

Microsoft Excel - Outcome-Simulation									
Table 2. Investment Ratio by Public and Private Sector (Case in Simulation)									
	A	B	C	D	E	F	G	H	I
			1985	Ratio(%)	1995	Ratio(%)	2000		
1									
2									
3									
4		Gross Domestic Fixed Capital Formation	Rs million	3,100	18.7	18,325	26.7	35,	
5		Private Fixed Capital Formation	Rs million	2,100	12.6	12,460	18.1	25,	
6		Govern. Fixed Capital Formation	Rs million	1,000	6.0	5,865	8.5	10,	
7									
8		GDP at Current Price	Rs million	16,618		68,760		125,	
9									
10									
11									
12									
13									
14		Gross Domestic Fixed Capital Formation	Rs million	3,100	18.7	18,325	26.7	35,	
15		Private Fixed Capital Formation	Rs million	2,100	12.6	12,460	18.1	25,	
16		Govern. Fixed Capital Formation	Rs million	1,000	6.0	5,865	8.5	10,	
17									
18		GDP at Current Price	Rs million	16,618		68,760		125,	
19									
20		(Source: CSO and JICA Study Team)							
21									
22									
23									

Private Fixed Capital Formation  
Govern. Fixed Capital Formation  
- GDP at Current Price

(3) Ratio to GF

( Refer to Screen 065 )

Government finance between 1985 - 1995, 1996 - 2000, 2001 - 2010, 2011 - 2015 including followings.

- Government Finance at Current Price  
Revenue  
Grants Received  
Expenditure  
Lending - Repayment  
Deficit and Surplus  
- Deficit Ratio to GDP

(4) Trade Balance

( Refer to Screen 066 )

Trade balance between 1985 - 1995, 1996 - 2000, 2001 - 2010, 2011 - 2015 by industry sector including following outputs.

- Export of Goods and Services  
- Import of Goods and Services  
- Balance  
- Ratio to GDP(%)

Microsoft Excel - Outcome Simulation						
Table3. Government Finance (Case in Simulation)						
	A	B	C	D	E	F
1	<b>Table3. Government Finance (Case in Simulation)</b>					
2	Government Finance at Current Price		1985	1995	2000	2010
3	Revenue	Rs million	3,593	14,295	25,599	55,275
4	Grants Received	Rs million	166	240	300	300
5	Expenditure	Rs million	4,229	15,868	28,281	59,320
6	Lending - Repayment	Rs million	110	-380	-500	-800
7	Deficit and Surplus	Rs million	-580	-953	-1,882	-2,940
8						
9	Deficit Ratio to GDP	(%)	3.5	1.4	1.5	0.5
10						
11	<b>Government Finance ( Base Case)</b>					
12	Government Finance at Current Price		1985	1995	2000	2010
13	Revenue	Rs million	3,593	14,295	25,599	55,275
14	Grants Received	Rs million	166	240	300	300
15	Expenditure	Rs million	4,229	15,868	28,281	59,320
16	Lending - Repayment	Rs million	110	-380	-500	-800
17	Deficit and Surplus	Rs million	-580	-953	-1,882	-2,940
18						
19	Deficit Ratio to GDP	(%)	3.5	1.4	1.5	0.5
20						
21	(Source: CSO and JICA Study Team)					
22						
23						

Microsoft Excel - Outcome Simulation						
Table 4. Trade Balance (Case in Simulation)						
A	B	C	D	E	F	
		1985	1995	2000	2010	
1	<b>Table 4. Trade Balance (Case in Simulation)</b>					
2		1985	1995	2000	2010	
3	Export of Goods and Services	Rs million	8,895	40,115	78,827	217,382
4	Import of Goods and Services	Rs million	9,210	43,100	84,365	231,883
5	Balance	Rs million	-315	-2985	-5,538	-14,501
6	Ratio to GDP(%)		1.9	4.3	4.4	4.6
7						
8	<b>Trade Balance ( Base Case)</b>					
9		1985	1995	2000	2010	
10	Export of Goods and Services	Rs million	8,895	40,115	78,827	217,382
11	Import of Goods and Services	Rs million	9,210	43,100	84,365	231,883
12	Balance	Rs million	-315	-2985	-5,538	-14,501
13	Ratio to GDP(%)		1.9	4.3	4.4	4.6
14						
15	(Source: CSO and JICA Study Team)					
16						
17						
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19						
20						
21						
22						
23						
24						
		<b>Trade Balance</b>				

(5) labour produ. sector

**( Refer to Screen 067 )**

Labour productivity between 1985 - 1995, 1996 - 2000, 2001 - 2010, 2011 - 2015 by individual industry subsector.

- Agriculture, Hunting, Forestry, Mining, and Quarrying
- Manufacturing
  - Sugar
  - EPZ
  - Domestic Manufacturing
- Electricity, Gas, and Water
- Construction
- Wholesale, Retail, Restaurants, and Hotels
- Transportation, Storage, and Communication
- Banking, Insurance, Real Estate, Business service
- Other service
- Total labour productivity at constant price (1990)

(6) cpi & deflator

**( Refer to Screen 068 )**

CPI and GDP deflator between 1985 - 1995, 1996 - 2000, 2001 - 2010, 2011 - 2015 including followings.

- Consumer Price Index
- GDP Deflator

		Table 5 Labour Productivity by Industrial Sector				
		1985*1	1995	2000	2010	
1						
2	Labour Productivity (1990)					
3	Agriculture, Hunting, Forestry, Mining, and Quarrying	42	55	78	156	
4	Manufacturing	70	70	96	201	
5	Sugar	-	102	152	229	
6	EPZ	-	63	96	201	
7	Domestic Manufacturing	-	76	90	198	
8	Electricity, Gas, and Water	96	204	315	751	
9	Construction	103	86	95	115	
10	Wholesale, Retail, Restaurants, Hotels	116	93	91	100	
11	Transportation, Storage, and Communication	127	137	140	170	
12	Banking, Insurance, Real Estate, Business service	559	428	459	582	
13	Other service	35	56	65	96	
14	Total Labor Productivity at Constant Price (1990)	83	95	113	161	
15						
16						
17	Labour Productivity by Industrial Sector					
18	Labour Productivity (1990)	1985*1	1995	2000	2010	
19	Agriculture, Hunting, Forestry, Mining, and Quarrying	42	55	78	156	
20	Manufacturing	70	70	96	201	
21	Sugar	-	102	152	229	
22	EPZ	-	63	96	201	
23	Domestic Manufacturing	-	76	90	198	
24	Electricity, Gas, and Water	96	204	315	751	
25	Construction	103	86	95	115	
26	Wholesale, Retail, Restaurants, Hotels	116	93	91	100	
27	Transportation, Storage, and Communication	127	137	140	170	
28	Banking, Insurance, Real Estate, Business service	559	428	459	582	
29	Other service	35	56	65	96	
30	Total Labor Productivity at Constant Price (1990)	83	95	113	161	

labour produ. sector

Microsoft Excel - Outcome Simulation							
Table 6 CPI and GDP Deflator ( Case in Simulation)							
A	B	C	D	E	F	G	
1							
2	1985*1	1995	2000	2010	2025	1995/1985*2	
3	Consumer Price Index	70.1	141.0	195.2	291.3	527	7.2
4	GDP Deflator	63.2	140.9	197.7	299.7	555.3	8.3
5							
6							
7	1985*1	1995	2000	2010	2025	1995/1985*2	
8	Consumer Price Index	70.1	141.0	195.2	291.3	527.0	7.2
9	GDP Deflator	63.2	140.9	197.7	299.7	555.3	8.3
10							
11	(Notes *1: Index figure assuming 1990 equal to 100) )						
12	(Notes *2: Annual average growth rate in %)						
13	(Source: CSO and JICA Study Team)						
14							
15							
16							
17							
18							
19							
20							
21							
22							

(7) Consumption total

( Refer to Screen 069 )

Total energy demand between 1985 - 1995, 1996 - 2000, 2001 - 2010, 2011 - 2015 by sector including followings.

