY																									

7-7-3 簡約エネルギー・バランス表一覽

Unit: 10³ TCE

ENERGY BALANCES IN INDONESIA CA 1969

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	
	SOLID FUEL	CRUDE OIL	PETROLEUM PRODUCTS	BM	GASOLINE	JET FUEL	KEROSENE	AUTOMOB. DIESEL OIL	INDUSTRY DIESEL OIL	HEAVY FUEL OIL	KAPITA	LPG	OTHER PETR. PRODUCTS	NATURAL GAS	CONDENSATES	LNG	METHANOL	TOWN GAS	OTHER GAS	HYDRO GENERAT-ION	GEOTHERMAL GENERAT-ION	NUCLEAR GENERAT-ION	OTHER GENERAT-ION	ELECTRICITY	COMMERCIAL ENERGY TOTAL	INDUSTRY ENERGY		
1 INDEPENDENT PRODUCTION	0	54297	0	0	0	0	0	0	0	0	0	0	0	3975	0	0	0	0	0	513	0	0	0	0	58785	3234	0	
2 IMPORT	0	49	0	0	0	0	0	-204	-3	-1333	0	-17	-4977	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3 EXPORT	0	-37839	-7468	-2153	-388	-366	0	-183	-243	-2631	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 WEXNER	0	0	(-278)	(-278)	(0)	(0)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5 STOCK CHANGE	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
6 PRIM. ENERGY REQUIREMENT	0	14587	-7468	-2153	-388	-366	0	-204	-3	-1333	0	-17	-4977	3975	0	0	0	0	0	513	0	0	0	0	13928	3234	0	
7 OIL REFINERS	0	-15220	18879	18876	2057	373	2727	1358	428	2811	0	0	0	0	0	0	0	0	0	0	0	0	0	274	-765	0	0	
8 LNG, LPG, COG, BOG PRODUCT	0	0	0	0	0	0	0	-278	-91	-97	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
9 ELECTRIC GENERATION	0	0	-465	-465	0	0	0	-1	-8	0	0	0	0	0	0	0	0	19	0	0	0	0	0	0	0	0	0	
10 TOWN GAS PRODUCTION	0	0	-8	-8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
11 ENERGY SECTOR OGN USE	0	0	0	0	0	0	0	0	0	0	0	0	0	-27	0	0	0	0	0	0	0	0	0	0	0	-27	0	
12 LOSS	0	0	0	0	0	0	0	0	0	0	0	0	0	-1939	0	0	0	0	0	0	0	0	0	0	0	0	0	
13 STATISTICAL DIFFERENCES	0	-9289	1818	-48	7	32	595	-428	-83	-549	0	-2	1884	-1929	0	0	0	0	0	0	0	0	0	0	0	-2209	0	
14 FINAL CONSUMPTION	0	0	7475	7383	1788	100	3504	675	324	972	0	0	12	80	0	0	0	0	0	0	0	0	0	225	2793	3234	0	
15 FINAL ENERGY USE	0	0	7383	7383	1788	100	3504	675	324	972	0	0	0	45	0	0	0	0	0	0	0	0	0	225	2682	3234	0	
16 INDUSTRY SECTOR	0	0	222	222	0	0	0	214	155	314	0	0	0	49	0	0	0	0	0	0	0	0	0	0	29	841	2687	0
17 RESIDENT AND COMMERC	0	0	3581	3504	0	0	3504	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	187	3835	1225	0
18 TRANSPORTATION SECTOR	0	0	2652	2652	1788	100	0	248	123	555	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	28	333
19 GOVERNMENT SECTOR	0	0	385	385	0	0	0	234	7	42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
20 NON-ENERGY USE	0	0	92	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

ENERGY BALANCES IN INDONESIA CA 1970

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	
	SOLID FUEL	CRUDE OIL	PETROLEUM PRODUCTS	BM	GASOLINE	JET FUEL	KEROSENE	AUTOMOB. DIESEL OIL	INDUSTRY DIESEL OIL	HEAVY FUEL OIL	KAPITA	LPG	OTHER PETR. PRODUCTS	NATURAL GAS	CONDENSATES	LNG	METHANOL	TOWN GAS	OTHER GAS	HYDRO GENERAT-ION	GEOTHERMAL GENERAT-ION	NUCLEAR GENERAT-ION	OTHER GENERAT-ION	ELECTRICITY	COMMERCIAL ENERGY TOTAL	INDUSTRY ENERGY		
1 INDEPENDENT PRODUCTION	0	42428	0	0	0	0	0	0	0	0	0	0	0	4114	0	0	0	0	0	537	0	0	0	0	0	47681	35347	0
2 IMPORT	0	532	0	0	0	0	0	-44	0	-1919	0	-11	-5355	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3 EXPORT	0	-45745	-7885	-2459	-434	-32	0	-44	0	-1919	0	-11	-5355	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 WEXNER	0	0	(-189)	(-189)	(0)	(0)	0	(-10)	(-39)	(-107)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5 STOCK CHANGE	0	-155	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
6 PRIM. ENERGY REQUIREMENT	0	18740	-7885	-2459	-434	-32	0	-44	0	-1919	0	-11	-5355	4114	0	0	0	0	0	537	0	0	0	0	0	13407	35347	
7 OIL REFINERS	0	-16286	18619	18614	2143	193	3552	1258	-637	3452	0	11	5624	0	0	0	0	0	0	0	0	0	0	0	0	813	0	
8 LNG, LPG, COG, BOG PRODUCT	0	0	0	0	0	0	0	-375	-116	-121	0	1	0	-90	0	0	0	0	0	0	0	0	0	0	0	-87	0	
9 ELECTRIC GENERATION	0	0	-612	-612	0	0	0	-1	-8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
10 TOWN GAS PRODUCTION	0	0	-8	-8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
11 ENERGY SECTOR OGN USE	0	0	0	0	0	0	0	0	0	0	0	0	0	-1418	0	0	0	0	0	0	0	0	0	0	0	-6	-1416	
12 LOSS	0	0	0	0	0	0	0	0	0	0	0	0	0	-2431	0	0	0	0	0	0	0	0	0	0	0	0	0	
13 STATISTICAL DIFFERENCES	0	-555	-165	18	-16	-17	472	-44	-123	-254	0	0	-124	-1	0	0	0	0	0	0	0	0	0	0	0	-661	0	
14 FINAL CONSUMPTION	0	0	8119	7923	1893	143	3523	834	391	1839	0	1	166	182	0	0	0	0	0	0	0	0	0	0	263	8548	35347	
15 FINAL ENERGY USE	0	0	7923	7923	1893	143	3523	834	391	1839	0	1	0	91	0	0	0	0	0	0	0	0	0	0	263	8291	35347	
16 INDUSTRY SECTOR	0	0	983	983	0	0	0	326	270	387	0	0	0	91	0	0	0	0	0	0	0	0	0	0	0	103	1178	21347
17 RESIDENT AND COMMERC	0	0	3524	3523	0	0	3523	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	125	3483	13111
18 TRANSPORTATION SECTOR	0	0	3192	3192	1893	143	0	319	117	721	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	54
19 GOVERNMENT SECTOR	0	0	224	224	0	0	0	167	4	31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
20 NON-ENERGY USE	0	0	168	0	0	0	0	0	0	0	0	0	143	11	0	0	0	0	0	0	0	0	0	0	0	0	0	

(Unit: 10³ TCE)

ENERGY BALANCES IN INDONESIA CA 1973

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
	SOLID FUEL	CRUDE OIL	PETROLEUM PRODUCTS	BKA	BASSOLINE	JET FUEL	KEROSENE	AUTOMOT. DIESEL OIL	INDUSTRY DIESEL OIL	HEAVY FUEL OIL	KAPITA	LPG	OTHER PETR. PRODUCTS	NATURAL GAS	CONDENSATES	LNG	METHANOL	TOWN GAS	OTHER GAS	HYDRO GENERAT -10M	GEOTHERMAL GENERAT -10M	NUCLEAR GENERAT -10M	OTHER GENERAT -10M	ELECTRICITY	COMMERCIAL ENERGY TOTAL	NON-COMMERCIAL ENERGY	
1 INDOGENOUS PRODUCTION	141	97883						331	0	1647			24	7055						698	0	0	0		105708	43155	
2 IMPORT	3	220						0	0	-70			-12219												278	0	
3 EXPORT	0	-74956	-12310	-70	0	0	0	0	0	-219			0												(-219)	0	
4 BURDEN			(-240)	(-243)	0	0	0	0	0	0			0												234	0	
5 STOCK CHANGE	32	264	0	0	0	0	0	331	0	1527			-12219	7055						698	0	0	0		22354	43155	
6 PRIM. ENERGY REQUIREMENT	175	24274	-9255	2457	0	161	100	331	0	1527			-12219	7055													
7 OIL REFINING		-24203	23209	16624	2462	292	4593	2324	971	764	293	15	12365	-273													
8 LNG, LPG, COG, BCR PRODUCT			0					-541	-193	-115																	
9 ELECTRIC GENERATION	-15		-868	-868				-1	-29	0														22	0		
10 TOWN GAS PRODUCTION	-3		-21	-21																							
11 ENERGY SECTOR OWN USE	-13	0	0	0	0	0	0	0	0	0	0	0	0	-1556											-23	-1592	
12 LOSS	0	0	0	0	0	0	0	0	0	0	0	0	0	-5035											-8	0	
13 STATISTICAL DIFFERENCES	-32	-40	-1107	-988	-117	-14	357	-45	-174	-975	-203	0	45	143												-1054	0
14 FINAL CONSUMPTION	83		10467	11218	2345	348	4759	2928	484	1252	0	14	235	318											305	12205	43155
15 FINAL ENERGY USE	80		10232	11218	2345	348	4759	2928	484	1252	0	14	0	167											305	11800	43105
16 INDUSTRY SECTOR	43		1747	1747				610	374	759	0	0	0	167											184	2189	2314
17 RESIDENT AND COMMERC	0		4774	4759			4759				0	0	0	0											165	4955	1915
18 TRANSPORTATION SECTOR	37		4265	4355	2046	348		1160	80	431	0	0	0	0											0	4102	3
19 GOVERNMENT SECTOR			427	427	306	0		228	28	71	0	0	0	0											36	653	0
20 NON-ENERGY USE	3		235								0	0	235	167												165	0

ENERGY BALANCES IN INDONESIA CA 1974

(Unit: 10³ TCE)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	
	SOLID FUEL	CRUDE OIL	PETROLEUM PRODUCTS	BKA	BASSOLINE	JET FUEL	KEROSENE	AUTOMOT. DIESEL OIL	INDUSTRY DIESEL OIL	HEAVY FUEL OIL	KAPITA	LPG	OTHER PETR. PRODUCTS	NATURAL GAS	CONDENSATES	LNG	METHANOL	TOWN GAS	OTHER GAS	HYDRO GENERAT -10M	GEOTHERMAL GENERAT -10M	NUCLEAR GENERAT -10M	OTHER GENERAT -10M	ELECTRICITY	COMMERCIAL ENERGY TOTAL	NON-COMMERCIAL ENERGY		
1 INDOGENOUS PRODUCTION	140	104510						458	0	913			71	2274						892	0	0	0		108755	41138		
2 IMPORT	1	135						0	0	0			-5	-1466												3935	0	
3 EXPORT	0	-25933	-5972	-522	-522	0	0	0	0	0			0	0												(-5972)	0	
4 BURDEN			(-1591)	(-1591)	(-21)	(-114)		(-11)	(-37)	(-365)			0	0												(-1558)	0	
5 STOCK CHANGE	-2	-1559	0	0	0	0	0	0	0	0			0	0												-1558	0	
6 PRIM. ENERGY REQUIREMENT	142	23280	-7149	2245	-522	212	1354	458	0	913			-5	-9375	2274											24351	41138	
7 OIL REFINING		-21107	23085	12775	2410	265	4335	2074	971	1619	811	32	10233	-749														
8 LNG, LPG, COG, BCR PRODUCT			0					-431	-210	-93																		
9 ELECTRIC GENERATION	-57		-786	-786				-1	-22	0																		
10 TOWN GAS PRODUCTION	-1		-23	-23																								
11 ENERGY SECTOR OWN USE	-10	-545	0	0	0	0	0	0	0	0	0	0	0	-2107												-27	-2647	
12 LOSS	0	0	0	0	0	0	0	0	0	0	0	0	0	-1542												-8	0	
13 STATISTICAL DIFFERENCES	0	1312	-2642	-1227	704	-44	8	-391	-174	-1307	-114	0	-547	0	0	0	0	0	0							-1322	0	
14 FINAL CONSUMPTION	82		13345	12183	2450	451	5451	2430	543	1359	0	32	201	358												343	14143	41458
15 FINAL ENERGY USE	75		13014	12183	2450	451	5419	2400	543	1359	0	32	0	191												343	13478	41458
16 INDUSTRY SECTOR	43		1810	1810				433	410	654	0	0	0	191												179	2683	2107
17 RESIDENT AND COMMERC	0		5531	5497			5497				0	0	0	0												179	5722	22659
18 TRANSPORTATION SECTOR	32		5234	5234	2365	419		1680	121	443	0	0	0	1												0	5246	11
19 GOVERNMENT SECTOR			502	502	265	32		192	12	55	0	0	0	0												0	410	0
20 NON-ENERGY USE	7		291								0	0	291	167												20	455	0

ENERGY BALANCES IN INDONESIA CA 1975

(Unit : 10³ TCE)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	
	SOLID FUEL	CRUDE OIL	PETROLEUM PRODUCTS	BITUMEN	GASOLINE	JET FUEL	KEROSENE	AUTOMOT. DIESEL OIL	INDUSTRY DIESEL OIL	HEAVY FUEL OIL	KAPITA	LPG	OTHER PETR. PRODUCTS	NATURAL GAS	COBLENTHANE	LNG	METHANOL	TOWN GAS	OTHER GAS	HYDRO GENERAT -TGN	GEOTHERMAL GENERAT -TGN	NUCLEAR GENERAT -TGN	OTHER GENERAT -TGN	ELECTRICITY	COMMERCIAL ENERGY TOTAL	NON-COMMERCIAL ENERGY	GRAND TOTAL	
INDONESIAN PRODUCTION	192	13562												8012														
EXPORT	6	122	2795	2226	0	457	1278	145	0	31		0	70												18141	38116	142657	
IMPORT	0	-72759	-8813	-727	-727	0	0	0	0	0	-227	-4	-7392												2923	0	2923	
NET CHANGE	-3	-358	-8813	-4173	-31	-1351	0	-71	-381	-231		0	0												-81692	0	-81692	
ENERGY REQUIREMENT	194	22518	-8812	1978	-727	417	1278	945	0	36	-227	-4	-7312	8012												-359	0	-359
NET REQUIREMENT		-21713	21352	12893	2601	180	4350	3069	1020	1695	820	50	2589													25589	38116	63455
INDONESIAN PRODUCTION			3																									
EXPORT																												
IMPORT																												
NET CHANGE																												
ENERGY REQUIREMENT																												
NET REQUIREMENT																												
INDONESIAN PRODUCTION																												
EXPORT																												
IMPORT																												
NET CHANGE																												
ENERGY REQUIREMENT																												
NET REQUIREMENT																												
INDONESIAN PRODUCTION																												
EXPORT																												
IMPORT																												
NET CHANGE																												
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EXPORT																												
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ENERGY REQUIREMENT																												
NET REQUIREMENT																												
INDONESIAN PRODUCTION																												
EXPORT																												
IMPORT																												
NET CHANGE																												
ENERGY REQUIREMENT																												
NET REQUIREMENT																												

ENERGY BALANCES IN INDONESIA CA 1976

(Unit : 10³ TCE)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	
	SOLID FUEL	CRUDE OIL	PETROLEUM PRODUCTS	BITUMEN	GASOLINE	JET FUEL	KEROSENE	AUTOMOT. DIESEL OIL	INDUSTRY DIESEL OIL	HEAVY FUEL OIL	KAPITA	LPG	OTHER PETR. PRODUCTS	NATURAL GAS	COBLENTHANE	LNG	METHANOL	TOWN GAS	OTHER GAS	HYDRO GENERAT -TGN	GEOTHERMAL GENERAT -TGN	NUCLEAR GENERAT -TGN	OTHER GENERAT -TGN	ELECTRICITY	COMMERCIAL ENERGY TOTAL	NON-COMMERCIAL ENERGY	GRAND TOTAL	
INDONESIAN PRODUCTION	173	110281												11534														
EXPORT	1	1689	4469	4617	381	550	3005	2503	198	0		0	52													122791	18923	141715
IMPORT	0	-94974	-8149	-79	0	0	0	0	0	-79	-95	0	-2584													8279	0	8279
NET CHANGE	-1	-299	-3780	-4173	-29	-111	0	-143	-781	-202																-81692	0	-81692
ENERGY REQUIREMENT	172	21529	-2812	4382	811	543	3934	2411	201	-218	-312	-1	-8072	11534												32814	38923	70737
NET REQUIREMENT		-22020	21890	13337	2732	72	4059	2728	1856	2819	287	11	8225															
INDONESIAN PRODUCTION			19																									
EXPORT																												
IMPORT																												
NET CHANGE																												
ENERGY REQUIREMENT																												
NET REQUIREMENT																												
INDONESIAN PRODUCTION																												
EXPORT																												
IMPORT																												
NET CHANGE																												
ENERGY REQUIREMENT																												
NET REQUIREMENT																												
INDONESIAN PRODUCTION																												
EXPORT																												
IMPORT																												
NET CHANGE																												
ENERGY REQUIREMENT																												
NET REQUIREMENT																												
INDONESIAN PRODUCTION																												
EXPORT																												
IMPORT																												
NET CHANGE																												
ENERGY REQUIREMENT																												
NET REQUIREMENT																												

(Unit : 10³ TCE)

ENERGY BALANCES IN INDONESIA CA 1977

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26		
	SOLID FUEL	CRUDE OIL	PETROLEUM PRODUCTS	BIT	GASOLINE	JET FUEL	KEROSENE	AUTOMOT. DIESEL OIL	INDUSTRY DIESEL OIL	HEAVY FUEL OIL	KAPTRA	LPG	OTHER PETR. PRODUCTS	NATURAL GAS	CONDENSATES	LNG	METHANOL	TOWN GAS	OTHER GAS	HYDRO GENERAT -10M	GEOTHERMAL GENERAT -10M	NUCLEAR GENERAT -10M	OTHER GENERAT -10M	ELECTRICITY	COGENERATIONAL ENERGY TOTAL	NON-ENERGY USE		
1 INDEPENDENT PRODUCTION	222	123270												17613												143722	2928	
2 EXPORT	0	5166																									9174	
3 IMPORT	-7	-17251	-11817	-933	0	0	0	-151	-681	-3181	-910	-477	-9567														-118561	
4 STOCK			(-5781)	(-5781)	(-21)	(-151)		(-15)	69	147	134	0	273														2351	
5 STOCK CHANGE	-14	2815	345	-184	-41	-21	-195	-15	69	147	-784	-465	-9195	17613	-220	-1233	0	0	0	0	0	0	0	0	0	0	45554	
6 PRIM. ENERGY REQUIREMENT	241	34050	-7423	2638	39	151	825	1855	314	-787	-784	53	1734														-842	
7 OIL REFINING		-39307	2745	1618	3561	12	6235	4245	1174	3719	1610	53	1734														-2730	
8 LNG, LPG, COG, NON PRODUCT			474					-1420	-326	-489	0	474															-2279	
9 ELECTRIC GENERATION	-77		-2223	-2223				-5	-16	-2																	-3	
10 TOWN GAS PRODUCTION	0		-23	-23																								
11 ENERGY SECTOR OWN USE	-5	-424	0	0	0	0	0	0	0	0	0	0	0	-1215													-4743	
12 LOSS	0	0	0	0	0	0	0	0	0	0	0	0	0	-835													-144	
13 STATISTICAL DIFFERENCES	-8	-3187	-1345	-711	-25	-1	517	-314	-137	-810	-214	0	-278	0	0	-354	0	0	0	0	0	0	0	0	0	0	-4151	
14 FINAL CONSUMPTION	111		11953	18749	3504	613	7577	4370	1011	1872	0	64	241	1812													655	
15 FINAL ENERGY USE	91		18813	18749	3504	613	7577	4370	1011	1872	0	64	0	731													655	
16 INDUSTRY SECTOR	51		3678	3678			7577		799	1149	0	0	0	731													366	
17 RESIDENT AND COMMERC	0		7419	7577						482	0	0	0	2													251	
18 TRANSPORTATION SECTOR	40		7120	7120	3197	549		2691	181	482	0	0	0	0													0	
19 GOVERNMENT SECTOR	0		554	554	369	11		511	42	58	0	0	211	677													39	
20 NON-ENERGY USE	20		241								0	0	0	0													938	

(Unit : 10³ TCE)

ENERGY BALANCES IN INDONESIA CA 1978

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26		
	SOLID FUEL	CRUDE OIL	PETROLEUM PRODUCTS	BIT	GASOLINE	JET FUEL	KEROSENE	AUTOMOT. DIESEL OIL	INDUSTRY DIESEL OIL	HEAVY FUEL OIL	KAPTRA	LPG	OTHER PETR. PRODUCTS	NATURAL GAS	CONDENSATES	LNG	METHANOL	TOWN GAS	OTHER GAS	HYDRO GENERAT -10M	GEOTHERMAL GENERAT -10M	NUCLEAR GENERAT -10M	OTHER GENERAT -10M	ELECTRICITY	COGENERATIONAL ENERGY TOTAL	NON-ENERGY USE		
1 INDEPENDENT PRODUCTION	258	119578												39327													151434	
2 EXPORT	0	8224																									9883	
3 IMPORT	-30	-92548	-1525	-411	0	0	0	0	-411	-249	-657	-8212															-111829	
4 STOCK			(-6899)	(-6899)	(-11)	(-2933)		(-12)	(-58)	(-337)																	(-459)	
5 STOCK CHANGE	-42	-552	-509	-512	-122	16	-85	-190	38	-111	43	0	-7														-1183	
6 PRIM. ENERGY REQUIREMENT	184	32692	-4434	2423	-119	668	813	1825	38	-693	-249	-652	-8147	39327	-1138	-2519	0	0	0								41545	
7 OIL REFINING		-32625	31671	21187	3743	25	6135	4823	1538	4162	1188	58	9320														-354	
8 LNG, LPG, COG, NON PRODUCT			474					-1772	-314	-431	0	474															-1724	
9 ELECTRIC GENERATION	-76		-2754	-2754				-7	-18	0																	-3418	
10 TOWN GAS PRODUCTION	0		-25	-25																								
11 ENERGY SECTOR OWN USE	-8	-252	-3	0	0	0	0	0	0	0	0	0	-1	-819													-40	
12 LOSS	0	0	0	0	0	0	0	0	0	0	0	0	0	-7711													-954	
13 STATISTICAL DIFFERENCES	3	-455	-1549	25	364	38	1525	37	-187	-1771	-657	0	-236	0	0	-34	0	0	0	0	0	0	0	0	0	0	-2805	
14 FINAL CONSUMPTION	165		21874	21858	3928	731	8175	4747	1166	1851	0	68	434	2225													829	
15 FINAL ENERGY USE	78		21838	21858	3928	731	8175	4747	1166	1851	0	68	0	1841													829	
16 INDUSTRY SECTOR	59		3667	3667			8175		873	1340	0	0	0	1939													410	
17 RESIDENT AND COMMERC	0		8555	8425						179	436	0	0	2													302	
18 TRANSPORTATION SECTOR	28		7743	7743	3144	677		3648	54	55	0	0	0	0													0	
19 GOVERNMENT SECTOR	0		923	923	285	54		525	54	55	0	0	0	0													47	
20 NON-ENERGY USE	27		436								0	0	436	1684													1547	

8 エネルギー需給予測

8-1 エネルギー需給予測手法の確立

インドネシア共和国のエネルギー需給予測手法を構築するために、我々は以下のような順序で作業を行った。

まず、第1期のジョイントワークにおいて、我々が本プロジェクトで作成するインドネシア中長期エネルギー需給予測モデルの方法としては、日本エネルギー経済研究所(The Institute of Energy Economics)の日本中長期エネルギー需給予測モデルに使用している方法を採用することで基本的に合意した。

次に、インドネシア側カウンターパートに対して、日本中長期エネルギー需給予測モデルの概要・手法・使用している変数・方程式体系などを説明した。

この時期においては、残念ながら、マクロ経済に関するデータの収集は、ほとんど進んでいなかったため、マクロ経済予測モデルは構築できず、マクロ経済変数はすべて外生変数とした。また、インドネシアのエネルギー・バランス表も、1978年の1年分しか作成されていなかったため、暫定的な措置として、OECDで作成・出版された「Workshop on Energy Data of Developing Countries」のエネルギー・バランス表を、17のエネルギー源、16のエネルギー供給・消費部門にアグリゲートし直して使用した。

それから、最終消費部門について、10本程度の構造方程式を推計し、定義式を加えてインドネシア中長期エネルギー需給予測暫定モデルを構築した。モデルの方程式数は102本。

最後に、1985年までのインドネシアエネルギー需給予測を暫定的に行った。この第1期のジョイントワークの主たる目的は、予測でもっともらしい数字を得ることではなく、予測の方法・プロセスをマスターすることであり、この観点からすると、ほぼ満足すべき成果が挙げられたものと考えている。

続いて、第2期のジョイントワークにおいては、我々は第1期のジョイントワークの成果をベースとして、その拡大・充実を中心にして作業を進めた。

まず、第1期のジョイントワークで、できなかったマクロ経済データの収集・整理を行い、それらを使用して方程式数26本の簡単なマクロ経済予測モデルを構築した。次に、ソフトウ

エアチームによって作成された、インドネシアエネルギー・バランス表を、25のエネルギー、18のエネルギー供給・消費部門にアグリゲートし直して、簡約バランス表を作り、それを使用して、175本の方程式からなるエネルギーモデルを構築した。それから、マクロ経済モデルとエネルギーモデルをリンクし、インドネシア中長期エネルギー需給予測モデル（方程式数201本）を構築した。最後に、1972年～1978年の7年間について、ファイナルテストを行い、1979年～1990年の12年間について、予測を行い、これらの一連のプロセスをソフトウェアチームと協力して、プログラミング化した。

第2期のジョイントワークの主たる目的は、インドネシア中長期エネルギー需給予測モデルの基本的な骨組みを固めることにあり、我々としては、この目的は、ある程度達成できたものと考えている。

8-2 需給予測モデルの概念

今回のジョイントワークにおいて、インドネシア中長期エネルギー需給予測モデルを作成する方法として、我々は前述のように、日本エネルギー経済研究所（The Institute of Energy Economics）が使用している方法を採用した。具体的に言うと、マクロ経済モデルとエネルギー最終消費部門に関しては、計量経済手法（Econometric Method）を用い、エネルギー転換部門については、各エネルギー源間の技術的特性（ロス率・所内率 etc.）を考慮した関係式を作成した。また、一次エネルギー供給部門に関しては、ほとんどのエネルギー供給（水力発電・原油生産 etc.）を政策変数（=外生変数）として取り扱った。

モデルの流れとしては、まずマクロ経済モデルによって、GDP・民間消費支出・政府消費支出・自動車保有台数などの数字が求められ、それらを説明変数として、最終消費部門（産業・民生・交通・政府の各部門）のエネルギー消費が得られ、最後に一次エネルギー供給部門（生産・輸出入 etc.）でバランスがとられるというようになっている。この関係をフローチャートで書くと図8-2-1のようになる。

8-3 需給予測モデルの作成

このような概念に基づき、我々はインドネシア中長期エネルギー需給予測モデルを作成したが、このモデルは大別すると、マクロ経済モデルとエネルギー需給モデルに区分することができる。

図 8-2-1 インドネシア中長期エネルギー需給予測モデルの概要

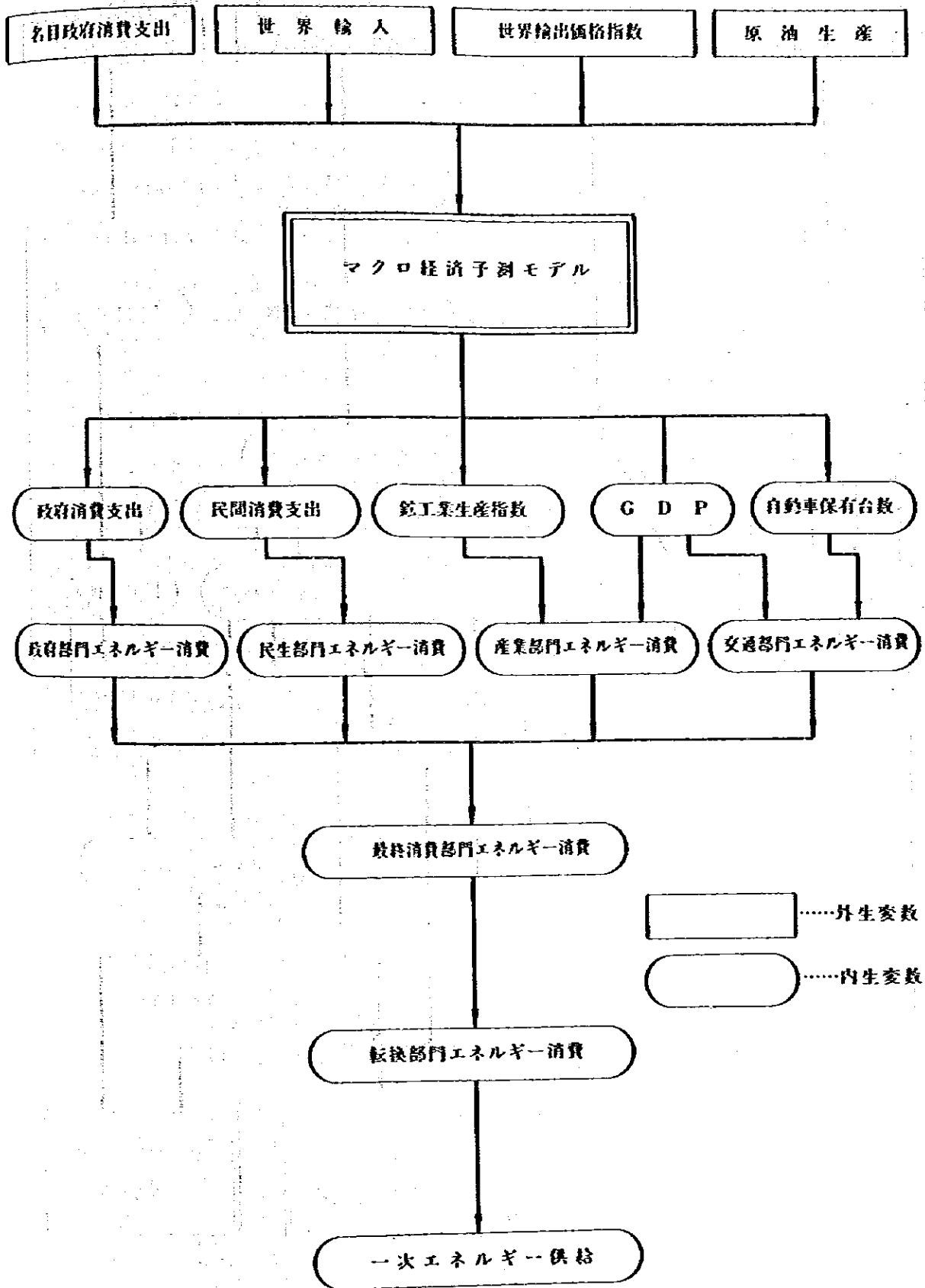
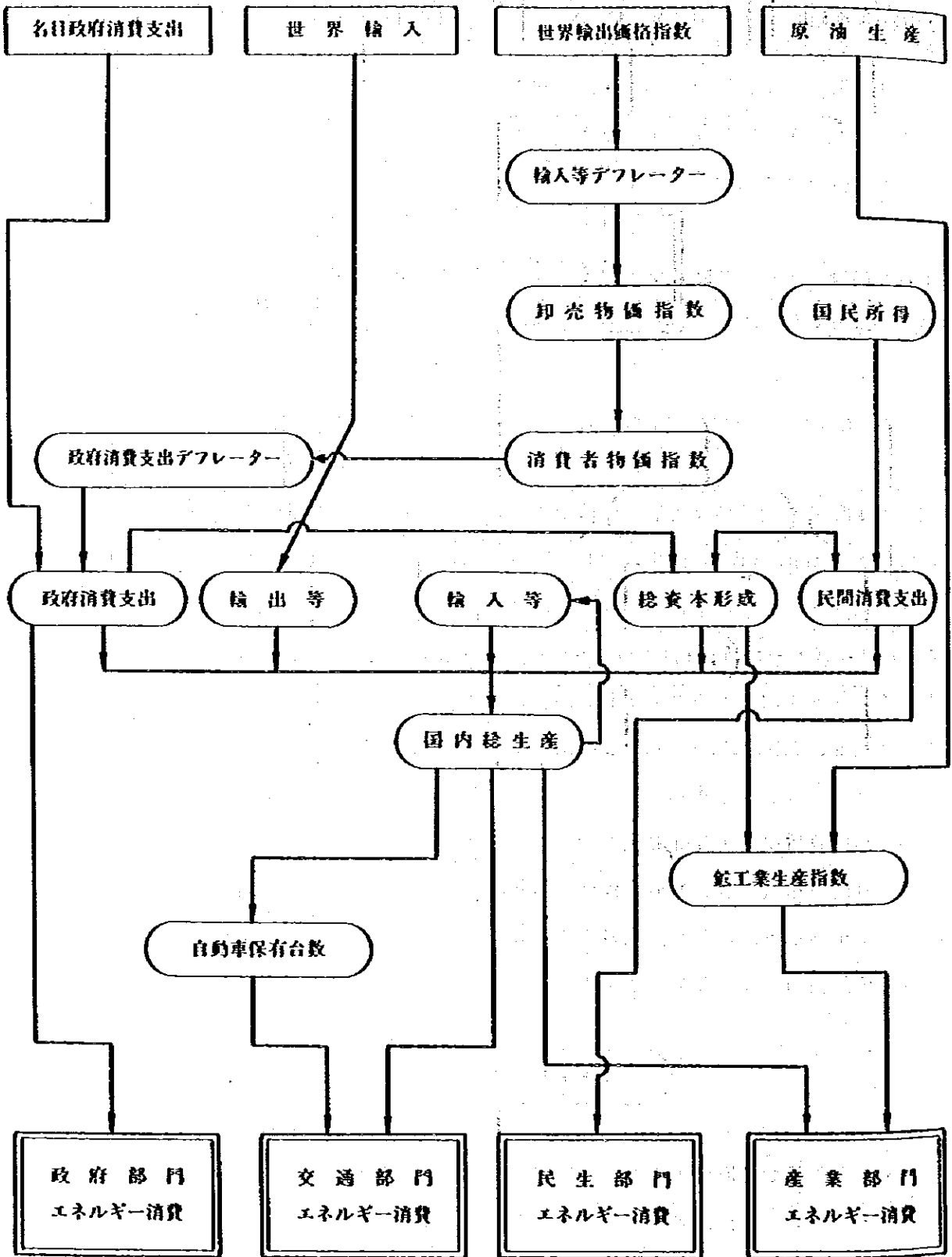


図8-3-1 インドネシアマクロ経済モデルの概要



8-3-1 マクロ経済モデルの概要

我々が、今回のジョイントワークで作成したマクロ経済モデルは、26本の方程式から構成されている。構造方程式の数は17本、定義式は9本。すなわち内生変数は26変数。また、外生変数は6変数である。主要な内生変数は、国内総生産 (Gross Domestic Product)、民間消費支出 (Private Consumption Expenditure)、政府消費支出 (Government Consumption Expenditure)、鉱工業生産指数 (Production Index of Mining and Industry) などである。また、主要な外生変数は、名目政府消費支出 (Government Consumption Expenditure [at Current Prices])、原油生産 (Crude Oil Product)、世界輸入 (World Import) などである。このうち、我々のモデルの中で、最も重要な外生変数 (政策変数) は、名目政府消費支出である。なお、構造方程式の推計方法は直接最小2乗法 (Ordinary Least Squares) を使用し、連立方程式の解法としては、ガウス・ザイデル法を採用した。

モデルの概要をフローチャートで示すと、図8-3-1のようになる。

また、個々の方程式については、以下の通りである。ここで、 R^2 は決定係数、 $ADJ(R^2)$ は自由度修正済み決定係数、D.W. はダービン・ワトソン比、S は標準誤差、各方程式の名説明変数の係数の下にある () の中は t 値、方程式番号の次にある INDONESIA01 等は方程式名、OLS (Ordinary Least Squares) は最小2乗法を使って構造方程式を推計したことを示している。

(1) INDONESIA01 (OLS , FA, 71 TO 78)

$$EXP73\% = -507.3603 + 2.199797 * WIM75\% \\ (-2.201) (8.14)$$

$$R^2 = 0.9169 (ADJ[R^2] = 0.9031) \\ D.W. = 2.70 \\ S = 83.574$$

(2) INDONESIA02 (OLS , FA, 71 TO 78)

$$PIMP\% = +20.53160 + 1.295865 * PWE75\% \\ (2.315) (13.2)$$

$$R^2 = 0.9671 (ADJ[R^2] = 0.9616) \\ D.W. = 1.79 \\ S = 7.0491$$

(3) INDONESIA03 (OLS , FA, 72 TO 78)

$$NI73\% = +735.2395 + 0.8035411 * GDP73\% (-1) \\ (2.549) (20.1)$$

$$R^2 = 0.9878 (ADJ[R^2] = 0.9854) \\ D.W. = 1.59 \\ S = 110.83$$

(4)INDONESIA04 (OLS , FA, 71 TO 78)
WPI736=-1.196510+0.5507690*PIMP6+0.007089847*NI6;
(-0.069) (2.42) (4.91)

R+R= 0.9911(ADJ[R+R]= 0.9875)
D.W.= 2.03
S= 6.6569

(5)INDONESIA05 (OLS , FA, 71 TO 78)
CPI736=+3.251428+0.008842711*NI6+0.4516194*PIMP6;
(0.242) (7.91) (2.56)