- Non-electricity Consumption by Industry
- Electricity Consumption by Industry
- Conversion to TOE
- Total Consumption by Industry
  
- Non-Electricity Consumption by Commercial
- Electricity Consumption by Commercial
- Conversion to TOE
- Total Consumption by Commercial
  
- Total Consumption by Transport
  
- Non-Electricity Consumption by Residential
- Electricity Consumption by Residential
- Conversion to TOE
- Total Consumption by Residential
  
- Electricity Consumption by Others
  
- Total Electricity Consumption by all Sectors
  
- Total Energy Consumption by all Sectors
  
- Final Energy Consumption per Capita



Microsoft Excel - Outcome Simulation!						
Table 7 Total Energy Demand by Sector (Case in Simulation)						
A	B	C	D	E	F	G
1	Table 7 Total Energy Demand by Sector (Case in Simulation)					
2	Unit	1985	1995	2000	2010	
3	Non-electricity Consumption by Industry	38,127	80,263	114,607	223,770	
4	Electricity Consumption by Industry	103,900	322,476	505,425	1,183,320	
5	Conversion to TOE	8935.4	27,733	43,467	101,760	
6	Total Consumption by Industry	47,062	107,996	158,074	325,530	
7						
8	Non-Electricity Consumption by Commercial	1,543	3,994	6,942	20,360	
9	Electricity Consumption by Commercial	73,000	227,327	326,387	661,280	
10	Conversion to TOE	6,278	19,550	28,069	56,870	
11	Total Consumption by Commercial	7,821	23,544	35,011	77,230	
12						
13	Total Consumption by Transportation	79,202	192,132	231,424	385,690	
14						
15	Non-Electricity Consumption by Domestic	35,561	45,082	51,415	63,070	
16	Electricity Consumption by Domestic	138,200	330,792	482,016	957,300	
17	Conversion to TOE	11,885	28,448	41,453	82,320	
18	Total Consumption by Domestic	47,447	73,530	92,868	145,400	
19						
20	Electricity Consumption by Others	5,800	14,490	21,021	44,820	
21						
22	Total Electricity Consumption by all Sectors	320,900	895,085	1,270,000	2,500,000	
23	Consumption total					

Consumption total

(8) Consumption by sources

( Refer to Screen 070 )

Energy demand between 1985 - 1995, 1996 - 2000, 2001 - 2010, 2011 - 2015 by sources including following outputs.

- Gasoline
- Diesel
- Kerosene
- Fuel Oil
- LPG
- Coal
- Fuel Wood
- Charcoal
- Bagasse (For National Grid)
  
- Total Primary Energy Consumption  
    Of which Inputs for Electricity
  
- Inputs for Electricity/Total Consumption (%)
  
- Primary Energy Consumption per Capita

(9) Energy intensity

( Refer to Screen 071 )

Energy intensity between 1985 - 1995, 1996 - 2000, 2001 - 2010, 2011 - 2015 including following outputs.

Microsoft Excel - Outcome Simulation						
Table 8 Energy Demand by Sources (Case in Simulation)						
A	B	C	D	E	F	
	1985	1995	2000	2010	2025	(TOE)
1	<b>Table 8 Energy Demand by Sources (Case in Simulation)</b>					
2		175,436	288,080	674,552	2,164,446	
3	Gasoline	37,579	56,851	18,056	53,684	228,765
4	Diesel	36,396	39,113	59,278	110,018	244,289
5	Jet Fuel	4,940	1,792	421	313	7
6	Kerosene	2,741	962	421	313	300
7	Fuel Oil	22,358	31,582	61,384	78,137	162,440
8	LPG	19,457	556,812	771,874	1,420,773	3,451,114
9	Coal	1,850	962	421	313	300
10	Fuel Wood	22,734	31,582	61,384	78,137	162,440
11	Charcoal	9,881	11,558	11,180	11,180	11,180
12	Bagasse (For National Grid)	245,192	556,812	771,874	1,420,773	3,451,114
13	Total Energy Consumption	80,878	223,782	355,457	716,018	2,005,661
14	Of which Inputs for Electricity	33	40.2	46.1	50.4	58.1
15	Inputs for Electricity/Total Consumption (%)					
16						
17	<b>Energy Demand by Sources (Base Case)</b>					
18		175,436	288,080	674,552	2,164,446	
19	Gasoline	37,579	56,851	18,056	53,684	228,765
20	Diesel	36,396	39,113	59,278	110,018	244,289
21	Jet Fuel	4,940	1,792	421	313	7
22	Kerosene	2,741	962	421	313	300
23	Fuel Oil	22,358	31,582	61,384	78,137	162,440
24	LPG	19,457	556,812	771,874	1,420,773	3,451,114
25	Coal	1,850	962	421	313	300
26	Fuel Wood	22,734	31,582	61,384	78,137	162,440
27	Charcoal	9,881	11,558	11,180	11,180	11,180
28	Bagasse (For National Grid)	245,192	556,812	771,874	1,420,773	3,451,114
29	Total Energy Consumption	80,878	223,782	355,457	716,018	2,005,661
30	Of which Inputs for Electricity	33	40.2	46.1	50.4	58.1
31	Inputs for Electricity/Total Consumption (%)					
32						
33	<b>Consumption by sources</b>					
34	Consumption by sources					
35	Consumption by sources					

Microsoft Excel - Outcome Simulation						
File Edit View Insert Format Tools Data Window Help						
Table 9 Energy Intensity ( Case in Simulation)						
A	B	C	D	E	F	
		1985	1995	2000	2010	
1	<b>Table 9 Energy Intensity ( Case in Simulation)</b>					
2						
3	Total Electricity Consumption(PHY)	Mwh	320,900	895,085	1,334,850	2,846,772
4	Total Energy Consumption (TOE)	TOE	245,192	556,812	771,874	1,420,773
5	GDP at constant (1990)	Rs million	27,183	48,932	63,622	106,211
6	Energy Intensity of Electricity	(Mwh/Rs mil.)	11.8	18.3	21.0	26.8
7	Energy Intensity of Total Energy	(TOE/Rs mil.)	9.0	11.4	12.1	13.4
8						
9	<b>Energy Intensity ( Base Case)</b>					
10						
11	Total Electricity Consumption(PHY)	Mwh	320,900	895,085	1,334,850	2,846,772
12	Total Energy Consumption (TOE)	TOE	245,192	556,812	771,874	1,420,773
13	GDP at constant (1990)	Rs million	27,183	48,932	63,622	106,211
14	Energy Intensity of Electricity	(Mwh/Rs mil.)	11.8	18.3	21.0	26.8
15	Energy Intensity of Total Energy	(TOE/Rs mil.)	9.0	11.4	12.1	13.4
16						
17	(Source: CSO and JICA Study Team)					
18						
19						
20						
21						
22						