R+R= 0.9956(ADJ[R+R]= 0.9938)
D.W.= 2.01
S= 5.1596

(6)INDONESIA06 (OLS , FA, 71 TO 78)
PCP6=+20.15272+0.007234234*NI6+0.3515267*PIMP6;
(3.647) (15.7) (4.84)

R+R= 0.9988(ADJ[R+R]= 0.9984)
D.W.= 2.92
S= 2.1220

(7)INDONESIA07 (OLS , FA, 71 TO 78)
PCG6=+7.905765+0.8627982*CPI738;
(2.252) (40.4)

R+R= 0.9963(ADJ[R+R]= 0.9957)
D.W.= 1.31
S= 3.7249

(8)INDONESIA08 (OLS , FA, 71 TO 78)
PITP6=-8.353526+0.8061570*PIMP6+0.003714760*NI6;
(-0.394) (2.89) (2.10)

R+R= 0.9810(ADJ[R+R]= 0.9735)
D.W.= 2.16
S= 8.1383

(9)INDONESIA09 (OLS , FA, 71 TO 78)
PEXP6=-9.513239+12.87555*PCROIL6+0.6462070*PAGRGPE736;
(-1.544) (15.8) (7.17)

R+R= 0.9979(ADJ[R+R]= 0.9971)
D.W.= 2.05
S= 4.8026

(10)INDONESIA11 (OLS , FA, 72 TO 78)
NI6=-17028.45+0.2561937*NI6(-1)+3.601317*GDP736(-1);
(-3.514) (1.16) (3.82)

R+R= 0.9959(ADJ[R+R]= 0.9939)
D.W.= 2.85
S= 416.40

(11)INDONESIA12 (OLS , FA, 72 TO 78)
CP736=+42.05767+0.4626462*NI736+0.4925135*CP736(-1);
(0.078) (1.40) (1.45)

R+R= 0.9815(ADJ[R+R]= 0.9723)
D.W.= 1.79
S= 144.78

(12) INDONESIA13 $CG73\% = CG\% / (POG\% / 100.0)$;

(13) INDONESIA14 (OLS , FA, 71 TO 78)

$ITP73\% = -910.6464 + 0.3542265 * CP73\% + 0.6651544 * CG73\%$;
(-5.534) (4.69) (1.82)

R+R= 0.9887 (ADJ[R+R]= 0.9842)

D.W.= 1.75

S= 60.868

(14) INDONESIA15 (OLS , FA, 71 TO 78)

$IMP73\% = -1738.216 + 0.4530140 * GDP73\%$;
(-6.532) (12.8)

R+R= 0.9649 (ADJ[R+R]= 0.9590)

D.W.= 1.95

S= 122.53

(15) INDONESIA16 $GDP73\% = CP73\% + CG73\% + ITP73\% + EXP73\% - IMP73\%$;

(16) INDONESIA17 $CP\% = CP73\% + (PCP\% / 100.0)$;

(17) INDONESIA18 $ITP\% = ITP73\% * (PITP\% / 100.0)$;

(18) INDONESIA19 $EXP\% = EXP73\% * (PEXP\% / 100.0)$;

(19) INDONESIA20 $IMP\% = IMP73\% * (PIMP\% / 100.0)$;

(20) INDONESIA21 $GDP\% = CP\% + CG\% + ITP\% + EXP\% - IMP\%$;

(21) INDONESIA22 (OLS , FA, 71 TO 78)

$IIP73\% = +0.5574405 + 0.04102759 * ITP73\% + 0.0001029514 * PETROP\%$;
(0.305) (26.9) (13.6)

R+R= 0.9995 (ADJ[R+R]= 0.9993)

D.W.= 2.31

S= 0.74353

(22) INDONESIA23 $PGDP\% = 100.0 * GDP\% / GDP73\%$;

(23) INDONESIA24 (OLS , FA, 71 TO 78)

$GNP73\% = +429.7205 + 0.9003087 * GDP73\%$;
(5.006) (79.1)

R+R= 0.9990 (ADJ[R+R]= 0.9988)

D.W.= 1.16

S= 39.532

(24) INDONESIA25 (OLS , FA, 71 TO 78)

$GNP\% = +15.06406 + 0.9616927 * GDP\%$;
(0.226) (192)

R+R= 0.9998 (ADJ[R+R]= 0.9998)

D.W.= 1.90

S= 87.402

(25) INDONESIA26 $PGNP\% = 100.0 * GNP\% / GNP73\%$;

(26) INDO000 (OLS , FA, 72 TO 78)

$TR\% = -728586.4 + 149.6385 * GDP73\% + 0.9180960 * TR\% (-1)$;
(-1.885) (1.83) (5.77)

R+R= 0.9975 (ADJ[R+R]= 0.9963)

D.W.= 3.00

S= 43061

なお、各変数の変数記号・変数名・単位・出所の一欄表は以下の通りである。変数記号のうち、例えばCG73&、CPI73&などの73という数字は、1973年価格あるいは1973年基準ということの意味している。

表8-3-1 内生変数一覧

番号	変数記号	変 数 名	単 位	出 所
1	CG73&	政府消費支出	10億ルピア	インドネシア側提出資料
2	CP&	名目民間消費支出	、	、
3	CPI73&	消費者物価指数	1973年=100	IMF [International Financial Statistics]
4	CP73&	民間消費支出	10億ルピア	インドネシア側提出資料
5	EXP&	名目輸出等	、	、
6	EXP73&	輸出等	、	、
7	GDP&	名目国内総生産	、	、
8	GDP73&	国内総生産	、	、
9	GNP&	名目国民総生産	、	、
10	GNP73&	国民総生産	、	、
11	IIP73&	鉱工業生産指数	1973年=100	、
12	IMP&	名目輸入等	10億ルピア	、
13	IMP73&	輸入等	、	、
14	ITP&	名目総資本形成	、	、
15	ITP73&	総資本形成	、	、
16	NI&	名目国民所得	、	、
17	NI73&	国民所得	、	、
18	PCG&	政府消費支出デフレーター	1973年=100	、
19	PCP&	民間消費支出デフレーター	、	、
20	PEXP&	輸出等デフレーター	、	、
21	PGDP&	GDPデフレーター	、	、
22	PGNP&	GNPデフレーター	、	、
23	PIMP&	輸入等デフレーター	、	、
24	PITP&	総資本形成デフレーター	、	、
25	TR&	自動車保有台数	台	、
26	WPI73&	卸売物価指数	1973年=100	、

表8-3-2 外生変数一覧

番号	変数記号	変数名	単位	出所
1	CG&	名目政府消費支出	10億ルピア	インドネシア側提出資料
2	PAGRGPE73&	農産物輸出デフレーター	1973年=100	,
3	PCROIL&	原油輸出価格	ドル/バレル	,
4	PETROP&	原油生産量	1000バレル	,
5	PWE75&	世界輸出価格指数	1975年=100	IMF [International Financial Statistics]
6	WIM75&	世界輸入	10億ドル	,

8-3-2 エネルギー需給モデルの概要

次に、我々はソフトウェアチームの作成した、インドネシアエネルギー・バランス表を、アグリゲートして、25のエネルギー源と、18のエネルギー供給・消費部門からなる「簡約インドネシアエネルギー・バランス表」を作成した。その内容は以下の通り。

図8-3-2 インドネシア簡約エネルギー・バランス表

B \ C	01	02	03	04	05	06	07	09A	09B	08	09	10	10A	10B	11	11A	11B	11C	11D	12	13	14	15	16	17
01																									
02																									
03																									
04																									
05																									
06																									
07																									
08																									
09A																									
09B																									
10A																									
10B																									
11																									
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13																									
14																									
15																									
16																									

記号	エネルギー源	記号	エネルギー源、エネルギー供給・消費部門
C01	固体燃料(石炭 etc.)	C15	商業的エネルギー合計
C02	原油	C16	非商業的エネルギー
C03	石油製品合計	C17	エネルギー合計
C04	ガソリン		
C05	ジェット燃料油	R01	国内生産
C06	灯油	R02	輸入
C07	軽油	R03	輸出
C07A	自動車用軽油	R04	パーソナル
C07B	工業用軽油	R05	在庫変動
C08	重油	R06	一次エネルギー供給合計
C09	ナフサ & NGL	R07	電気事業者
C10	その他石油製品合計	R08	都市ガス製造業者
C10A	LPG	R09A	石油精製業
C10B	その他石油製品(アスファルト etc.)	R09B	NGLプラント
C11	ガス合計	R10A	エネルギー部門自家消費
C11A	天然ガス	R10B	ロス etc.
C11B	LNG	R11	最終消費合計
C11C	都市ガス	R12	産業部門
C11D	その他ガス	R13	交通部門
C12	原子力	R14	民生部門
C13	水力 & 地熱	R15	政府部門
C14	電力	R16	非エネルギー消費

それから、我々は、この簡約エネルギー・バランス表のデータを使って、前述のような方法によって、エネルギー供給モデルを作成した。このモデルの構造方程式は11本、定義式は163本。すなわち内生変数は174変数。また、外生変数は115変数である。ここで、構造方程式の数が少ないのは、各データの変動が激しく有意な推計式が、あまり得られなかったためである。そのため、定義式や外生変数の数が多くなるという結果になっている。

主要な内生変数は、各エネルギー源ごとの産業・交通・民生・政府各部門のエネルギー消費などである。また主要な外生変数は、各エネルギー源ごとの、生産・輸出入などの一次エネルギー供給や、石油各製品の生産得率などである。