- Total Electricity Consumption(PHY)
- Total Energy Consumption (TOE)
- GDP at constant (1990)
- Energy Intensity of Electricity
- Energy Intensity of Total Energy
- Electricity Consumption per capita
- Energy Consumption per capita

(10) income ela. by sector

( Refer to Screen 072 )

- Non-Electricity consumption by industry
- Electricity including irrigation
- Conversion to TOE
- Total Consumption by Industry
- Average Annual Growth Rate
- Real GDP by Industry
- Average Annual Growth Rate by industry
- Income Elasticity
  
- Non-Electricity Consumption by Commercial
- Electricity including irrigation
- Conversion to TOE
- Total Consumption by Industry
- Average Annual Growth Rate
- Real GDP by Industry
- Average Annual Growth Rate by industry
- Income Elasticity
  
- Total Consumption by Transport
- Electricity including irrigation
- Conversion to TOE

Microsoft Excel - Outcome Simulations!					
File Edit View Insert Format Tools Data Window Help					
Table 10 - Income Elasticity by Sector (Case in Simulation)					
A	B	C	D	E	F
1	<b>Table 10 Income Elasticity by Sector (Case in Simulation)</b>				
2	Unit	1985	1995	2000	
3	Non-Electricity consumption by industry	38,127	80,263	114,607	22
4	Electricity including irrigation	103,900	322,476	505,425	1,18
5	Conversion to TOE	8,935	27,733	43,467	10
6	Total Consumption by Industry	47,062	107,996	158,074	32
7	Average Annual Growth Rate	-	8.7	7.9	
8	Real GDP by Industry	10,244	17756.1	22660.4	3
9	Average Annual Growth Rate by industry	-	5.7	5.0	
10	Income Elasticity	-	1.5	1.6	
11					
12	Non-Electricity Consumption by Commercial	1,543	3,984	6,942	21
13	Electricity Consumption by Commercial	73,000	227,327	326,387	66
14	Conversion to TOE	6,278	19,550	28,069	51
15	Total Consumption by Commercial	7820.76	23,544	35,011	7
16	Average Annual Growth Rate	-	11.7	8.3	
17	Real GDP by Commercial	10,201	21511.2	28796.9	51
18	Average Annual Growth Rate by Commercial	-	7.7	6.0	
19	Income Elasticity	-	1.5	1.4	
20					
21	Total Consumption by Transportation	79,202	192,132	231,424	38
22	Average Annual Growth Rate	-	9.3	3.8	
23	Real GDP by Transportation, etc.	2,406	5016.3		

income els. by sector

- Total Consumption by Industry
  - Average Annual Growth Rate
  - Real GDP by Industry
  - Average Annual Growth Rate by industry
  - Income Elasticity
  
- Non-Electricity Consumption by Residential
  - Electricity including irrigation
  - Conversion to TOE
  - Total Consumption by Industry
  - Average Annual Growth Rate
  - Real GDP by Industry
  - Annual Growth Rate by industry
  - Income Elasticity
  
- Total Electricity Consumption by all sectors
  - Average Annual Growth Rate
  - Income Elasticity
  
- Total Energy Consumption by all sectors
  - Average Annual Growth Rate
  - Income Elasticity
  
- GDP at constant (1990)
- Average Annual Growth Rate

(11) peak ele.

**( Refer to Screen 073 )**

Peak electricity demand between 1985 - 1995, 1996 - 2000, 2001 - 2010, 2011 - 2015

Microsoft Excel - Outcome Simulation						
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B17						
A	B	C	D	E	F	
1	<b>Table 11 Peak Electricity Demand ( Case in Simi</b>					
2		1985	1995	2000	2010	2025
3	Total electricity consumption	320,900	895,085	1,334,850	2,846,772	8,196,931
4	Electricity consumption per hour	36	101	152	325	936
5	Load factor (%)	51.1	57.9	61.2	63.0	63.0
6	Peak Electricity Demand	85	200	288	584	1,680
7	Self consumption and loss (%)	22.4	16.9	14.8	13.0	13.0
8						
9						
10		1985	1995	2000	2010	2025
11	Total electricity consumption	320,900	895,085	1,334,850	2,846,772	8,196,931
12	Electricity consumption per hour	36	101	152	325	936
13	Load factor (%)	51.1	57.9	61.2	63.0	63.0
14	Peak Electricity Demand	85	200	288	584	1,680
15	Self consumption and loss (%)	22.4	16.9	14.8	13.0	13.0
16						
17	(Source: CSO and JICA Study Team)					
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peak ele



including following outputs.

- Total electricity consumption
- Electricity consumption per hour
- Load factor (%)
- Peak Electricity Demand
- Self consumption and loss (%)

(12) MacRecord

**( Refer to Screen 074 )**

The **MacRecord** sheet is a screen containing the macro program code for calling up all files. In other words, in order to call up another file from the **Outcome\_Simulations.XLS** file currently open, you first return to **Main\_Menu.XLS** and then select any one of the files from the menu screen. This macro program must be rewritten if the user wishes to create a macro program which can call up other screens. Do not change this sheet in any way if you wish to maintain this program in its present form.

#### 4.14 Balance\_Table\_1995.XLS File

This file is the energy supply and demand balance table for 1995.

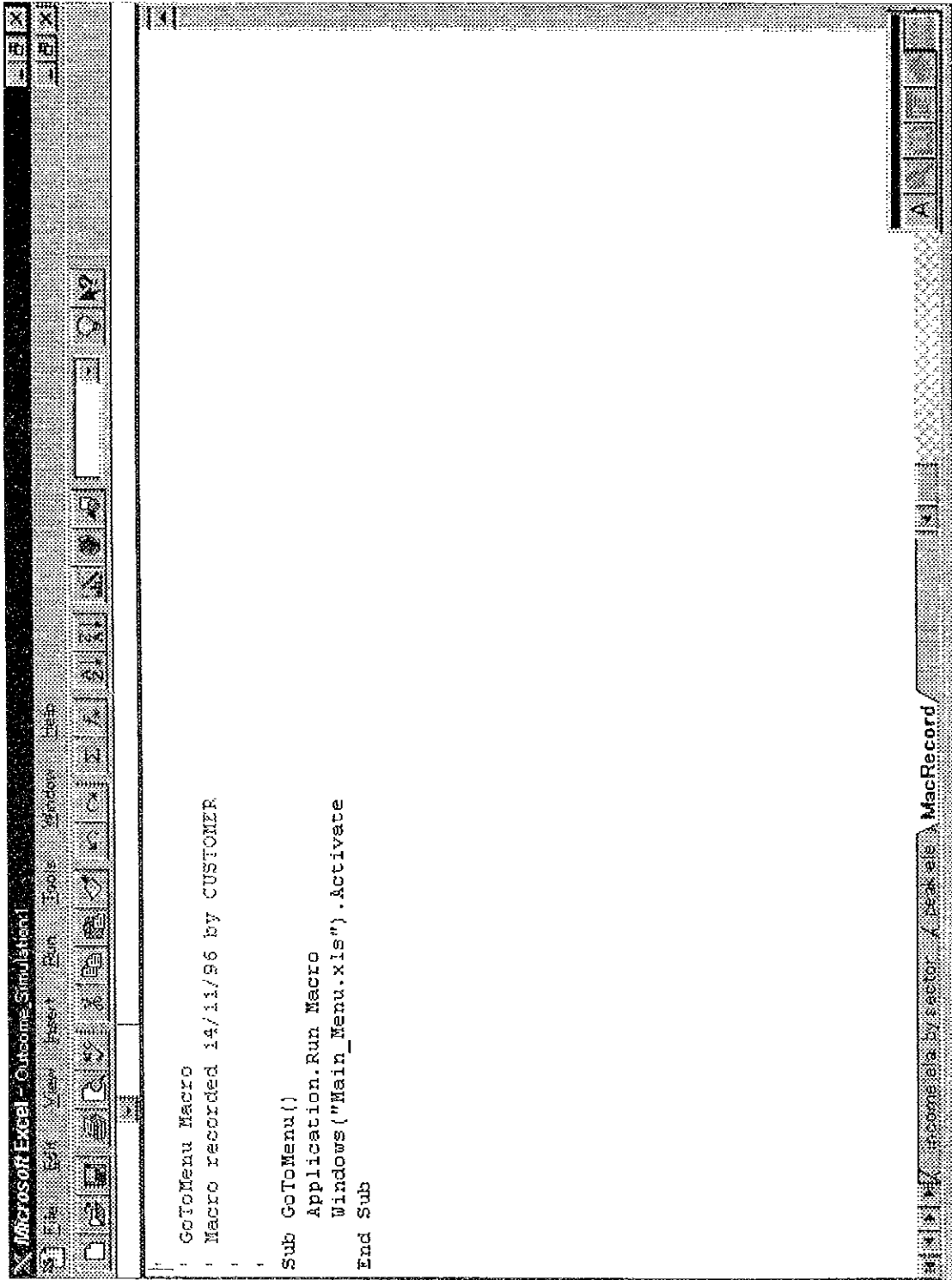
Figure 4-13 shows the structure of the sheets which are contained in the file.