モデルの概要をフローチャートで示すと、以下のようになる。

図 8-3-3 固体燃料ブロックの概要

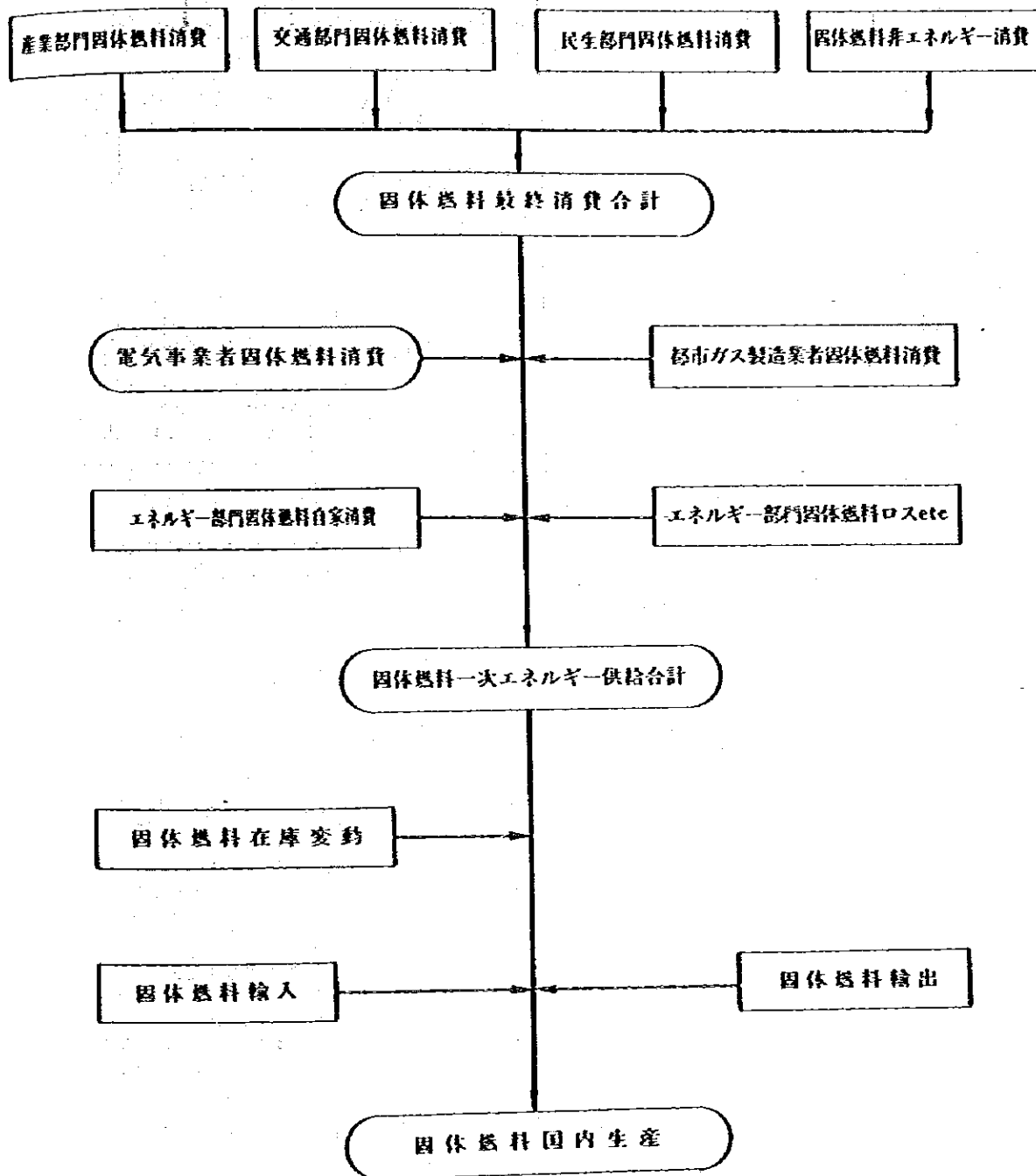


図8-3-4 原油ブロックの概要

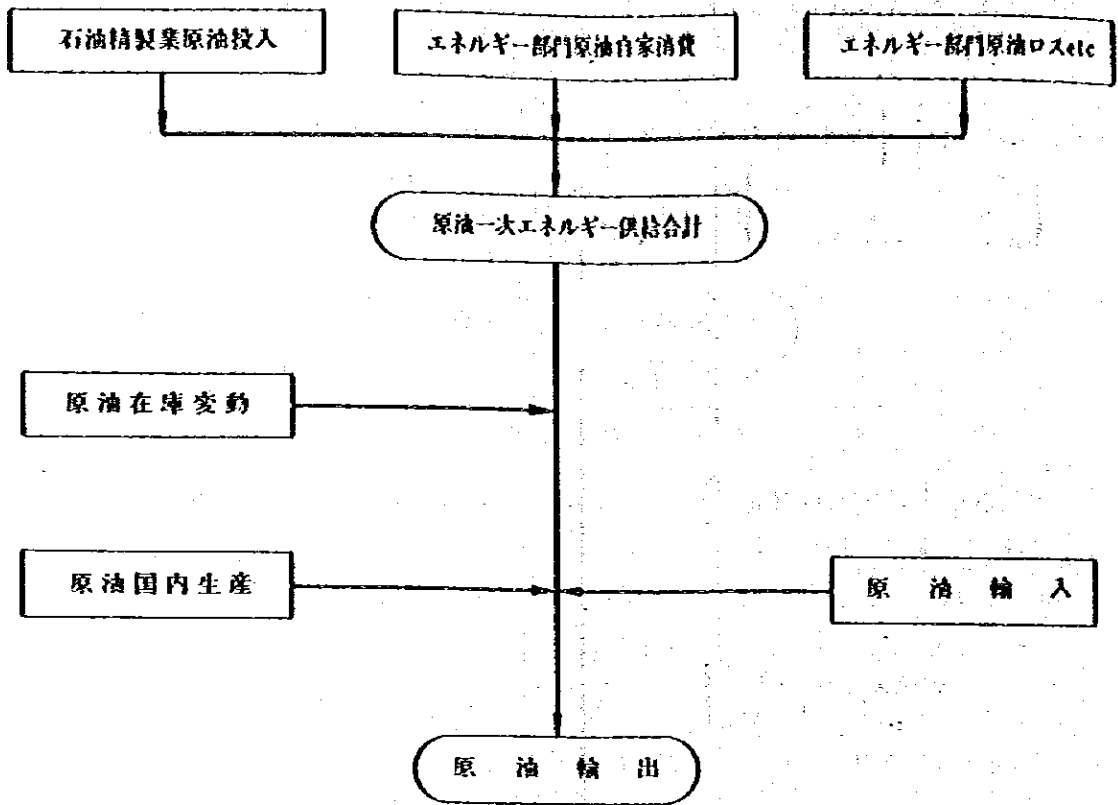


図8-3-5 ガソリンブロックの概要

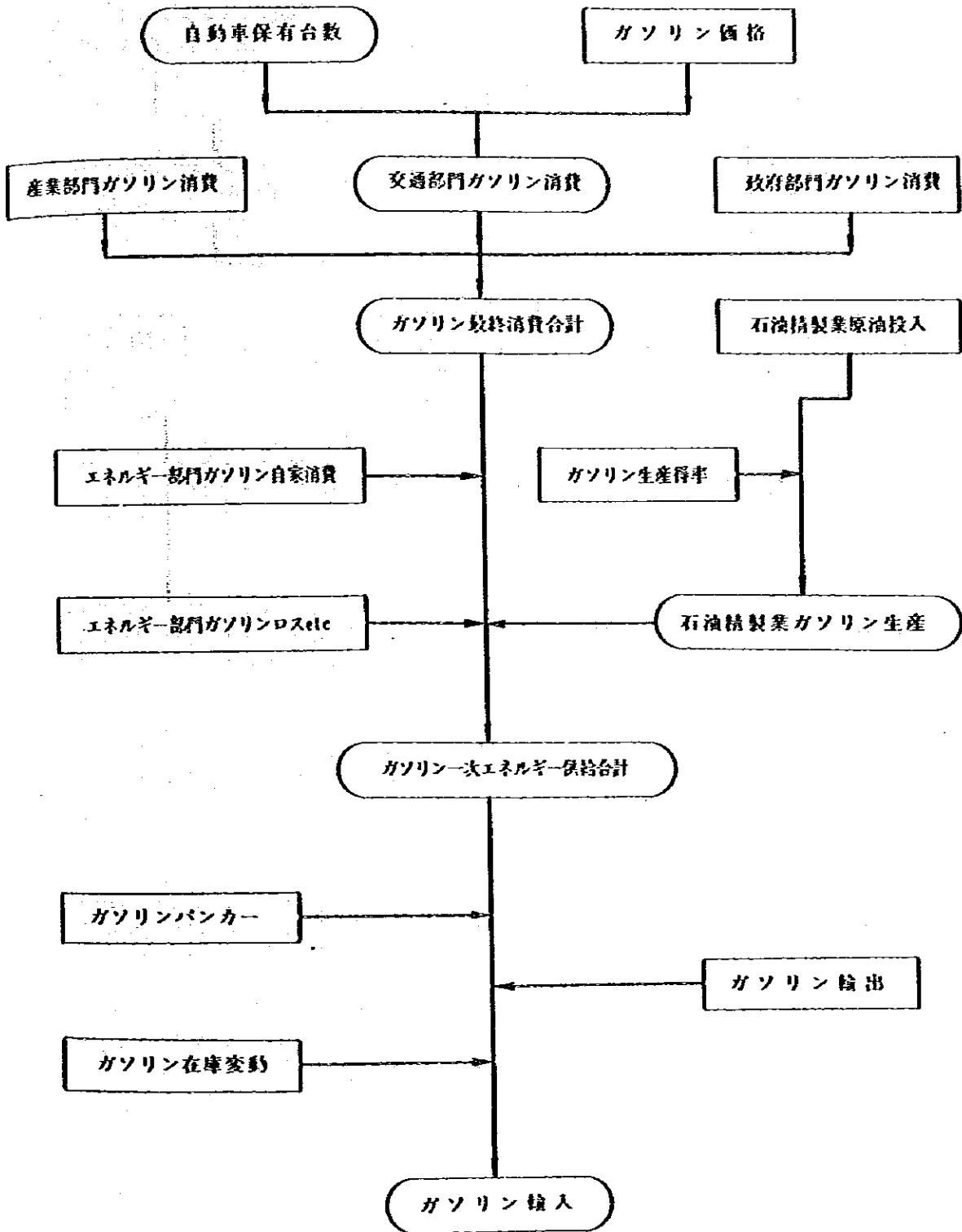


図8-3-6 ジェット燃料油ブロックの概要

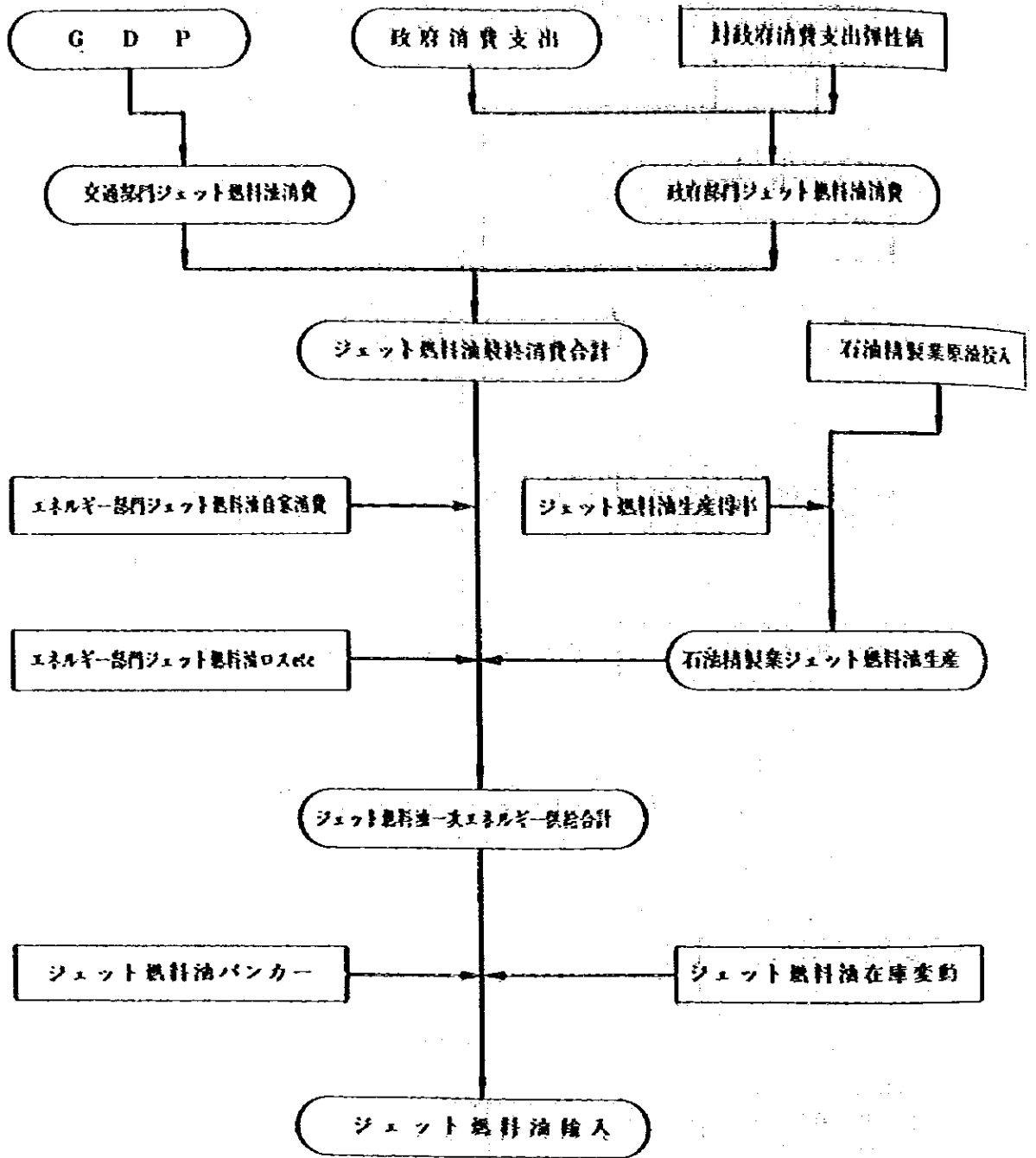


図8-3-7 灯油ブロックの概要

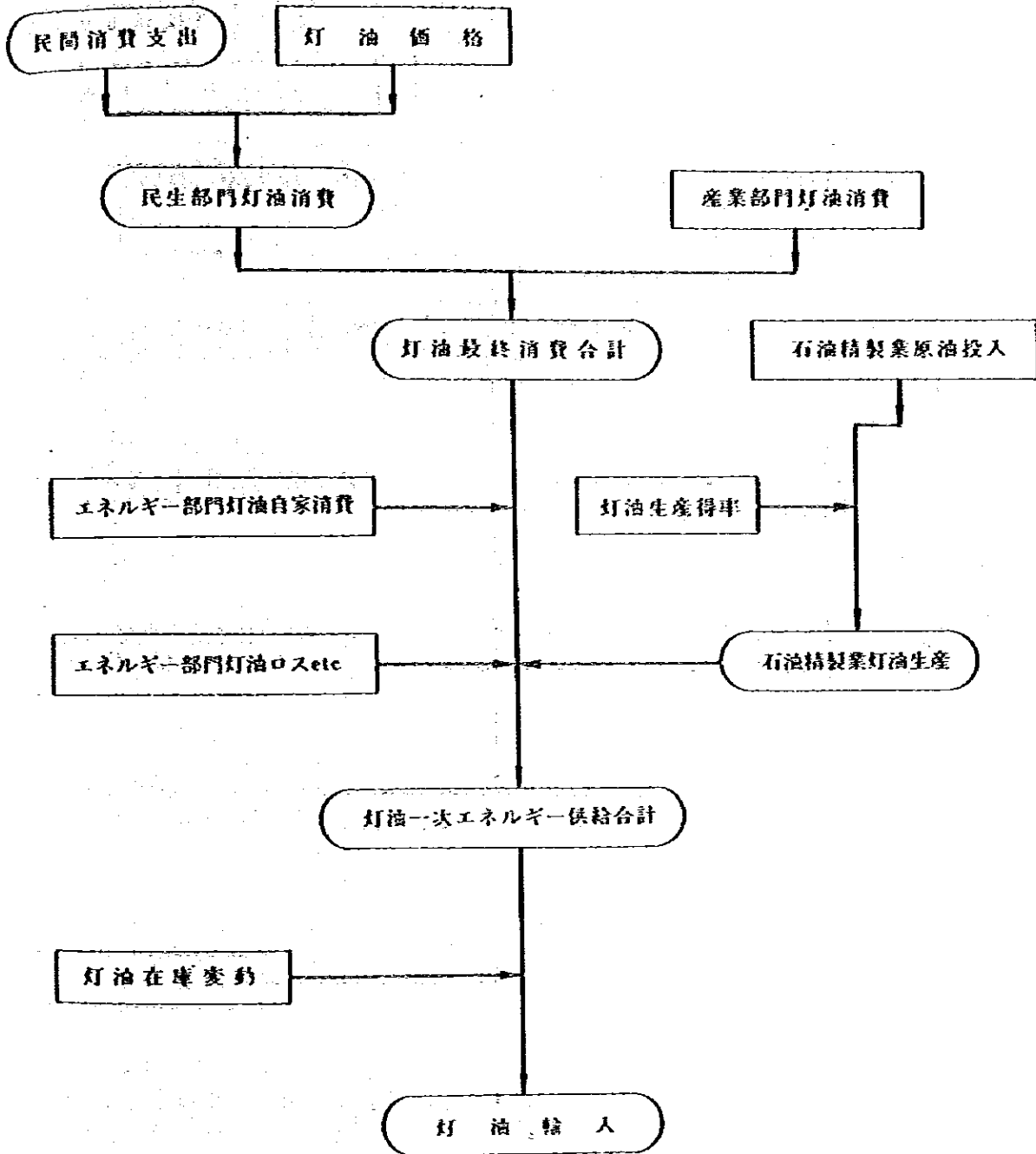


図8-3-9 工業用軽油ブロックの概要

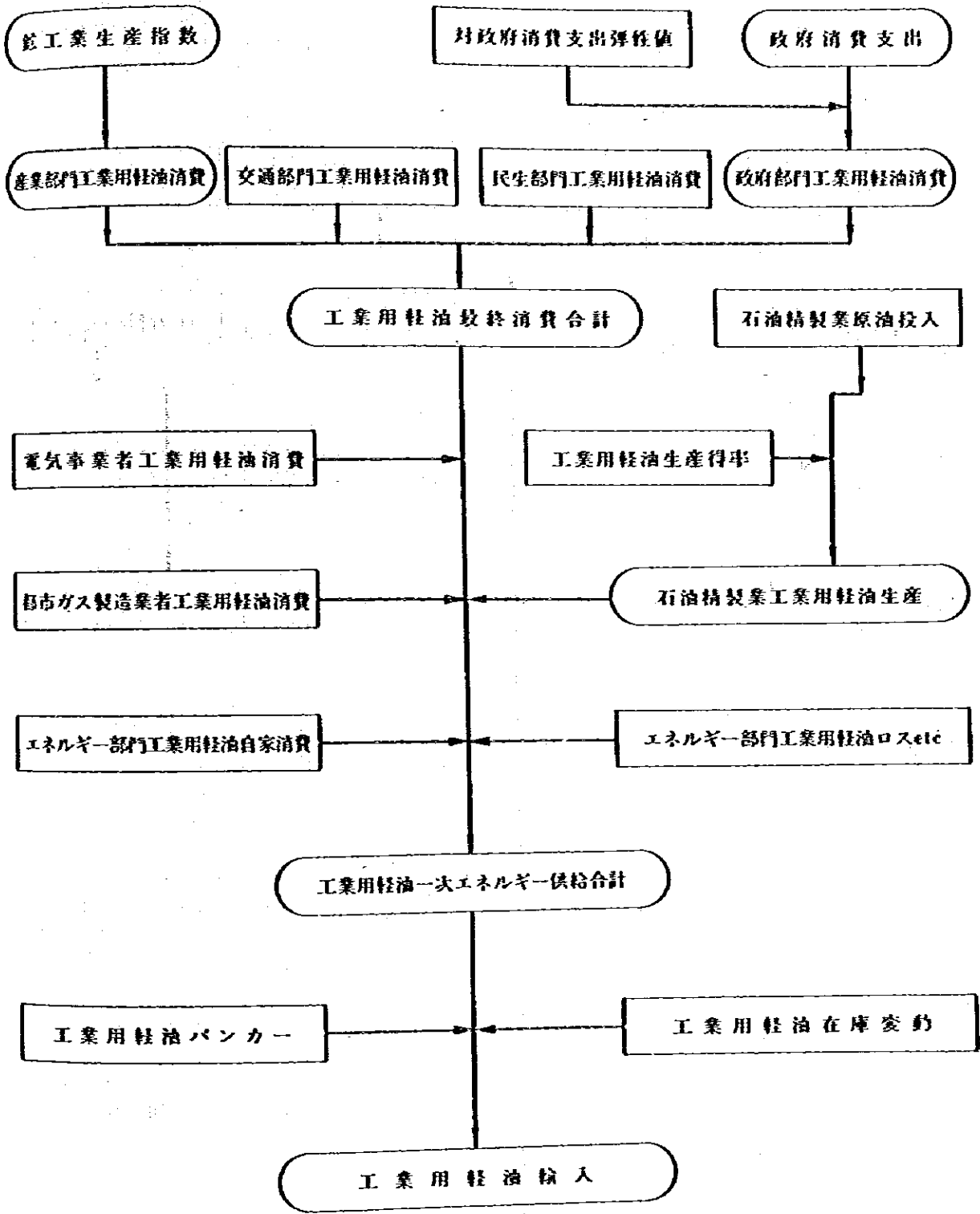


図8-3-11 ナフサ&NGLブロックの概要

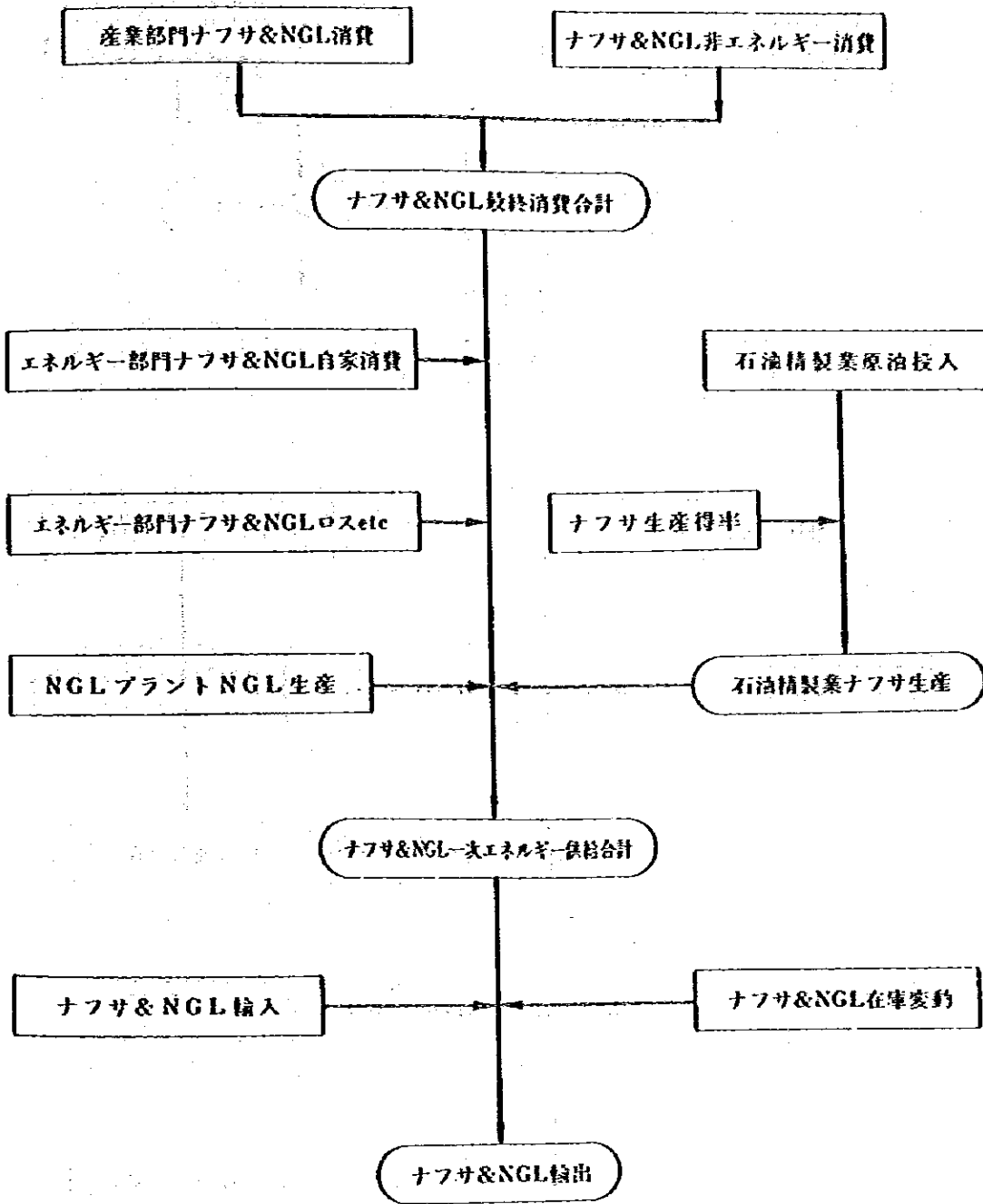


図8-3-12 LPGブロックの概要

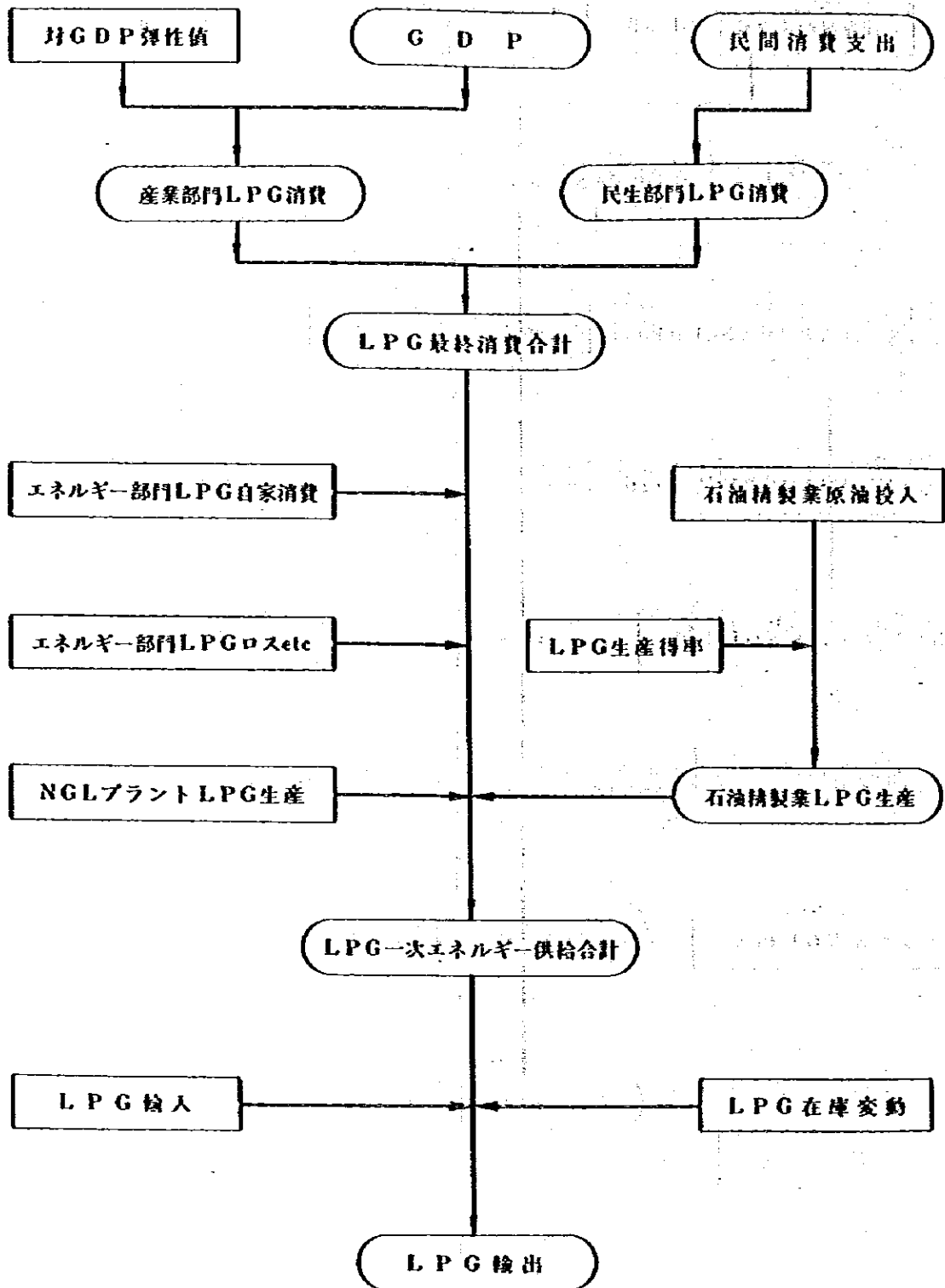


図8-3-13 その他石油製品ブロックの概要

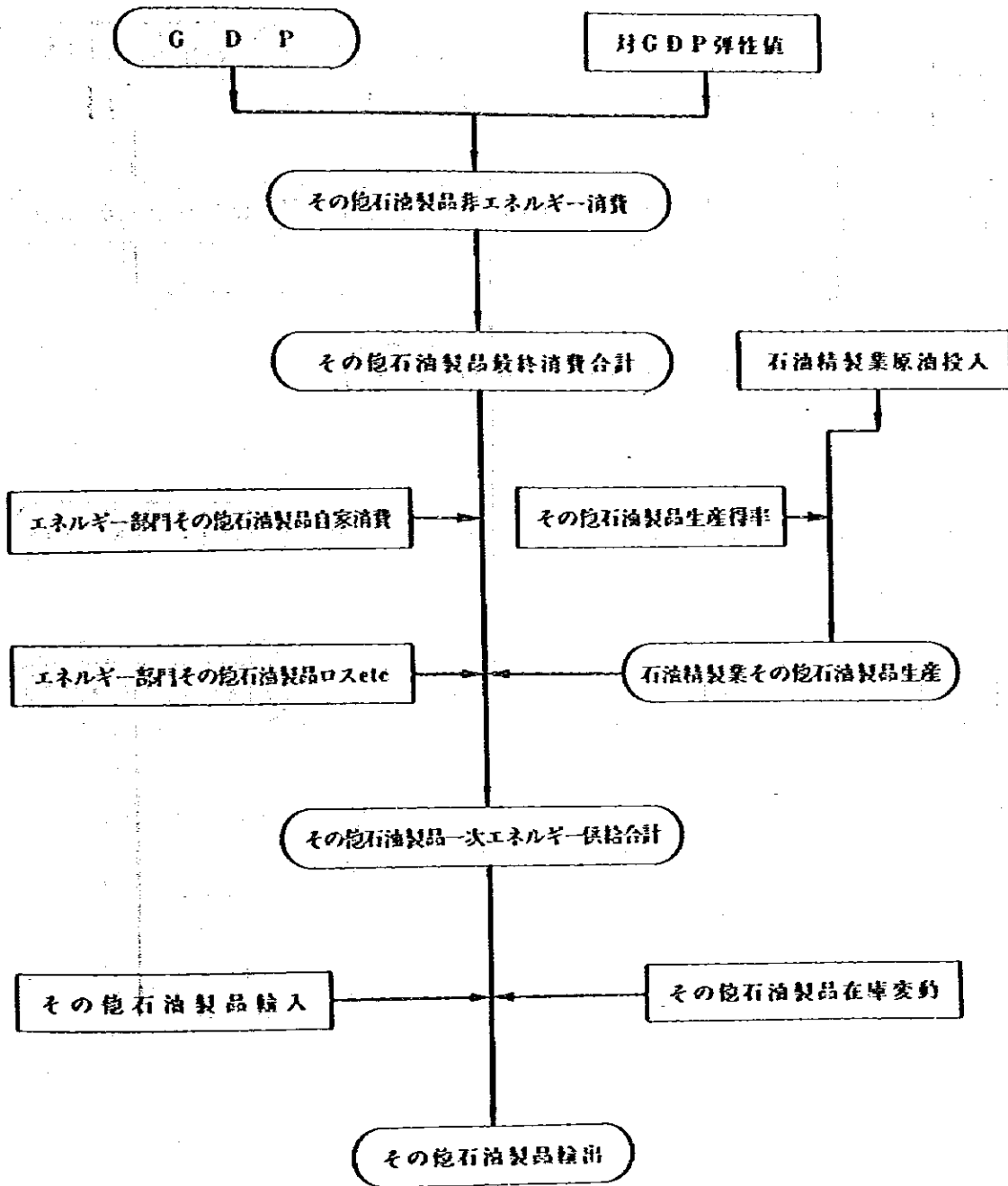


図8-3-15 LNGブロックの概要

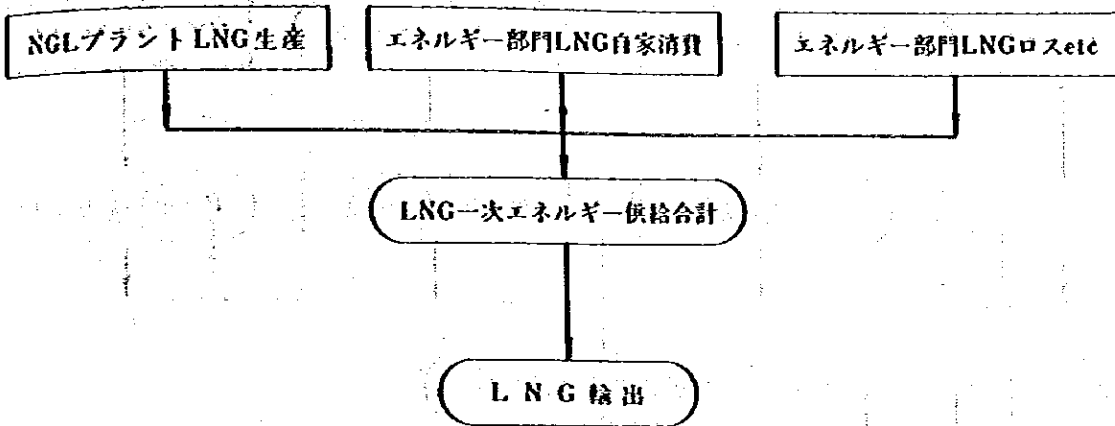


図8-3-16 都市ガスブロックの概要

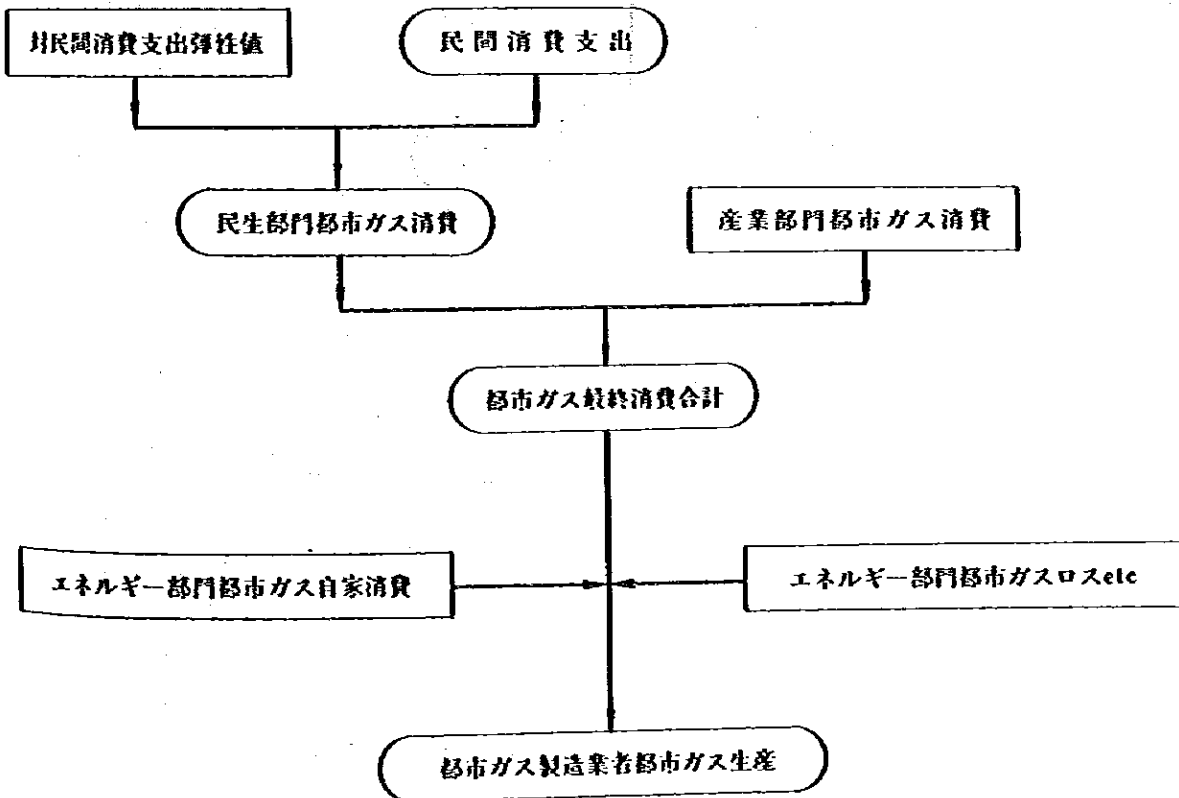


図8-3-17 電力ブロックの概要

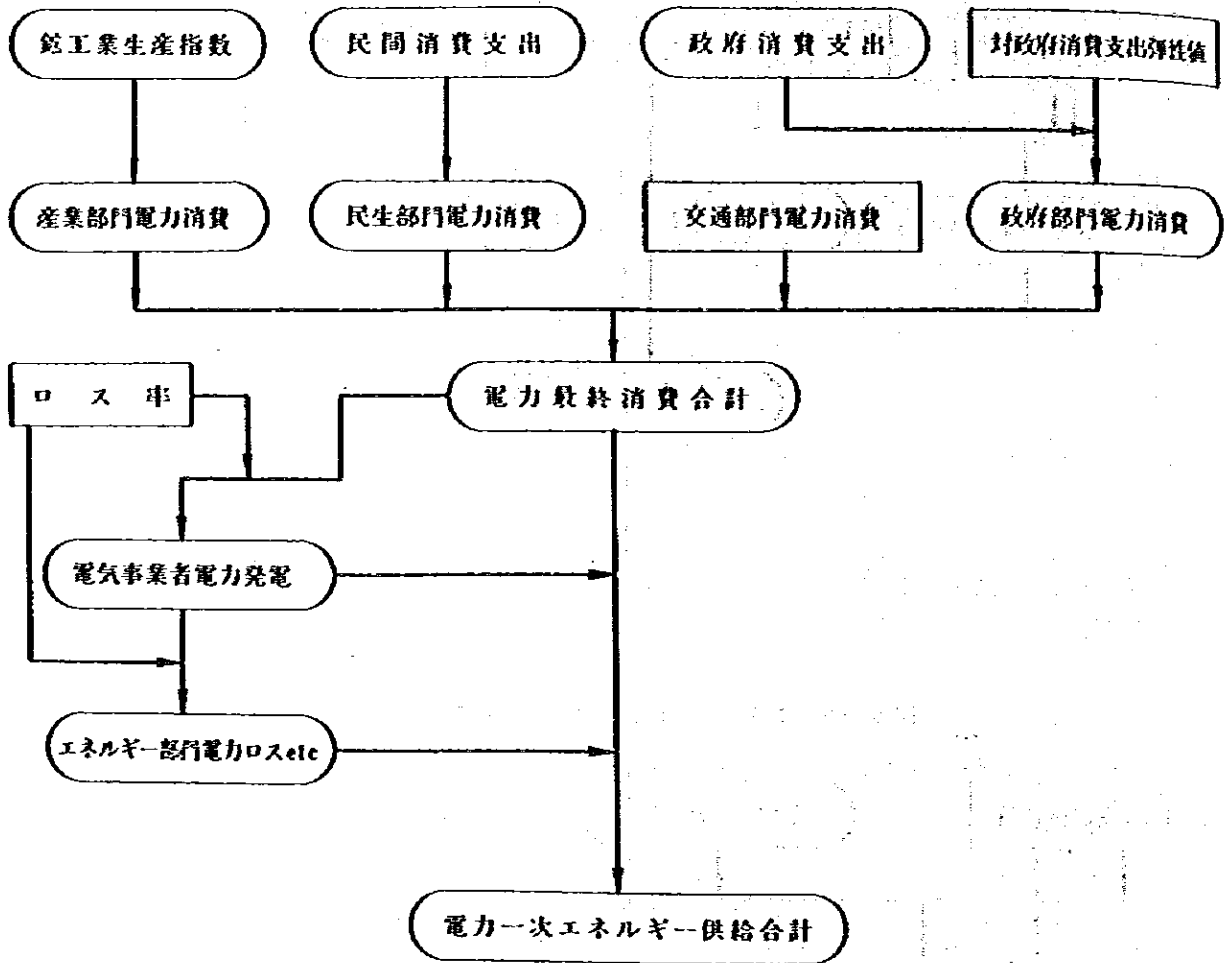
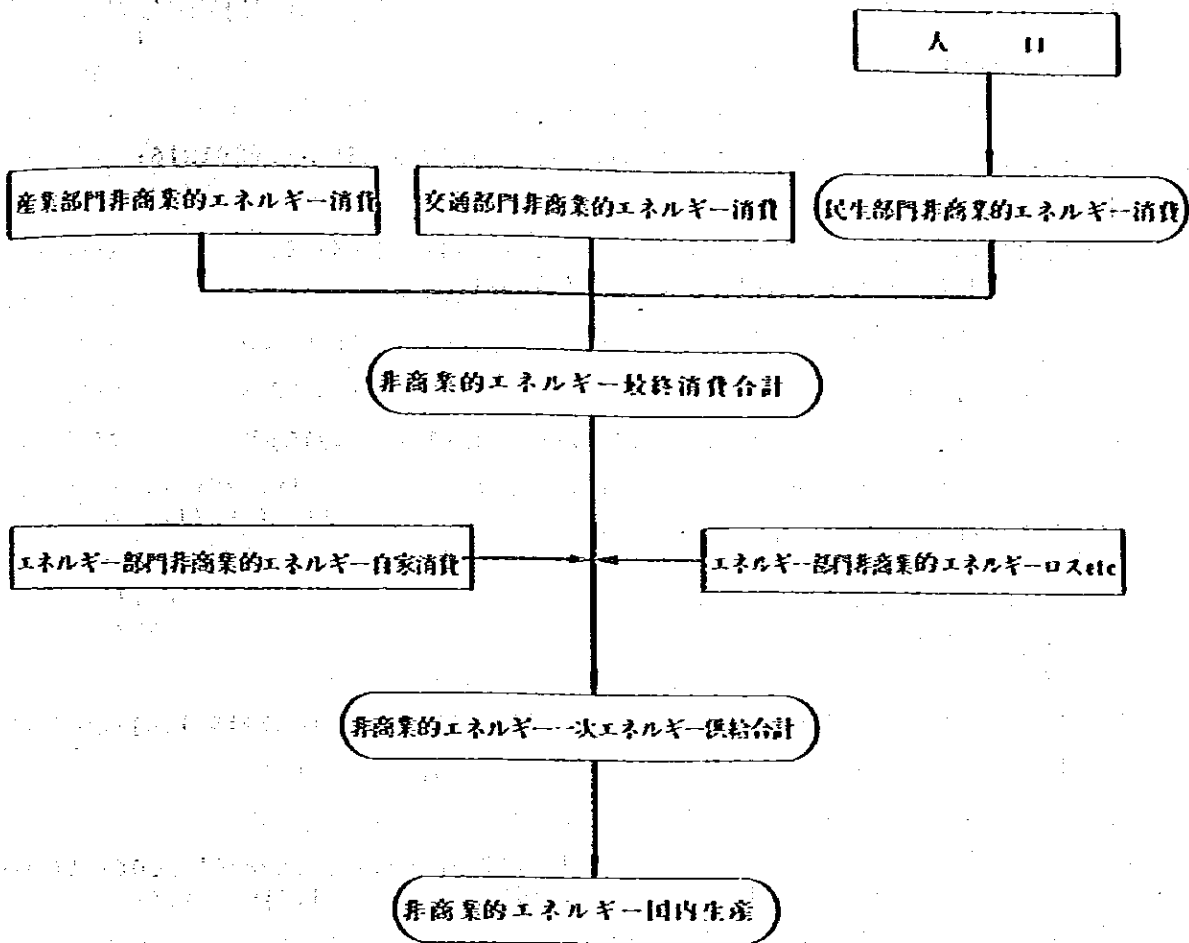


図8-3-18 非商業的エネルギーブロックの概要



また、個々の方程式については、以下の通りである。ここでは、モデルを、④エネルギー最終消費部門、⑤エネルギー部門自家消費・ロス etc.、⑥エネルギー転換部門、⑦一次エネルギー供給部門の4ブロックに区分しておいた。

④ エネルギー最終消費部門 (67方程式)

- (1) INDO017 $EBC01R11 = EBC01R12 + EBC01R13 + EBC01R14 + EBC01R16$
- (2) INDO001 (OLS , FA, 71 TO 78)
- $EBC04R13 = +1330.600 + 0.0009267636 * TR6 - 6.227924 * PPETR6$
 (13.35) (8.16) (-1.37)
- R+R= 0.9382 (ADJ[R+R]= 0.9834)
 D.W.= 1.72
 S= 74.933
- (3) INDO018 $EBC04R11 = EBC04R12 + EBC04R13 + EBC04R15$
- (4) INDO002 (OLS , FA, 71 TO 78)
- $EBC05R13 = -493.7739 + 0.1252411 * GDP736$
 (-8.342) (15.9)
- R+R= 0.9770 (ADJ[R+R]= 0.9731)
 D.W.= 1.66
 S= 27.259
- (5) INDO019 $EBC05R15 = ((CG736/CG736(-1) - 1.0) * ELC05R15 + 1.0) * EBC05R15(-1)$
- (6) INDO020 $EBC05R11 = EBC05R13 + EBC05R15$
- (7) INDO003 (OLS , FA, 72 TO 78)
- $EBC06R14 = -1100.879 + 0.5737276 * CP736 - 47.91174 * PKER6 + 0.8642881 * EBC06R14(-1)$
 (-3.879) (4.36) (-2.10) (11.4)
- R+R= 0.9993 (ADJ[R+R]= 0.9986)
 D.W.= 2.95
 S= 56.191
- (8) INDO021 $EBC06R11 = EBC06R12 + EBC06R14$
- (9) INDO013 (OLS , FA, 74 TO 78)
- $EBC07AR12 = -1984.629 + 21.16815 * IIP736$
 (-7.049) (9.99)
- R+R= 0.9706 (ADJ[R+R]= 0.9611)
 D.W.= 3.25
 S= 78.179
- (10) INDO014 (OLS , FA, 71, TO 78)
- $EBC07AR13 = +2130.809 + 0.2488148 * GDP736 - 16468.09 * ((PADO6/PGNP6))$
 (0.760) (1.17) (-1.87)
- R+R= 0.9529 (ADJ[R+R]= 0.9341)
 D.W.= 2.38
 S= 220.57
- (11) INDO022 $EBC07AR15 = ((CG736/CG736(-1) - 1.0) * ELC07AR15 + 1.0) * EBC07AR15(-1)$
- (12) INDO023 $EBC07AR11 = EBC07AR12 + EBC07AR13 + EBC07AR14 + EBC07AR15$
- (13) INDO015 (OLS , FA, 71 TO 78)

$$\log(\text{EBC07BR12}) = -0.2831102 + 1.437212 * \log(\text{IIP736});$$

(-0.350) (8.38)

$$R^2R = 0.9213 \text{ (ADJ[R}^2R] = 0.9082)$$

$$D.W. = 0.993$$

$$S = 0.12412$$

(14) INDO024 $\text{EBC07BR15} = ((\text{CG736}/\text{CG736}(-1) - 1.0) * \text{ELC07BR15} + 1.0) * \text{EBC07BR15}(-1);$

(15) INDO025 $\text{EBC07BR11} = \text{EBC07BR12} + \text{EBC07BR13} + \text{EBC07BR14} + \text{EBC07BR15};$

(16) INDO026 $\text{EBC07R12} = \text{EBC07AR12} + \text{EBC07BR12};$

(17) INDO027 $\text{EBC07R13} = \text{EBC07AR13} + \text{EBC07BR13};$

(18) INDO028 $\text{EBC07R14} = \text{EBC07AR14} + \text{EBC07BR14};$

(19) INDO029 $\text{EBC07R15} = \text{EBC07AR15} + \text{EBC07BR15};$

(20) INDO030 $\text{EBC07R11} = \text{EBC07R12} + \text{EBC07R13} + \text{EBC07R14} + \text{EBC07R15};$

(21) INDO011 (OLS , FA, 71 TO 78)

$$\text{EBC08R12} = -711.1977 + 0.2137417 * \text{GDP736};$$

(-5.371) (12.1)

$$R^2R = 0.9611 \text{ (ADJ[R}^2R] = 0.9546)$$

$$D.W. = 1.85$$

$$S = 60.974$$

(22) INDOB01 $\text{EBC08R11} = \text{EBC08R12} + \text{EBC08R13} + \text{EBC08R14} + \text{EBC08R15};$

(23) INDO031 $\text{EBC09R11} = \text{EBC09R12} + \text{EBC09R16};$

(24) INDO004 $\text{EBC10AR12} = ((\text{GDP736}/\text{GDP736}(-1) - 1.0) * \text{ELC10AR12} + 1.0) * \text{EBC10AR12}(-1);$

(25) INDO016 (OLS , FA, 71 TO 78)

$$\text{EBC10AR14} = -70.73171 + 0.017285924 * \text{CP736};$$

(-11.17) (15.0)

$$R^2R = 0.9740 \text{ (ADJ[R}^2R] = 0.9697)$$

$$D.W. = 1.40$$

$$S = 3.0138$$

(26) INDO093 $\text{EBC10AR11} = \text{EBC10AR12} + \text{EBC10AR14};$

(27) INDO032 $\text{EBC10BR16} = ((\text{GDP736}/\text{GDP736}(-1) - 1.0) * \text{ELC10BR16} + 1.0) * \text{EBC10BR16}(-1);$

(28) INDO094 $\text{EBC10BR11} = \text{EBC10BR16};$

(29) INDO095 $\text{EBC10R11} = \text{EBC10AR11} + \text{EBC10BR11};$

(30) INDO096 $\text{EBC10R12} = \text{EBC10AR12};$

(31) INDO097 $\text{EBC10R14} = \text{EBC10AR14};$

(32) INDO098 $\text{EBC10R16} = \text{EBC10BR16};$

(33) INDO042 $\text{EBC03R12} = \text{EBC04R12} + \text{EBC06R12} + \text{EBC07R12} + \text{EBC08R12} + \text{EBC09R12} + \text{EBC10R12};$

(34) INDO000 $\text{EBC03R13} = \text{EBC04R13} + \text{EBC05R13} + \text{EBC07R13} + \text{EBC08R13};$

(35) INDO044 $\text{EBC03R14} = \text{EBC06R14} + \text{EBC07R14} + \text{EBC08R14} + \text{EBC10R14};$

(36) INDO045 $\text{EBC03R15} = \text{EBC04R15} + \text{EBC05R15} + \text{EBC07R15} + \text{EBC08R15};$

(37) INDO046 $\text{EBC03R16} = \text{EBC09R16} + \text{EBC10R16};$

(38) INDO047 $\text{EBC03R11} = \text{EBC03R12} + \text{EBC03R13} + \text{EBC03R14} + \text{EBC03R15} + \text{EBC03R16};$

(39) INDO034 $\text{EBC11AR12} = ((\text{GDP736}/\text{GDP736}(-1) - 1.0) * \text{ELC11AR12} + 1.0) * \text{EBC11AR12}(-1);$

(40) INDO005 $\text{EBC11AR14} = ((\text{CP736}/\text{CP736}(-1) - 1.0) * \text{ELC11AR14} + 1.0) * \text{EBC11AR14}(-1);$

- (41) INDO035 $EBC11AR16 = ((GDP73\&/GDP73\& (-1) - 1.0) * ELC11AR16 + 1.0) * EBC11AR16 (-1);$
- (42) INDO111 $EBC11AR11 = EBC11AR12 + EBC11AR14 + EBC11AR16;$
- (43) INDO036 $EBC11CR14 = ((CP73\&/CP73\& (-1) - 1.0) * ELC11CR14 + 1.0) * EBC11AR14 (-1);$
- (44) INDOB06 $EBC11CR11 = EBC11CR14 + EBC11CR12;$
- (45) INDO048 $EBC11R12 = EBC11AR12 + EBC11CR12;$
- (46) INDO049 $EBC11R14 = EBC11AR14 + EBC11CR14;$
- (47) INDO050 $EBC11R16 = EBC11AR16;$
- (48) INDO051 $EBC11R11 = EBC11R12 + EBC11R14 + EBC11R16;$
- (49) INDO008 (OLS , FA, 72 TO 78)

$EBC14R12 = -210.2656 + 2.946872 * IIP73\& + 0.6680052 * EBC14R12 (-1);$
 (-1.176) (1.17) (1.16)

R²R = 0.9053 (ADJ[R²R] = 0.8580)
 D.W. = 2.31
 S = 57.357

- (50) INDO009 (OLS , FA, 71 TO 78)

$LOG(EBC14R14) = -6.162451 + 1.332767 * LOG(CP73\&);$
 (-4.373) (8.11)

R²R = 0.9165 (ADJ[R²R] = 0.9026)
 D.W. = 0.943
 S = 0.082135

- (51) INDO038 $EBC14R15 = ((CG73\&/CG73\& (-1) - 1.0) * ELC14R15 + 1.0) * EBC14R15 (-1);$
- (52) INDO039 $EBC14R11 = EBC14R12 + EBC14R13 + EBC14R14 + EBC14R15;$
- (53) INDOC30 $EBC15R11 = EBC01R11 + EBC03R11 + EBC11R11 + EBC14R11;$
- (54) INDOC31 $EBC15R12 = EBC01R12 + EBC03R12 + EBC11R12 + EBC14R12;$
- (55) INDO159 $EBC15R13 = EBC01R13 + EBC03R13 + EBC14R13;$
- (56) INDOC32 $EBC15R14 = EBC01R14 + EBC03R14 + EBC11R14 + EBC14R14;$
- (57) INDO161 $EBC15R15 = EBC03R15 + EBC14R15;$
- (58) INDOC33 $EBC15R16 = EBC01R16 + EBC03R16 + EBC11R16;$
- (59) INDO040 $EBC16R12 = ((CG73\&/CG73\& (-1) - 1.0) * ELC16R12 + 1.0) * EBC16R12 (-1);$
- (60) INDO010 (OLS , FA, 72 TO 78)

$LOG(EBC16R14) = -2.095017 + 1.124068 * LOG(POP\&) + 0.6718194 * LOG(EBC16R14 (-1));$
 (-0.668) (0.795) (1.75)

R²R = 0.9907 (ADJ[R²R] = 0.9861)
 D.W. = 2.39
 S = 0.025570

- (61) INDO041 $EBC16R11 = EBC16R12 + EBC16R13 + EBC16R14;$
- (62) INDO175 $EBC17R11 = EBC15R11 + EBC16R11;$
- (63) INDO176 $EBC17R12 = EBC15R12 + EBC16R12;$
- (64) INDO177 $EBC17R13 = EBC15R13 + EBC16R13;$
- (65) INDO178 $EBC17R14 = EBC15R14 + EBC16R14;$
- (66) INDO179 $EBC17R15 = EBC15R15;$
- (67) INDO180 $EBC17R16 = EBC15R16;$

⑥ エネルギー部門自家消費・ロス etc. (14 方程式)

- (1) INDO108 $EBC10R10A = EBC10AR10A + EBC10BR10A;$
 (2) INDO109 $EBC10R10B = EBC10AR10B + EBC10BR10B;$
 (3) INDO125 $EBC03R10A = EBC04R10A + EBC05R10A + EBC06R10A + EBC07R10A + EBC08R10A$
 $+ EBC09R10A + EBC10R10A;$
 (4) INDOC34 $EBC03R10B = EBC04R10B + EBC05R10B + EBC06R10B + EBC07R10B + EBC08R10B$
 $+ EBC09R10B + EBC10R10B;$
 (5) INDO128 $EBC11AR10A = ZC11AR10A + EBC11AR01;$
 (6) INDOC11 $EBC11R10A = EBC11AR10A + EBC11BR10A + EBC11CR10A;$
 (7) INDOC12 $EBC11R10B = EBC11AR10B + EBC11BR10B + EBC11CR10B;$
 (8) INDOC35 $EBC12R10B = -EBC12R06 - EBC12R07;$
 (9) INDOC36 $EBC13R10B = -EBC13R06 - EBC13R07;$
 (10) INDO137 $EBC14R10B = -(EBC14R07 * ZC14R10);$
 (11) INDOC19 $EBC15R10A = EBC01R10A + EBC02R10A + EBC03R10A + EBC11R10A;$
 (12) INDOC20 $EBC15R10B = EBC01R10B + EBC02R10B + EBC03R10B + EBC11R10B + EBC14R10B;$
 (13) INDOB12 $EBC17R10A = EBC15R10A + EBC16R10A;$
 (14) INDOB13 $EBC17R10B = EBC15R10B + EBC16R10B;$

⑦ エネルギー転換部門 (32 方程式)

- (1) INDO138 $EBC14R07 = EBC14R11 / (1.0 - ZC14R10);$
 (2) INDO127 $EBC11AR08 = -1.0 * (EBC11CR08 - EBC01R08 - EBC03R08);$
 (3) INDOC01 $EBC11CR08 = EBC11CR11 - EBC11CR10A - EBC11CR10B;$
 (4) INDOC08 $EBC11R08 = EBC11AR08 + EBC11CR08;$
 (5) INDOC09 $EBC11R09B = EBC11AR09B + EBC11BR09B;$
 (6) INDOC10 $EBC04R09A = -(EBC02R09A * YC04R09);$
 (7) INDOB14 $EBC05R09A = -(EBC02R09A * YC05R09);$
 (8) INDOB15 $EBC06R09A = -(EBC02R09A * YC06R09);$
 (9) INDO072 $EBC07AR09A = -(EBC02R09A * YC07AR09);$
 (10) INDO073 $EBC07BR09A = -(EBC02R09A * YC07BR09);$
 (11) INDO074 $EBC07R09A = EBC07AR09A + EBC07BR09A;$
 (12) INDO075 $EBC07R07 = EBC07AR07 + EBC07BR07;$
 (13) INDO086 $EBC07R08 = EBC07AR08 + EBC07BR08;$
 (14) INDO087 $EBC08R09A = -(EBC02R09A * YC08R09);$
 (15) INDOB02 $EBC09R09A = -(EBC02R09A * YC09R09);$
 (16) INDOB03 $EBC10AR09A = -(EBC02R09A * YC10AR09);$
 (17) INDOB04 $EBC10BR09A = -(EBC02R09A * YC10BR09);$
 (18) INDOB05 $EBC10R09A = EBC10AR09A + EBC10BR09A;$
 (19) INDO106 $EBC10R09B = EBC10AR09B + EBC10BR09B;$
 (20) INDO107 $EBC03R07 = EBC07R07 + EBC08R07;$

- (21) INDO120 EBC03R08=EBC07R08;
- (22) INDO121 EBC03R09A=EBC04R09A+EBC05R09A+EBC06R09A+EBC07R09A+
EBC08R09A+EBC09R09A+EBC10R09A;
- (23) INDO122 EBC03R09B=EBC09R09B+EBC10AR09B;
- (24) INDO123 EBC01R07=-(EBC14R07/ZC14R06+EBC03R07+EBC12R07+EBC13R07);
- (25) INDO140 EBC15R07=EBC01R07+EBC03R07+EBC12R07+EBC13R07+EBC14R07+
EBC12R10B+EBC13R10B;
- (26) INDOC37 EBC15R08=EBC01R08+EBC03R08+EBC11R08;
- (27) INDOC16 EBC15R09A=EBC02R09A+EBC03R09A+EBC11R09A;
- (28) INDOC17 EBC15R09B=EBC03R09B+EBC11R09B;
- (29) INDOC18 EBC17R07=EBC15R07;
- (30) INDO171 EBC17R08=EBC15R08;
- (31) INDO172 EBC17R09A=EBC15R09A;
- (32) INDOB10 EBC17R09B=EBC15R09B;

① 一次エネルギー供給部門 (61 方程式)

- (1) INDOC02 EBC01R06=EBC01R11-EBC01R10A-EBC01R10B-EBC01R07;
- (2) INDO142 EBC01R01=EBC01R06-EBC01R05-EBC01R03-EBC01R02;
- (3) INDOC03 EBC02R06=-(EBC02R10A-EBC02R10B-EBC02R09A);
- (4) INDO144 EBC02R03=EBC02R06-EBC02R05-EBC02R02-EBC02R01;
- (5) INDOC04 EBC04R06=EBC04R11-EBC04R10A-EBC04R10B-EBC04R09A;
- (6) INDO067 EBC04R02=EBC04R06-EBC04R05-EBC04R04-EBC04R03;
- (7) INDO021 EBC05R06=EBC05R11-EBC05R10A-EBC05R10B-EBC05R09A;
- (8) INDO069 EBC05R02=EBC05R06-EBC05R05-EBC05R04;
- (9) INDOC22 EBC06R06=EBC06R11-EBC06R10A-EBC06R10B-EBC06R09A;
- (10) INDO077 EBC06R02=EBC06R06-EBC06R05;
- (11) INDO023 EBC07AR06=EBC07AR11-EBC07AR10A-EBC07AR10B-EBC07AR09A
-EBC07AR08-EBC07AR07;
- (12) INDO079 EBC07AR02=EBC07AR06-EBC07AR05-EBC07AR04;
- (13) INDOC24 EBC07BR06=EBC07BR11-EBC07BR10A-EBC07BR10B-EBC07BR09A
-EBC07BR08-EBC07BR07;
- (14) INDO081 EBC07BR02=EBC07BR06-EBC07BR05-EBC07BR04;
- (15) INDO082 EBC07R02=EBC07AR02+EBC07BR02;
- (16) INDO083 EBC07R04=EBC07AR04+EBC07BR04;
- (17) INDO084 EBC07R05=EBC07AR05+EBC07BR05;
- (18) INDO085 EBC07R06=EBC07AR06+EBC07BR06;
- (19) INDO025 EBC08R06=EBC08R11-EBC08R10A-EBC08R10B-EBC08R09A-EBC08R08
-EBC08R07;

(20) INDO090 EBC08R03=EBC08R06-EBC08R05-EBC08R04-EBC08R02;

(21) INDO026 EBC09R06=EBC09R11-EBC09R10A-EBC09R10B-EBC09R09A-EBC09R09B;

(22) INDO092 EBC09R03=EBC09R06-EBC09R05-EBC09R02;

(23) INDOC27 EBC10AR06=EBC10AR11-EBC10AR10A-EBC10AR10B-EBC10AR09A
-EBC10AR09B;

(24) INDO100 EBC10AR03=EBC10AR06-EBC10AR05-EBC10AR02;

(25) INDOC28 EBC10BR06=EBC10BR11-EBC10BR10A-EBC10BR10B-EBC10BR09A

(26) INDO102 EBC10BR03=EBC10BR06-EBC10BR05-EBC10BR02;

(27) INDOB07 EBC10R02=EBC10AR02+EBC10BR02;

(28) INDO103 EBC10R03=EBC10AR03+EBC10BR03;

(29) INDO104 EBC10R05=EBC10AR05+EBC10BR05;

(30) INDO105 EBC10R06=EBC10AR06+EBC10BR06;

(31) INDO115 EBC03R02=EBC04R02+EBC05R02+EBC06R02+EBC07R02+EBC08R02-
+EBC10R02;

(32) INDO116 EBC03R03=EBC04R03+EBC08R03+EBC09R03+EBC10R03;

(33) INDO117 EBC03R04=EBC04R04+EBC05R04+EBC07R04+EBC08R04;

(34) INDO118 EBC03R05=EBC04R05+EBC05R05+EBC06R05+EBC07R05+EBC08R05
+EBC09R05+EBC10R05;

(35) INDO119 EBC03R06=EBC04R06+EBC05R06+EBC06R06+EBC07R06+EBC08R06
+EBC09R06+EBC10R06;

(36) INDOC29 EBC11AR06=EBC11AR11-EBC11AR10A-EBC11AR10B-EBC11AR10B-
EBC11AR09B-EBC11AR08;

(37) INDO132 EBC11AR01=EBC11AR06;

(38) INDO112 EBC11BR06=-EBC11BR10A-EBC11BR10B-EBC11BR09B;

(39) INDO113 EBC11BR03=EBC11BR06;

(40) INDOC05 EBC11R01=EBC11AR01;

(41) INDOC06 EBC11R03=EBC11BR03;

(42) INDOC07 EBC11R06=EBC11AR06+EBC11BR06;

(43) INDO133 EBC12R06=-EBC12R07;

(44) INDO134 EBC12R01=EBC12R06;

(45) INDO135 EBC13R06=-EBC13R07-EBC13R06=-EBC13R07-EBC13R08;

(46) INDO136 EBC13R01=EBC13R06;

(47) INDC139 EBC14R06=EBC14R07/2C14R06;

(48) INDOC13 EBC15R01=EBC01R01+EBC02R01+EBC11R01+EBC12R01+EBC13R01;

(49) INDO146 EBC15R02=EBC01R02+EBC02R02+EBC03R02;

(50) INDOC14 EBC15R03=EBC01R03+EBC02R03+EBC03R03+EBC11R03;

(51) INDO148 EBC15R04=EBC03R04;

(52) INDO149 EBC15R05=EBC01R05+EBC02R05+EBC03R05;

(53) INDOC15 EBC15R06=EBC01R06+EBC02R06+EBC03R06+EBC11R06+EBC12R06
+ EBC13R06;

(54) INDO163 EBC16R06=EBC16R11-EBC16R10A-EBC16R10B;

(55) INDO164 EBC16R01=EBC16R06;

(56) INDO165 EBC17R01=EBC15R01+EBC16R01;

(57) INDO166 EBC17R02=EBC15R02;

(58) INDO167 EBC17R03=EBC15R03;

(59) INDO168 EBC17R04=EBC15R04;

(60) INDO169 EBC17R05=EBC15R05;

(61) INDO170 EBC17R06=EBC15R06+EBC16R06;

8-4 予測結果と問題点

8-4-1 経済見通しと問題点

(1) 経済見通しの主要前提条件

今後のインドネシア経済活動に大きな影響を与える基本的な要因としては、政府消費支出・原油生産量・原油輸出価格などが考えられる。

政府消費支出は、今後原油価格の上昇による政府収入の増加を背景として堅調な伸びになると想定した。1983/1978年の5年間で年平均約④27%、1990/1978年の12年間で④22%程度。

原油生産量は、政府の計画をベースに想定したが、それによると、1983年に6億6000万バレル、1990年に6億9000万バレルと増加率は、それほど高くないものと見込んだ。

原油輸出価格は、今後も基調としては、石油の需給逼迫傾向が続き、この予測期間中では石油に代わる代替エネルギーもあまり期待できないことなどから、1983/1978年の5年間で年平均④25%、1990/1978年の12年間で同④14%とかなり高いテンポの伸びを想定した。

その他の前提条件としては、世界輸入の伸びを1990年まで年平均④5.0%、世界輸出価格指数を1990年まで年平均④1.0%強の伸び、農産物輸出価格を1990年まで年平均④5%程度の上昇と想定した。

表8-4-1 マクロ経済前提条件の推移と見通し

項目	年						1978/1971			
	1971	1973	1977	1978	1983	1990	1978/1971	1978/1973	1983/1978	1990/1978
原油生産量	(1000バレル) 325614	488550	615160	596648	659000	690000	(%) 90	41	20	12
原油輸出価格	(\$/バレル) 219	327	1239	1270	3803	6159	(%) 285	312	245	141
農産物輸出価格指数	(1973年=100) 664	1000	11744	1875	2393	3059	(%) 160	134	50	42
名目政府消費支出	(10億ルピア) 3410	7160	20194	23315	77120	262862	(%) 316	266	270	224
世界輸入	(10億ドル) 6642	8248	9642	10093	12681	18125	(%) 62	41	50	50
世界輸出価格指数	(1975年=100) 490	670	1110	1230	2168	4072	(%) 141	129	120	105

(2) 経済予測結果と問題点

以上の前提をもとに予測を行うと、国内総生産(GDP)の成長率は、1983/1978年

の5年間で年平均④6.6%、1990/1978年の12年間で同④6.5%と推計される。

最終需要項目別にみると、成長の推進役となるのは、政府消費支出と総資本形成であり、民間消費支出と輸出等は中立的な要因によるものと思われる。また物価は、消費者物価・卸売物価両方共に、これまでの実績と比較すると、かなり鎮静化することが見込まれており、これが達成されるか否かが、今後の経済成長にとって大きなポイントの1つになるものと思われる。

経済予測の問題点としては、政府消費支出が今後も、これだけ高い伸びを続けられるかどうかということが、まず挙げられる。そのためには、石油収入のハイテンポの伸びが必要であり、原油生産量の増加テンポをもう少し高めることが必要ではないかと思われる。その他には、先ほども述べたように物価が、本予測のような伸びにとどまるかどうかということである。このためには、かなりの政策努力が必要となるものと考えられる。

表8-4-2 マクロ経済主要変数の推移と見通し

項目	年						1978/1971	1978/1973	1983/1978	1990/1978
	1971	1973	1977	1978	1983	1990				
名目国内総生産	(10億ルピア) 36720	67534	187059	217884	575731	1584587	(%) 290	26.4	215	188
国内総生産	(10億ルピア) 55447	67534	87610	93922	129330	198974	(%) 78	68	66	65
民間消費支出	(10億ルピア) 39984	47907	63723	67546	91260	137285	(%) 78	71	62	61
政府消費支出	(10億ルピア) 5183	7160	10136	10650	19698	36108	(%) 108	83	131	107
総資本形成	(10億ルピア) 8669	12080	20095	22722	36321	63541	(%) 148	135	98	89
輸出等	(10億ルピア) 8908	13543	17438	16186	23262	34798	(%) 89	36	75	66
輸入等	(10億ルピア) 7297	13156	23782	23182	41208	72758	(%) 180	120	122	109
国民所得	(10億ルピア) 48328	57407	73433	78392	104733	157905	(%) 12	64	60	60
消費者物価指数	(1973年=100) 717	1000	2228	2409	4450	8346	(%) 189	192	131	109
卸売物価指数	(1973年=100) 637	1000	2057	2225	4098	7688	(%) 196	173	130	109

8-4-2 エネルギー需要見通しと問題点

(1) 総一次エネルギー需要・対GDP弾性値の見通しと問題点

総一次エネルギー需要量(=総一次エネルギー供給量)は、1978年の $88,621 \times 10^4$ TCEから、1983年には $120,385 \times 10^4$ TCE、1990年には $190,986 \times 10^4$ TCEへと増加する。また、GDP単位当りエネルギー需要は、1978年の9.44(10^4 TCE/10億ルピア)から、1983年には9.31(10^4 TCE/10億ルピア)、1990年には9.60

(10^8 TCE/ 10 億ルピア)となる。対GDP弾性値は、1978/1973年の5年間で0.91であったものが、今後1983/1978年の5年間で0.96、1990/1978年の12年間で1.02と推計される。

問題点としては、弾性値が大きくなる傾向にあることが挙げられる。今後、エネルギー多消費産業である鉄鋼・石油化学・セメントなどの生産が大幅に増加するというような要因でもない限り、世界的な省エネルギー傾向などを考慮すると、エネルギー需要の対GDP弾性値は横ばいないしは、やや小さくなると思う方が妥当ではないかと思われる。ただ、各国のエネルギー需要構造の違いによって、弾性値も当然異なることが考えられるので、より詳しい定性分析を行っていくことも、今後必要であろう。

表8-4-3 総一次エネルギー需要・GDP弾性値の推移と見通し

項目	年		1978	1983	1990	1978	1983	1990
	1973	1978				1973	1978	1978
総一次エネルギー需要	(10^8 TCE) 65631		88621	120385	190986	(%) 619	6.32	6.61
GDP	(10億ルピア) 67534		93922	129330	198974	(%) 682	6.61	6.46
GDP単位当り エネルギー需要	(10^8 TCE/ 10 億ルピア) 9.72		9.44	9.31	9.60	(%) △0.58	△0.28	0.14
対GDP弾性値	—		—	—	—	0.91	0.96	1.02

(2) 部門別エネルギー需要の見通しと問題点

エネルギー最終消費に占める各部門のシェアをみると、交通部門・民生部門は漸増、これに対して産業部門は大幅低下となっている。

問題点としては、産業部門のシェアの低下傾向が挙げられる。これは過去のトレンドがそのまま反映されたためである。今後については、鉄鋼・石油化学・セメントなどエネルギー多消費産業の生産動向を考慮に入れる必要があろう。

表8-4-4 部門別エネルギー需要の推移と見通し

項目	年		1978	1983	1990
	1973	1977			
生産	(10^8 TCE) 148,973	(10^8 TCE) 183,130	(10^8 TCE) 190,896	(10^8 TCE) 237,446	(10^8 TCE) 292,762
輸入	2,788	9,894	9,883	25,445	45,702
輸出	△86,367	△110,561	△111,629	△141,671	△146,248
パンカー・在庫増減	△12	1,728	△1,137	△835	△1,230

項目	1973		1977		1978		1983		1990	
	値	構成比 〔%〕	値	構成比 〔%〕	値	構成比 〔%〕	値	構成比 〔%〕	値	構成比 〔%〕
国内一次エネルギー供給	65,631		84,769		88,621		120,385		190,986	
エネルギー部門	△9,187		△19,637		△22,046		△25,432		△33,501	
最終消費	55,359	1000	60,274	1000	63,997	1000	94,953	1000	157,485	1000
産業部門	25,456	460	13,641	226	11,882	186	11,854	125	18,512	118
交通部門	3,885	70	6,788	113	7,508	117	12,212	129	21,097	134
民生部門	24,950	451	37,915	629	42,041	657	63,167	665	107,119	680
政府部門	663	12	993	16	1,020	16	1,730	18	2,897	18
非エネルギー消費	405	07	937	16	15,477	24	5,989	63	7,860	50

(3) 産業部門エネルギー源別需要の見通しと問題点

産業部門のエネルギー源別需要の推計方法としては以下のような手法を採り積み上げた。

- (A) 固体燃料需要 = 外生変数
- (B) ガソリン需要 = 外生変数
- (C) 灯油需要 = 外生変数
- (D) 軽油需要 = f (鉄工業生産指数)
- (E) 重油需要 = f (GDP)
- (F) ナフサ & NGL 需要 = 外生変数
- (G) LPG 需要 = f (GDP, 対GDP弾性値)
- (H) 天然ガス需要 = f (GDP, 対GDP弾性値)
- (I) 都市ガス需要 = 外生変数
- (J) 電力需要 = f (鉄工業生産指数)
- (K) 非商業的エネルギー需要 = 外生変数

それによると、産業部門のエネルギー需要は、1978年の $11,914 \times 10^3$ TCEから、1983年には $11,854 \times 10^3$ TCE、1990年には $18,512 \times 10^3$ TCEとなる。エネルギー源別にみると、軽油、重油などの石油製品、ガス、電力などのシェアは拡大傾向にある。これに対して、非商業的エネルギー需要は、今後大幅に減少すると見込まれる。

問題点としては、エネルギー需要合計の伸びが、1990年まで年平均 $\oplus 4\%$ 弱と低いもの

にとどまる点が挙げられる。これは非商業的エネルギーの大幅な落ち込みを、石油製品・ガス・電力などで十分にカバーしきれてないためである。本予測では、今後の産業構造の変化などについて十分な定性分析を行わなかったため、このような結果になったものと思われる。今後、経済の成長に伴って、鉄鋼・石油化学・セメントなどエネルギー多消費産業の生産が増加することも考えられ、実際の産業部門エネルギー需要の増加テンポは、本予測よりも高くなるものと思われる。

表 8-4-5 産業部門エネルギー源別需要の推移と見通し

項目	1973		1978		1983		1990		1978	1978	1990
	(10 ⁴ TCE)	(%)	(10 ⁴ TCE)	(%)	(10 ⁴ TCE)	(%)	(10 ⁴ TCE)	(%)	1973	1978	1978
固 体 燃 料	43	02	50	04	453	38	453	24	31	554	202
石油製品合計	1841	72	3863	324	6445	544	11858	641	160	108	98
軽 油	1085	43	2471	207	4340	366	8219	444	179	119	105
重 油	750	29	1360	114	2053	173	3542	191	126	86	83
そ の 他	6	00	32	03	51	04	97	05	398	98	97
ガ ス 合 計	167	07	1139	96	1827	154	3453	187	468	99	97
天然ガス	167	07	1139	96	1827	154	3453	187	468	99	97
そ の 他	0	00	0	00	0	00	0	00	—	—	—
電 力	227	09	574	48	1066	90	2006	108	204	132	110
非商業的 エネルギー	23185	911	6288	528	2063	174	743	40	▲230	▲200	▲163
合 計	25463	1000	11914	1000	11854	1000	18512	1000	▲141	▲91	37

(4) 交通部門エネルギー源別需要の見通しと問題点

交通部門のエネルギー源別需要の推計方法としては、以下のような手法を採り積み上げ計算を行った。

- (A) 固体燃料需要 = 外生変数
- (B) ガソリン需要 = f (自動車保有台数, ガソリン価格)
- (C) ジェット燃料油需要 = f (GDP)
- (D) 軽油需要 = f (GDP, 軽油価格)
- (E) 重油需要 = 外生変数
- (F) 電力需要 = 外生変数
- (G) 非商業的エネルギー需要 = 外生変数

それによると、交通部門のエネルギー需要は、1978年の $7,508 \times 10^8$ TCEから、1983年には $12,212 \times 10^8$ TCE、1990年には $21,097 \times 10^8$ TCEへと増加する。エネルギー源別にみると、ガソリン・ジェット燃料油・軽油とも、自動車保有台数・GDPの堅調な伸びを背景に高い伸びを示している。

問題点としては、自動車保有台数がガソリン車・軽油車を合わせた数字であること。また、四輪車・二輪車を合わせた数字であることが挙げられ、自動車保有台数の内容をもう少し細かく分類することが今後の課題である。その他には、自動車・鉄道・航空・船舶を合わせた総合交通体系のあり方を検討することも必要である。

表8-4-6 交通部門エネルギー源別需要の推移と見通し

項目	1973		1978		1983		1990		1976	1983	1990
	(10^8 TCE)	(%)	(10^8 TCE)	(%)	(10^8 TCE)	(%)	(10^8 TCE)	(%)	1973	1976	1978
石油製品合計	3842	989	7443	991	12154	995	21057	998	141	103	91
ガソリン	2046	527	3644	485	6374	522	12558	595	122	118	109
ジェット燃料油	348	90	677	90	1126	92	1998	95	142	107	94
軽油	1017	262	2687	358	4204	344	6051	287	214	94	70
重油	431	111	436	58	450	37	450	21	02	06	03
固体燃料その他	42	1.1	64	0.9	58	0.5	40	0.2	8.8	▲19	▲38
合計	3885	1000	7508	1000	12212	1000	21097	1000	141	102	90

(6) 民生部門エネルギー源別需要の見通しと問題点

民生部門のエネルギー源別需要の推計方法としては、以下のような手法を採り、積み上げ計算を行った。

- (A) 固体燃料需要 = 外生変数
- (B) 灯油需要 = f (民間消費支出, 灯油価格)
- (C) 軽油需要 = 外生変数
- (D) 重油需要 = 外生変数
- (E) LPG需要 = f (民間消費支出)
- (F) 天然ガス需要 = f (民間消費支出, 対民間消費支出弾性値)
- (G) 都市ガス需要 = f (民間消費支出, 対民間消費支出弾性値)
- (H) 電力需要 = f (民間消費支出)
- (I) 非商業的エネルギー需要 = f (人口)

それによると、民生部門のエネルギー需要は、1978年の $4,2041 \times 10^8$ TCE から、1983年には $63,167 \times 10^8$ TCE、1990年には $107,119 \times 10^8$ TCEへと増加する。エネルギー源別にみると、灯油のシェアが若干の拡大、非商業的エネルギーのシェアは若干の低下という結果になっている。

問題点としては、1990年時点でも、非商業的エネルギーの占めるシェアが77%と大きいことが挙げられる。今後、経済の成長に伴う国民生活の向上によって、灯油・ガス・電力のウエイトが拡大し、非商業的エネルギーのウエイトが本予測の結果よりも、かなり低下することが考えられる。

表8-4-7 民生部門エネルギー源別需要の推移と見通し

項目	1973		1978		1983		1990		1978	1983	1990
	(10^8 TCE)	(%)	(10^8 TCE)	(%)	(10^8 TCE)	(%)	(10^8 TCE)	(%)	1973	1978	1978
石油製品合計	4774	191	8555	203	13834	219	23781	222	124	101	89
灯油	4766	191	8507	202	13747	218	23615	220	123	101	89
LPG	8	00	48	01	87	01	167	02	431	126	109
ガス合計	16	01	16	00	5	00	8	00	0.0	▲208	▲56
電力	165	07	302	07	400	06	689	06	129	58	71
非商業的エネルギー	19995	801	33168	789	48928	775	82640	771	107	81	79
合計	24950	1000	42041	1000	63167	1000	107119	1000	110	85	81

(6) 政府部門エネルギー源別需要の見通しと問題点

政府部門のエネルギー源別需要の推計方法としては、以下のような手法を採用し、積み上げ計算を行った。

- (A) ガソリン需要 = 外生変数
- (B) ジェット燃料油需要 = f (政府消費支出, 対政府消費支出弾性値)
- (C) 軽油需要 = f (政府消費支出, 対政府消費支出弾性値)
- (D) 重油需要 = 外生変数
- (E) 電力需要 = f (政府消費支出, 対政府消費支出弾性値)

それによると、政府部門のエネルギー需要は、1978年の $1,020 \times 10^8$ TCE から、1983年には $1,730 \times 10^8$ TCE、1990年には $2,897 \times 10^8$ TCEへと増加する。

エネルギー源別には、ジェット燃料油・軽油の伸びを高く想定している。

問題点としては、これまでの実績数字が小さく、しかも変動しているため、有意な推計式が得られず、弾性値を使用するか、外生変数扱いとするかの2つの代替方法を用いたために、客観性に乏しいという点が挙げられる。

今後は、政府・政府関係機関・軍のエネルギー消費の計画なども検討することが必要であろう。

表8-4-8 政府部門エネルギー源別需要の推移と見通し

項目	1973		1978		1983		1990		1978	1983	1990
	(10 ⁸ TCE)	(%)	(10 ⁸ TCE)	(%)	(10 ⁸ TCE)	(%)	(10 ⁸ TCE)	(%)	1973	1978	1978
石油製品 合計	627	946	973	954	1643	950	2738	945	92	110	90
ガソリン	300	452	285	279	300	173	300	104	▲01	10	04
ジェット燃料油	0	00	54	53	100	58	183	63	—	131	101
軽油	256	386	579	568	1171	677	2146	741	177	151	115
重油	71	107	54	53	72	42	109	38	▲53	59	35
電力	36	54	47	46	87	50	159	55	55	131	107
合計	663	1000	1020	1000	1730	1000	2897	1000	90	111	91

(7) 電力需給の見通しと問題点

電力需要は、1978年の 1.117×10^8 TCEから、1983年には 1.827×10^8 TCE、1990年には 3.358×10^8 TCEへと堅調に増加する。

部門別には、産業部門の伸びが高く、民生部門はやや伸び悩みという結果になっている。

問題点としては、民生部門の伸びが若干低いことが挙げられる。今後の国民生活の向上により、非商業的エネルギーからの代替が、もう少し早いテンポで進むことも考えられる。

発電用の燃料構成をみると、石炭火力のシェアが今後大幅に増加し、そのため、石油火力のシェアが大きく低下するという結果になっている。

問題点としては、石油火力から石炭火力への転換が、本予測のように急速に進むかどうかという点が挙げられる。また本予測では、電気事業者と自家発電を分類していないが、インドネシアにおいては、自家発電の比率が高く、電力供給という面では重要な地位を占めていることから、今後、区別して予測することが必要であろう。

表 8-4-9 部門別電力需要の推移と見通し

項目	1973		1978		1983		1990		1978	1983	1990
	(10^8 TCE)	(%)	(10^8 TCE)	(%)	(10^8 TCE)	(%)	(10^8 TCE)	(%)	1973	1978	1978
産業部門	227	422	574	514	1066	583	2006	59.7	204	132	110
交通部門	0	0.0	0	0.0	0	0.0	0	0.0	—	—	—
民生部門	165	307	302	270	400	219	689	205	129	5.8	7.1
政府部門	36	6.7	47	4.2	87	4.8	159	4.7	55	13.4	10.7
エネルギー部門	109	203	194	17.4	274	15.0	504	15.0	122	7.1	8.3
合計	538	1000	1117	1000	1827	1000	3358	1000	157	103	9.6

表 8-4-10 発電用燃料構成の推移と見通し

項目	1973		1978		1983		1990		1978	1983	1990
	(10^8 TCE)	(%)	(10^8 TCE)	(%)	(10^8 TCE)	(%)	(10^8 TCE)	(%)	1973	1978	1978
固体燃料(石炭)	45	3.6	76	2.2	1321	21.7	3373	30.1	11.1	7.0	3.72
石油製品合計	1023	81.1	3090	87.9	4215	69.2	6689	59.8	24.7	6.4	6.6
軽油	908	72.0	2452	69.8	3265	53.5	4884	43.6	22.0	5.9	5.9
重油	115	9.1	638	18.2	950	15.6	1805	16.1	4.09	8.3	9.1
原子力	0	0.0	0	0.0	0	0.0	0	0.0	—	—	—
水力&地熱	193	15.3	348	9.9	555	9.1	1130	10.1	12.5	9.8	10.3
合計	1261	1000	3514	1000	6091	1000	11192	1000	22.7	11.6	10.1

(8) 石油需給の推移と見通し

石油製品需要は、1978年の $24,353 \times 10^8$ TCEから、1983年には $42,555 \times 10^8$ TCE、1990年には $70,712 \times 10^8$ TCEと増加する。年平均成長率は、1983/1978年の5年間で④12%、1990/1978年の12年間で④9%となっている。

製品別にみると、特にガソリン・ジェット燃料油・灯油など軽質油の伸びが高い。

他方、石油製品の供給(生産)は、原油投入量を外生変数とし、生産得率をほぼ現状と同じと想定して推計している。

したがって、国内需要の増加テンポの高い製品は、輸入が必要となり、逆に国内需要が低い水準にある製品は、輸出が可能となる。輸入が必要な製品は、ガソリン・ジェット燃料油・灯油・軽油など、輸出が可能となる製品は、重油・その他石油製品などである。本予測では、国

産原油・原油輸入・石油精製業原油投入量を外生変数としており、残りが原油輸出量として推計される。ここでは原油の国内生産の伸びが低いいため、原油輸出量は、今後ほぼ横パイになるとまるという結果になっている。

問題点としては、生産得率をほぼ現状横パイと想定していることが挙げられる。ガソリン・ジェット燃料油・灯油などの国内需要の伸びが高いことが予想されるところから、今後の精製設備の生産能力増強に関しては、当然軽質油のより多くとれる設備が選択されるであろうし、その結果として生産得率が製品によって現在のものとは変わってくるものと考えられる。すなわち、製品ごとの需要に対応して、生産得率をある程度変化できるようなモデルを考えることも必要ではないかと思われる。

石油需給の推移と見通しを、まとめたのが以下の表8-4-11である。

表8-4-11 石油需給の推移と見通し

項目	年				1978	1983	1990
	1973	1978	1983	1990	1978 1973	1983 1978	1990 1978
国産原油	[10 ⁴ TCE] 97903	[10 ⁴ TCE] 119578	[10 ⁴ TCE] 131800	[10 ⁴ TCE] 138000	(%) 4.1	(%) 2.0	(%) 1.2
原油輸入	220	6224	12448	12448	95.1	14.9	5.9
石油製品輸入合計	2565	3659	13413	33372	7.4	29.7	20.2
ガソリン	0	3	1363	6241	—	240.0	89.0
ジェット燃料油	161	652	1569	2903	32.3	19.2	13.3
灯油	400	898	5068	12828	17.6	41.5	24.8
軽油	331	2024	4897	11200	43.6	19.3	15.3
重油	1647	0	0	0	—	—	—
ナフサ・NGL	0	0	415	119	—	—	—
LPG	0	4	4	4	—	0.0	0.0
その他石油製品	26	77	77	47	24.3	0.0	0.0
石油国内需要合計	12354	24353	42555	70712	14.5	11.8	9.3
燃料油国内需要合計	12106	23837	41817	69524	14.5	11.9	9.3
ガソリン	2345	3928	6674	12858	10.9	11.2	10.4
ジェット燃料油	348	731	1226	2181	16.0	10.9	9.5
灯油	4759	8475	13747	23615	12.2	10.2	8.9
軽油	3287	8214	13025	21345	20.1	9.7	8.3
重油	1367	2489	3525	5905	12.7	7.2	7.5
ナフサ・NGL	0	0	3620	3620	—	—	—
LPG	14	80	138	264	41.7	11.5	10.5
その他石油製品	234	436	600	924	13.3	6.6	6.5
原油輸出	74056	92568	99361	94596	4.6	1.4	0.2
石油製品輸出合計	12310	11513	16839	19074	▲1.3	7.9	4.3
重油	70	411	2026	1094	42.5	37.6	8.5
ナフサ・NGL	0	2227	0	0	—	—	—
LPG	1	657	696	590	266.0	1.2	▲0.9
その他石油製品	12240	8218	14117	17390	▲7.7	11.4	6.4
石油製品バunker合計	248	609	835	1230	19.7	6.5	6.0

8-6 計算結果一覽

8-6-1 実績値一覽(1971年~1978年)

(1) 内生変数

FA	CF1	CF2	CF3	CF4	CF5	CF6	CF7	CF8	CF9	CF10	CF11	CF12
71	518.	2833.	72.	3938.	164.	131.	837.	1014.	1065.	16101.	12312.	13535.
72	541.	3492.	74.	4274.	147.	141.	877.	1014.	1065.	16101.	12312.	13535.
73	716.	4791.	100.	4781.	141.	149.	836.	837.	836.	16101.	12312.	13535.
74	441.	7259.	141.	5454.	149.	149.	836.	837.	836.	16101.	12312.	13535.
75	836.	9745.	149.	5679.	192.	192.	836.	837.	836.	16101.	12312.	13535.
76	837.	16101.	201.	6932.	173.	173.	837.	837.	837.	16101.	12312.	13535.
77	1014.	12312.	223.	8372.	223.	223.	1014.	1014.	1014.	12312.	12312.	13535.
78	1065.	13535.	241.	8755.	258.	258.	1065.	1065.	1065.	13535.	13535.	13535.
FA	EBC01007	EBC01011	EBC02003	EBC02006	EBC03002	EBC03003	EBC03004	EBC03005	EBC03006	EBC03007	EBC03008	EBC03009
71	-45.	91.	-85913.	17034.	1327.	-7337.	-437.	-220.	-437.	-437.	-437.	-437.
72	-47.	81.	-58747.	29585.	154.	-17034.	-437.	-437.	-437.	-437.	-437.	-437.
73	-45.	83.	-74956.	24271.	17.9	-2565.	-437.	-437.	-437.	-437.	-437.	-437.
74	-57.	82.	-75933.	23289.	-0.1	-2849.	-437.	-437.	-437.	-437.	-437.	-437.
75	-77.	97.	-72759.	22518.	-3.1	-2795.	-437.	-437.	-437.	-437.	-437.	-437.
76	-79.	85.	-76074.	21521.	-1.6	-6647.	-437.	-437.	-437.	-437.	-437.	-437.
77	-77.	111.	-92251.	34149.	57.9	-3928.	-437.	-437.	-437.	-437.	-437.	-437.
78	-74.	105.	-92558.	32492.	-3.9	-3857.	-437.	-437.	-437.	-437.	-437.	-437.
FA	EBC03004	EBC03005	EBC03006	EBC03007	EBC03008	EBC03009	EBC03010	EBC03011	EBC03012	EBC03013	EBC03014	EBC03015
71	-337.	0.	-6210.	-792.	-13.	17389.	-437.	-437.	-437.	-437.	-437.	-437.
72	-220.	0.	-7077.	-741.	-17.	19357.	-437.	-437.	-437.	-437.	-437.	-437.
73	-243.	0.	-9745.	-1023.	-21.	23267.	-437.	-437.	-437.	-437.	-437.	-437.
74	-459.	0.	-7133.	-825.	-23.	23495.	-437.	-437.	-437.	-437.	-437.	-437.
75	-417.	0.	-4847.	-1254.	-21.	21352.	-437.	-437.	-437.	-437.	-437.	-437.
76	-437.	-522.	-2493.	-2649.	-21.	21890.	-437.	-437.	-437.	-437.	-437.	-437.
77	-578.	345.	-7834.	-2471.	-23.	30441.	-437.	-437.	-437.	-437.	-437.	-437.
78	-637.	68.	-7768.	-3618.	-25.	31671.	-437.	-437.	-437.	-437.	-437.	-437.
FA	EBC03009	EBC03010	EBC03011	EBC03012	EBC03013	EBC03014	EBC03015	EBC03016	EBC03017	EBC03018	EBC03019	EBC03020
71	0.	0.	0.	8756.	1214.	3234.	0.	0.	0.	0.	0.	0.
72	0.	0.	0.	9728.	1510.	3522.	0.	0.	0.	0.	0.	0.
73	0.	0.	0.	11313.	1835.	3842.	0.	0.	0.	0.	0.	0.
74	1.	0.	0.	13247.	2272.	5691.	0.	0.	0.	0.	0.	0.
75	3.	0.	0.	14781.	2747.	5832.	0.	0.	0.	0.	0.	0.
76	19.	0.	0.	16554.	3375.	5941.	0.	0.	0.	0.	0.	0.
77	674.	0.	0.	18184.	4257.	6712.	0.	0.	0.	0.	0.	0.
78	2412.	0.	0.	21230.	5310.	7433.	0.	0.	0.	0.	0.	0.
FA	EBC03011	EBC03015	EBC03016	EBC04002	EBC04006	EBC04010	EBC04014	EBC04018	EBC04022	EBC04026	EBC04030	EBC04034
71	3938.	247.	154.	1.	-57.	2420.	3938.	4254.	4774.	5531.	6274.	4335.
72	4254.	256.	231.	0.	0.	2193.	4254.	4774.	5531.	6274.	4335.	4335.
73	4774.	277.	235.	0.	0.	2412.	4774.	5531.	6274.	4335.	4335.	4335.
74	5531.	292.	211.	0.	0.	2412.	5531.	6274.	4335.	4335.	4335.	4335.
75	6274.	273.	244.	0.	0.	2811.	6274.	4335.	4335.	4335.	4335.	4335.
76	4335.	344.	176.	361.	411.	2732.	4335.	4335.	4335.	4335.	4335.	4335.
77	7619.	354.	241.	79.	30.	3581.	7619.	4335.	4335.	4335.	4335.	4335.
78	8555.	373.	338.	3.	-119.	3743.	8555.	4335.	4335.	4335.	4335.	4335.
FA	EBC04011	EBC04015	EBC05002	EBC05006	EBC05010	EBC05014	EBC05018	EBC05022	EBC05026	EBC05030	EBC05034	EBC05038
71	2122.	2632.	0.	0.	214.	192.	2122.	2305.	2650.	2915.	3145.	3504.
72	2122.	2122.	15.	15.	248.	248.	2122.	2305.	2650.	2915.	3145.	3504.
73	2305.	2305.	141.	141.	202.	202.	2305.	2305.	2305.	2305.	2305.	2305.
74	2650.	2345.	242.	242.	205.	205.	2650.	2305.	2305.	2305.	2305.	2305.
75	2915.	2441.	417.	417.	160.	160.	2915.	2305.	2305.	2305.	2305.	2305.
76	3145.	2840.	559.	559.	103.	103.	3145.	2305.	2305.	2305.	2305.	2305.
77	3504.	3174.	638.	638.	61.	61.	3504.	2305.	2305.	2305.	2305.	2305.
78	3922.	3440.	652.	652.	619.	619.	3922.	2305.	2305.	2305.	2305.	2305.

	EBC05R13		EBC05R15		EBC06R02		EBC06R06		EBC06R07A		EBC06R10	
	ZKCL		ZKCL		ZKCL		ZKCL		ZKCL		ZKCL	
71	192.		0.		1042.		1062.		3939.		3965.	
72	252.	31.3	0.	---	510.	-52.0	510.	-52.0	3147.	3.2	4247.	9.8
73	310.	38.1	0.	---	499.	-21.4	499.	-21.4	4593.	27.2	4759.	12.0
74	419.	20.0	32.	---	1156.	109.0	1156.	109.0	4335.	0.3	5179.	15.5
75	515.	22.9	27.	-15.6	1278.	10.6	1278.	10.6	4350.	0.3	4222.	33.1
76	539.	4.7	20.	3.7	3095.	135.1	3030.	137.1	4099.	-5.8	4926.	9.7
77	569.	5.4	41.	57.1	1029.	-46.1	825.	-72.0	6235.	32.1	7577.	11.0
78	672.	19.0	51.	22.7	898.	-12.0	813.	-1.5	6134.	-1.4	8475.	11.9
	EBC06R14		EBC07R02		EBC07R06		EBC07R07A		EBC07R11		EBC07R12	
	ZKCL		ZKCL		ZKCL		ZKCL		ZKCL		ZKCL	
71	3965.		10.		10.		1554.		892.		378.	
72	4247.	8.0	0.	-109.0	0.	-109.0	1229.	19.5	1365.	49.9	431.	14.0
73	4759.	12.0	331.	---	331.	---	2324.	35.1	1747.	33.9	574.	33.4
74	5493.	15.5	450.	30.4	450.	30.4	2396.	24.6	2393.	31.0	363.	-37.0
75	6222.	13.1	945.	106.3	945.	106.3	3929.	3.9	2910.	26.7	445.	22.6
76	6926.	9.7	2503.	161.9	2411.	155.1	2720.	-9.3	3456.	10.4	609.	32.0
77	7577.	11.0	1101.	-21.1	1055.	-23.1	4263.	56.3	3054.	11.6	1052.	10.3
78	8475.	11.9	2024.	4.5	2109.	29.1	4203.	11.5	4335.	12.4	1271.	22.7
	EBC07R13		EBC07R15		EBC07R02		EBC07R06		EBC07R07A		EBC07R11	
	ZKCL		ZKCL		ZKCL		ZKCL		ZKCL		ZKCL	
71	310.		197.		0.		0.		466.		524.	
72	201.	120.0	170.	-13.7	0.	---	0.	---	1041.	56.3	503.	-4.4
73	112.	33.0	220.	36.1	0.	---	0.	---	871.	-16.3	612.	21.7
74	1743.	65.0	197.	-13.6	0.	---	0.	---	971.	11.5	692.	11.4
75	2223.	27.5	245.	24.1	0.	---	0.	---	1020.	5.9	853.	25.1
76	2043.	-0.1	523.	113.5	193.	---	201.	---	1055.	2.7	1050.	17.2
77	2204.	12.3	511.	-2.3	246.	24.2	314.	56.2	1174.	10.4	1270.	27.0
78	2467.	17.1	579.	13.3	6.	-160.0	38.	-87.9	1510.	30.0	1191.	9.6
	EBC07R12		EBC07R15		EBC07R02		EBC07R06		EBC07R07A		EBC07R11	
	ZKCL		ZKCL		ZKCL		ZKCL		ZKCL		ZKCL	
71	315.		4.		10.		-75.		0.		10.	
72	419.	6.1	21.	201.3	0.	-160.0	0.	-160.0	0.	---	0.	-160.0
73	569.	20.5	20.	23.7	331.	---	0.	---	0.	---	331.	---
74	554.	8.0	12.	-57.1	150.	30.1	-30.	---	0.	---	450.	30.4
75	695.	25.5	14.	31.3	145.	106.3	-15.	10.4	0.	---	945.	106.3
76	703.	15.0	20.	25.0	2792.	105.9	-92.	104.4	-69.	---	2412.	176.4
77	1040.	31.7	40.	109.0	2147.	-20.5	-81.	-9.0	23.	-325.0	2169.	-17.0
78	1100.	16.5	51.	35.0	2024.	-5.7	-10.	-10.1	415.	1764.3	2439.	12.1
	EBC07R07		EBC07R10		EBC07R07A		EBC07R11		EBC07R12		EBC07R13	
	ZKCL		ZKCL		ZKCL		ZKCL		ZKCL		ZKCL	
71	429.		-13.		2222.		1430.		773.		932.	
72	480.	7.2	-17.	30.0	2741.	24.3	1903.	20.1	847.	9.0	746.	77.3
73	510.	32.7	-21.	23.5	3115.	15.7	2350.	30.0	1005.	27.0	1017.	32.0
74	730.	-10.6	-23.	9.5	3067.	21.0	2165.	26.6	117.	-15.5	1059.	82.0
75	810.	21.1	-21.	-0.7	4037.	1.1	3771.	26.2	1139.	24.2	2071.	27.5
76	-1022.	29.2	-21.	0.0	3704.	-4.3	4155.	10.1	1687.	10.3	2223.	-4.2
77	-2012.	21.0	-21.	0.0	5040.	43.0	5135.	15.3	2419.	25.5	2451.	10.0
78	-2452.	22.5	-25.	19.0	4421.	10.0	5737.	11.7	2471.	16.6	2487.	9.1
	EBC07R14		EBC07R15		EBC07R03		EBC07R06		EBC07R07A		EBC07R11	
	ZKCL		ZKCL		ZKCL		ZKCL		ZKCL		ZKCL	
71	0.		203.		-1185.		-931.		3175.		1032.	
72	0.	---	193.	-4.9	-211.	-33.2	497.	-165.2	2027.	-36.2	1110.	7.4
73	0.	---	236.	32.6	-20.	-91.2	1577.	159.0	764.	-12.3	1292.	12.0
74	0.	---	209.	-10.4	0.	-100.0	143.	-40.2	1019.	100.0	1359.	0.5
75	0.	---	241.	26.9	0.	---	34.	-94.2	1695.	-11.0	1239.	-0.0
76	0.	---	543.	110.0	-79.	---	-210.	-694.4	2419.	65.0	1417.	10.4
77	0.	---	551.	0.5	-933.	1001.0	-707.	267.0	3749.	41.9	1672.	10.0
78	0.	---	571.	5.1	-011.	-55.0	-603.	-23.4	4862.	20.3	1851.	10.7