(1) Balance95, Case01

**( Refer to Screen 075 )**

This file reflects historical energy supply and demand data for 1995. This data is based

Screen 074



MacRecord

Screen 075

Microsoft Excel - Balance Table\_1995

File Edit View Insert Format Tools Data Window Help

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A1

GoToMenu

	A	B	C	D	E	F	G
1							
2							
3							
4							
5							
6	1995	Coal	Gasoline	Diesel	Jet Fuel	Kerosene	Fuel C
7	Indigenous Production	39,113	90,675	121,510	125,041	44,639	175,
8	Import				-125,041		
9	Export						
10	TPES	39,113	90,675	121,510	0	44,639	175,
11	Electricity Generation	-18,779		-2,625		-33,625	-137,
12	TFC	20,334	90,675	118,885	0	11,014	38,
13	Industry Sector	20,334		17,428			38,
14	Transport Sector		90,673	101,500			
15	Commercial Sector					11,014	
16	Domestic Sector						
17	Statistical error	0	2	-43	0	0	
18	Notes:						
19	TPES: Total Primary Energy Supply						
20	TFC: Total Final Consumption						
21	The initial is provided as a record						
22	Balance95,Case01						

on data derived from formulas issued by the CSO. This file is linked with the **Energy\_Case\_01.XLS** master file. Statistical numbers are automatically updated through this file link whenever changes are made to corresponding data items in **Energy\_Case\_01.XLS**.

(2) MacRecord

( Refer to Screen 076 )

The **MacRecord** sheet is a screen containing the macro program code for calling up all files. In other words, in order to call up another file from the **Balance\_Table\_1995.XLS** file currently open, you first return to **Main\_Menu.XLS** and then select any one of the files from the menu screen. This macro program must be rewritten if the user wishes to create a macro program which can call up other screens. Do not change this sheet in any way if you wish to maintain this program in its present form.

#### 4.15 Balance\_Table\_2000.XLS File

This file is the energy supply and demand balance table for 2000.

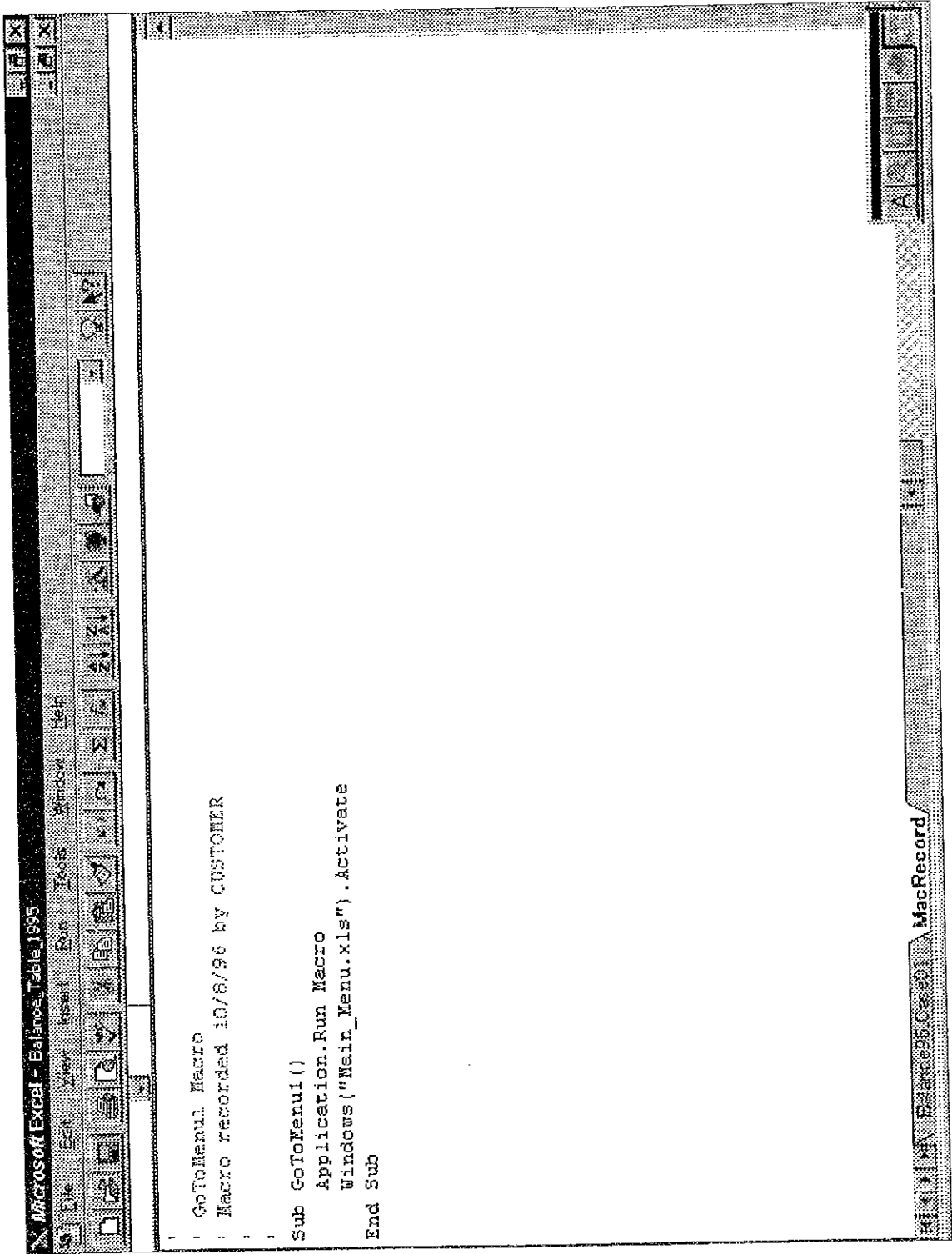
Figure 4-14 shows the structure of the sheets which are contained in the file.