FA	EBC09R12		EBC09R03		EBC09R06		EBC09R07A		EBC09R11		EBC09R03	
	IRCL		IRCL		IRCL		IRCL		IRCL		IRCL	
71	411.		0.		0.		0.		0.		0.	
72	645.	50.8	0.	---	0.	---	303.	---	0.	---	-4.	-59.0
73	750.	12.0	0.	---	0.	---	203.	-41.1	0.	---	-1.	-75.0
74	656.	14.1	0.	---	0.	---	816.	316.7	0.	---	-5.	199.0
75	823.	-3.7	-227.	---	-227.	---	020.	-3.1	0.	---	-6.	20.0
76	1007.	22.6	-85.	-80.3	-312.	-57.1	207.	-65.0	0.	---	6.	-105.0
77	1140.	13.0	-1150.	1252.9	-1011.	225.0	1010.	251.9	0.	---	-147.	---
78	1310.	19.3	-2227.	93.7	-2407.	115.7	1446.	9.5	0.	---	-657.	17.0
FA	EBC10R06		EBC10R07A		EBC10R11		EBC10R12		EBC10R14		EBC10R03	
	IRCL		IRCL		IRCL		IRCL		IRCL		IRCL	
71	-0.		12.		3.		1.		2.		-6204.	
72	-0.	-50.0	10.	-14.7	4.	100.0	2.	160.0	1.	160.0	-0774.	43.1
73	-1.	-75.0	15.	50.0	14.	133.3	4.	133.3	0.	133.3	-12249.	31.1
74	-5.	100.0	32.	103.3	32.	128.6	10.	128.6	19.	128.6	-9416.	-22.0
75	-6.	20.0	50.	56.3	40.	50.0	19.	50.0	29.	50.0	-7392.	-21.0
76	-1.	-83.3	41.	-10.0	57.	22.9	24.	22.9	35.	22.9	-7384.	0.2
77	-455.	111111	53.	29.3	44.	0.5	24.	0.5	30.	0.5	-9569.	19.1
78	-652.	10.2	59.	9.1	89.	25.0	32.	25.0	40.	25.0	-0210.	-33.6
FA	EBC10R06		EBC10R07A		EBC10R11		EBC10R12		EBC10R14		EBC10R03	
	IRCL		IRCL		IRCL		IRCL		IRCL		IRCL	
71	-6204.		6204.		154.		154.		0.		-6204.	
72	-8950.	-42.4	9210.	41.7	231.	50.0	231.	50.0	42.	---	-9950.	43.0
73	-12210.	35.4	12364.	31.1	234.	1.3	234.	1.3	26.	-30.1	-12241.	34.0
74	-9375.	-23.2	10233.	-17.2	210.	23.9	210.	23.9	70.	169.2	-9451.	-22.0
75	-7313.	-22.0	7509.	-25.0	241.	-15.9	241.	-15.9	69.	-1.4	-7310.	-21.0
76	-8077.	10.4	8226.	0.4	196.	-19.7	196.	-19.7	53.	-23.2	-7384.	0.1
77	-9115.	13.0	9734.	10.3	240.	22.4	240.	22.4	52.	-5.9	-9556.	24.7
78	-8117.	-31.4	9320.	-0.3	436.	01.7	436.	01.7	01.	55.0	-0075.	-10.9
FA	EBC10R06		EBC10R07A		EBC10R11		EBC10R12		EBC10R14		EBC10R03	
	IRCL		IRCL		IRCL		IRCL		IRCL		IRCL	
71	0.		-6274.		6291.		0.		0.		0.	
72	0.	---	-8950.	42.3	9220.	41.6	0.	---	0.	---	0.	---
73	0.	---	-12215.	36.4	12377.	31.1	0.	---	0.	---	0.	---
74	0.	---	-9303.	-23.2	10245.	-17.1	0.	---	0.	---	0.	---
75	0.	---	-7319.	-22.0	7439.	-25.6	0.	---	0.	---	0.	---
76	-103.	---	-8978.	10.1	8247.	0.2	19.	---	0.	---	0.	---
77	222.	-203.3	-9469.	19.6	9707.	10.4	174.	2105.3	0.	---	0.	---
78	-7.	-192.6	-8797.	-0.9	9370.	-1.2	470.	41.6	1.	---	0.	---
FA	EBC10R11		EBC10R12		EBC10R14		EBC10R16		EBC10R18		EBC10R06	
	IRCL		IRCL		IRCL		IRCL		IRCL		IRCL	
71	157.		1.		2.		154.		4392.		4392.	
72	237.	51.0	2.	100.0	0.	100.0	231.	50.0	5711.	24.4	5711.	24.4
73	240.	4.4	4.	133.3	0.	133.3	234.	1.3	7055.	23.5	7055.	23.5
74	322.	29.0	13.	128.6	19.	128.6	210.	23.9	7276.	3.1	7276.	3.1
75	212.	-9.3	19.	50.0	29.	50.0	241.	-15.9	8017.	10.2	8017.	10.2
76	255.	-12.7	24.	22.9	35.	22.9	196.	-19.7	11534.	43.9	11534.	43.9
77	311.	19.2	26.	0.5	30.	0.5	240.	22.4	19613.	70.0	19613.	70.0
78	510.	69.7	32.	25.0	49.	25.0	436.	01.7	30327.	54.6	30327.	54.6
FA	EBC10R11		EBC10R12		EBC10R14		EBC10R16		EBC10R18		EBC10R06	
	IRCL		IRCL		IRCL		IRCL		IRCL		IRCL	
71	-31.		-1260.		159.		79.		0.		79.	
72	-50.	41.3	-1260.	-11.2	310.	100.1	107.	111.4	0.	---	147.	115.4
73	-41.	-0.0	-1555.	20.7	331.	0.0	117.	0.0	0.	---	147.	0.0
74	-11.	0.0	-2107.	35.5	350.	2.2	110.	11.0	1.	---	147.	0.0
75	-17.	2.2	-2350.	13.0	511.	52.0	201.	54.7	1.	0.0	240.	49.5
76	-42.	-10.0	-2042.	19.3	503.	9.0	311.	9.2	2.	100.0	270.	0.0
77	-43.	2.4	-0215.	50.1	1412.	130.1	230.	128.7	2.	0.0	077.	150.7
78	-45.	4.7	-0360.	97.9	2225.	57.4	1139.	55.2	2.	0.0	1614.	69.1

ID	EBC11803		EBC11804		EBC11805		EBC11806		EBC11807		EBC11808	
	IRCL	IRCL	IRCL	IRCL	IRCL	IRCL	IRCL	IRCL	IRCL	IRCL	IRCL	IRCL
71	0.	---	0.	---	18.	16.7	15.	6.7	15.	6.7	4592.	24.4
72	0.	---	0.	---	21.	4.8	16.	9.9	16.	9.9	5719.	23.5
73	0.	---	0.	---	22.	9.4	15.	-6.3	15.	-6.3	2276.	3.1
74	0.	---	0.	---	29.	-9.1	13.	-13.3	13.	-13.3	8617.	16.2
75	0.	---	0.	---	29.	9.9	12.	-7.7	12.	-7.7	11534.	13.9
76	-1233.	---	-1233.	---	20.	9.6	12.	9.6	12.	9.6	17813.	29.9
77	-7519.	549.8	-7519.	549.8	20.	9.6	14.	16.7	14.	16.7	39327.	54.6
78	-7519.	549.8	-7519.	549.8	20.	9.6	14.	16.7	14.	16.7	39327.	54.6
ID	EBC11809		EBC11810		EBC11811		EBC11812		EBC11813		EBC11814	
	IRCL	IRCL	IRCL	IRCL	IRCL	IRCL	IRCL	IRCL	IRCL	IRCL	IRCL	IRCL
71	0.	---	4592.	---	18.	16.7	-164.	---	-1351.	---	---	---
72	0.	---	5719.	21.4	21.	4.8	-253.	54.3	-1269.	-11.2	---	---
73	0.	---	2276.	21.5	22.	9.4	-273.	7.9	-1555.	28.7	---	---
74	0.	---	8617.	3.1	22.	9.4	-247.	-1.5	-2187.	-35.5	---	---
75	0.	---	8617.	16.2	26.	-9.1	-114.	-27.9	-482.	131.7	---	---
76	0.	---	11534.	13.9	20.	9.6	-1337.	567.2	-2842.	-41.4	---	---
77	-1233.	---	18318.	59.4	20.	9.6	-3426.	156.2	-4225.	52.1	---	---
78	-7519.	549.8	22618.	24.1	20.	9.6	-4335.	26.5	6599.	-777.9	---	---
78	-7519.	549.8	22618.	24.1	20.	9.6	-4335.	26.5	6599.	-777.9	---	---
ID	EBC11815		EBC11816		EBC11817		EBC11818		EBC11819		EBC11820	
	IRCL	IRCL	IRCL	IRCL	IRCL	IRCL	IRCL	IRCL	IRCL	IRCL	IRCL	IRCL
71	-2812.	---	174.	---	78.	---	15.	---	79.	---	0.	---
72	-3581.	31.1	359.	181.1	167.	111.1	15.	6.7	167.	111.1	0.	---
73	-5811.	27.1	359.	9.9	167.	9.9	15.	9.9	167.	9.9	0.	---
74	-4518.	-9.8	374.	4.9	159.	13.8	14.	8.8	167.	0.8	9.	---
75	-4631.	7.5	557.	43.9	214.	51.7	14.	-12.5	248.	49.5	0.	---
76	-6758.	18.1	495.	8.4	321.	9.2	14.	9.9	278.	8.9	9.	---
77	-8418.	31.8	1421.	135.4	733.	129.3	14.	6.8	677.	159.7	9.	---
78	-7711.	-13.2	2219.	57.2	1139.	55.4	16.	14.3	1631.	69.1	9.	---
78	-7711.	-13.2	2219.	57.2	1139.	55.4	16.	14.3	1631.	69.1	9.	---
ID	EBC12806		EBC12807		EBC12808		EBC12809		EBC12810		EBC12811	
	IRCL	IRCL	IRCL	IRCL	IRCL	IRCL	IRCL	IRCL	IRCL	IRCL	IRCL	IRCL
71	0.	---	0.	---	419.	---	419.	---	-415.	---	1427.	---
72	0.	---	0.	---	547.	-8.4	547.	-8.4	-429.	-8.3	1022.	-3.7
73	0.	---	0.	---	819.	21.7	819.	21.7	-477.	21.8	1759.	23.7
74	0.	---	0.	---	892.	16.2	822.	16.2	-578.	16.3	1681.	-8.3
75	0.	---	0.	---	871.	8.4	871.	8.4	-827.	8.5	2291.	36.7
76	0.	---	0.	---	859.	-8.2	819.	-8.2	-574.	-8.1	2932.	33.2
77	0.	---	0.	---	817.	2.1	817.	2.1	-569.	2.1	3254.	14.7
78	0.	---	0.	---	1241.	51.9	1241.	51.9	-692.	51.9	4492.	31.6
78	0.	---	0.	---	1241.	51.9	1241.	51.9	-692.	51.9	4492.	31.6
ID	EBC14807		EBC14808		EBC14809		EBC14810		EBC14811		EBC14812	
	IRCL	IRCL	IRCL	IRCL	IRCL	IRCL	IRCL	IRCL	IRCL	IRCL	IRCL	IRCL
71	411.	---	-49.	---	325.	---	113.	---	141.	---	41.	---
72	449.	9.2	-49.	13.3	353.	8.4	157.	11.2	151.	7.1	43.	4.9
73	514.	19.8	-44.	24.5	429.	21.5	227.	42.8	165.	9.3	35.	-16.3
74	528.	-3.3	-189.	16.3	393.	-8.4	189.	-16.7	174.	6.7	28.	-22.2
75	411.	17.5	-197.	7.0	435.	19.3	233.	23.3	261.	15.9	32.	14.3
76	719.	27.7	-118.	18.3	478.	33.9	349.	58.4	224.	9.8	35.	8.4
77	397.	16.3	-141.	22.0	725.	15.4	435.	17.1	251.	12.1	39.	11.4
78	1117.	23.2	-151.	4.9	923.	27.3	574.	32.9	392.	26.3	47.	29.5
78	1117.	23.2	-151.	4.9	923.	27.3	574.	32.9	392.	26.3	47.	29.5
ID	EBC15801		EBC15802		EBC15803		EBC15804		EBC15805		EBC15806	
	IRCL	IRCL	IRCL	IRCL	IRCL	IRCL	IRCL	IRCL	IRCL	IRCL	IRCL	IRCL
71	78455.	---	1819.	---	-55552.	---	-337.	---	22.	---	17923.	---
72	45719.	21.3	2139.	12.6	-48738.	23.7	-229.	-34.7	817.	431.8	19235.	13.9
73	185789.	23.4	2789.	38.4	-81367.	25.6	-245.	12.7	238.	161.7	22447.	16.7
74	188735.	2.8	3035.	8.9	-85345.	-8.5	-459.	85.1	-1558.	-763.2	24337.	8.6
75	181411.	-3.8	2723.	-3.7	-81432.	-5.8	-417.	-9.2	-358.	-77.9	25663.	5.1
76	823269.	17.8	8279.	183.2	-98231.	20.4	-437.	4.8	-816.	427.3	32923.	25.3
77	141322.	16.8	1811.	19.5	-140541.	42.4	-578.	32.3	2316.	-382.6	45531.	42.3
78	131434.	5.2	1813.	-8.1	-111427.	1.8	-469.	5.4	-528.	-122.9	41127.	7.8

FA	EBC15R97		EBC15R98		EBC15R99A		EBC15R99B		EBC15R100A		EBC15R100B	
	TRCL		TRCL		TRCL		TRCL		TRCL		TRCL	
71	-1068.		5.		-1330.		-164.		-1410.		-2772.	
72	-722.	-0.8	-6.	-269.0	-428.	-67.8	-253.	54.3	-1363.	-3.3	-3773.	37.7
73	-1229.	25.5	-2.	-75.0	-974.	132.2	-273.	7.9	-1572.	15.3	-5126.	29.0
74	-1345.	-4.5	-2.	9.0	-202.	-77.7	-265.	-2.9	-2447.	69.5	-4646.	-9.3
75	-1591.	36.6	-6.	269.0	-369.	78.2	-199.	-20.3	-2745.	11.2	-4776.	7.5
76	-2152.	35.3	-2.	-66.7	-131.	-63.6	-1318.	593.7	-3541.	20.2	-6869.	37.5
77	-2457.	14.2	-4.	169.0	-612.	379.1	-2739.	107.1	-4762.	31.5	-7662.	31.6
78	-3287.	33.9	-4.	0.0	-354.	-14.9	-1724.	-34.0	-8390.	84.0	-7075.	-12.9
FB	EBC15R11		EBC15R12		EBC15R13		EBC15R14		EBC15R15		EBC15R16	
	TRCL		TRCL		TRCL		TRCL		TRCL		TRCL	
71	9350.		1497.		3278.		4361.		238.		233.	
72	14583.	13.0	1092.	27.2	3556.	0.3	4121.	0.8	297.	3.0	317.	71.2
73	12175.	15.3	2271.	29.0	3889.	9.3	4155.	12.0	611.	421.7	455.	1.5
74	14115.	15.9	2194.	-3.4	5124.	32.1	5722.	15.5	416.	-8.0	465.	14.8
75	14106.	14.1	2534.	15.5	5079.	14.7	4418.	13.4	765.	15.6	477.	7.3
76	17183.	11.7	3422.	35.0	5781.	1.7	7122.	9.8	977.	39.9	478.	-4.2
77	21051.	17.1	4479.	39.9	4752.	12.9	7185.	11.0	973.	1.4	737.	94.0
78	24935.	16.3	5591.	24.9	7472.	10.7	6273.	12.2	1029.	2.7	1547.	65.1
FA	EBC16R01		EBC16R02		EBC16R03		EBC16R04		EBC16R05		EBC16R06	
	TRCL		TRCL		TRCL		TRCL		TRCL		TRCL	
71	37576.		37576.		37576.		21510.		14925.		160231.	
72	37791.	1.1	37791.	1.1	37791.	1.1	17859.	-7.4	18184.	13.0	129710.	11.3
73	43184.	13.7	43184.	13.7	43184.	13.7	23165.	16.7	19925.	10.4	149723.	20.1
74	44482.	3.0	44482.	3.0	44482.	3.0	21677.	-5.4	22469.	13.0	153281.	7.9
75	38916.	-19.5	38916.	-14.5	38916.	-14.5	14022.	-35.7	23147.	6.0	142657.	-6.7
76	34923.	2.4	34923.	2.4	34923.	2.4	11770.	-18.1	27410.	13.2	141711.	13.1
77	39248.	0.7	39248.	0.7	39248.	0.7	9162.	-22.2	34637.	10.7	183130.	13.2
78	39192.	0.7	39192.	0.7	39192.	0.7	4228.	-31.4	33168.	14.5	170374.	4.2
FA	EBC17R01		EBC17R02		EBC17R03		EBC17R04		EBC17R05		EBC17R06	
	TRCL		TRCL		TRCL		TRCL		TRCL		TRCL	
71	1618.		-55552.		-337.		22.		54519.		-1966.	
72	2138.	12.6	-40730.	23.7	-220.	-14.7	117.	431.0	57226.	6.0	-972.	-8.0
73	2788.	39.8	-44307.	25.6	-249.	12.7	236.	101.7	65831.	10.7	-1229.	25.5
74	3035.	0.9	-45745.	-0.5	-459.	65.1	-1558.	-240.2	69655.	0.9	-1183.	-4.7
75	2923.	-3.7	-41692.	-5.0	-417.	-9.2	-359.	-77.0	63619.	-7.6	-1511.	34.0
76	8279.	183.2	-58231.	20.4	-837.	4.0	-816.	127.3	76116.	13.5	-2157.	35.3
77	7610.	19.5	-110541.	12.6	-570.	32.3	2386.	-382.0	84769.	19.5	-2157.	11.2
78	7853.	-9.1	-117429.	1.0	-487.	5.4	-520.	-122.9	64421.	4.5	-3287.	31.7
FA	EBC17R07		EBC17R08		EBC17R09		EBC17R10A		EBC17R10B		EBC17R11	
	TRCL		TRCL		TRCL		TRCL		TRCL		TRCL	
71	5.		-1319.		-841.		-1410.		-2772.		44724.	
72	-8.	-260.0	-428.	-67.8	-253.	54.3	-1363.	-3.3	-3773.	37.7	48551.	8.5
73	-2.	-75.0	-974.	132.2	-273.	7.9	-1572.	15.3	-5126.	29.0	55357.	14.0
74	-2.	0.0	-202.	-77.7	-265.	-2.9	-2447.	69.5	-4646.	-9.3	58493.	5.9
75	-4.	269.0	-369.	78.2	-199.	-20.3	-2745.	11.2	-4776.	7.5	54122.	-7.6
76	-2.	-66.7	-131.	-63.6	-1318.	593.7	-3541.	20.2	-6869.	37.5	58731.	5.0
77	-4.	169.0	-612.	379.1	-2739.	107.1	-4762.	31.5	-7662.	31.6	49274.	5.9
78	-4.	0.0	-354.	-14.9	-1724.	-34.0	-8390.	84.0	-7075.	-12.9	63777.	6.2
FA	EBC17R12		EBC17R13		EBC17R14		EBC17R15		EBC17R16		EBC17R17	
	TRCL		TRCL		TRCL		TRCL		TRCL		TRCL	
71	22177.		3119.		28169.		219.		233.		571.	
72	21749.	-5.4	3589.	7.5	22527.	12.1	219.	3.0	319.	71.2	754.	41.0
73	25154.	17.0	3935.	0.9	24950.	19.0	463.	121.7	165.	1.5	1354.	77.7
74	24371.	-5.4	5135.	32.7	28322.	13.5	610.	-0.0	465.	14.8	3165.	121.3
75	16556.	-31.2	5923.	15.3	34437.	7.5	765.	15.6	479.	7.3	2651.	-0.2
76	15192.	-8.2	4817.	1.6	34240.	12.5	977.	38.9	470.	-1.2	3439.	20.3
77	13441.	-10.2	4768.	12.8	37915.	10.7	973.	1.4	977.	84.0	4134.	39.2
78	11852.	-12.9	7359.	10.6	42611.	10.9	1020.	2.7	1547.	65.1	4535.	1.6

FB	E1P731		59PA		66P731		60FA		66F731		11P731	
		26CL		26CL		26CL		26CL		26CL		26CL
71	891.		3472.		5545.		3165.		5465.		67.	
72	1123.	24.1	4361.	24.3	6947.	9.4	4485.	22.2	5874.	7.9	81.	29.7
73	1351.	24.8	4753.	48.9	4753.	11.3	6588.	47.7	6588.	19.4	109.	19.3
74	1403.	3.4	14719.	58.4	7267.	7.4	18281.	54.8	6764.	4.9	111.	11.1
75	1247.	-9.7	12413.	10.1	7431.	5.9	12687.	18.5	7271.	5.4	117.	5.4
76	1425.	12.5	15117.	22.3	8154.	4.7	15035.	24.4	7710.	7.1	139.	11.4
77	1741.	22.4	18744.	29.9	8741.	7.4	16027.	19.9	8339.	7.9	145.	11.8
78	1619.	-7.2	21785.	14.5	9392.	7.7	26742.	16.2	8766.	4.8	155.	6.2
FB	18PB		18P731		11FA		11P731		11F		11P731	
		26CL		26CL		26CL		26CL		26CL		26CL
71	611.		739.		589.		817.		3138.		4833.	
72	812.	41.4	925.	24.8	857.	47.8	1632.	19.0	3872.	23.4	5268.	7.3
73	1316.	52.6	1314.	42.2	1248.	41.9	1248.	17.1	5741.	43.3	5741.	19.2
74	2214.	74.3	1669.	24.9	1737.	48.8	1449.	19.2	9959.	57.8	6974.	5.8
75	2778.	24.1	1869.	7.8	2572.	43.3	1458.	14.6	10744.	18.6	4454.	5.4
76	3222.	16.4	1914.	8.1	3265.	24.6	1749.	6.0	43338.	24.1	6649.	7.1
77	3817.	18.5	2378.	22.7	3726.	14.3	2918.	14.9	15744.	15.7	7343.	7.9
78	4935.	5.7	2318.	-2.5	4172.	16.7	2272.	13.1	18651.	14.8	7839.	4.6
FB	PC61		PC61		PC6FA		FG6FA		FG6FA		P1PFA	
		26CL		26CL		26CL		26CL		26CL		26CL
71	44.		71.		49.		44.		46.		84.	
72	74.	12.2	89.	12.3	67.	12.7	75.	13.6	75.	13.2	93.	11.3
73	108.	35.5	108.	25.7	108.	49.6	119.	32.9	109.	33.9	109.	7.3
74	131.	31.2	133.	33.4	221.	121.3	147.	47.3	148.	47.8	137.	37.4
75	154.	14.4	154.	15.7	225.	1.7	168.	12.5	168.	12.4	154.	12.3
76	177.	18.2	173.	12.7	241.	8.9	159.	11.5	193.	14.1	146.	7.3
77	199.	12.3	193.	11.4	254.	4.4	211.	12.6	216.	12.9	141.	-3.4
78	219.	9.9	215.	11.4	289.	9.4	232.	9.7	235.	8.8	174.	8.4
FB	P11PB		11A		6P1231							
		26CL		26CL		26CL						
71	67.		925219.		61.							
72	83.	24.1	1059893.	13.5	73.	14.0						
73	100.	28.4	1184331.	13.7	110.	37.7						
74	125.	24.8	1431419.	24.9	148.	47.8						
75	154.	24.9	1638351.	22.8	157.	6.5						
76	183.	17.6	2193383.	14.4	189.	14.6						
77	185.	1.2	2531367.	24.3	203.	14.1						
78	195.	4.8	3081460.	18.6	222.	8.1						

(2) 外生変数

FA	CS1	ERC01R02	ERC01R03	ERC01R05	ERC01R08
	ZACL	ZACL	ZACL	ZACL	ZACL
71	341.00000	0.00000	0.00000	-10.00000	0.00000
72	414.00000 21.4	12.00000 ---	0.00000 ---	17.00000 -135.4	-12.00000 ---
73	716.00000 72.9	3.00000 -75.0	0.00000 ---	32.00000 88.2	-3.00000 -75.0
74	841.00000 47.5	1.00000 -44.7	0.00000 ---	-7.00000 -121.7	-1.00000 -44.7
75	1253.70000 47.1	6.00000 500.0	0.00000 ---	-3.00000 57.1	-6.00000 500.0
76	1590.50000 24.9	1.00000 -83.3	-0.00000 ---	-4.00000 33.3	-1.00000 -83.3
77	2019.40000 27.0	0.00000 -102.0	-7.00000 -12.5	-14.00000 150.0	0.00000 -102.0
78	2331.50000 15.5	0.00000 ---	-10.00000 120.6	-12.00000 200.0	0.00000 ---
FA	ERC01R10A	ERC01R10B	ERC01R12	ERC01R13	ERC01R14
	ZACL	ZACL	ZACL	ZACL	ZACL
71	-23.00000	0.00000	39.00000	15.00000	0.00000
72	-124.00000 447.0	0.00000 ---	51.00000 2.0	18.00000 -37.0	0.00000 ---
73	-13.00000 -07.7	0.00000 ---	43.00000 -15.7	37.00000 32.1	0.00000 ---
74	-10.00000 -23.1	0.00000 ---	43.00000 0.0	32.00000 -13.5	0.00000 ---
75	-7.00000 -32.0	0.00000 ---	45.00000 4.7	47.00000 44.7	0.00000 ---
76	-3.00000 -57.1	0.00000 ---	34.00000 -24.4	40.00000 -11.1	0.00000 ---
77	-5.00000 44.7	0.00000 ---	51.00000 50.0	40.00000 0.0	0.00000 ---
78	-0.00000 40.0	0.00000 ---	50.00000 -2.0	20.00000 -31.0	0.00000 ---
FA	ERC02R16	ERC02R01	ERC02R02	ERC02R05	ERC02R17A
	ZACL	ZACL	ZACL	ZACL	ZACL
71	0.00000	45200.00000	570.00000	69.00000	-10700.00000
72	2.00000 ---	77270.00000 21.5	102.00000 -21.6	100.00000 11.9	-20305.00000 9.0
73	3.00000 50.0	77103.00000 23.5	220.00000 35.0	204.00000 114.0	-24203.00000 10.7
74	7.00000 133.3	109500.00000 2.7	195.00000 -11.4	-1550.00000 -059.0	-24997.00000 -0.5
75	7.00000 0.0	95502.00000 -5.0	122.00000 -37.4	-356.00000 -77.0	-21713.00000 -9.0
76	12.00000 71.4	110204.00000 15.4	1037.00000 1210.9	-270.00000 -10.5	-22929.00000 3.4
77	20.00000 44.7	123270.00000 11.0	5765.00000 270.0	2015.00000 -776.0	-30307.00000 19.0
78	27.00000 35.0	119570.00000 -3.0	6224.00000 4.3	-552.00000 -127.4	-32025.00000 5.4
FA	ERC02R19A	ERC02R19B	ERC02R03	ERC02R04	ERC02R06
	ZACL	ZACL	ZACL	ZACL	ZACL
71	0.00000	0.00000	-37.00000	0.00000	0.00000
72	0.00000 ---	0.00000 ---	0.00000 -100.0	0.00000 ---	0.00000 ---
73	0.00000 ---	0.00000 ---	0.00000 ---	0.00000 ---	0.00000 ---
74	-505.00000 ---	0.00000 ---	-522.00000 ---	2.00000 ---	0.00000 ---
75	-505.00000 0.0	0.00000 ---	-227.00000 37.3	-3.00000 50.0	0.00000 ---
76	-141.00000 27.5	0.00000 ---	0.00000 -100.0	-2.00000 -33.3	50.00000 ---
77	-020.00000 -31.2	0.00000 ---	0.00000 ---	-2.00000 0.0	-19.00000 -100.0
78	-252.00000 -40.4	0.00000 ---	0.00000 ---	-1.00000 -50.0	-122.00000 117.0
FA	ERC02R19A	ERC02R19B	ERC02R12	ERC02R15	ERC02R18
	ZACL	ZACL	ZACL	ZACL	ZACL
71	0.00000	0.00000	0.00000	0.00000	0.00000
72	0.00000 ---	0.00000 ---	0.00000 ---	0.00000 ---	0.00000 ---
73	0.00000 ---	0.00000 ---	0.00000 ---	300.00000 ---	0.00000 ---
74	0.00000 ---	0.00000 ---	0.00000 ---	205.00000 -5.0	-114.00000 ---
75	0.00000 ---	0.00000 ---	0.00000 ---	314.00000 10.7	-135.00000 10.4
76	0.00000 ---	0.00000 ---	0.00000 ---	324.00000 -3.2	-141.00000 4.4
77	0.00000 ---	0.00000 ---	0.00000 ---	309.00000 1.6	-154.00000 9.2
78	0.00000 ---	0.00000 ---	0.00000 ---	205.00000 -7.0	-203.00000 31.0
FA	ERC05R05	ERC05R10A	ERC05R10B	ERC05R05	ERC05R10A
	ZACL	ZACL	ZACL	ZACL	ZACL
71	0.00000	0.00000	0.00000	0.00000	0.00000
72	0.00000 ---	0.00000 ---	0.00000 ---	0.00000 ---	0.00000 ---
73	0.00000 ---	0.00000 ---	0.00000 ---	0.00000 ---	0.00000 ---
74	0.00000 ---	0.00000 ---	0.00000 ---	0.00000 ---	0.00000 ---
75	0.00000 ---	0.00000 ---	0.00000 ---	0.00000 ---	0.00000 ---
76	-6.00000 ---	0.00000 ---	0.00000 ---	30.00000 ---	0.00000 ---
77	-20.00000 303.3	0.00000 ---	0.00000 ---	-115.00000 -750.0	0.00000 ---
78	10.00000 -155.2	0.00000 ---	0.00000 ---	-65.00000 -56.4	0.00000 ---

FA	EBC07A100		EBC07A112		EBC07A104		EBC07A105		EBC07A107	
	IRCL		IRCL		IRCL		IRCL		IRCL	
71	0.00000		0.00000		-5.00000		0.00000		-597.00000	
72	0.00000	---	0.00000	---	0.00000	-100.0	0.00000	---	-639.00000	5.2
73	0.00000	---	0.00000	---	0.00000	---	0.00000	---	-842.00000	33.7
74	0.00000	---	0.00000	---	-1.00000	---	0.00000	---	-659.00000	-21.7
75	0.00000	---	0.00000	---	-7.00000	100.0	0.00000	---	-841.00000	27.6
76	0.00000	---	0.00000	---	-14.00000	100.0	-12.00000	---	-1683.00000	97.7
77	0.00000	---	0.00000	---	-39.00000	7.3	-43.00000	-50.0	-1943.00000	16.8
78	0.00000	---	0.00000	---	-12.00000	-20.0	177.00000	-919.6	-2493.00000	23.7
FA	EBC07A108		EBC07A110		EBC07A112		EBC07A114		EBC07A116	
	IRCL		IRCL		IRCL		IRCL		IRCL	
71	-1.00000		0.00000		0.00000		0.00000		-70.00000	
72	-1.00000	0.0	0.00000	---	0.00000	---	0.00000	---	0.00000	-100.0
73	-1.00000	0.0	0.00000	---	0.00000	---	0.00000	---	0.00000	---
74	-1.00000	0.0	0.00000	---	0.00000	---	0.00000	---	-37.00000	---
75	-1.00000	0.0	0.00000	---	0.00000	---	0.00000	---	-38.00000	2.7
76	-2.00000	100.0	0.00000	---	0.00000	---	0.00000	---	-78.00000	185.3
77	-5.00000	150.0	0.00000	---	0.00000	---	0.00000	---	-69.00000	-12.0
78	-7.00000	10.0	0.00000	---	0.00000	---	0.00000	---	-54.00000	-17.8
FA	EBC07A118		EBC07A120		EBC07A122		EBC07A124		EBC07A126	
	IRCL		IRCL		IRCL		IRCL		IRCL	
71	0.00000		-37.00000		-32.00000		0.00000		0.00000	
72	0.00000	---	-54.00000	33.5	-17.00000	41.7	0.00000	---	0.00000	---
73	0.00000	---	-46.00000	22.2	-28.00000	17.6	0.00000	---	0.00000	---
74	0.00000	---	-71.00000	7.8	-22.00000	10.0	0.00000	---	0.00000	---
75	0.00000	---	-41.00000	-7.0	-15.00000	-13.6	0.00000	---	0.00000	---
76	2.00000	---	-35.00000	-1.5	-17.00000	0.0	0.00000	---	0.00000	---
77	39.00000	3350.0	-59.00000	-9.2	-18.00000	-15.8	0.00000	---	0.00000	---
78	38.00000	-41.0	-47.00000	-16.9	-18.00000	12.5	0.00000	---	0.00000	---
FA	EBC07A130		EBC07A132		EBC07A134		EBC07A136		EBC07A138	
	IRCL		IRCL		IRCL		IRCL		IRCL	
71	124.00000		0.00000		0.00000		0.00000		255.00000	
72	42.00000	-59.0	0.00000	---	0.00000	---	0.00000	---	1370.00000	140.2
73	75.00000	21.0	0.00000	---	0.00000	---	0.00000	---	1047.00000	17.0
74	116.00000	51.7	0.00000	---	0.00000	---	0.00000	---	843.00000	-42.7
75	143.00000	23.3	0.00000	---	0.00000	---	0.00000	---	34.00000	-16.2
76	109.00000	25.9	0.00000	---	0.00000	---	0.00000	---	0.00000	-100.0
77	170.00000	-5.6	0.00000	---	0.00000	---	0.00000	---	0.00000	---
78	147.00000	-1.0	0.00000	---	0.00000	---	0.00000	---	0.00000	---
FA	EBC07A140		EBC07A142		EBC07A144		EBC07A146		EBC07A148	
	IRCL		IRCL		IRCL		IRCL		IRCL	
71	-242.00000		0.00000		-154.00000		0.00000		0.00000	
72	-220.00000	-14.0	0.00000	---	-102.00000	-33.0	0.00000	---	0.00000	---
73	-240.00000	92.7	0.00000	---	-115.00000	12.7	0.00000	---	0.00000	---
74	-305.00000	23.0	0.00000	---	-95.00000	-12.4	0.00000	---	0.00000	---
75	-234.00000	-23.3	0.00000	---	-345.00000	241.2	0.00000	---	0.00000	---
76	-292.00000	-19.7	-134.00000	---	-433.00000	25.9	0.00000	---	0.00000	---
77	-319.00000	47.3	147.00000	-247.7	-117.00000	0.3	0.00000	---	0.00000	---
78	-317.00000	-0.3	-191.00000	-229.9	-433.00000	34.0	0.00000	---	0.00000	---
FA	EBC07A150		EBC07A152		EBC07A154		EBC07A156		EBC07A158	
	IRCL		IRCL		IRCL		IRCL		IRCL	
71	0.00000		517.00000		0.00000		44.00000		0.00000	
72	0.00000	---	392.00000	-38.2	0.00000	---	43.00000	43.2	0.00000	---
73	0.00000	---	431.00000	12.8	0.00000	---	71.00000	12.7	0.00000	---
74	0.00000	---	412.00000	3.9	0.00000	---	59.00000	-22.5	0.00000	---
75	0.00000	---	345.00000	-23.0	0.00000	---	72.00000	39.9	0.00000	---
76	0.00000	---	339.00000	-1.7	0.00000	---	40.00000	-5.4	0.00000	---
77	0.00000	---	432.00000	42.2	0.00000	---	59.00000	-24.5	0.00000	---
78	0.00000	---	431.00000	-9.5	0.00000	---	54.00000	8.0	0.00000	---

FA	EBC07005		EBC07008		EBC07010		EBC07012	
	ZKCL		ZKCL		ZKCL		ZKCL	
71	0.00000		0.00000		0.00000	0.00000	0.00000	
72	0.00000		0.00000		0.00000	0.00000	0.00000	
73	0.00000		0.00000		0.00000	0.00000	0.00000	
74	0.00000		0.00000		0.00000	0.00000	0.00000	
75	0.00000		0.00000		0.00000	0.00000	0.00000	
76	-227.00000		0.00000		0.00000	0.00000	0.00000	
77	136.00000	-159.8	220.00000		0.00000	0.00000	0.00000	
78	40.00000	-70.6	1935.00000	760.9	0.00000	0.00000	0.00000	
FA	EBC07016		EBC07022		EBC07025		EBC07028	
	ZKCL		ZKCL		ZKCL		ZKCL	
71	0.00000		0.00000		0.00000	0.00000	0.00000	
72	0.00000		0.00000		0.00000	0.00000	0.00000	
73	0.00000		0.00000		0.00000	0.00000	0.00000	
74	0.00000		0.00000		0.00000	0.00000	0.00000	
75	0.00000		0.00000		0.00000	0.00000	0.00000	
76	0.00000		0.00000		-1.00000	17.00000	0.00000	
77	0.00000		11.00000		0.00000	176.00000	2495.3	
78	0.00000		0.00000	-43.6	0.00000	176.00000	41.6	0.00000
FA	EBC07030		EBC07032		EBC07035		EBC07038	
	ZKCL		ZKCL		ZKCL		ZKCL	
71	0.00000		0.00000		0.00000	0.00000	0.00000	
72	0.00000		42.00000		0.00000	0.00000	0.00000	
73	0.00000		26.00000	-38.1	0.00000	0.00000	0.00000	
74	0.00000		70.00000	167.2	0.00000	0.00000	0.00000	
75	0.00000		49.00000	-1.4	0.00000	0.00000	0.00000	
76	0.00000		53.00000	-23.2	-145.00000	0.00000	0.00000	
77	0.00000		41.00000	-22.6	272.00000	-207.6	0.00000	
78	0.00000		77.00000	87.6	-7.00000	-102.6	0.00000	0.00000
FA	EBC07039		EBC07040		EBC07042		EBC07043	
	ZKCL		ZKCL		ZKCL		ZKCL	
71	-144.00000		-2707.00000		0.00000	0.00000	0.00000	
72	-253.00000	54.3	-3961.00000	34.1	0.00000	0.00000	0.00000	
73	-273.00000	7.9	-5035.00000	27.1	0.00000	0.00000	0.00000	
74	-249.00000	-1.5	-4542.00000	-9.3	0.00000	0.00000	0.00000	
75	-191.00000	-27.9	-4252.00000	7.5	0.00000	0.00000	0.00000	
76	-1337.00000	507.2	-4742.00000	38.1	0.00000	0.00000	0.00000	
77	-5915.00000	275.1	-8911.00000	31.9	1537.00000	0.00000	0.00000	
78	-11610.00000	137.9	-7714.00000	-13.2	7553.00000	375.3	0.00000	-31.00000
FA	EBC07047		EBC07049		EBC07050		EBC07052	
	ZKCL		ZKCL		ZKCL		ZKCL	
71	0.00000		-173.00000		0.00000	-3.00000	0.00000	
72	0.00000		-159.00000	-0.1	0.00000	-3.00000	44.7	0.00000
73	0.00000		-193.00000	21.6	0.00000	-8.00000	20.0	0.00000
74	0.00000		-225.00000	16.6	0.00000	-8.00000	0.0	0.00000
75	0.00000		-244.00000	0.4	0.00000	-8.00000	0.0	0.00000
76	0.00000		-224.00000	-0.2	0.00000	-0.00000	33.3	0.00000
77	0.00000		-229.00000	2.2	0.00000	-7.00000	-12.5	0.00000
78	0.00000		-319.00000	52.0	0.00000	-7.00000	0.0	0.00000
FA	EBC07053							
	ZKCL							
71	0.00000							
72	0.00000							
73	0.00000							
74	0.00000							
75	0.00000							
76	0.00000							
77	0.00000							
78	0.00000							