(1) Balance00, Case01

( Refer to Screen 077 )

This file reflects historical energy supply and demand data for 2000. This data is based on data derived from formulas issued by the CSO. This file is linked with the **Energy\_Case\_01.XLS** master file. Statistical numbers are automatically updated through this file link whenever changes are made to corresponding data items in **Energy\_Case\_01.XLS**.

Screen 076



MacRecord

Microsoft Excel - Balance Table 2000

File Edit View Insert Format Tools Data Window Help

B8 =C:\WINDOWS\SYSTEM32\ENERGY\DATA\BASE\ENERGY\_CASE\_01.XLS EnergyModel!\$P\$331

Get Messages

### Energy Balance Table in TOE (Case01)

	2000	Coal	Gasoline	Diesel	Jet Fuel	Kerosene	Fuel Oil	LPG	Fuel
7	Indigenous Production		90,675	121,510	125,041	44,639	175,436	36,396	
8	Import	39,113			-125,041				
9	Export								
10	TPES	39,113	90,675	121,510	0	44,639	175,436	36,396	
11	Electricity Generation	-18,779		-2,625		-33,625	-137,171		
12	TFC	20,334	90,675	118,885	0	11,014	38,266	36,396	
13	Industry Sector	20,334		17,428			38,266	2,754	
14	Transport Sector		90,673	101,500					
15	Commercial Sector							9,402	
16	Domestic Sector					11,014		30,240	
17	Statistical error	0	2	(42,71)	0	0	0	0	0
18	Notes:								
19	TPES: Total Primary Energy Supply								
20	TFC: Total Final Consumption								
21	The jet fuel is considered as re-export.								
22	Total final consumption of fuel oil includes bunker oil.								
23									
24									
25									

Balance00 Case01

Balance00, Case01

(2) Balance00, Case02

This file reflects historical energy supply and demand data for 2000. This data is based on data derived from formulas issued by the CSO. This file is linked with the **Energy\_Case\_02.XLS** master file. Statistical numbers are automatically updated through this file link whenever changes are made to corresponding data items in **Energy\_Case\_02.XLS**.

( Refer to Screen 078 )

(3) Balance00, Case03

( Refer to Screen 079 )

This file reflects historical energy supply and demand data for 2000. This data is based on data derived from formulas issued by the CSO. This file is linked with the **Energy\_Case\_02.XLS** master file. Statistical numbers are automatically updated through this file link whenever changes are made to corresponding data items in **Energy\_Case\_02.XLS**.

(4) MacRecord

The **MacRecord** sheet is a screen containing the macro program code for calling up all files. In other words, in order to call up another file from the **Balance\_Table\_2000.XLS** file currently open, you first return to **Main\_Menu.XLS** and then select any one of the files from the menu screen. This macro program must be rewritten if the user wishes to create a macro program which can call up other screens. Do not change this sheet in any way if you wish to maintain this program in its present form.

( Refer to Screen 080 )

Microsoft Excel - Balance Table 2000

File Edit View Format Tools Data Window Help

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D15

A B C D E F G

Go To Menu

Energy Balance Table in IO

	2000	Coal	Gasoline	Diesel	Jet Fuel	Kerosene	Fuel Oil
7	Indigenous Production						
8	Import	39,113	90,675	121,510	125,041	44,639	175,43
9	Export				-125,041		
10	TPES	39,113	90,675	121,510	0	44,639	175,43
11	Electricity Generation	-18,779		-2,625		-33,625	-137,17
12	TFC	20,334	90,675	118,885	0	11,014	38,26
13	Industry Sector	20,334		17,428			38,26
14	Transport Sector		90,673	101,500			
15	Commercial Sector						
16	Domestic Sector					11,014	
17	Statistical error	0	2	-43	0	0	0
18	Notes:						
19	TPES: Total Primary Energy Supply						
20	TFC: Total Final Consumption						

The list fuel is considered as follows:

Balance00\_Case02 / Balance00\_Case03 / Balance00\_Case01 /

Balance00, Case02



Screen 079

Microsoft Excel - Balance Table\_2000

File Edit View Insert Format Tools Data Window Help

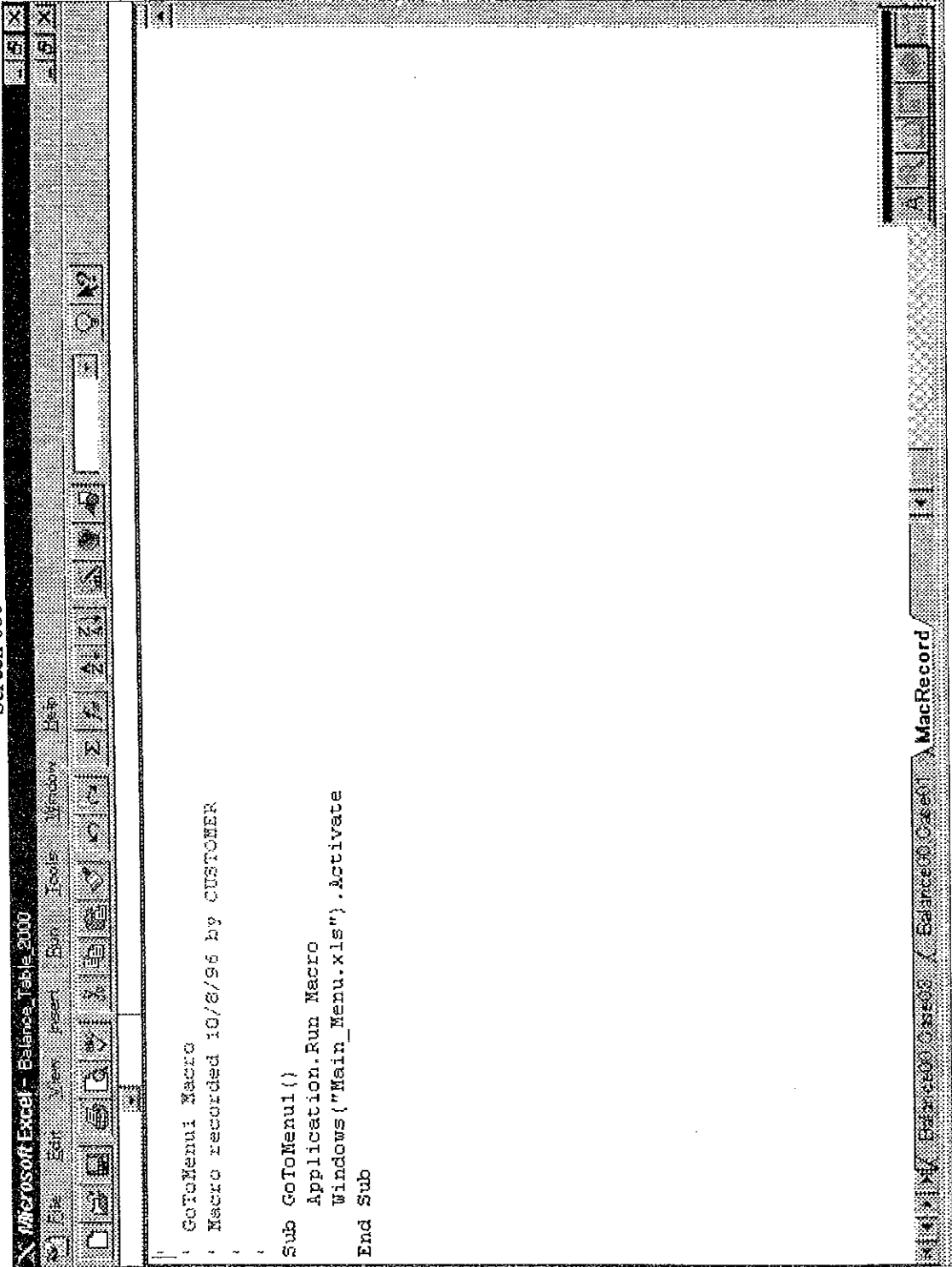
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Go To Menu

	A	B	C	D	E	F	G
1							
2							
3							
4							
5							
6		2000	Coal	Gasoline	Diesel	Jet Fuel	Kerosene Fuel
7		Indigenous Production					
8		Import	39113.32	90,675	121,510	125,041	44,639
9		Export			-125,041		
10		TPES	39,113	90,675	121,510	0	44,639
11		Electricity Generation	-18,779		-2,625		-33,625
12		TFC	20,334	90,675	118,885	0	11,014
13		Industry Sector	20,334		17,428		
14		Transport Sector		90,673	101,500		
15		Commercial Sector					11,014
16		Domestic Sector					
17		Statistical error	0	2	(42,71)	0	0
18		Notes:					
19		TPES: Total Primary Energy Supply					
20		TFC: Total Final Consumption					
		Balance00,Case02	Balance00,Case03	Balance00,Case01	Balance00,Case01	Balance00,Case01	Balance00,Case03

Balance00,Case03

Screen 080



## 4.16 Balance\_Table\_2010.XLS File

This file is the energy supply and demand balance table for 2010.

Figure 4-15 shows the structure of the sheets which are contained in the file.

(1) Balance10, Case01

**( Refer to Screen 081 )**

This file reflects historical energy supply and demand data for 2010. This data is based on data derived from formulas issued by the CSO. This file is linked with the **Energy\_Case\_02.XLS** master file. Statistical numbers are automatically updated through this file link whenever changes are made to corresponding data items in **Energy\_Case\_02.XLS**.

(2) Balance10, Case02

This file reflects historical energy supply and demand data for 2010. This data is based on data derived from formulas issued by the CSO. This file is linked with the **Energy\_Case\_02.XLS** master file. Statistical numbers are automatically updated through this file link whenever changes are made to corresponding data items in **Energy\_Case\_02.XLS**.

**( Refer to Screen 082 )**

(3) Balance10, Case03

This file reflects historical energy supply and demand data for 2010. This data is based on data derived from formulas issued by the CSO. This file is linked with the **Energy\_Case\_03.XLS** master file. Statistical numbers are automatically updated

Screen 081

Microsoft Excel - Balance Table 2010									
=C:\WINDOWS\system32\Energy\Data_Base\Energy_Case_01.xls\EnergyModel\SP\$331									
	A	B	C	D	E	F	G	H	I
1									
2									
3									
4									
5									
6	2010	Coal	Gasoline	Diesel	Jet Fuel	Kerosene	Fuel Oil	LPG	
7	Indigenous Production								
8	Import	39,113	90,675	121,510	125,041	44,639	175,436	36,396	
9	Export				-125,041				
10	TPES	39,113	90,675	121,510	0	44,639	175,436	36,396	
11	Electricity Generation	-18,779		-2,625		-33,625	-137,171		
12	TFC	20,334	90,675	118,885	0	11,014	38,266	36,396	
13	Industry Sector	20,334		17,428			38,266	2,754	
14	Transport Sector		90,673	101,500				3,402	
15	Commercial Sector								
16	Domestic Sector					11,014		30,240	
17	Statistical error	0	2	(42.71)	0	0	0	0	0
18	Notes:								
19	TPES: Total Primary Energy Supply								
20	TFC: Total Final Consumption								
21	The jet fuel is considered as re-export.								
22	Total final consumption of fuel oil includes bunker oil.								
23									
24									
25									

Balance00, Case01

Microsoft Excel - Balance Table 2010

File Edit View Insert Format Tools Date Window Help

Go To: 1204

B7

	A	B	C	D	E	F	G	
1								
2								
3								
4								
5								
6		2010	Coal	Gasoline	Diesel	Jet Fuel	Kerosene	
7		Indigenous Production	39,113	90,675	121,510	125,041	44,639	
8		Import				-125,041	175,436	
9		Export						
10		TPES	39,113	90,675	121,510	0	44,639	
11		Electricity Generation	-18,779		-2,625		-33,625	
12		TFC	20,334	90,675	118,885	0	11,014	
13		Industry Sector	20,334		17,428			
14		Transport Sector		90,673	101,500			
15		Commercial Sector					11,014	
16		Domestic Sector					0	
17		Statistical error	0	2	(42.71)	0	0	
18		Notes:						
19		TPES: Total Primary Energy Supply						
20		TFC: Total Final Consumption						
21		This list function is considered as a separate case						
22		Balance00.Case02	Balance00.Case03	Balance00.Case01	Case01	Case01	Case01	

through this file link whenever changes are made to corresponding data items in **Energy\_Case\_03.XLS**.

( Refer to Screen 083 )

(4) MacRecord

( Refer to Screen 084 )

The **MacRecord** sheet is a screen containing the macro program code for calling up all files. In other words, in order to call up another file from the **Balance\_Table\_2010.XLS** file currently open, you first return to **Main\_Menu.XLS** and then select any one of the files from the menu screen. This macro program must be rewritten if the user wishes to create a macro program which can call up other screens. Do not change this sheet in any way if you wish to maintain this program in its present form.

#### 4.17 Balance\_Table\_2025.XLS File

This file is the energy supply and demand balance table for 2025.

Figure 4-16 shows the structure of the sheets which are contained in the file.

(1)Balance25, Case01

( Refer to Screen 085 )

This file reflects historical energy supply and demand data for 2025. This data is based on data derived from formulas issued by the CSO. This file is linked with the **Energy\_Case\_02.XLS** master file. Statistical numbers are automatically updated through this file link whenever changes are made to corresponding data items in **Energy\_Case\_02.XLS**.