FA	ELC16R10A	ELC16R10B	ELC16R10C	ELC65R15	ELC07AR15
	ZACL	ZACL	ZACL	ZACL	ZACL
71	0.00000	0.00000	41.00000	0.00000	
72	0.00000	0.00000	17.00000 -53.7	0.00000	-1.66751
73	0.00000	0.00000	5.00000 -73.7	0.00000	1.23182 -174.0
74	0.00000	0.00000	11.00000 128.0	0.00000	1.27821 5.2
75	0.00000	0.00000	11.00000 369.0	0.00000	0.85359 -10.1
76	0.00000	0.00000	36.00000 -18.2	0.00000	15.47029 1927.1
77	0.00000	0.00000	36.00000 0.0	0.00000	-0.17629 -191.1
78	0.00000	0.00000	36.00000 0.0	0.00000	2.62417 11111.0
FA	ELC07AR15	ELC16R12	ELC16R16	ELC115R12	ELC11AR16
	ZACL	ZACL	ZACL	ZACL	ZACL
71					0.90000
72	31.47222	10.41187	5.30593	11.82831	0.00000
73	0.78317 -97.7	11.78818 11.1	0.11483 -97.8	0.00000 -100.0	0.00000
74	5.45524 593.9	18.81816 42.8	3.13469 2429.8	1.89314	0.00000
75	1.81854 -79.9	10.34561 -49.3	-3.18288 -201.7	10.59227 977.6	0.00000
76	3.41299 210.7	3.32274 -86.9	-2.85460 -10.4	1.38276 -87.4	0.00000
77	2.47866 121.7	1.14307 -65.7	3.82276 -206.0	17.25316 1147.9	0.00000
78	4.98195 -10.0	3.46978 203.6	11.33576 274.4	7.45553 -55.6	0.00000
FA	ELC11AR16	ELC11AR12	ELC11AR15	ELC11AR12	FA958
	ZACL	ZACL	ZACL	ZACL	ZACL
71					12.50000
72	11.82831	0.55954	0.59359	-0.92976	14.00000 12.0
73	0.00000 -100.0	0.00000 -100.0	-0.59971 -177.2	0.59376 -165.0	18.00000 14.3
74	0.00000	-0.45168	2.42118 -159.4	0.53858 -10.8	17.00000 10.8
75	1.74124	-3.22746 814.5	0.47469 -77.8	-1.18331 -317.7	22.00000 15.3
76	1.28816 -85.8	-1.23854 -81.6	1.27937 171.6	-2.19257 65.3	25.00000 13.4
77	20.33218 1470.4	0.00000 -100.0	0.87465 -31.5	-1.49787 -22.5	25.00000 0.0
78	0.31435 -59.0	2.77895	4.61516 381.4	-4.18526 283.9	25.00000 6.0
FA	FA816PE731	FC80118	FC80048	FC801	FC678
	ZACL	ZACL	ZACL	ZACL	ZACL
71	44.31650	2.11669	325814.80000	10.00000	119.23250
72	20.50280 4.2	2.42869 12.8	335571.60000 21.5	10.00000 0.0	120.44720 0.8
73	100.40000 41.0	3.27879 32.4	188550.80000 23.5	11.50000 15.0	121.81500 2.5
74	124.78810 24.8	11.58009 251.1	581651.80000 2.7	13.00000 13.0	122.03300 4.0
75	125.55050 0.6	11.58009 0.0	478887.00000 -5.0	14.00000 23.1	122.11000 2.3
76	144.25660 16.5	12.38000 6.9	559387.00000 15.4	16.00000 12.5	135.17000 2.3
77	174.46130 19.2	12.37000 0.1	815149.80000 11.8	18.00000 0.0	138.14200 2.3
78	187.43550 7.5	12.76000 2.5	598845.80000 -3.6	19.00000 0.0	141.57700 2.3
FA	FC81818	FC81758	FC81758	FC81729	FC81729
	ZACL	ZACL	ZACL	ZACL	ZACL
71	33.33333	47.00000	444.26229	0.12746	0.01154
72	31.81667 10.0	54.00000 10.2	720.74974 8.5	0.10789 -17.4	0.01217 5.4
73	42.00000 14.5	47.00000 24.1	824.74923 14.4	0.10172 -5.0	0.02835 -31.4
74	59.33333 19.0	92.00000 37.3	853.91324 3.5	0.10246 0.7	0.01183 41.9
75	42.00000 23.2	100.00000 8.7	814.42000 -1.4	0.12759 25.9	0.02461 -61.1
76	74.66667 23.7	192.00000 2.0	915.14251 12.4	0.12407 -3.0	0.00327 -29.0
77	74.66667 0.0	181.00000 0.8	941.14182 5.4	0.14521 -2.1	0.00519 -87.9
78	74.66667 0.0	123.00000 12.8	1839.24230 4.7	0.12659 1.4	0.00978 97.7
FA	FC81809	FC81710	FC81710	FC81709	FC81709
	ZACL	ZACL	ZACL	ZACL	ZACL
71	0.00000	0.00000	0.00000	0.16970	0.00000
72	0.15138 -5.1	0.00000 1.5	0.05167 43.5	0.00000 -11.4	0.01241
73	0.14519 7.1	0.00000 13.8	0.03519 -29.5	0.00000 -69.3	0.00000 -52.9
74	0.17197 8.8	0.12023 25.2	0.04031 12.0	0.07552 139.2	0.00000 310.8
75	0.20034 11.3	0.13656 15.3	0.04739 17.4	0.07392 -2.1	0.00000 7.5
76	0.18115 -7.1	0.12389 -10.4	0.04776 1.3	0.12000 62.7	0.00000 -65.5
77	0.20519 10.2	0.14928 13.2	0.03870 -19.3	0.12374 2.9	0.00000 155.0
78	0.19149 -4.6	0.15247 8.7	0.04802 24.1	0.15182 22.7	0.00000 3.9

FA	TC10A07	TC10B07	ZC10A018A	ZC10B06	ZC10C10
	RECL	RECL	RECL	RECL	RECL
71	0.00064	0.33574	-0.20013	0.27027	0.14599
72	0.00049	0.45229	-0.21141	0.31575	0.15145
73	0.00062	0.51095	-0.22008	0.30586	0.15165
74	0.00133	0.42447	-0.20356	0.30879	0.19231
75	0.00239	0.35391	-0.20911	0.27769	0.17592
76	0.00184	0.37357	-0.21814	0.26693	0.15123
77	0.00174	0.32033	-0.21039	0.24762	0.15077
78	0.00181	0.29102	-0.20028	0.25346	0.03707

8-6-2 予測値一覧(1979年~1990年)

(i) 内生変数

FA	C6738		CF8		CF1738		CF738		EBC01801		EBC01804	
	1981	1982	1981	1982	1981	1982	1981	1982	1981	1982	1981	1982
78	1865.		14535.		241.		6755.		259.		186.	
79	1291.	21.2	17224.	22.9	284.	17.9	7291.	1.8	516.	111.4	516.	177.4
80	1425.	16.4	21979.	18.9	320.	12.7	7652.	6.3	710.	31.4	489.	33.3
81	1502.	13.9	24971.	19.9	359.	12.4	8117.	6.1	1023.	42.5	591.	41.4
82	1743.	13.4	29245.	17.4	419.	11.6	8684.	6.0	1439.	49.7	1457.	41.9
83	1949.	11.7	34325.	17.4	445.	11.3	9124.	6.9	1864.	29.5	1831.	39.4
84	2143.	8.8	40975.	16.8	472.	10.5	9485.	6.1	249.	-53.4	133.	-54.3
85	2344.	9.8	48593.	16.0	519.	9.3	10244.	6.0	1392.	49.9	1272.	51.7
86	2549.	9.8	53925.	15.7	592.	9.6	10973.	5.9	1759.	35.1	1729.	35.9
87	2821.	9.8	62232.	15.4	648.	9.5	11521.	6.0	2249.	27.8	2219.	24.3
88	3099.	9.9	71934.	15.4	709.	9.3	12213.	6.0	2779.	23.4	2749.	23.9
89	3340.	7.8	82754.	15.9	771.	8.7	12954.	6.1	3324.	19.4	3291.	19.8
90	3611.	8.1	94784.	14.5	835.	8.3	13729.	6.0	3878.	17.3	3868.	17.4
FA	EBC01807		EBC01811		EBC02803		EBC02804		EBC03802		EBC03803	
78	-74.		105.		-92549.		32482.		3659.		-11513.	
79	-275.	241.9	233.	121.9	-95992.	3.4	33522.	2.6	7075.	115.2	-15313.	33.0
80	-302.	39.8	218.	27.9	-96992.	-5.2	33922.	1.2	9374.	24.9	-15358.	0.4
81	-437.	65.0	319.	14.0	-95992.	5.5	31322.	1.2	12442.	24.5	-15422.	0.2
82	-442.	47.9	459.	31.9	-92452.	2.9	32722.	9.5	13446.	9.0	-14703.	2.4
83	-1321.	40.2	545.	10.0	-99341.	0.7	41197.	19.5	12977.	-0.9	-14924.	1.3
84	-344.	-74.0	497.	-3.4	-94911.	-2.5	45542.	0.4	14225.	9.4	-17425.	4.1
85	-777.	124.2	497.	0.0	-98111.	1.2	48542.	0.0	17449.	22.0	-17378.	-1.4
86	-1234.	50.0	497.	0.0	-91516.	-4.4	55552.	15.1	17271.	-1.1	-20487.	19.0
87	-1724.	39.7	497.	0.0	-92316.	0.9	55552.	0.0	20949.	21.3	-20472.	-1.4
88	-2254.	30.0	497.	0.0	-93196.	0.9	55552.	0.0	24979.	10.0	-20976.	-1.5
89	-2797.	24.2	497.	0.0	-93996.	0.9	55552.	0.0	28741.	16.3	-19784.	-1.5
90	-3373.	20.5	497.	0.0	-94594.	0.6	55552.	0.0	32254.	11.9	-18454.	-1.7
FA	EBC03804		EBC03805		EBC03808		EBC03807		EBC03808		EBC03809A	
78	-649.		44.		-2789.		-3399.		-25.		31471.	
79	-659.	6.7	0.	-149.0	-8229.	3.9	-3274.	6.7	-45.	89.0	32117.	3.7
80	-419.	4.2	0.	---	-4372.	-24.7	-3524.	6.9	-45.	0.0	33242.	1.2
81	-719.	3.0	0.	---	-3718.	-39.1	-3741.	6.7	-45.	0.0	33437.	1.2
82	-749.	6.0	0.	---	-3028.	3.2	-4310.	6.8	-45.	0.0	34846.	9.5
83	-835.	7.1	0.	---	-4242.	11.3	-4215.	4.9	-45.	0.0	44846.	19.6
84	-889.	5.4	0.	---	-3779.	-19.3	-5243.	24.9	-45.	0.0	47477.	0.2
85	-925.	3.1	0.	---	-334.	-91.2	-5117.	3.9	-45.	0.0	47477.	0.0
86	-975.	5.4	0.	---	-3679.	1041.9	-5444.	4.0	-45.	0.0	54374.	15.1
87	-1019.	5.4	0.	---	16.	-124.4	-5914.	4.0	-45.	0.0	54374.	0.0
88	-1079.	5.8	0.	---	4193.	6111.0	-4157.	4.1	-45.	0.0	54374.	0.0
89	-1153.	4.0	0.	---	8543.	162.7	-4410.	4.2	-45.	0.0	54374.	0.0
90	-1230.	4.5	0.	---	13449.	51.7	-4449.	4.3	-45.	0.0	54374.	0.0
FA	EBC03810		EBC03812A		EBC03810		EBC03811		EBC03812		EBC03813	
78	2412.		0.		0.		21239.		3030.		7413.	
79	2560.	-4.3	0.	---	0.	---	21110.	12.6	4178.	9.1	8458.	15.4
80	2650.	6.0	0.	---	0.	---	20231.	9.7	4549.	9.3	9312.	9.2
81	2730.	3.0	0.	---	0.	---	20971.	10.1	5159.	12.9	10247.	9.0
82	2750.	0.0	0.	---	0.	---	31745.	9.8	5659.	12.6	11143.	8.9
83	2750.	0.0	0.	---	0.	---	35211.	20.0	6415.	19.9	12154.	8.9
84	2750.	0.0	0.	---	0.	---	41141.	7.9	7165.	9.4	13112.	8.5
85	2750.	0.0	0.	---	0.	---	45311.	7.0	7734.	9.5	14298.	8.4
86	2750.	0.0	0.	---	0.	---	48124.	7.7	8454.	9.3	15402.	8.3
87	2750.	0.0	0.	---	0.	---	51701.	7.7	9237.	9.3	16753.	8.2
88	2750.	0.0	0.	---	0.	---	55431.	7.4	10372.	9.2	18117.	8.1
89	2750.	0.0	0.	---	0.	---	59401.	7.3	10944.	8.4	19543.	7.9
90	2750.	0.0	0.	---	0.	---	63977.	7.2	11859.	8.3	21057.	7.7

FA	EDC03R14	EDC03R15	EDC03R16	EDC04R02	EDC04R06	EDC04R09A
	TRCL	TRCL	TRCL	TRCL	TRCL	TRCL
78	8555.	923.	436.	3.	-119.	3742.
79	9477. 10.0	1890. 22.3	465. 6.6	453. 140.000	623. 455.0	3959. 5.0
80	10170. 10.7	1200. 7.8	455. 6.5	871. 105.0	876. 105.0	4097. 6.2
81	11552. 10.1	1345. 8.2	520. 6.5	1269. 57.1	1269. 57.1	4654. 9.2
82	12416. 9.6	1506. 8.7	563. 6.0	1579. 15.0	1579. 15.4	4441. 9.5
83	13036. 9.2	1603. 9.1	6220. 650.2	1363. -13.7	1363. -13.7	5312. 19.4
84	15015. 8.9	1759. 7.1	6250. 6.9	1633. 19.0	1633. 19.0	5747. 8.3
85	16354. 8.6	1893. 7.6	6399. 7.0	2392. 41.5	2392. 41.5	5747. 8.6
86	17249. 8.2	2011. 7.9	6342. 6.0	2339. -2.2	2339. -2.2	6416. 15.1
87	19116. 8.0	2211. 8.2	6389. 6.1	3217. 37.6	3217. 37.6	6416. 8.0
88	24510. 7.7	2196. 8.4	6439. 6.1	4162. 26.4	4162. 26.4	6416. 8.0
89	22147. 7.6	2537. 8.7	6390. 9.1	5189. 24.2	5189. 24.2	6416. 8.0
90	23701. 7.4	2730. 7.1	6541. 8.2	6241. 20.2	6241. 20.2	6416. 8.0
FA	EDC04R11	EDC04R13	EDC05R02	EDC05R04	EDC05R07A	EDC05R11
	TRCL	TRCL	TRCL	TRCL	TRCL	TRCL
78	3920.	3600.	652.	410.	25.	731.
79	4309. 11.6	4003. 12.0	1011. 55.1	776. 10.2	30. 10.6	826. 13.0
80	4070. 11.3	4570. 12.1	1936. 12.2	860. 19.4	51. 1.2	915. 10.7
81	5123. 11.2	5123. 11.0	1269. 41.9	959. 11.0	51. 1.2	1010. 10.4
82	6029. 11.0	5721. 11.7	1617. 11.7	1057. 10.3	56. 9.5	1113. 10.2
83	6674. 10.9	6378. 11.4	1569. 10.7	1159. 9.6	67. 10.6	1226. 10.1
84	7379. 10.6	7079. 11.1	1720. 7.6	1265. 9.1	72. 8.2	1337. 9.1
85	8130. 10.3	7830. 10.7	1884. 9.6	1384. 9.6	72. 8.0	1456. 8.9
86	8555. 10.0	8655. 10.4	2051. 8.9	1501. 8.5	83. 15.1	1585. 8.8
87	9033. 9.8	9533. 10.1	2245. 9.0	1640. 9.2	83. 8.0	1723. 8.7
88	10770. 9.6	10470. 9.9	2455. 9.3	1780. 9.1	83. 8.0	1873. 8.7
89	11705. 9.3	11405. 9.6	2689. 8.7	1939. 8.3	83. 8.0	2022. 8.0
90	12850. 9.1	12550. 9.3	2903. 8.8	2090. 8.2	83. 8.0	2181. 7.9
FA	EDC05R03	EDC05R15	EDC06R02	EDC06R06	EDC06R09A	EDC06R11
	TRCL	TRCL	TRCL	TRCL	TRCL	TRCL
78	672.	51.	870.	813.	6133.	1675.
79	741. 12.3	65. 21.2	2769. 230.7	2769. 245.2	6454. 5.2	1424. 11.2
80	812. 10.0	72. 10.4	3896. 31.2	3896. 31.2	6532. 1.2	16420. 10.7
81	930. 10.4	80. 11.0	4873. 25.1	4873. 25.1	6610. 1.2	11483. 10.1
82	1024. 10.1	89. 11.4	5367. 9.7	5367. 9.7	7249. 9.5	12580. 9.4
83	1121. 10.0	100. 11.7	5688. -4.9	5688. -4.9	8651. 11.6	13747. 9.3
84	1220. 9.1	109. 8.0	5690. 10.1	5690. 10.1	9310. 9.2	14960. 8.1
85	1319. 8.9	119. 7.4	6079. 22.0	6079. 22.0	9310. 8.0	16247. 9.3
86	1455. 8.7	130. 9.6	6792. -9.2	6792. -1.2	10701. 15.1	17503. 8.2
87	1509. 8.6	143. 9.8	8195. 20.6	8195. 20.6	10701. 9.0	18782. 8.0
88	1716. 8.4	157. 9.9	9613. 17.9	9613. 17.9	10701. 8.0	20450. 7.7
89	1853. 8.4	169. 7.0	10210. 14.0	10210. 14.0	10701. 8.0	21974. 7.6
90	1959. 7.8	183. 8.1	12020. 14.4	12020. 14.4	10701. 8.0	23615. 7.4
FA	EDC07R14	EDC07R12	EDC07R06	EDC07R09A	EDC07R11	EDC07R12
	TRCL	TRCL	TRCL	TRCL	TRCL	TRCL
78	8675.	2024.	2450.	4003.	4336.	1211.
79	9424. 11.2	3339. 65.0	3026. 30.5	4629. -5.3	5376. 24.0	1540. 17.3
80	10420. 10.7	3850. 16.5	3873. 16.5	4689. 1.2	5820. 8.4	1704. 17.4
81	11403. 10.1	4587. 10.0	4574. 10.1	4736. 1.2	6023. 10.2	1997. 17.2
82	12500. 9.6	4952. 7.9	4937. 7.9	5107. 9.5	7166. 10.0	2319. 16.4
83	13747. 9.2	4761. -3.8	4749. -3.8	6201. 19.6	7710. 9.2	2610. 12.1
84	14989. 8.9	5659. 6.2	5044. 6.2	6712. 8.2	8323. 7.1	2993. 10.9
85	16247. 8.5	5910. 17.6	5993. 17.0	6712. 9.0	8777. 7.9	3210. 10.1
86	17503. 8.2	5810. -1.7	5093. -1.7	7720. 15.1	10777. 7.0	3537. 10.2
87	18782. 8.0	6111. 14.9	6789. 17.0	7720. 9.0	10777. 7.0	3890. 10.0
88	20450. 7.7	7045. 15.6	7856. 15.6	7720. 9.0	10777. 7.0	4272. 9.8
89	21974. 7.6	6913. 13.3	8698. 10.3	7720. 9.0	10777. 7.0	4647. 8.8
90	23615. 7.4	10030. 12.5	10615. 12.6	7720. 9.0	12001. 7.0	5017. 8.1

FD	EBC07A13		EBC07A15		EBC07B02		EBC07B06		EBC07B09A		EBC07B11	
	IRCL		IRCL		IRCL		IRCL		IRCL		IRCL	
78	2487.		579.		6.		38.		1538.		1401.	
79	3135.	18.7	792.	21.2	51.	---	-9.	-123.1	1197.	-2.7	1411.	6.1
80	3318.	6.8	775.	10.4	125.	141.8	69.	-784.6	1515.	1.2	1587.	6.1
81	3564.	8.5	819.	11.9	261.	168.1	174.	224.4	1533.	1.2	1660.	10.2
82	3788.	6.3	559.	11.4	288.	18.5	223.	14.0	1879.	9.3	1834.	19.3
83	4924.	6.2	1071.	11.7	133.	-57.9	83.	-78.8	2689.	19.6	2683.	9.2
84	4255.	5.7	1165.	8.8	133.	-8.1	43.	-0.2	2173.	8.2	2167.	8.2
85	6493.	5.6	1274.	9.4	315.	137.6	245.	289.4	2173.	8.6	2349.	8.4
86	4743.	5.6	1397.	9.6	185.	-41.2	115.	-51.0	2592.	15.1	2518.	8.5
87	5041.	5.6	1533.	9.8	416.	119.4	336.	191.9	2502.	8.0	2749.	8.7
88	5293.	5.7	1685.	9.9	453.	69.6	583.	73.2	2592.	8.0	3016.	8.9
89	5575.	5.9	1814.	7.8	183.	37.8	839.	42.1	2582.	8.0	3241.	8.2
90	5871.	5.3	1943.	8.1	1176.	39.0	1169.	32.6	2592.	8.0	3533.	8.3

FD	EBC07B12		EBC07B15		EBC07B02		EBC07B04		EBC07B05		EBC07B06	
	IRCL		IRCL		IRCL		IRCL		IRCL		IRCL	
78	1189.		51.		2924.		-49.		415.		2439.	
79	1174.	-0.5	65.	21.2	3398.	47.5	-25.	10.3	0.	-189.9	3315.	35.9
80	1254.	6.8	72.	18.4	4914.	18.4	-89.	4.7	0.	---	3934.	18.7
81	1440.	15.4	89.	11.8	4550.	20.8	-69.	0.8	0.	---	4270.	21.3
82	1544.	11.8	89.	11.4	5249.	8.0	-69.	0.0	0.	---	5164.	8.2
83	1723.	10.1	109.	11.7	4997.	-6.5	-85.	8.3	0.	---	4612.	-6.7
84	1878.	9.0	169.	9.8	5192.	8.0	-85.	0.0	0.	---	5187.	6.1
85	2059.	9.2	119.	9.4	4233.	20.1	-85.	0.8	0.	---	6148.	20.4
86	2239.	9.2	139.	9.6	6903.	-2.7	-85.	0.0	0.	---	5918.	-3.7
87	2406.	9.3	143.	8.8	7210.	28.1	-85.	0.0	0.	---	7125.	29.4
88	2479.	9.5	157.	9.9	8518.	18.1	-85.	0.0	0.	---	8433.	18.4
89	2613.	8.8	161.	7.8	9812.	13.2	-85.	0.4	0.	---	9227.	15.3
90	3170.	8.8	183.	8.1	11260.	14.1	-85.	0.0	0.	---	11115.	14.3

FD	EBC07B07		EBC07B08		EBC07B09A		EBC07B11		EBC07B12		EBC07B13	
	IRCL		IRCL		IRCL		IRCL		IRCL		IRCL	
78	-2452.		-25.		4421.		5737.		2471.		2697.	
79	-2594.	5.9	-45.	10.0	4122.	-1.7	4755.	18.4	2713.	9.8	3115.	21.4
80	-2747.	5.9	-45.	0.0	4195.	1.2	7335.	7.9	2769.	9.1	3528.	6.4
81	-2911.	5.9	-45.	0.0	6249.	1.2	8183.	10.2	3198.	14.8	3744.	6.1
82	-3083.	5.9	-45.	0.0	6847.	9.5	8859.	10.1	3823.	14.3	3968.	4.0
83	-3265.	5.9	-45.	0.0	8213.	19.6	9715.	9.2	4349.	11.8	4261.	5.9
84	-3459.	5.9	-45.	0.0	8595.	8.2	10498.	8.0	4781.	10.2	4435.	5.5
85	-3662.	5.9	-45.	0.0	8825.	8.0	11326.	8.0	5269.	10.0	4673.	5.4
86	-3879.	5.9	-45.	0.0	10230.	15.1	12225.	7.9	5775.	9.8	4923.	5.4
87	-4107.	5.9	-45.	0.0	10230.	0.0	13292.	8.0	6336.	9.7	5187.	5.4
88	-4352.	5.9	-45.	0.0	10230.	0.0	14244.	8.1	6551.	9.7	5473.	5.5
89	-4611.	5.9	-45.	0.0	10230.	0.0	15392.	7.3	7542.	8.8	5755.	5.2
90	-4881.	5.9	-45.	0.0	10230.	0.0	16416.	7.3	8219.	8.7	6551.	5.1

FD	EBC07B14		EBC07B15		EBC08B03		EBC08B04		EBC08B09A		EBC08B11	
	IRCL		IRCL		IRCL		IRCL		IRCL		IRCL	
78	0.		579.		-411.		-893.		4842.		1651.	
79	0.	---	747.	32.5	-1015.	244.3	-1755.	191.8	4392.	-9.7	1937.	4.6
80	0.	---	847.	18.4	-1247.	-11.7	-1589.	-9.4	4144.	1.2	2183.	7.1
81	0.	---	940.	11.0	-1874.	-14.0	-1414.	-11.0	4197.	1.2	2239.	7.3
82	0.	---	1048.	11.4	-1258.	14.7	-1591.	12.7	4724.	9.5	2397.	7.4
83	0.	---	1171.	11.7	-2024.	41.4	-2181.	40.5	5892.	19.4	2525.	7.4
84	0.	---	1274.	8.8	-1425.	-27.2	-1813.	-23.3	6374.	8.2	2754.	7.0
85	0.	---	1393.	9.4	-1284.	-13.9	-1424.	-10.5	6374.	8.0	2945.	6.9
86	0.	---	1527.	9.4	-2044.	59.2	-2384.	45.8	7337.	15.1	3154.	6.9
87	0.	---	1674.	9.8	-1824.	-18.8	-2164.	-9.2	7337.	8.0	3379.	7.0
88	0.	---	1842.	9.9	-1589.	-13.0	-1920.	-18.9	7337.	8.0	3697.	7.0
89	0.	---	1985.	7.8	-4349.	-15.1	-1689.	-12.4	7337.	8.0	3844.	4.4
90	0.	---	2146.	8.1	-1814.	-18.9	-1430.	-15.1	7337.	8.0	4160.	4.6

FA	EBC06812		EBC07803		EBC09806		EBC09807A		EBC09810		EBC10803	
	IRCL		IRCL		IRCL		IRCL		IRCL		IRCL	
70	1360.		-2227.		-2197.		1101.		0.		-657.	
77	1429.	5.1	-2678.	10.1	-2478.	32.5	870.	-10.0	0.	---	-677.	-27.7
80	1569.	9.8	-2789.	0.4	-2789.	0.4	989.	1.2	0.	---	-614.	20.1
81	1719.	9.5	-2920.	0.4	-2920.	0.4	920.	1.2	0.	---	-763.	11.5
82	1879.	9.3	-3080.	3.0	-3080.	3.0	1080.	9.5	0.	---	-677.	-1.0
83	2033.	9.3	-85.	-97.2	415.	-113.0	1265.	17.6	3620.	4.---	-696.	-9.1
84	2228.	0.5	-184.	115.9	316.	-23.0	1380.	0.2	3620.	0.0	-689.	-1.1
85	2414.	0.4	-184.	0.0	316.	0.0	1380.	0.0	3620.	0.0	-673.	-2.2
86	2611.	0.3	-381.	107.4	119.	-62.4	1501.	15.1	3620.	0.0	-669.	-9.5
87	2828.	0.2	-381.	0.0	119.	0.0	1501.	0.0	3620.	0.0	-652.	-2.0
88	3039.	0.2	-381.	0.0	119.	0.0	1501.	0.0	3620.	0.0	-632.	-2.9
89	3294.	7.6	-381.	0.0	119.	0.0	1501.	0.0	3620.	0.0	-667.	-3.2
89	3542.	7.5	-381.	0.0	119.	0.0	1501.	0.0	3620.	0.0	-590.	-3.5

FA	EBC10803C		EBC10807A		EBC10811		EBC10812		EBC10814		EBC108203	
	IRCL		IRCL		IRCL		IRCL		IRCL		IRCL	
70	-452.		58.		89.		32.		40.		-8210.	
79	-171.	-27.0	49.	3.1	89.	11.1	35.	9.9	54.	12.0	-10525.	28.1
80	-410.	27.6	61.	1.2	100.	12.6	39.	9.0	62.	14.5	-10129.	1.0
81	-497.	14.6	61.	1.2	112.	11.0	42.	9.4	70.	13.1	-10724.	0.9
82	-613.	-1.0	67.	9.5	125.	11.3	47.	9.9	78.	12.1	-11255.	1.6
83	-692.	-0.1	69.	19.6	138.	11.0	51.	10.1	87.	11.5	-11117.	26.1
84	-894.	-1.9	87.	0.2	153.	10.5	58.	9.5	97.	11.1	-13278.	0.2
85	-657.	-2.2	87.	0.0	168.	10.0	62.	9.5	107.	10.4	-15237.	-0.3
86	-865.	-0.5	109.	15.1	185.	9.0	67.	9.6	117.	9.9	-17592.	15.5
87	-848.	-2.7	109.	0.0	202.	9.6	74.	9.7	128.	9.5	-17545.	-0.3
88	-820.	-3.0	109.	0.0	222.	9.5	81.	9.8	141.	9.3	-17495.	-0.3
89	-868.	-3.2	109.	0.0	242.	9.2	89.	9.3	157.	9.2	-17464.	-0.3
89	-586.	-3.6	109.	0.0	264.	0.9	97.	9.3	167.	0.7	-17390.	-0.3

FA	EBC10816		EBC10807A		EBC10811		EBC10816		EBC10802		EBC10803	
	IRCL		IRCL		IRCL		IRCL		IRCL		IRCL	
70	-8147.		9320.		436.		434.		81.		-8075.	
79	-10410.	20.2	10933.	12.1	465.	6.6	465.	6.6	81.	0.0	-11000.	23.0
80	-10510.	1.0	11041.	0.2	495.	6.5	495.	6.5	81.	0.0	-11210.	2.2
81	-10817.	0.9	11125.	1.2	520.	6.5	520.	6.5	81.	0.0	-11420.	1.7
82	-11470.	9.7	12241.	9.5	563.	6.4	563.	6.6	81.	0.0	-12452.	9.4
83	-11810.	20.2	14540.	17.6	600.	6.7	600.	6.7	81.	0.0	-14813.	19.0
84	-15201.	0.3	15839.	0.2	638.	6.3	638.	6.3	81.	0.0	-15764.	7.0
85	-15140.	-0.3	15839.	0.0	678.	6.3	678.	6.3	81.	0.0	-15110.	-0.3
86	-17515.	15.5	18237.	15.1	722.	6.4	722.	6.4	81.	0.0	-18241.	11.0
87	-17468.	-0.3	18237.	0.0	749.	6.5	749.	6.5	81.	0.0	-18197.	-0.1
88	-17410.	-0.3	18237.	0.0	819.	6.5	819.	6.5	81.	0.0	-18127.	-0.1
89	-17367.	-0.3	18237.	0.0	870.	6.2	870.	6.2	81.	0.0	-18055.	-0.1
89	-17313.	-0.3	18237.	0.0	924.	6.2	924.	6.2	81.	0.0	-17981.	-0.1

FA	EBC10805		EBC10806		EBC10805A		EBC10805B		EBC10810A		EBC10810B	
	IRCL		IRCL		IRCL		IRCL		IRCL		IRCL	
70	-7.		-8759.		9370.		674.		-1.		0.	
79	0.	-100.0	-10919.	24.1	10722.	17.9	560.	-25.0	0.	-100.0	0.	---
80	0.	---	-11159.	2.2	11104.	1.2	650.	30.0	0.	---	0.	---
81	0.	---	-11347.	1.7	11236.	1.2	750.	15.4	0.	---	0.	---
82	0.	---	-12371.	9.0	12308.	9.5	750.	0.0	0.	---	0.	---
83	0.	---	-14232.	19.1	14721.	19.6	750.	0.0	0.	---	0.	---
84	0.	---	-15465.	7.0	15924.	0.2	750.	0.0	0.	---	0.	---
85	0.	---	-15828.	-0.4	15924.	0.0	750.	0.0	0.	---	0.	---
86	0.	---	-18100.	14.0	18137.	15.1	750.	0.0	0.	---	0.	---
87	0.	---	-18116.	-0.4	18137.	0.0	750.	0.0	0.	---	0.	---
88	0.	---	-18146.	-0.4	18137.	0.0	750.	0.0	0.	---	0.	---
89	0.	---	-17925.	-0.1	18137.	0.0	750.	0.0	0.	---	0.	---
89	0.	---	-17900.	-0.1	18137.	0.0	750.	0.0	0.	---	0.	---

FA	EBC10R11		EBC10R12		EBC10R14		EBC10R16		EBC11AR01		EBC11AR08	
	IRCL		IRCL	IRCL	IRCL	IRCL	IRCL	IRCL	IRCL	IRCL	IRCL	IRCL
78	518.		32.		49.		436.		39327.		39327.	
79	554.	7.3	35.	9.9	54.	12.6	465.	4.4	29859.	-1.4	29859.	-3.4
80	595.	7.5	39.	9.8	62.	14.5	455.	6.5	33766.	13.6	33766.	13.4
81	618.	7.4	42.	9.8	70.	13.1	528.	6.5	34444.	1.4	34444.	1.1
82	497.	7.4	47.	1.9	78.	12.1	563.	4.6	41431.	20.3	41431.	20.3
83	739.	7.5	51.	19.1	87.	11.5	658.	6.7	59775.	22.6	59775.	22.6
84	781.	7.4	56.	9.5	97.	11.4	638.	6.3	48976.	18.3	48976.	18.3
85	817.	7.1	62.	9.5	107.	10.4	479.	6.3	65513.	0.7	65513.	0.7
86	997.	7.1	67.	9.4	117.	9.9	722.	6.4	65955.	0.8	65955.	0.8
87	978.	7.1	74.	9.7	128.	9.5	769.	6.5	61529.	0.9	61529.	0.9
88	1045.	7.2	81.	9.8	149.	9.3	819.	6.5	42123.	1.0	42123.	1.0
89	1192.	6.8	87.	9.3	153.	9.2	870.	6.2	42748.	1.0	42748.	1.0
90	1107.	6.8	97.	9.3	167.	8.7	924.	6.2	63415.	1.1	63415.	9.1

FA	EBC11AR08		EBC11AR10		EBC11AR11		EBC11AR12		EBC11AR14		EBC11AR16	
	IRCL		IRCL	IRCL	IRCL	IRCL	IRCL	IRCL	IRCL	IRCL	IRCL	IRCL
78	-45.		-8500.		2225.		1139.		2.		1004.	
79	-54.	29.3	-4485.	-17.2	2416.	9.9	1252.	9.9	2.	6.6	1192.	9.9
80	-54.	0.2	-5655.	13.6	2684.	9.8	1375.	9.8	2.	6.3	1359.	9.8
81	-54.	0.3	-5147.	1.4	2749.	9.8	1519.	9.8	2.	6.1	1437.	9.8
82	-55.	0.3	-4215.	29.3	3242.	9.9	1649.	9.9	3.	6.0	1539.	9.9
83	-55.	0.3	-7416.	22.6	3568.	10.1	1827.	10.1	3.	6.0	1739.	10.1
84	-55.	0.3	-9111.	18.3	3937.	9.5	2039.	9.5	3.	6.1	1919.	9.5
85	-55.	0.3	-1977.	0.7	4278.	9.5	2180.	9.5	3.	6.0	2155.	9.5
86	-55.	0.3	-1149.	0.8	4589.	9.6	2490.	9.6	3.	5.9	2284.	9.6
87	-55.	0.3	-1229.	0.1	5142.	9.7	2633.	9.7	3.	6.0	2506.	9.7
88	-56.	0.4	-9318.	1.0	5643.	9.8	2671.	9.8	4.	6.0	2751.	9.8
89	-56.	0.4	-9411.	1.0	6170.	9.3	3159.	9.3	4.	6.1	3907.	9.3
90	-56.	0.4	-9512.	1.1	6744.	9.3	3653.	9.3	4.	6.0	3266.	9.3

FA	EBC11R03		EBC11R04		EBC11R18		EBC11R11		EBC11R14		EBC11R01	
	IRCL		IRCL	IRCL	IRCL	IRCL	IRCL	IRCL	IRCL	IRCL	IRCL	IRCL
78	-7519.		-7519.		28.		14.		14.		39327.	
79	-11146.	18.2	-11146.	18.2	9.	-54.3	2.	-84.8	2.	-84.8	29859.	-1.4
80	-13891.	24.6	-13891.	24.6	9.	9.5	2.	6.3	2.	6.3	33766.	13.6
81	-13921.	0.2	-13921.	0.2	9.	1.5	2.	6.1	2.	6.1	34444.	1.4
82	-19881.	36.5	-19881.	36.5	10.	1.5	3.	6.0	3.	6.0	41431.	20.3
83	-25858.	36.1	-25858.	36.1	10.	1.6	3.	6.0	3.	6.0	59775.	22.6
84	-32666.	26.3	-32666.	26.3	10.	1.7	3.	6.1	3.	6.1	48976.	18.3
85	-32666.	0.0	-32666.	0.0	10.	1.7	3.	6.0	3.	6.0	65513.	0.7
86	-32666.	0.0	-32666.	0.0	10.	1.8	3.	5.9	3.	5.9	65955.	0.8
87	-32666.	0.0	-32666.	0.0	10.	1.9	3.	6.0	3.	6.0	61529.	0.9
88	-32666.	0.0	-32666.	0.0	11.	2.0	4.	6.0	4.	6.0	42123.	1.0
89	-32666.	0.0	-32666.	0.0	11.	2.1	4.	6.1	4.	6.1	42748.	1.0
90	-32666.	0.0	-32666.	0.0	11.	2.1	4.	6.0	4.	6.0	63415.	1.1