Microsoft Excel - Balance\_Table\_2010

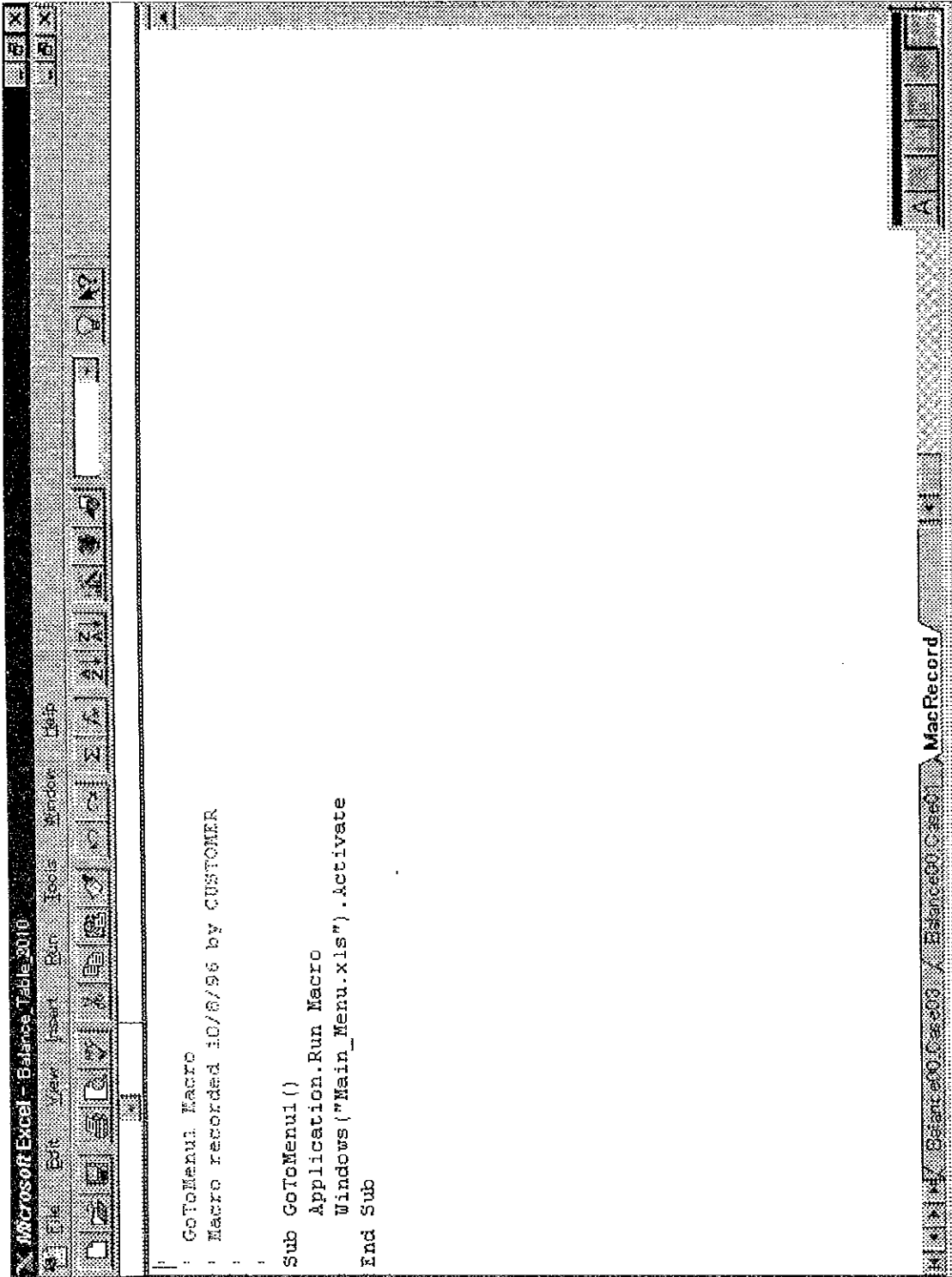
File Edit View Insert Format Tools Data Window Help

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Go To: [ ]

	A	B	C	D	E	F	G	H	I	
1										
2										
3										
4										
5										
6		2010	Coal	Gasoline	Diesel	Jet Fuel	Kerosene	Fuel Oil	LPG	Fuel V
7			Indigenous Production	39,113	90,675	121,510	125,041	44,639	175,436	36,396
8			Import							
9			Export							
10			TPES	39,113	90,675	121,510	0	44,639	175,436	36,396
11			Electricity Generation	-18,779		-2,625		-39,626	-137,171	
12			TFC	20,334	90,675	116,885	0	11,014	38,266	36,396
13			Industry Sector	20,334		17,428			38,266	2,754
14			Transport Sector		90,673	101,500				
15			Commercial Sector							3,402
16			Domestic Sector				11,014			30,240
17			Statistical error	0	2	(42,71)	0	0	0	0
18			Notes:							
19			TPES: Total Primary Energy Supply							
20			TFC: Total Final Consumption							
21			The jet fuel is considered as re-export.							
22			Total final consumption of fuel oil includes bunker oil.							
23										
24										
25										

Balance00, Case03





Microsoft Excel - Balance25 Case01									
Energy Balance Table in TOE (Case01)									
	2025	Coal	Gasoline	Diesel	Jet Fuel	Kerosene	Fuel Oil	LPG	Fuel
Indigenous Production									
Import	39,113		90,675	121,510	125,041	44,639	175,436	36,396	
Export					-125,041				
TPES	39,113	90,675	121,510	121,510	0	44,639	175,436	36,396	
Electricity Generation	-18,779			-2,625		-33,625	-137,171		
TFC	20,334	90,675	118,885	118,885	0	11,014	38,266	36,396	
Industry Sector	20,334			17,428			38,266	2,754	
Transport Sector			90,673	101,500				3,402	
Commercial Sector						11,014		30,240	
Domestic Sector									
Statistical error	0	2	(42,71)		0	0	0	0	0
Notes:									
TPES: Total Primary Energy Supply									
TFC: Total Final Consumption									
The jet fuel is considered as re-export.									
Total final consumption of fuel oil includes bunker oil.									
Balance25 Case02 / Balance25 Case03 / Balance25 Case01 / Fix									

Balance25, Case01

(2) Balance25, Case02

( Refer to Screen 086 )

This file reflects historical energy supply and demand data for 2025. This data is based on data derived from formulas issued by the CSO. This file is linked with the **Energy\_Case\_02.XLS** master file. Statistical numbers are automatically updated through this file link whenever changes are made to corresponding data items in **Energy\_Case\_02.XLS**.

(3)Balance25, Case03

( Refer to Screen 087 )

This file reflects historical energy supply and demand data for 2025. This data is based on data derived from formulas issued by the CSO. This file is linked with the **Energy\_Case\_03.XLS** master file. Statistical numbers are automatically updated through this file link whenever changes are made to corresponding data items in **Energy\_Case\_03.XLS**.

(5) MacRecord

( Refer to Screen 088 )

The **MacRecord** sheet is a screen containing the macro program code for calling up all files. In other words, in order to call up another file from the **Balance\_Table\_2025.XLS** file currently open, you first return to **Main\_Menu.XLS** and then select any one of the files from the menu screen. This macro program must be rewritten if the user wishes to create a macro program which can call up other screens. Do not change this sheet in any way if you wish to maintain this program in its present form.

Microsoft Excel - Balance Table 2025

File Edit View Insert Format Tools Data Window Help

BS =C:\WINDOWS\7\7\Energy\_Data\_Base\Energy\_Case\_02.xls\EnergyModel\SP8331

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		Energy Balance Table in T					
	2025	Coal	Gasoline	Diesel	Jet Fuel	Kerosene	Fuel Oil
7	Indigenous Production						
8	Import	39,113	90,675	121,510	125,041	44,639	175,4
9	Export				-125,041		
10	TPES	39,113	90,675	121,510	0	44,639	175,4
11	Electricity Generation	-18,779		-2,625		-33,625	-137,1
12	TFC	20,334	90,675	118,885	0	11,014	38,2
13	Industry Sector	20,334		17,428			38,2
14	Transport Sector		90,673	101,500			
15	Commercial Sector						
16	Domestic Sector					11,014	
17	Statistical error	0	2	(42,71)	0	0	0
18	Notes:						
19	TPES: Total Primary Energy Supply						
20	TFC: Total Final Consumption						

The int fuel is considered as domestic

Balance25\_Case02 / Balance25\_Case01 / N

Microsoft Excel - Balance Table 2025

File Edit View Format Tools Data Window Help

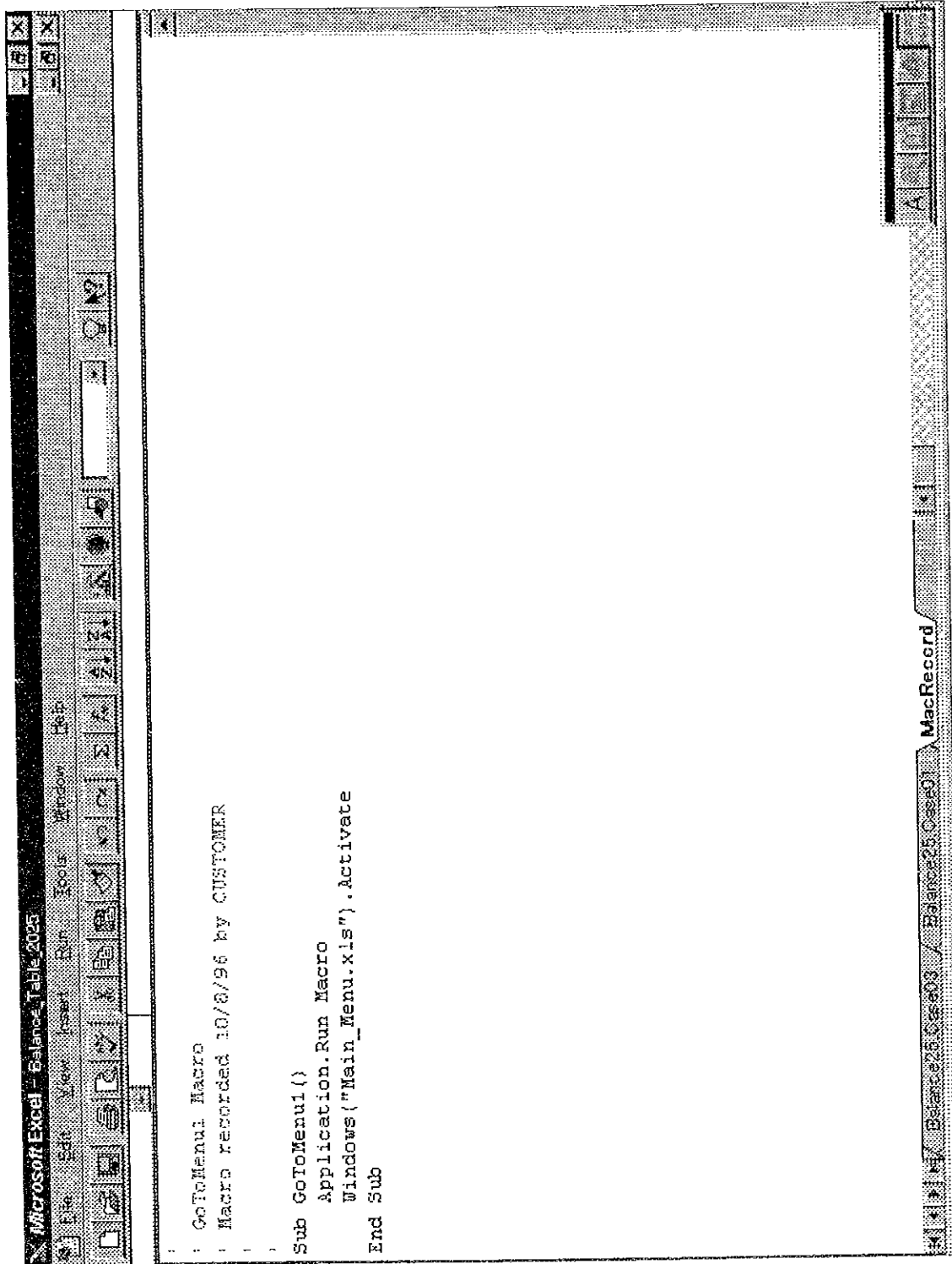
Address Bar: =C:\WINDOWS\7\7\Energy Data\_Base\Energy\_Case\_03.xls\EnergyModel\F331

Formula Bar: 100%

Worksheet: Balance25.Case03

### Energy Balance Table in TOE (Case03)

	Coal	Gasoline	Diesel	Jet Fuel	Kerosene	Fuel Oil	LPG	Fuel
1								
2								
3								
4								
5								
6	2025							
7	Indigenous Production							
8	Import	39,113	90,675	121,510	125,041	44,639	175,436	36,396
9	Export				-125,041			
10	TPES	39,113	90,675	121,510	0	44,639	175,436	36,396
11	Electricity Generation	-18,779		-2,625		-33,625	-137,171	
12	TFC	20,334	90,675	118,885	0	11,014	38,266	36,396
13	Industry Sector	20,334		17,428			38,266	2,754
14	Transport Sector		90,673	101,500				
15	Commercial Sector							3,402
16	Domestic Sector				11,014			30,240
17	Statistical error	0	2	(42,71)	0	0	0	0
18	Notes:							
19	TPES: Total Primary Energy Supply							
20	TFC: Total Final Consumption							
21	The jet fuel is considered as re-export.							
22	Total final consumption of fuel oil includes bunker oil.							
23								
24								
25								



#### 4.18 Energy\_Demand\_Forecast.XLS File

This file is not actually included in the energy database files of the installed computer, however, it is left as a user creation file. Operators of this file are easily able to create energy demand forecast model to analyze what are the future energy demand in the country will be. It is noted that this file has a similar function with Case\_Simulation file. Those who wish to create this file, it is highly suggested that making a copy from the files into floppy disc, and then store in other folder by changing file name to avoid from the confusion of simultaneous operation of the original database.

(1) EnergyModel

( Refer to Screen 089 )

The **Energy\_Demand\_Forecast.XLS** file is created through data transfer with **Energy\_Case\_01.XLS**. This file displays the macro economy which is forecast in the energy database for beyond 1995 using rounded forecast data in the database.

(2) MacRecord

( Refer to Screen 090 )

The **MacRecord** sheet is a screen containing the macro program code for calling up all files. In other words, in order to call up another file from the **Energy\_Case\_01.XLS** file currently open, you first return to **Main\_Menu.XLS** and then select any one of the files from the menu screen. This macro program must be rewritten if the user wishes to create a macro program which can call up other screens. Do not change this sheet in any way if you wish to maintain this program in its present form.

Microsoft Excel - Energy Demand Forecast						
File Edit View Insert Format Tools Data Window Help						
120%						
F2	A	B	C	D	E	F
1			Custom Menu			1985
2			Social statistics			
3	E		Population ( Middle of Years)	1000 Persons	POP	990
4	I		Independent Households	1000 families	HOH	165
5						
6			Labor Forces			
7	E		Agriculture, Hunting, Forestry, Mining, and Quarrying	Person	LABPRI	93,200
8	E		Manufacturing	Person	LABMAN	66,200
9	E		Sugar	Person	LABSUG	
10	E		EPZ	Person	LABEPZ	
11	E		Domestic Manufacturing	Person	LABDOM	
12	E		Electricity, Gas, and water	Person	LABELE	3,900
13	E		Construction	Person	LABCON	12,800
14	E		Wholesale, Retail, Restaurants, and Hotels	Person	LABCOM	28,400
15	E		Transportation, Storage, and Communication	Person	LABTRA	18,900
16	E		Banking, Insurance, Real Estate, Business service	Person	LABBAN	6,200
17	E		Other service	Person	LABSER	96,900
18	I		Total Labor Force	Person	LABTOT	326,500
19	I		Labor Force in Population	%	LABSHA	33
20						
21			GDP at current Price			
22			Energy Demand Forecast			

Screen 090