FA	EBC11R03		EBC11R04		EBC11R08		EBC11R29		EBC11R18	
	IRCL		IRCL	IRCL	IRCL	IRCL	IRCL	IRCL	IRCL	IRCL
78	-7519.		22818.		29.		-4335.		6550.	
79	-11146.	18.2	18753.	-37.8	-45.	-325.0	-4329.	-7.3	-4465.	-352.8
80	-13891.	24.6	24975.	7.0	-45.	0.0	-4372.	11.7	-5655.	13.6
81	-13921.	0.2	26525.	2.2	-45.	0.0	-4186.	2.5	-5187.	1.4
82	-19881.	36.5	22439.	9.3	-45.	0.0	-5171.	12.3	-6215.	29.3
83	-25858.	36.1	24119.	11.1	-45.	0.0	-5932.	10.7	-7416.	22.6
84	-32666.	26.3	27410.	10.0	-45.	0.0	-6587.	12.8	-9111.	18.3
85	-32666.	0.0	27847.	1.4	-45.	0.0	-6489.	0.0	-1977.	0.7
86	-32666.	0.0	28329.	1.7	-45.	0.0	-6499.	0.0	-1149.	0.8
87	-32666.	0.0	28843.	1.9	-45.	0.0	-6467.	0.0	-1229.	0.9
88	-32666.	0.0	29457.	2.1	-45.	0.0	-6487.	0.0	-9318.	1.0
89	-32666.	0.0	30074.	2.4	-45.	0.0	-6489.	0.0	-9411.	1.0
90	-32666.	0.0	30717.	2.2	-45.	0.0	-6489.	0.0	-9512.	1.1

FA	EDC11R100	EDC11R11	EDC11R12	EDC11R14	EDC11R16	EDC12R1
	IRCL	IRCL	IRCL	IRCL	IRCL	IRCL
78	-7721.	2339.	1139.	16.	1014.	0.
79	-7755. 0.4	2410. 9.1	1252. 9.9	4. -73.3	1192. 9.9	0. ---
80	-7755. 0.0	2469. 9.8	1375. 9.8	5. 6.3	1309. 9.8	0. ---
81	-7755. 0.0	2552. 9.8	1510. 9.8	5. 6.1	1437. 9.8	0. ---
82	-7755. 0.0	3244. 9.9	1639. 9.9	5. 6.0	1589. 9.9	0. ---
83	-7755. 0.0	3571. 10.1	1827. 10.1	5. 6.0	1737. 10.1	0. ---
84	-7755. 0.0	3909. 9.5	2060. 9.5	6. 6.1	1904. 9.5	0. ---
85	-7755. 0.0	4281. 9.5	2199. 9.5	6. 6.0	2085. 9.5	0. ---
86	-7755. 0.0	4591. 9.6	2409. 9.6	6. 5.9	2284. 9.6	0. ---
87	-7755. 0.0	5145. 9.7	2633. 9.7	7. 6.0	2501. 9.7	0. ---
88	-7755. 0.0	5549. 9.8	2891. 9.8	7. 6.0	2731. 9.8	0. ---
89	-7755. 0.0	6174. 9.3	3159. 9.3	8. 6.1	3007. 9.3	0. ---
90	-7755. 0.0	6748. 9.3	3453. 9.3	8. 6.0	3286. 9.3	0. ---

FA	EDC12R06	EDC12R08	EDC13R01	EDC13R06	EDC13R10	EDC13R16
	IRCL	IRCL	IRCL	IRCL	IRCL	IRCL
78	0.	0.	1241.	1241.	-893.	1697.
79	0. ---	0. ---	1423. 14.5	1423. 14.5	-1022. 14.5	3970. -9.9
80	0. ---	0. ---	1897. 27.9	1897. 27.9	-1397. 27.9	4415. 13.2
81	0. ---	0. ---	1867. 2.8	1867. 2.8	-1344. 2.8	4924. 11.5
82	0. ---	0. ---	1834. 1.0	1881. 0.0	-1357. 0.0	5489. 11.5
83	0. ---	0. ---	1900. 5.0	1900. 5.0	-1424. 5.0	6091. 11.0
84	0. ---	0. ---	3919. 98.0	3919. 98.0	-2020. 98.0	6785. 13.1
85	0. ---	0. ---	3937. 0.5	3937. 0.5	-2033. 0.5	7313. 9.4
86	0. ---	0. ---	3955. 0.5	3955. 0.5	-2040. 0.5	8027. 9.2
87	0. ---	0. ---	3973. 0.5	3973. 0.5	-2059. 0.4	8752. 9.0
88	0. ---	0. ---	3991. 0.5	3991. 0.5	-2072. 0.5	9531. 8.9
89	0. ---	0. ---	4012. 0.5	4012. 0.5	-2087. 0.5	10310. 8.5
90	0. ---	0. ---	4030. 0.5	4030. 0.5	-2100. 0.5	11192. 8.2

FA	EDC14R07	EDC14R08	EDC14R10	EDC14R12	EDC14R14	EDC14R15
	IRCL	IRCL	IRCL	IRCL	IRCL	IRCL
78	1117.	-151.	923.	574.	302.	47.
79	1191. 8.6	-179. 14.0	1012. 9.7	461. 15.4	292. -3.5	52. 31.2
80	1325. 11.2	-199. 11.2	1120. 11.7	747. 12.5	316. 0.1	69. 11.1
81	1474. 11.5	-221. 11.5	1255. 11.5	843. 12.9	342. 0.2	79. 11.4
82	1647. 11.5	-247. 11.5	1409. 11.5	952. 12.9	370. 0.1	79. 11.4
83	1827. 11.0	-274. 11.0	1553. 11.0	1044. 12.0	400. 0.1	87. 11.7
84	2012. 10.1	-302. 10.1	1710. 10.1	1103. 10.9	433. 0.2	95. 8.0
85	2205. 9.4	-331. 9.4	1874. 9.4	1303. 10.2	458. 0.0	103. 9.4
86	2418. 9.2	-361. 9.2	2047. 9.2	1429. 9.7	505. 0.0	113. 9.0
87	2474. 9.0	-384. 9.0	2232. 9.0	1502. 9.3	545. 0.0	121. 9.0
88	2459. 8.9	-429. 8.9	2430. 8.9	1711. 9.1	589. 0.1	137. 9.9
89	3192. 8.5	-465. 8.5	2637. 8.5	1951. 8.6	630. 0.2	147. 7.0
90	3350. 8.2	-504. 8.2	2859. 8.2	2080. 8.3	689. 0.0	159. 8.1

FA	EDC15R01	EDC15R02	EDC15R03	EDC15R04	EDC15R05	EDC15R06
	IRCL	IRCL	IRCL	IRCL	IRCL	IRCL
78	151404.	5883.	-111429.	-689.	-520.	49129.
79	155864. 2.4	14019. 42.7	-122391. 9.6	-450. 6.7	0. -100.4	44124. -1.1
80	155160. 0.0	16220. 15.0	-120221. -1.0	-490. 6.2	0. ---	56139. 9.3
81	169331. 4.0	18666. 15.1	-125275. 4.2	-730. 5.0	0. ---	53197. 7.1
82	174258. 8.3	19890. 8.6	-130394. 7.3	-700. 6.0	0. ---	51419. 10.0
83	184119. 6.7	23445. 27.9	-142171. 5.0	-835. 7.1	0. ---	49150. 11.0
84	192883. 6.1	24873. 4.0	-147227. 3.8	-890. 5.1	0. ---	74930. 10.0
85	159952. 1.1	21316. 12.2	-140100. 0.6	-925. 5.1	0. ---	81761. 5.0
86	201710. 0.9	29749. -9.7	-141979. -2.2	-975. 5.1	0. ---	85175. 5.0
87	203551. 0.9	33394. 12.1	-145194. 0.4	-1030. 3.6	0. ---	88923. 5.0
88	205493. 1.0	37327. 11.0	-148980. 0.3	-1070. 5.0	0. ---	94241. 5.0
89	207470. 1.0	40389. 10.9	-151170. 0.3	-1155. 6.0	0. ---	101732. 5.0
90	209343. 0.9	45702. 10.1	-151740. 0.2	-1230. 6.5	0. ---	107547. 5.0

FA	EBC15R07		EBC15R08		EBC15R09A		EBC15R09B		EBC15R10A		EBC15R10B	
	IRCL		IRCL		IRCL		IRCL		IRCL		IRCL	
78	-3289.		-8.		-351.		-1721.		-8800.		-7875.	
79	-3881.	15.6	-78.	2150.0	-423.	19.4	-1520.	-81.8	-4745.	-41.1	-7931.	0.7
80	-4310.	15.7	-78.	0.0	-428.	1.2	-1842.	21.2	-5355.	12.9	-2154.	0.3
81	-4789.	0.9	-98.	0.0	-433.	1.2	-1856.	0.8	-5427.	1.3	-2776.	0.3
82	-5189.	0.6	-98.	0.0	-474.	9.5	-2421.	39.4	-6175.	19.3	-8092.	0.3
83	-5888.	9.4	-98.	0.0	-567.	19.6	-3182.	31.8	-7876.	21.6	-8929.	0.3
84	-7518.	32.1	-98.	0.0	-613.	8.2	-3939.	23.8	-9271.	17.7	-8557.	9.3
85	-7977.	6.2	-98.	0.0	-613.	0.0	-3939.	0.0	-9337.	0.7	-8126.	0.4
86	-8465.	6.1	-98.	0.0	-701.	15.1	-3939.	0.0	-9489.	0.8	-8116.	0.4
87	-8985.	6.1	-98.	0.0	-701.	0.0	-3939.	0.0	-9489.	0.9	-8149.	0.4
88	-9583.	6.2	-98.	0.0	-786.	0.0	-3939.	0.0	-9578.	0.9	-8124.	0.4
89	-10125.	6.1	-98.	0.0	-786.	0.0	-3939.	0.0	-9671.	1.0	-8220.	0.4
90	-10735.	6.0	-98.	0.0	-786.	0.0	-3939.	0.0	-9772.	1.0	-8259.	0.5

FA	EBC15R11		EBC15R12		EBC15R13		EBC15R14		EBC15R15		EBC15R16	
	IRCL		IRCL		IRCL		IRCL		IRCL		IRCL	
78	24509.		5594.		7472.		8873.		1020.		1547.	
79	27412.	12.7	4248.	11.6	8881.	15.9	9773.	10.1	1247.	22.2	8697.	9.9
80	30313.	9.9	6117.	18.8	9339.	9.0	16616.	18.4	1343.	7.7	1834.	8.7
81	33421.	10.2	7739.	12.8	10278.	8.9	11859.	18.1	1455.	8.3	1915.	9.8
82	36618.	16.1	8828.	13.2	11185.	8.8	13840.	9.6	1581.	8.8	2172.	8.9
83	41926.	19.3	9291.	19.9	12176.	8.9	14239.	9.2	1730.	9.2	5789.	175.7
84	47416.	6.0	10701.	9.3	13196.	8.4	15584.	8.9	1854.	7.2	6192.	3.4
85	51222.	8.0	16883.	9.2	14992.	8.1	16827.	8.5	1977.	7.7	6413.	3.6
86	55250.	7.9	12738.	9.4	15124.	8.3	18212.	8.2	2157.	8.0	6657.	3.8
87	59565.	7.8	13886.	9.4	16757.	8.2	19662.	8.0	2335.	8.3	6724.	4.0
88	64281.	7.8	15149.	9.4	18121.	8.1	21187.	7.8	2513.	8.5	7229.	4.3
89	68981.	7.1	16418.	8.1	19547.	7.9	22795.	7.5	2704.	6.8	7527.	4.2
90	74816.	7.1	17728.	8.3	21881.	7.7	24679.	7.1	2897.	7.1	7819.	4.1

FA	EBC16R03		EBC16R04		EBC16R05		EBC16R06		EBC16R07		EBC17R01	
	IRCL		IRCL		IRCL		IRCL		IRCL		IRCL	
78	39492.		31192.		31192.		4288.		33188.		195894.	
79	49278.	2.0	49278.	2.0	49278.	2.0	4288.	-31.8	35954.	9.4	175311.	2.3
80	62551.	5.6	42551.	5.6	42551.	5.6	3820.	-15.4	36893.	8.2	197652.	4.2
81	45078.	5.9	45078.	5.9	45078.	5.9	3021.	-14.5	42021.	8.0	268414.	4.1
82	47818.	4.3	47818.	4.3	47818.	4.3	2592.	-17.2	43357.	7.9	212651.	7.9
83	51477.	6.5	51477.	6.5	51477.	6.5	2013.	-17.6	46128.	7.9	237446.	6.6
84	54585.	7.0	54585.	7.0	54585.	7.0	1710.	-13.2	52758.	7.8	252448.	6.3
85	58418.	7.1	58418.	7.1	58418.	7.1	1537.	-14.1	54873.	7.8	258456.	2.4
86	62650.	7.2	62650.	7.2	62650.	7.2	1317.	-14.4	61297.	7.8	261359.	2.3
87	67217.	7.3	67217.	7.3	67217.	7.3	1124.	-14.7	64057.	7.8	270768.	2.1
88	72174.	7.1	72174.	7.1	72174.	7.1	957.	-14.8	71881.	7.8	277647.	2.5
89	77568.	7.5	77568.	7.5	77568.	7.5	846.	-11.6	76693.	7.8	285656.	2.7
90	83419.	7.5	83419.	7.5	83419.	7.5	743.	-12.2	82619.	7.7	292762.	2.7

FA	EBC17R02		EBC17R03		EBC17R04		EBC17R05		EBC17R06		EBC17R07	
	IRCL		IRCL		IRCL		IRCL		IRCL		IRCL	
78	1819.		-141429.		-489.		-528.		68521.		-3289.	
79	14619.	12.7	-923311.	9.4	-659.	6.7	0.	-104.0	86492.	-2.5	-3591.	15.6
80	16220.	15.0	-929221.	-1.8	-698.	6.2	0.	---	92968.	7.6	-4399.	15.7
81	18684.	15.1	-125275.	1.2	-738.	5.8	0.	---	97975.	6.6	-4769.	8.9
82	19898.	6.4	-111318.	7.3	-789.	6.8	0.	---	107364.	8.4	-5159.	8.6
83	25415.	22.9	-142171.	5.8	-835.	7.1	0.	---	120365.	12.1	-5669.	9.4
84	28673.	1.8	-142227.	3.6	-819.	5.1	0.	---	131515.	9.2	-7511.	32.1
85	29116.	12.2	-148189.	0.4	-925.	5.1	0.	---	139712.	8.2	-7777.	6.2
86	29719.	-0.7	-144979.	-2.2	-975.	5.4	0.	---	148425.	6.4	-8465.	6.1
87	33316.	12.4	-145811.	0.1	-1030.	5.6	0.	---	158119.	6.4	-8765.	6.1
88	37327.	11.8	-145788.	0.3	-1079.	5.8	0.	---	168116.	6.5	-9543.	6.2
89	41389.	19.9	-146178.	0.3	-1155.	6.0	0.	---	179312.	6.5	-10125.	6.1
90	45702.	18.1	-146178.	0.2	-1239.	6.5	0.	---	193785.	6.5	-10735.	6.0

FA	EBC17R08		EBC17R07A		EBC17R09B		EBC17R10A		EBC17R10B		EBC17R11	
	IRCL		IRCL		IRCL		IRCL		IRCL		IRCL	
78	-4.		-354.		-1724.		-8888.		-7875.		63997.	
79	-98.	2150.0	-423.	19.4	-1520.	-11.0	-4745.	-46.1	-7334.	0.7	67859.	6.1
80	-98.	0.0	-428.	1.7	-1847.	21.7	-5355.	12.9	-7154.	0.3	72874.	7.4
81	-99.	0.0	-433.	1.2	-1854.	0.8	-5427.	1.3	-7276.	0.3	78501.	7.7
82	-98.	0.0	-474.	9.5	-2421.	30.4	-6475.	19.3	-8092.	0.3	81781.	7.9
83	-98.	0.0	-567.	19.6	-3182.	31.4	-7874.	21.6	-8829.	0.3	94551.	12.1
84	-98.	0.0	-613.	9.2	-3939.	23.8	-9271.	17.7	-8957.	0.3	102631.	7.5
85	-98.	0.0	-613.	9.0	-3939.	0.0	-9337.	0.7	-8984.	0.4	107870.	7.5
86	-98.	0.0	-704.	15.4	-3939.	0.0	-9419.	0.8	-8414.	0.4	117897.	7.5
87	-98.	0.0	-704.	9.0	-3939.	0.0	-9419.	0.9	-8447.	0.4	126782.	7.5
88	-98.	0.0	-704.	0.0	-3939.	0.0	-9578.	0.8	-8184.	0.4	136375.	7.6
89	-98.	0.0	-704.	0.0	-3939.	0.0	-9671.	1.0	-8220.	0.4	146561.	7.5
90	-98.	0.0	-704.	0.0	-3939.	0.0	-9772.	1.0	-8259.	0.5	157415.	7.5

FA	EBC17R12		EBC17R13		EBC17R14		EBC17R15		EBC17R16		EBC17R17	
	IRCL		IRCL		IRCL		IRCL		IRCL		IRCL	
78	11882.		7568.		42844.		1029.		1547.		4535.	
79	16532.	-11.4	8697.	15.8	45727.	8.8	1247.	22.2	1487.	9.0	8111.	28.8
80	16535.	0.0	8475.	9.0	47786.	8.7	1343.	7.7	1634.	8.7	9354.	15.7
81	18820.	2.7	10314.	8.9	53920.	8.5	1455.	8.3	1915.	8.8	10839.	15.7
82	11339.	4.7	19221.	8.8	58397.	8.3	1503.	8.8	2172.	8.9	12557.	15.8
83	11854.	4.6	12212.	8.8	63167.	8.2	1738.	9.7	3767.	175.7	14511.	15.8
84	12491.	5.4	13232.	8.4	68242.	8.1	1851.	7.2	4192.	3.1	16732.	15.3
85	13221.	5.8	14338.	8.4	73788.	8.0	1977.	7.7	4413.	3.6	17284.	15.3
86	14855.	6.3	15522.	8.3	79507.	7.9	2157.	8.0	4657.	3.8	22331.	15.3
87	15010.	6.8	16793.	8.2	85728.	7.8	2335.	8.3	4924.	4.0	25622.	15.3
88	16997.	7.2	18137.	8.1	92348.	7.8	2533.	8.5	5220.	4.3	29423.	15.4
89	17254.	7.2	19583.	7.9	99492.	7.7	2741.	8.8	5527.	4.2	33993.	15.4
90	18512.	7.3	21877.	7.7	107117.	7.7	2977.	7.1	5880.	4.4	39016.	15.4

FA	EAP231		G1P231		G3P231		G4P231		G6P231		H1P231	
	IRCL		IRCL		IRCL		IRCL		IRCL		IRCL	
78	1419.		21728.		9392.		24942.		8708.		455.	
79	1824.	12.7	29335.	34.4	16815.	6.4	28224.	14.8	9445.	6.1	145.	7.5
80	1948.	4.4	34843.	18.8	18169.	6.5	31523.	18.8	10035.	6.2	174.	6.7
81	2183.	4.3	41284.	18.3	19369.	6.5	34843.	18.3	10644.	6.3	189.	7.9
82	2181.	6.2	48623.	18.0	12119.	6.4	41725.	19.0	11341.	6.3	207.	8.0
83	2326.	4.2	57320.	17.9	12933.	6.7	55139.	17.9	12023.	6.5	217.	8.9
84	2469.	4.1	67849.	17.0	13750.	6.3	64495.	17.0	12809.	6.1	231.	8.2
85	2617.	4.0	78119.	16.5	14623.	6.3	75141.	16.5	13555.	6.1	245.	8.3
86	2773.	4.0	89874.	16.3	15554.	6.4	87410.	16.3	14435.	6.2	261.	8.3
87	2937.	5.0	103455.	16.3	16541.	6.5	101827.	16.3	15337.	6.3	278.	8.4
88	3109.	5.9	122725.	16.2	17613.	6.5	118817.	16.2	16319.	6.4	296.	8.5
89	3298.	5.8	141818.	15.5	18734.	6.2	138311.	15.5	17268.	6.0	313.	8.6
90	3489.	5.8	163335.	15.2	19917.	6.2	157811.	15.2	18344.	6.0	332.	8.6

FA	IAP231		IAP231		IIP231		IIP231		M1P231		M1P231	
	IRCL		IRCL		IRCL		IRCL		IRCL		IRCL	
78	4935.		2310.		4122.		2272.		18451.		7839.	
79	5571.	38.1	2789.	28.7	5883.	31.2	2419.	10.0	21574.	15.7	8282.	5.7
80	6324.	22.5	3695.	19.4	7187.	23.4	2748.	16.0	24548.	19.9	9789.	6.0
81	8348.	22.2	4812.	18.2	8797.	22.8	3617.	9.8	27489.	12.7	1139.	6.9
82	10189.	22.1	6752.	18.0	10778.	22.5	4311.	9.7	31603.	12.4	1179.	6.0
83	12424.	22.0	9121.	9.8	13185.	22.3	5332.	9.7	34559.	11.5	11479.	4.1
84	14797.	19.1	12191.	9.0	15769.	19.7	6441.	8.6	38401.	11.1	11127.	4.2
85	17610.	19.0	1624.	8.8	18827.	19.3	784.	8.8	42329.	10.2	11764.	3.9
86	21118.	18.9	2189.	8.7	22425.	19.1	950.	8.5	46477.	9.8	12455.	5.9
87	24819.	18.8	2944.	8.6	26887.	19.0	1144.	8.5	50707.	9.5	13235.	6.0
88	29319.	18.8	3855.	8.5	31711.	19.0	1377.	8.5	55657.	9.3	14842.	6.1
89	34361.	18.2	4950.	7.9	37412.	18.7	1648.	7.7	60749.	9.2	16912.	6.2
90	39886.	18.1	6276.	7.8	43833.	18.6	1951.	7.7	66919.	9.0	19791.	5.9

FA	PC6E		PC6E		2E17E		F617E		F6N7E		P177E	
		IRCL		IRCL		IRCL		IRCL		IRCL		IRCL
78	219.		219.		289.		232.		235.		171.	
79	253.	11.5	248.	11.4	445.	11.7	293.	11.5	297.	11.5	197.	11.4
80	284.	12.3	275.	11.8	484.	11.8	322.	11.5	334.	11.8	229.	11.8
81	317.	11.7	318.	11.3	529.	11.8	352.	11.8	372.	11.3	246.	11.9
82	353.	11.3	349.	11.7	573.	11.8	401.	11.7	412.	11.8	271.	11.8
83	392.	11.8	374.	11.7	624.	11.9	449.	11.5	457.	11.7	301.	11.1
84	432.	11.3	414.	11.8	679.	11.7	488.	11.8	504.	11.2	330.	11.3
85	474.	9.7	453.	9.5	737.	11.7	534.	9.4	553.	9.8	360.	9.4
86	519.	9.5	495.	9.3	802.	11.8	584.	9.3	606.	9.6	394.	9.4
87	567.	9.3	540.	9.1	872.	11.8	630.	9.2	662.	9.1	432.	9.5
88	620.	9.2	589.	9.0	949.	11.7	694.	9.1	724.	9.3	473.	9.5
89	678.	8.4	639.	8.4	1033.	11.7	757.	8.8	788.	8.9	519.	7.7
90	728.	8.2	689.	8.1	1124.	11.8	821.	8.5	856.	8.6	548.	7.7

FA	P177E		T8E		W177E	
		IRCL		IRCL		IRCL
78	115.		3981689.		222.	
79	232.	11.4	3525844.	11.5	241.	11.5
80	261.	12.2	4105441.	11.4	274.	12.1
81	292.	11.9	4741257.	11.5	330.	12.0
82	324.	11.7	5437192.	11.7	369.	11.8
83	361.	11.5	6193115.	11.8	418.	11.8
84	400.	11.2	7029370.	11.2	453.	11.4
85	437.	9.9	7946518.	12.1	497.	9.9
86	482.	9.7	8956767.	12.0	544.	9.7
87	529.	9.7	10081820.	11.6	598.	9.5
88	580.	8.6	11333184.	11.2	654.	8.4
89	628.	8.3	12715637.	11.7	710.	8.1
90	679.	8.1	14241518.	11.3	769.	8.1

(2) 外生变数

FA	CGI	ERCOIR02	ERCOIR03	ERCOIR05	ERCOIR08
	ZRCL	ZRCL	ZRCL	ZRCL	ZRCL
70	2331.50000	0.00000	-30.00000	-42.00000	0.00000
71	3240.00000 40.0	0.00000 ---	-30.00000 0.0	0.00000 -100.0	0.00000 ---
72	4017.00000 24.0	0.00000 ---	-30.00000 0.0	0.00000 1.4	0.00000 ---
81	5010.00000 24.0	0.00000 ---	-30.00000 0.0	0.00000 2.2	0.00000 ---
82	4221.00000 24.0	0.00000 ---	-30.00000 0.0	0.00000 1.3	0.00000 ---
83	2717.00000 24.0	0.00000 ---	-30.00000 0.0	0.00000 ---	0.00000 ---
84	3240.00000 20.0	0.00000 ---	-30.00000 0.0	0.00000 1.2	0.00000 ---
85	11112.50000 20.0	0.00000 ---	-30.00000 0.0	0.00000 1.4	0.00000 ---
86	13335.00000 20.0	0.00000 ---	-30.00000 0.0	0.00000 1.4	0.00000 ---
87	14002.00000 20.0	0.00000 ---	-30.00000 0.0	0.00000 1.4	0.00000 ---
88	19202.00000 20.0	0.00000 ---	-30.00000 0.0	0.00000 ---	0.00000 ---
89	22460.00000 17.0	0.00000 ---	-30.00000 0.0	0.00000 ---	0.00000 ---
90	24200.00000 17.0	0.00000 ---	-30.00000 0.0	0.00000 ---	0.00000 ---

FA	ERCOIR10A	ERCOIR10B	ERCOIR12	ERCOIR13	ERCOIR14
	ZRCL	ZRCL	ZRCL	ZRCL	ZRCL
70	-0.00000	0.00000	50.00000	20.00000	0.00000
71	-0.00000 0.0	0.00000 ---	150.00000 200.0	53.00000 07.3	0.00000 ---
80	-0.00000 0.0	0.00000 ---	227.00000 51.3	41.00000 -22.4	0.00000 ---
81	-0.00000 0.0	0.00000 ---	207.00000 26.1	31.00000 -21.4	0.00000 ---
82	-0.00000 0.0	0.00000 ---	107.00000 01.0	22.00000 -20.0	0.00000 ---
83	-0.00000 0.0	0.00000 ---	153.00000 11.3	22.00000 0.0	0.00000 ---
84	-0.00000 0.0	0.00000 ---	153.00000 0.0	1.00000 -01.0	0.00000 ---
85	-0.00000 0.0	0.00000 ---	153.00000 0.0	1.00000 0.0	0.00000 ---
86	-0.00000 0.0	0.00000 ---	153.00000 0.0	1.00000 0.0	0.00000 ---
87	-0.00000 0.0	0.00000 ---	153.00000 0.0	1.00000 0.0	0.00000 ---
88	-0.00000 0.0	0.00000 ---	153.00000 0.0	1.00000 0.0	0.00000 ---
89	-0.00000 0.0	0.00000 ---	153.00000 0.0	1.00000 0.0	0.00000 ---
90	-0.00000 0.0	0.00000 ---	153.00000 0.0	1.00000 0.0	0.00000 ---

FA	ERCOIR16	ERCO2001	ERCO2102	ERCO2005	ERCO2007A
	ZRCL	ZRCL	ZRCL	ZRCL	ZRCL
70	27.00000	119570.00000	1224.00000	-552.00000	-32025.00000
71	30.00000 11.1	123200.00000 3.0	1224.00000 0.0	0.00000 -100.0	-32270.00000 3.0
80	30.00000 0.0	110000.00000 -3.7	1224.00000 0.0	0.00000 ---	-33470.00000 0.0
81	30.00000 0.0	124000.00000 0.6	1224.00000 0.0	0.00000 ---	-34070.00000 0.0
82	30.00000 0.0	130000.00000 0.0	1224.00000 0.0	0.00000 ---	-32320.00000 0.0
83	30.00000 0.0	131000.00000 1.4	12400.00000 100.0	0.00000 ---	-41633.00000 10.0
84	30.00000 0.0	133000.00000 0.9	12400.00000 0.0	0.00000 ---	-40270.00000 0.0
85	30.00000 0.0	134200.00000 -0.9	12400.00000 0.0	0.00000 ---	-40270.00000 0.0
86	30.00000 0.0	135000.00000 0.4	12400.00000 0.0	0.00000 ---	-55400.00000 15.0
87	30.00000 0.0	135000.00000 0.4	12400.00000 0.0	0.00000 ---	-55400.00000 0.0
88	30.00000 0.0	136000.00000 0.4	12400.00000 0.0	0.00000 ---	-55400.00000 0.0
89	30.00000 0.0	137400.00000 0.4	12400.00000 0.0	0.00000 ---	-55400.00000 0.0
90	30.00000 0.0	130000.00000 0.1	12400.00000 0.0	0.00000 ---	-55400.00000 0.0

FA	ERCO2R11A	ERCO2R10B	ERCO4R03	ERCO4R04	ERCO4R05
	ZRCL	ZRCL	ZRCL	ZRCL	ZRCL
70	-252.00000	0.00000	0.00000	-1.00000	-122.00000
71	-252.00000 0.0	0.00000 ---	0.00000 ---	0.00000 -100.0	0.00000 -100.0
80	-252.00000 0.0	0.00000 ---	0.00000 ---	0.00000 ---	0.00000 ---
81	-252.00000 0.0	0.00000 ---	0.00000 ---	0.00000 ---	0.00000 ---
82	-252.00000 0.0	0.00000 ---	0.00000 ---	0.00000 ---	0.00000 ---
83	-252.00000 0.0	0.00000 ---	0.00000 ---	0.00000 ---	0.00000 ---
84	-252.00000 0.0	0.00000 ---	0.00000 ---	0.00000 ---	0.00000 ---
85	-252.00000 0.0	0.00000 ---	0.00000 ---	0.00000 ---	0.00000 ---
86	-252.00000 0.0	0.00000 ---	0.00000 ---	0.00000 ---	0.00000 ---
87	-252.00000 0.0	0.00000 ---	0.00000 ---	0.00000 ---	0.00000 ---
88	-252.00000 0.0	0.00000 ---	0.00000 ---	0.00000 ---	0.00000 ---
89	-252.00000 0.0	0.00000 ---	0.00000 ---	0.00000 ---	0.00000 ---
90	-252.00000 0.0	0.00000 ---	0.00000 ---	0.00000 ---	0.00000 ---

FA	EBC04R10A		EBC04R10B		EBC04R12		EBC04R15		EBC04R51	
	IRCL		IRCL		IRCL		IRCL		IRCL	
78	0.00000		0.00000		0.00000		265.00000		-203.00000	
79	0.00000	---	0.00000	---	0.00000	---	309.00000	5.3	-235.00000	15.9
80	0.00000	---	0.00000	---	0.00000	---	309.00000	0.0	-279.00000	14.9
81	0.00000	---	0.00000	---	0.00000	---	309.00000	0.0	-310.00000	14.8
82	0.00000	---	0.00000	---	0.00000	---	309.00000	9.4	-369.00000	16.1
83	0.00000	---	0.00000	---	0.00000	---	309.00000	9.9	-410.00000	18.9
84	0.00000	---	0.00000	---	0.00000	---	309.00000	9.0	-455.00000	11.0
85	0.00000	---	0.00000	---	0.00000	---	309.00000	0.0	-500.00000	9.9
86	0.00000	---	0.00000	---	0.00000	---	309.00000	0.0	-550.00000	10.0
87	0.00000	---	0.00000	---	0.00000	---	309.00000	0.0	-605.00000	10.0
88	0.00000	---	0.00000	---	0.00000	---	309.00000	0.0	-665.00000	9.9
89	0.00000	---	0.00000	---	0.00000	---	309.00000	0.0	-730.00000	9.8
90	0.00000	---	0.00000	---	0.00000	---	309.00000	0.0	-805.00000	10.3

FA	EBC05R05		EBC05R10A		EBC05R10B		EBC05R05		EBC05R10A	
	IRCL		IRCL		IRCL		IRCL		IRCL	
78	14.00000		0.00000		0.00000		-55.00000		0.00000	
79	0.00000	-100.0	0.00000	---	0.00000	---	0.00000	-100.0	0.00000	---
80	0.00000	---	0.00000	---	0.00000	---	0.00000	---	0.00000	---
81	0.00000	---	0.00000	---	0.00000	---	0.00000	---	0.00000	---
82	0.00000	---	0.00000	---	0.00000	---	0.00000	---	0.00000	---
83	0.00000	---	0.00000	---	0.00000	---	0.00000	---	0.00000	---
84	0.00000	---	0.00000	---	0.00000	---	0.00000	---	0.00000	---
85	0.00000	---	0.00000	---	0.00000	---	0.00000	---	0.00000	---
86	0.00000	---	0.00000	---	0.00000	---	0.00000	---	0.00000	---
87	0.00000	---	0.00000	---	0.00000	---	0.00000	---	0.00000	---
88	0.00000	---	0.00000	---	0.00000	---	0.00000	---	0.00000	---
89	0.00000	---	0.00000	---	0.00000	---	0.00000	---	0.00000	---
90	0.00000	---	0.00000	---	0.00000	---	0.00000	---	0.00000	---

FA	EBC07R10B		EBC07R12		EBC07R04		EBC07R05		EBC07R07	
	IRCL		IRCL		IRCL		IRCL		IRCL	
78	0.00000		0.00000		-12.00000		377.00000		-2413.00000	
79	0.00000	---	0.00000	---	-15.00000	25.0	0.00000	-100.0	-2547.00000	6.0
80	0.00000	---	0.00000	---	-15.00000	0.0	0.00000	---	-2700.00000	6.0
81	0.00000	---	0.00000	---	-15.00000	0.0	0.00000	---	-2842.01145	6.0
82	0.00000	---	0.00000	---	-15.00000	0.0	0.00000	---	-3013.73213	6.0
83	0.00000	---	0.00000	---	-15.00000	0.0	0.00000	---	-3215.75416	6.0
84	0.00000	---	0.00000	---	-15.00000	0.0	0.00000	---	-3428.76143	6.0
85	0.00000	---	0.00000	---	-15.00000	0.0	0.00000	---	-3613.22351	6.0
86	0.00000	---	0.00000	---	-15.00000	0.0	0.00000	---	-3830.01692	6.0
87	0.00000	---	0.00000	---	-15.00000	0.0	0.00000	---	-4059.01774	6.0
88	0.00000	---	0.00000	---	-15.00000	0.0	0.00000	---	-4303.40701	6.0
89	0.00000	---	0.00000	---	-15.00000	0.0	0.00000	---	-4541.51114	6.0
90	0.00000	---	0.00000	---	-15.00000	0.0	0.00000	---	-4835.30012	6.0

FA	EBC07R08		EBC07R10A		EBC07R10B		EBC07R14		EBC07R04	
	IRCL		IRCL		IRCL		IRCL		IRCL	
78	-7.00000		0.00000		0.00000		0.00000		-54.00000	
79	-25.00000	257.1	0.00000	---	0.00000	---	0.00000	---	-60.00000	7.1
80	-25.00000	0.0	0.00000	---	0.00000	---	0.00000	---	-65.00000	8.3
81	-25.00000	0.0	0.00000	---	0.00000	---	0.00000	---	-65.00000	0.0
82	-25.00000	0.0	0.00000	---	0.00000	---	0.00000	---	-65.00000	0.0
83	-25.00000	0.0	0.00000	---	0.00000	---	0.00000	---	-70.00000	7.7
84	-25.00000	0.0	0.00000	---	0.00000	---	0.00000	---	-70.00000	0.0
85	-25.00000	0.0	0.00000	---	0.00000	---	0.00000	---	-70.00000	10.0
86	-25.00000	0.0	0.00000	---	0.00000	---	0.00000	---	-70.00000	0.0
87	-25.00000	0.0	0.00000	---	0.00000	---	0.00000	---	-70.00000	0.0
88	-25.00000	0.0	0.00000	---	0.00000	---	0.00000	---	-70.00000	0.0
89	-25.00000	0.0	0.00000	---	0.00000	---	0.00000	---	-70.00000	0.0
90	-25.00000	0.0	0.00000	---	0.00000	---	0.00000	---	-70.00000	0.0

FA	EDC071R05	EDC071R07	EDC071R08	EDC071R10A	EDC071R10B
	IRCL	IRCL	IRCL	IRCL	IRCL
78	38.00000	-19.00000	-18.00000	0.00000	0.00000
79	0.00000	-19.00000	-20.00000	11.1	0.00000
80	0.00000	-19.00000	-20.00000	0.0	0.00000
81	0.00000	-19.00000	-20.00000	0.0	0.00000
82	0.00000	-19.00000	-20.00000	0.0	0.00000
83	0.00000	-19.00000	-20.00000	0.0	0.00000
84	0.00000	-19.00000	-20.00000	0.0	0.00000
85	0.00000	-19.00000	-20.00000	0.0	0.00000
86	0.00000	-19.00000	-20.00000	0.0	0.00000
87	0.00000	-19.00000	-20.00000	0.0	0.00000
88	0.00000	-19.00000	-20.00000	0.0	0.00000
89	0.00000	-19.00000	-20.00000	0.0	0.00000
90	0.00000	-19.00000	-20.00000	0.0	0.00000

FA	EDC071R13	EDC071R14	EDC071R16A	EDC071R18	EDC071R22
	IRCL	IRCL	IRCL	IRCL	IRCL
78	107.00000	0.00000	0.00000	0.00000	0.00000
79	109.00000	0.00000	0.00000	0.00000	0.00000
80	109.00000	0.00000	0.00000	0.00000	0.00000
81	109.00000	0.00000	0.00000	0.00000	0.00000
82	109.00000	0.00000	0.00000	0.00000	0.00000
83	109.00000	0.00000	0.00000	0.00000	0.00000
84	109.00000	0.00000	0.00000	0.00000	0.00000
85	109.00000	0.00000	0.00000	0.00000	0.00000
86	109.00000	0.00000	0.00000	0.00000	0.00000
87	109.00000	0.00000	0.00000	0.00000	0.00000
88	109.00000	0.00000	0.00000	0.00000	0.00000
89	109.00000	0.00000	0.00000	0.00000	0.00000
90	109.00000	0.00000	0.00000	0.00000	0.00000

FA	EDC081R01	EDC081R05	EDC081R07	EDC081R08	EDC081R10A
	IRCL	IRCL	IRCL	IRCL	IRCL
78	-337.00000	-171.00000	-139.00000	0.00000	0.00000
79	-310.00000	0.00000	-710.00000	9.7	0.00000
80	-310.00000	0.00000	-725.00000	10.7	0.00000
81	-310.00000	0.00000	-850.00000	9.7	0.00000
82	-310.00000	0.00000	-735.00000	10.0	0.00000
83	-310.00000	0.00000	-750.00000	9.6	0.00000
84	-310.00000	0.00000	-1005.00000	10.0	0.00000
85	-310.00000	0.00000	-1005.00000	0.0	0.00000
86	-310.00000	0.00000	-1005.00000	0.0	0.00000
87	-310.00000	0.00000	-1005.00000	0.0	0.00000
88	-310.00000	0.00000	-1005.00000	0.0	0.00000
89	-310.00000	0.00000	-1005.00000	0.0	0.00000
90	-310.00000	0.00000	-1005.00000	0.0	0.00000

FA	EDC081R10B	EDC081R13	EDC081R14	EDC081R15	EDC081R22
	IRCL	IRCL	IRCL	IRCL	IRCL
78	0.00000	436.00000	0.00000	51.00000	0.00000
79	0.00000	450.00000	0.00000	37.20000	0.00000
80	0.00000	450.00000	0.00000	49.07000	0.00000
81	0.00000	450.00000	0.00000	41.31000	0.00000
82	0.00000	450.00000	0.00000	49.17000	0.00000
83	0.00000	450.00000	0.00000	72.24000	0.00000
84	0.00000	450.00000	0.00000	76.66000	0.00000
85	0.00000	450.00000	0.00000	81.17000	0.00000
86	0.00000	450.00000	0.00000	80.04000	0.00000
87	0.00000	450.00000	0.00000	81.23000	0.00000
88	0.00000	450.00000	0.00000	80.76000	0.00000
89	0.00000	450.00000	0.00000	102.30000	0.00000
90	0.00000	450.00000	0.00000	108.65000	0.00000

FA	EBC01R05		EBC01R07		EBC01R10		EBC01R13		EBC01R12	
		ZKCL		ZKCL		ZKCL		ZKCL		ZKCL
76	0.00000		0.00000		0.00000		0.00000		0.00000	
77	0.00000	-100.0	0.00000	3.2	0.00000	---	0.00000	---	0.00000	---
78	0.00000	---	0.00000	0.0	0.00000	---	0.00000	---	0.00000	---
81	0.00000	---	0.00000	0.0	0.00000	---	0.00000	---	0.00000	---
82	0.00000	---	0.00000	0.0	0.00000	---	0.00000	---	0.00000	---
83	0.00000	---	0.00000	0.0	0.00000	---	0.00000	---	0.00000	---
84	0.00000	---	0.00000	0.0	0.00000	---	0.00000	---	0.00000	---
85	0.00000	---	0.00000	0.0	0.00000	---	0.00000	---	0.00000	---
86	0.00000	---	0.00000	0.0	0.00000	---	0.00000	---	0.00000	---
87	0.00000	---	0.00000	0.0	0.00000	---	0.00000	---	0.00000	---
88	0.00000	---	0.00000	0.0	0.00000	---	0.00000	---	0.00000	---
89	0.00000	---	0.00000	0.0	0.00000	---	0.00000	---	0.00000	---
90	0.00000	---	0.00000	0.0	0.00000	---	0.00000	---	0.00000	---

FA	EBC01R16		EBC01R22		EBC01R25		EBC01R30		EBC01R18	
		ZKCL		ZKCL		ZKCL		ZKCL		ZKCL
76	0.00000		0.00000		0.00000		0.00000		0.00000	
77	0.00000	---	0.00000	0.0	0.00000	---	0.00000	-25.0	0.00000	---
78	0.00000	---	0.00000	0.0	0.00000	---	0.00000	39.0	0.00000	---
81	0.00000	---	0.00000	0.0	0.00000	---	0.00000	15.1	0.00000	---
82	0.00000	---	0.00000	0.0	0.00000	---	0.00000	0.0	0.00000	---
83	0.00000	---	0.00000	0.0	0.00000	---	0.00000	0.0	0.00000	---
84	0.00000	0.0	0.00000	0.0	0.00000	---	0.00000	0.0	0.00000	---
85	0.00000	0.0	0.00000	0.0	0.00000	---	0.00000	0.0	0.00000	---
86	0.00000	0.0	0.00000	0.0	0.00000	---	0.00000	0.0	0.00000	---
87	0.00000	0.0	0.00000	0.0	0.00000	---	0.00000	0.0	0.00000	---
88	0.00000	0.0	0.00000	0.0	0.00000	---	0.00000	0.0	0.00000	---
89	0.00000	0.0	0.00000	0.0	0.00000	---	0.00000	0.0	0.00000	---
90	0.00000	0.0	0.00000	0.0	0.00000	---	0.00000	0.0	0.00000	---

FA	EBC01R30		EBC01R32		EBC01R35		EBC01R38		EBC01R33	
		ZKCL		ZKCL		ZKCL		ZKCL		ZKCL
76	0.00000		0.00000		-0.00000		0.00000		0.00000	
77	0.00000	---	0.00000	0.0	0.00000	-100.0	0.00000	---	0.00000	---
78	0.00000	---	0.00000	0.0	0.00000	---	0.00000	---	0.00000	---
81	0.00000	---	0.00000	0.0	0.00000	---	0.00000	---	0.00000	---
82	0.00000	---	0.00000	0.0	0.00000	---	0.00000	---	0.00000	---
83	0.00000	---	0.00000	0.0	0.00000	---	0.00000	---	0.00000	---
84	0.00000	---	0.00000	0.0	0.00000	---	0.00000	---	0.00000	---
85	0.00000	---	0.00000	0.0	0.00000	---	0.00000	---	0.00000	---
86	0.00000	---	0.00000	0.0	0.00000	---	0.00000	---	0.00000	---
87	0.00000	---	0.00000	0.0	0.00000	---	0.00000	---	0.00000	---
88	0.00000	---	0.00000	0.0	0.00000	---	0.00000	---	0.00000	---
89	0.00000	---	0.00000	0.0	0.00000	---	0.00000	---	0.00000	---
90	0.00000	---	0.00000	0.0	0.00000	---	0.00000	---	0.00000	---

FA	EBC11R09		EBC11R10		EBC11R11	
		ZKCL		ZKCL		ZKCL
76	-0.00000		-0.00000		0.00000	
77	-0.00000	27.9	-0.00000	0.0	0.00000	0.0
78	-0.00000	21.2	-0.00000	0.0	0.00000	0.0
81	-0.00000	0.0	-0.00000	0.0	0.00000	0.2
82	-0.00000	31.4	-0.00000	0.0	0.00000	31.4
83	-0.00000	31.3	-0.00000	0.0	0.00000	31.0
84	-0.00000	21.0	-0.00000	0.0	0.00000	21.3
85	-0.00000	0.0	-0.00000	0.0	0.00000	0.0
86	-0.00000	0.0	-0.00000	0.0	0.00000	0.0
87	-0.00000	0.0	-0.00000	0.0	0.00000	0.0
88	-0.00000	0.0	-0.00000	0.0	0.00000	0.0
89	-0.00000	0.0	-0.00000	0.0	0.00000	0.0
90	-0.00000	0.0	-0.00000	0.0	0.00000	0.0

FA	EBC12R18A		EBC12R18B		EBC12R18C		EBC12R18D		EBC12R18E	
	IRCL		IRCL		IRCL		IRCL		IRCL	
78	0.00000		-34.00000		0.00000		-7.00000		0.00000	
79	0.00000	---	-34.00000	0.0	0.00000	---	-7.00000	0.0	0.00000	---
80	0.00000	---	-34.00000	0.0	0.00000	---	-7.00000	0.0	0.00000	---
81	0.00000	---	-34.00000	0.0	0.00000	---	-7.00000	0.0	0.00000	---
82	0.00000	---	-34.00000	0.0	0.00000	---	-7.00000	0.0	0.00000	---
83	0.00000	---	-34.00000	0.0	0.00000	---	-7.00000	0.0	0.00000	---
84	0.00000	---	-34.00000	0.0	0.00000	---	-7.00000	0.0	0.00000	---
85	0.00000	---	-34.00000	0.0	0.00000	---	-7.00000	0.0	0.00000	---
86	0.00000	---	-34.00000	0.0	0.00000	---	-7.00000	0.0	0.00000	---
87	0.00000	---	-34.00000	0.0	0.00000	---	-7.00000	0.0	0.00000	---
88	0.00000	---	-34.00000	0.0	0.00000	---	-7.00000	0.0	0.00000	---
89	0.00000	---	-34.00000	0.0	0.00000	---	-7.00000	0.0	0.00000	---
90	0.00000	---	-34.00000	0.0	0.00000	---	-7.00000	0.0	0.00000	---

FA	EBC12R07		EBC12R07		EBC12R13		EBC12R13A		EBC12R13B	
	IRCL		IRCL		IRCL		IRCL		IRCL	
78	0.00000		-340.00000		0.00000		0.00000		0.00000	
79	0.00000	---	-390.00000	18.5	0.00000	---	0.00000	---	0.00000	---
80	0.00000	---	-509.00000	27.9	0.00000	---	0.00000	---	0.00000	---
81	0.00000	---	-523.00000	2.0	0.00000	---	0.00000	---	0.00000	---
82	0.00000	---	-520.00000	1.0	0.00000	---	0.00000	---	0.00000	---
83	0.00000	---	-553.00000	5.0	0.00000	---	0.00000	---	0.00000	---
84	0.00000	---	-1039.00000	18.0	0.00000	---	0.00000	---	0.00000	---
85	0.00000	---	-1301.00000	0.5	0.00000	---	0.00000	---	0.00000	---
86	0.00000	---	-1109.00000	0.5	0.00000	---	0.00000	---	0.00000	---
87	0.00000	---	-1110.00000	0.5	0.00000	---	0.00000	---	0.00000	---
88	0.00000	---	-1119.00000	0.4	0.00000	---	0.00000	---	0.00000	---
89	0.00000	---	-1123.00000	0.5	0.00000	---	0.00000	---	0.00000	---
90	0.00000	---	-1110.00000	0.4	0.00000	---	0.00000	---	0.00000	---

FA	EBC06R13		EBC06R15		EBC07R15		EBC07R15		EBC06R12	
	IRCL		IRCL		IRCL		IRCL		IRCL	
78	36.00000		0.00000		2.02417		0.00000		3.00000	
79	36.00000	0.0	1.00000	---	1.00000	-11.9	1.00000	-35.5	1.50000	-56.0
80	36.00000	0.0	1.00000	0.0	1.00000	0.0	1.00000	0.0	1.50000	0.0
81	36.00000	0.0	1.00000	0.0	1.00000	0.0	1.00000	0.0	1.50000	0.0
82	36.00000	0.0	1.00000	0.0	1.00000	0.0	1.00000	0.0	1.50000	0.0
83	36.00000	0.0	1.00000	0.0	1.00000	0.0	1.00000	0.0	1.50000	0.0
84	36.00000	0.0	1.00000	0.0	1.00000	0.0	1.00000	0.0	1.50000	0.0
85	36.00000	0.0	1.00000	0.0	1.00000	0.0	1.00000	0.0	1.50000	0.0
86	36.00000	0.0	1.00000	0.0	1.00000	0.0	1.00000	0.0	1.50000	0.0
87	36.00000	0.0	1.00000	0.0	1.00000	0.0	1.00000	0.0	1.50000	0.0
88	36.00000	0.0	1.00000	0.0	1.00000	0.0	1.00000	0.0	1.50000	0.0
89	36.00000	0.0	1.00000	0.0	1.00000	0.0	1.00000	0.0	1.50000	0.0
90	36.00000	0.0	1.00000	0.0	1.00000	0.0	1.00000	0.0	1.50000	0.0

FA	EBC06R16		EBC06R12		EBC06R14	
	IRCL		IRCL		IRCL	
78	10.00000		2.00000		0.00000	
79	1.00000	-91.2	1.50000	-10.4	1.00000	---
80	1.00000	0.0	1.50000	0.0	1.00000	0.0
81	1.00000	0.0	1.50000	0.0	1.00000	0.0
82	1.00000	0.0	1.50000	0.0	1.00000	0.0
83	1.00000	0.0	1.50000	0.0	1.00000	0.0
84	1.00000	0.0	1.50000	0.0	1.00000	0.0
85	1.00000	0.0	1.50000	0.0	1.00000	0.0
86	1.00000	0.0	1.50000	0.0	1.00000	0.0
87	1.00000	0.0	1.50000	0.0	1.00000	0.0
88	1.00000	0.0	1.50000	0.0	1.00000	0.0
89	1.00000	0.0	1.50000	0.0	1.00000	0.0
90	1.00000	0.0	1.50000	0.0	1.00000	0.0

FA	ELCI1A16		ELCI1A14		ELCI1A15		ELCI1A12		FABE	
	IRCL		IRCL		IRCL		IRCL		IRCL	
78	0.31435		2.77885		4.01510		-6.10585		25.00000	
79	1.50000	-12.0	1.00000	-11.0	1.00000	-75.3	-1.50000	-75.0	27.00000	0.0
80	1.50000	0.0	1.00000	0.0	1.00000	0.0	-1.50000	0.0	27.00000	0.0
81	1.50000	0.0	1.00000	0.0	1.00000	0.0	-1.50000	0.0	31.47200	0.0
82	1.50000	0.0	1.00000	0.0	1.00000	0.0	-1.50000	0.0	31.01222	0.0
83	1.50000	0.0	1.00000	0.0	1.00000	0.0	-1.50000	0.0	34.73320	0.0
84	1.50000	0.0	1.00000	0.0	1.00000	0.0	-1.50000	0.0	39.47186	0.0
85	1.50000	0.0	1.00000	0.0	1.00000	0.0	-1.50000	0.0	42.84584	0.0
86	1.50000	0.0	1.00000	0.0	1.00000	0.0	-1.50000	0.0	46.27324	0.0
87	1.50000	0.0	1.00000	0.0	1.00000	0.0	-1.50000	0.0	49.97512	0.0
88	1.50000	0.0	1.00000	0.0	1.00000	0.0	-1.50000	0.0	53.97312	0.0
89	1.50000	0.0	1.00000	0.0	1.00000	0.0	-1.50000	0.0	58.29097	0.0
90	1.50000	0.0	1.00000	0.0	1.00000	0.0	-1.50000	0.0	62.93425	0.0

FA	FAS16FE731		FAS16FE731		FAS16FE731		FAS16FE731		FAS16FE731	
	IRCL		IRCL		IRCL		IRCL		IRCL	
78	107.41550		12.70000		578448.00000		10.00000		141.57100	
79	194.07020	5.0	25.40000	10.0	614000.00000	3.2	19.40000	0.0	141.49374	2.2
80	280.73370	5.0	27.94000	10.0	593400.00000	-3.7	20.93520	0.0	142.07780	2.2
81	217.01110	5.0	30.73100	10.0	620000.00000	4.6	22.67492	0.0	151.13020	2.2
82	227.00195	5.0	33.00700	10.0	650000.00000	4.0	24.46880	0.0	154.45516	2.2
83	239.21705	5.0	37.10014	10.0	657000.00000	1.4	26.44701	0.0	157.65317	2.2
84	248.01093	0.0	40.98695	10.0	665000.00000	0.9	28.56374	0.0	161.32514	2.2
85	250.02360	4.0	44.99745	10.0	671000.00000	0.9	30.84881	0.0	164.97511	2.2
86	249.17444	4.0	47.47711	10.0	675000.00000	0.6	33.31074	0.0	169.50237	2.2
87	270.04370	4.0	50.40716	10.0	679000.00000	0.6	35.78208	0.0	172.20142	2.2
88	280.31201	3.0	57.00107	10.0	683000.00000	0.0	38.24855	0.0	175.87001	2.2
89	280.09227	3.0	61.00106	10.0	687000.00000	0.6	41.96550	0.0	179.84998	2.2
90	305.00204	3.0	72.40996	10.0	690000.00000	0.4	45.32765	0.0	183.02712	2.2

FA	FAS16FE731		FAS16FE731		FAS16FE731		FAS16FE731		FAS16FE731	
	IRCL		IRCL		IRCL		IRCL		IRCL	
78	76.00000		123.00000		1000.20210		0.11450		0.00000	
79	02.00000	0.0	137.70000	12.0	1039.72541	5.0	0.11900	1.0	0.00150	12.1
80	09.12100	0.0	151.20000	12.0	1112.71149	5.0	0.11950	0.0	0.00150	0.0
81	94.37292	0.0	172.00000	12.0	1169.30226	5.0	0.11900	0.0	0.00150	0.0
82	101.30015	0.0	193.50000	12.0	1226.74483	5.0	0.11900	0.0	0.00150	0.0
83	112.64010	0.0	210.70000	12.0	1268.90286	5.0	0.11950	0.0	0.00150	0.0
84	121.00000	0.0	230.00000	10.0	1352.50000	5.0	0.11950	0.0	0.00150	0.0
85	131.37310	0.0	242.20000	10.0	1420.13310	5.0	0.11950	0.0	0.00150	0.0
86	141.00000	0.0	280.50000	10.0	1491.10007	5.0	0.11900	0.0	0.00150	0.0
87	153.25702	0.0	317.37007	10.0	1545.47740	5.0	0.11900	0.0	0.00150	0.0
88	165.51750	0.0	369.10700	10.0	1619.92193	5.0	0.11900	0.0	0.00150	0.0
89	170.75000	0.0	377.03500	0.0	1728.10100	5.0	0.11900	0.0	0.00150	0.0
90	193.05920	0.0	497.11000	0.0	1812.43840	5.0	0.11900	0.0	0.00150	0.0

FA	Y00100		Y00100		Y00100		Y00100		Y00100	
	IRCL		IRCL		IRCL		IRCL		IRCL	
78	0.13160		0.13247		0.04002		0.13102		0.04544	
79	0.13400	1.3	0.13310	-0.0	0.04500	-6.3	0.13200	-13.1	0.02700	-21.0
80	0.13400	0.0	0.13310	0.0	0.04500	0.0	0.13200	0.0	0.02700	0.0
81	0.13400	0.0	0.13310	0.0	0.04500	0.0	0.13200	0.0	0.02700	0.0
82	0.13400	0.0	0.13310	0.0	0.04500	0.0	0.13200	0.0	0.02700	0.0
83	0.13400	0.0	0.13310	0.0	0.04500	0.0	0.13200	0.0	0.02700	0.0
84	0.13400	0.0	0.13310	0.0	0.04500	0.0	0.13200	0.0	0.02700	0.0
85	0.13400	0.0	0.13310	0.0	0.04500	0.0	0.13200	0.0	0.02700	0.0
86	0.13400	0.0	0.13310	0.0	0.04500	0.0	0.13200	0.0	0.02700	0.0
87	0.13400	0.0	0.13310	0.0	0.04500	0.0	0.13200	0.0	0.02700	0.0
88	0.13400	0.0	0.13310	0.0	0.04500	0.0	0.13200	0.0	0.02700	0.0
89	0.13400	0.0	0.13310	0.0	0.04500	0.0	0.13200	0.0	0.02700	0.0
90	0.13400	0.0	0.13310	0.0	0.04500	0.0	0.13200	0.0	0.02700	0.0

FA	TC16ARD9		TC16ASB9		ZC11AB1A		ZC14B06		ZC14B10	
	XRCL		XRCL		XRCL		XRCL		XRCL	
78	0.00181		0.29192		-0.28828		0.25344		0.13787	
79	0.00180	-0.6	0.32888	12.7	-0.15880	-18.5	0.30808	18.4	0.15888	
80	0.00180	0.0	0.32888	0.0	-0.15880	0.0	0.30808	0.0	0.15888	
81	0.00180	0.0	0.32888	0.0	-0.15880	0.0	0.30808	0.0	0.15888	
82	0.00180	0.0	0.32888	0.0	-0.15880	0.0	0.30808	0.0	0.15888	
83	0.00180	0.0	0.32888	0.0	-0.15880	0.0	0.30808	0.0	0.15888	
84	0.00180	0.0	0.32888	0.0	-0.15880	0.0	0.30808	0.0	0.15888	
85	0.00180	0.0	0.32888	0.0	-0.15880	0.0	0.30808	0.0	0.15888	
86	0.00180	0.0	0.32888	0.0	-0.15880	0.0	0.30808	0.0	0.15888	
87	0.00180	0.0	0.32888	0.0	-0.15880	0.0	0.30808	0.0	0.15888	
88	0.00180	0.0	0.32888	0.0	-0.15880	0.0	0.30808	0.0	0.15888	
89	0.00180	0.0	0.32888	0.0	-0.15880	0.0	0.30808	0.0	0.15888	
90	0.00180	0.0	0.32888	0.0	-0.15880	0.0	0.30808	0.0	0.15888	

8-5-3 エネルギー・バランス表一覽

(1) 実績 (1971年~1978年)

FAC 71 3	ERC01	ERC02	ERC03	ERC04	ERC05	ERC06	ERC07	ERC07A	ERC07B	ERC08	ERC09	ERC10	ERC11
001	101.	85269.											
002	0.	570.	1329.	1.	0.	1107.	19.	18.	0.	255.	0.	0.	1.
003	0.	-10115.	-7519.	-57.	0.		0.	0.	0.	-1105.	0.	-9274.	-1.
004			-337.	0.	0.		-75.	-5.	-70.	-242.			
005	-89.	89.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.
006	131.	17811.	-8210.	-59.	0.	1052.	19.	19.	0.	-931.	0.	-434.	-1.
007	-66.		-722.				-439.	-577.	-37.	-254.			
008	0.		-13.				-13.	-1.	-12.	0.			
009A		-10710.	17339.	2026.	216.	1050.	2222.	1554.	156.	1175.	0.	6274.	12.
009B			0.								0.	0.	1.
009C			0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.
010A	-27.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.
010B	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.
011	11.		8754.	2612.	192.	3155.	1119.	307.	524.	1922.	0.	157.	2.
012	50.		1216.	0.	0.	0.	771.	-79.	375.	411.	0.	1.	1.
013	65.		1214.	2647.	192.		432.	305.	124.	547.	0.	0.	2.
014	0.		3159.			3155.	0.	0.	0.	0.	0.	0.	2.
015			247.	0.	0.		203.	-197.	0.	41.	0.	154.	
016	0.		151.										

FAC 72 3	ERC01	ERC02	ERC03	ERC04	ERC05	ERC06	ERC07	ERC07A	ERC07B	ERC08	ERC09	ERC10	ERC11
001	107.	79270.											
002	12.	162.	1764.	0.	15.	510.	0.	0.	0.	2229.	0.	0.	1.
003	0.	-50117.	-1711.	0.	0.		0.	0.	0.	-281.	0.	-7224.	-1.
004			-220.	0.	0.		0.	0.	0.	-229.			
005	17.	109.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.
006	171.	26515.	-7827.	0.	15.	319.	0.	0.	0.	497.	0.	-1358.	-1.
007	-69.		-784.				-111.	-639.	-54.	-102.			
008	-72.		-17.				-17.	-1.	-17.	0.			
009A		-20315.	17957.	2183.	240.	3147.	2761.	1720.	1841.	2627.	343.	9216.	12.
009B			0.								0.	0.	1.
009C			0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.
010A	-124.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.
010B	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.
011	81.		9778.	2122.	252.	4247.	1833.	1365.	502.	1179.	0.	257.	2.
012	51.		1511.	0.	0.	0.	817.	431.	417.	465.	0.	2.	1.
013	20.		3572.	2122.	252.		761.	741.	47.	392.	0.	0.	1.
014	0.		4254.			4247.	0.	0.	0.	0.	0.	0.	1.
015			256.	0.	0.		192.	170.	27.	43.	0.	257.	
016	2.		231.										

FAC 73 3	ERC01	ERC02	ERC03	ERC04	ERC05	ERC06	ERC07	ERC07A	ERC07B	ERC08	ERC09	ERC10	ERC11
001	101.	97103.											
002	3.	220.	2545.	0.	161.	458.	331.	331.	0.	1447.	0.	26.	1.
003	0.	-74254.	-12310.	0.	0.		0.	0.	0.	-78.	0.	-9224.	-1.
004			-240.	0.	0.		0.	0.	0.	-248.			
005	32.	264.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.
006	675.	20271.	-9745.	0.	761.	419.	337.	331.	0.	1577.	0.	-9205.	-1.
007	-45.		-1023.				-580.	-312.	-64.	-115.			
008	-3.		-21.				-21.	-1.	-20.	0.			
009A		-24203.	23207.	2492.	202.	1503.	3155.	-2321.	071.	744.	263.	12379.	12.
009B			0.								0.	0.	1.
009C			0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.
010A	-13.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.
010B	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.
011	83.		11113.	2345.	343.	4737.	2358.	1747.	412.	9257.	0.	242.	2.
012	47.		1835.	0.	0.	0.	1185.	574.	547.	750.	0.	0.	1.
013	37.		2447.	2445.	343.		1917.	942.	75.	431.	0.	0.	1.
014	0.		4270.			4737.	0.	0.	0.	0.	0.	0.	1.
015			427.	340.	0.		256.	220.	20.	71.	0.	214.	
016	3.		235.										

FAC 74 3	ERC01	ERC02	ERC03	ERC04	ERC05	ERC06	ERC07	ERC07A	ERC07B	ERC08	ERC09	ERC10	ERC11
001	101.	141540.											
002	0.	355.	2649.	0.	212.	1156.	420.	450.	0.	943.	0.	75.	1.
003	0.	-75913.	-1972.	-322.	0.		0.	0.	0.	0.	0.	-545.	-1.
004			-459.	-2.	-110.		-31.	-1.	-37.	-325.			
005	-7.	-1559.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.
006	102.	23210.	-2133.	-322.	212.	1154.	450.	450.	0.	943.	0.	-545.	-1.
007	-57.		-825.				-739.	-659.	-71.	-35.			
008	-1.		-23.				-23.	-1.	-22.	0.			
009A		-24107.	23165.	2410.	265.	4335.	3667.	2476.	071.	1817.	0.	9245.	12.
009B			0.								0.	0.	1.
009C			0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.
010A	-10.	-545.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.
010B	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.
011	42.		13247.	2450.	451.	5417.	2115.	2343.	492.	1357.	0.	132.	2.
012	47.		1772.	0.	0.	0.	117.	353.	354.	654.	0.	0.	1.
013	32.		5411.	2345.	419.		1857.	1743.	110.	443.	0.	0.	1.
014	0.		5331.			5417.	0.	0.	0.	0.	0.	0.	1.
015			512.	205.	32.		217.	197.	12.	55.	0.	241.	
016	7.		211.										

(2) 予 測 (1980年, 1983年, 1988年, 1990年)

予 測 年	ERC01	ERC02	ERC03	ERC04	ERC05	ERC06	ERC07	ERC07A	ERC07B	ERC08	ERC09	ERC10	ERC10A	ERC10B	ERC11	ERC11A	ERC11B	ERC11C	ERC11D	ERC12	ERC13	ERC14	ERC15	ERC16	ERC17
1980	210.	110600.													33764.	33764.				0.	1012.		155100.	42551.	107652.
1981	0.	4224.	3974.	871.	1134.	3074.	4814.	3683.	125.	0.	0.	11.	1.	22.								14220.	14220.	14220.	
1982	-30.	-10102.	-13318.	0.	0.	0.	0.	0.	0.	-1249.	-2357.	-10249.	-414.	-16425.	-13091.							-120221.	-120221.	-120221.	
1983	0.	0.	0.	0.	-270.	0.	-89.	-15.	-65.	-319.	0.	0.	0.	0.	0.							-459.	-459.	-459.	
1984	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.							0.	0.	0.	
1985	100.	33927.	-10372.	871.	819.	3074.	3134.	3473.	67.	-1507.	-2557.	-11159.	-610.	-10549.	20175.	33169.	-13011.			0.	1012.	4415.	56459.	42551.	92700.
1986	-302.	0.	-2524.	0.	0.	0.	-2743.	-2709.	-31.	-775.	0.	0.	0.	-10549.	20175.	33169.	-13011.			0.	-507.	9328.	-6370.	-4350.	-4350.
1987	0.	0.	-45.	0.	0.	0.	-15.	-25.	-29.	0.	0.	0.	0.	0.	-15.	-54.				9.	0.	0.	-79.	-79.	-79.
1988	0.	-33670.	33242.	4107.	51.	6522.	6185.	4107.	1515.	4410.	107.	11124.	61.	11044.	-4172.	-10017.	13925.					-429.	-429.	-429.	
1989	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2020.	650.	650.	0.	-5015.	-5015.	0.					-1002.	-1002.	-1002.	
1990	-0.	-252.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.			0.	-1302.	-1302.	-1302.	-1302.	
1991	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.			0.	-1302.	-1302.	-1302.	-1302.	
1992	210.	0.	24239.	4170.	915.	11120.	2335.	5024.	1547.	2620.	9.	595.	100.	415.	2488.	2488.	-10.			0.	0.	1124.	30143.	42551.	22050.
1993	227.	4560.	0.	0.	0.	0.	2160.	4744.	1254.	1507.	0.	37.	37.	0.	1375.	1375.	0.			0.	0.	747.	4917.	3420.	14534.
1994	41.	0.	9350.	4370.	442.	0.	3520.	3549.	109.	459.	0.	0.	0.	0.	0.	0.	0.			0.	0.	0.	9131.	35.	1475.
1995	0.	0.	10450.	0.	11120.	0.	0.	0.	0.	0.	0.	62.	62.	0.	5.	2.	0.			0.	0.	314.	10310.	30274.	43704.
1996	30.	175.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.			0.	0.	43.	1343.	1143.	1143.

予 測 年	ERC01	ERC02	ERC03	ERC04	ERC05	ERC06	ERC07	ERC07A	ERC07B	ERC08	ERC09	ERC10	ERC10A	ERC10B	ERC11	ERC11A	ERC11B	ERC11C	ERC11D	ERC12	ERC13	ERC14	ERC15	ERC16	ERC17
1980	1011.	131000.													50775.	50775.				0.	1109.		103419.	51027.	237415.
1981	0.	12440.	12507.	1340.	1507.	5020.	4977.	4760.	133.	0.	509.	81.	4.	22.								25443.	25443.	25443.	
1982	-30.	-97301.	-10924.	0.	0.	0.	0.	0.	0.	-2026.	-45.	-14113.	-496.	-14113.	-25558.							-142071.	-142071.	-142071.	
1983	0.	0.	0.	0.	-410.	0.	-65.	-15.	-70.	-340.	0.	0.	0.	0.	0.							-835.	-835.	-835.	
1984	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.							0.	0.	0.	
1985	1011.	40107.	-1242.	1340.	1159.	5020.	4977.	4747.	67.	-2366.	415.	-14732.	-492.	-14732.	24819.	50775.	-25458.			0.	1109.	4551.	47350.	51027.	120355.
1986	-321.	0.	-1245.	0.	0.	0.	-1245.	-3214.	-47.	-550.	0.	0.	0.	0.	0.	0.	0.			0.	-555.	1027.	-5400.	-5400.	-5400.
1987	0.	0.	-45.	0.	0.	0.	-15.	-25.	-29.	0.	0.	0.	0.	0.	-45.	-55.				10.	0.	0.	-79.	-79.	-79.
1988	0.	-11035.	44049.	5312.	47.	6459.	6213.	4240.	2057.	5072.	1255.	14721.	81.	11010.	-5932.	-11022.	25419.					-3102.	-3102.	-3102.	
1989	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2020.	750.	750.	0.	-7612.	-7612.	0.					-7074.	-7074.	-7074.	
1990	-0.	-252.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.			0.	-1424.	-271.	-6527.	0.	-6327.
1991	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.			0.	-1424.	-271.	-6527.	0.	-6327.
1992	505.	0.	30274.	4174.	1224.	13747.	1715.	2703.	2033.	2575.	3420.	737.	134.	119.	3571.	3541.	-10.			0.	0.	1553.	43924.	51027.	14553.
1993	453.	0.	4445.	0.	0.	0.	4340.	2410.	1720.	2053.	0.	59.	59.	0.	1027.	1027.	0.			0.	0.	4944.	4791.	2463.	11154.
1994	22.	0.	12150.	4374.	1124.	0.	4244.	4324.	159.	450.	0.	0.	0.	0.	0.	0.	0.			0.	0.	0.	12176.	34.	12176.
1995	0.	0.	13014.	0.	13747.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.			0.	0.	450.	14237.	45920.	43167.
1996	30.	4220.	0.	0.	0.	0.	1171.	1071.	160.	72.	3620.	470.	0.	0.	610.	1719.	4720.			0.	0.	87.	1730.	1730.	1730.

予 測 年	ERC01	ERC02	ERC03	ERC04	ERC05	ERC06	ERC07	ERC07A	ERC07B	ERC08	ERC09	ERC10	ERC10A	ERC10B	ERC11	ERC11A	ERC11B	ERC11C	ERC11D	ERC12	ERC13	ERC14	ERC15	ERC16	ERC17
1980	2270.	136000.													42123.	42123.				0.	3911.		265493.	22174.	277407.
1981	0.	12440.	12507.	1340.	1507.	5020.	4977.	4760.	133.	0.	509.	81.	4.	22.								37327.	37327.	37327.	
1982	-30.	-97301.	-10924.	0.	0.	0.	0.	0.	0.	-2026.	-45.	-14113.	-496.	-14113.	-25558.							-145700.	-145700.	-145700.	
1983	0.	0.	0.	0.	-410.	0.	-65.	-15.	-70.	-340.	0.	0.	0.	0.	0.							-1470.	-1470.	-1470.	
1984	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.							0.	0.	0.	
1985	2270.	50052.	4193.	4162.	1790.	9403.	8433.	7854.	503.	-1920.	119.	-10544.	-420.	-12410.	21457.	42123.	-32410.			0.	3911.	9531.	90240.	22174.	160414.
1986	-2254.	0.	-4159.	0.	0.	0.	-4159.	-4343.	-19.	-1135.	0.	0.	0.	0.	0.	0.	0.			0.	-1119.	2059.	-5543.	-5543.	-5543.
1987	0.	0.	-45.	0.	0.	0.	-15.	-25.	-29.	0.	0.	0.	0.	0.	-45.	-54.				10.	0.	0.	-79.	-79.	-79.
1988	0.	-55410.	54814.	4116.	83.	10706.	10230.	7220.	2502.	7237.	1541.	10337.	100.	10237.	-4119.	-10347.	32700.					-761.	-761.	-761.	
1989	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2020.	750.	750.	0.	-4119.	-4119.	0.					-3137.	-3137.	-3137.	
1990	-0.	-252.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.			0.	-2072.	-129.	-1114.	0.	-1114.
1991	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.			0.	-2072.	-129.	-1114.	0.	-1114.
1992	407.	0.	55434.	10770.	1073.	20450.	10240.	11250.	3616.	3617.	3420.	1441.	222.	119.	5419.	5419.	-10.			0.	0.	2430.	40261.	22174.	134375.
1993	459.	0.	14592.	0.	0.	0.	4351.	4272.	2477.	3640.	0.	87.	87.	0.	2077.	2077.	0.			0.	0.	1764.	15140.	957.	14592.
1994	0.	0.	10177.	10470.	1714.	0.	5473.	5293.	109.	450.	0.	0.	0.	0.	0.	0.	0.			0.	0.	0.	10177.	35.	10177.
1995	0.	0.	20570.	0.	24150.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.			0.	0.	549.	21107.	21107.	92150.
1996	30.	4137.	0.	0.	157.	1012.	1605.	157.	77.	3420.	819.	0.	0.	0.	119.	2751.	2751.			0.	0.	137.	2533.	2533.	2533.

予 測 年	ERC01	ERC02	ERC03	ERC04	ERC05	ERC06	ERC07	ERC07A	ERC07B	ERC08	ERC09	ERC10	ERC10A	ERC10B	ERC11	ERC11A	ERC11B	ERC11C	ERC11D	ERC12	ERC13	ERC14	ERC15	ERC16	ERC17
1980	3470.	131000.													43415.	43415.				0.	4230.		261303.	83419.	292762.
1981	0.	12440.	12507.	1340.	1507.	5020.	4977.	4760.	133.	0.	509.	81.	4.	22.								45742.	45742.	45742.	
1982	-30.	-97301.	-10924.	0.	0.	0.	0.	0.	0.	-2026.	-45.	-14113.	-496.	-14113.	-25558.							-145740.	-145740.	-145740.	
1983	0.	0.	0.	0.	-410.	0.	-65.	-15.	-70.	-340.	0.	0.	0.	0.	0.							-1230.	-1230.	-1230.	
1984	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.							0.	0.	0.	
1985	3470.	55052.	4193.	4162.	1790.	9403.	8433.	7854.	503.	-1920.	119.	-12233.	-460.	-12233.	20749.	43415.	-32410.			0.	4230.	11192.	107507.	83419.	192384.
1986	-3373.	0.	-4159.	0.	0.	0.	-4159.	-4343.	-19.	-1135.	0.	0.	0.	0.	0.	0.	0.			0.	-1130.	3350.	-10735.	-10735.	-10735.
1987	0.	0.	-45.	0.	0.	0.	-15.	-25.	-29.	0.	0.	0.	0.	0.	-45.	-54.				10.	0.	0.	-79.	-79.	-79.
1988	0.	-55410.	54814.	4116.	83.	10706.	10230.	7220.	2502.	7237.	1541.	10337.	100.	10237.	-4119.	-10347.	32700.					-761.			

