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## 5.4 Revision of annual questionnaires and energy balance table

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# Contents

- ✓ Revision of data collecting templates
- ✓ Revision of the format of energy balances

Energy Balance Table (Table.2)						
Member: JPN						
Year: 2016						
	1.	1.1	1.1.1	1.1.2	1.1.3	1.1.4
	Coal	Hard coal	Coking coal	Other bituminous coal	Sub-bituminous coal	Anthracite
1. Indigenous production	788	788	0	0	788	0
2. Imports	119,685	116,004	40,623	75,381	0	0
3. Exports	0	0	0	0	0	0
4. International marine bunkers	0	0	0	0	0	0
13.1 International aviation bunkers	0	0	0	0	0	0
5. Stock change	-396	-396	183	-579	0	0
6. Total primary energy supply	120,077	116,396	40,807	74,801	788	0
7. Transfers	0	0	0	0	0	0
7.1 Recycled products	0	0	0	0	0	0
7.2 Interproduct transfer	0	0	0	0	0	0
7.3 Products transferred	0	0	0	0	0	0
7.4 Gas separation	0	0	0	0	0	0
8. Total transformation sector	-104,856	-104,835	-37,451	-66,596	-788	0
8.1 Main activity producer	-62,761	-62,761	0	-61,973	-788	0
8.1.1 Electricity plants	-62,761	-62,761	0	-61,973	-788	0
8.1.2 CHP plants	0	0	0	0	0	0
8.1.3 Heat plants	0	0	0	0	0	0
8.2 Autoproducers	-4,633	-4,624	0	-4,624	0	0
8.2.1 Electricity plants	-4,633	-4,624	0	-4,624	0	0
8.2.2 CHP plants	0	0	0	0	0	0
8.2.3 Heat plants	0	0	0	0	0	0
8.3 Gas processing plants	0	0	0	0	0	0
8.3.1 Gas works plants	0	0	0	0	0	0
8.3.2 Liquefaction plants	0	0	0	0	0	0
8.3.3 Regasification plants	0	0	0	0	0	0
8.3.4 Natural gas blending plants	0	0	0	0	0	0

  

APEC-ASEAN joint format for annual energy data												
Transformation and energy sector (Table 2) <sup>1</sup>												
	Primary fuels							Secondary fuels				
	Coking coal	Anthracite	Other bituminous coal	Sub-bituminous coal	Lignite	Peat	Patent fuel	Coke oven coke	Coal tar	BKB/PB	Gas works gas	Coke oven gas
	1000 metric tons	1000 metric tons	1000 metric tons	1000 metric tons	1000 metric tons	1000 metric tons	1000 metric tons	1000 metric tons	1000 metric tons	1000 metric tons	1000 metric tons	1000 metric tons
	A	B	C	D	E	F	G	H	I	J	K	L
<b>TOTAL TRANSFORMATION SECTOR</b>	1	34	113,012	1,373	0	0	0	16,760	0	0	0	0
Patent fuel plants	2		19									
Coke ovens	3	51,871										
Gas works plants	4											
Natural gas blending plants <sup>2</sup>	5											
Blast furnaces	6							16,760				
BKB/PB plants	7											
Main activity producer	8	0	0	105,166	1,373	0	0	0	0	0	0	0
Electricity plants	9	0	0	105,166	1,373	0	0	0	0	0	0	0
CHP plants	10											
Heat plants	11											
Distinct Cooling Plants	12											
Autoproducers	13	0	13	7,846	0	0	0	0	0	0	0	0
Electricity plants	14	0	13	7,846	0	0	0	0	0	0	0	0
CHP plants	15											
Heat plants	16											
Distinct Cooling Plants	17											

# Annual new and renewable questionnaire

Industrial waste: broken down to renewable and non-renewable

<b>APEC-ASEAN joint form:</b>											
<b>Supply (Table 1)</b>											
		Other primary solid biomass	Biogas					Industrial waste			T
			Total	Landfill gas	Sewage sludge gas	Other biogases from anaerobic	Biogases from thermal processes	Total	Renewable	Non-renewable	
		<i>select unit</i>	<i>select unit</i>	<i>select unit</i>	<i>select unit</i>	<i>select unit</i>	<i>select unit</i>	<i>select unit</i>	<i>select unit</i>	<i>select unit</i>	<i>select unit</i>
		J	K	L	M	N	O	Q	R	S	
Production <sup>1</sup>	(+) 1		0					0			
Imports	(+) 2		0					0			
Exports	(-) 3		0					0			
Stock change (opening-closing)	(+) 4		0					0			
<b>Gross inland deliveries (calculated)</b>	<b>(=) 5</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Statistical difference	6	0	0	0	0	0	0	0	0	0	0
<b>Gross inland deliveries (observed)</b>	<b>7</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>TOTAL STOCKS on NATIONAL TERRITORY</b>											
Total stocks on national territory - opening	8										
Total stocks on national territory - closing	9										



# District cooling plants

- ✓ Production table in the electricity and heat questionnaire
- ✓ Same as heat production table

**Chilled water<sup>4</sup> production (Table 1c)**

*Unit: select unit*

		Thermal			Hydro	Nuclear	Geo-thermal	Other renewable energy					Others <sup>3</sup>	Total	
		Coal	Oil	Gas				Solar	Tide, wave, ocean	Wind	Biomass	Wastes <sup>1</sup>			Biogas <sup>2</sup>
		A	B	C				D	E	F	G	H			I
<b>Main Activity Producers</b>															
<b>Gross chilled water production</b>	1	0	0	0		0	0	0			0	0	0	0	
District cooling plants	2													0	
Cooling and power plants	3													0	
<b>Own Use by Plant</b>	4	0	0	0		0	0	0			0	0	0	0	
District cooling plants	5													0	
Cooling and power plants	6													0	
<b>Net chilled water production</b>	7	0	0	0		0	0	0			0	0	0	0	
District cooling plants	8	0	0	0		0	0	0			0	0	0	0	
Cooling and power plants	9	0	0	0		0	0	0			0	0	0	0	
<b>Autoproducers</b>															
<b>Chilled water sold</b>	16	0	0	0		0	0	0			0	0	0	0	
District cooling plants	17													0	
Cooling and power plants	18													0	

A new format of energy balances was introduced last year

1. A new column to show the sum of all renewables
  2. Non-energy use separated from final energy consumption (industry, transport, other sector)
- To monitor the APEC energy goals
    1. Increasing the use of Renewables
    2. Reducing final energy intensity (=total final energy consumption w/o non-energy use /GDP)

# Energy balance – old format

Energy Balance Table  
Member : Australia  
Year : 2014

Unit:KTOE

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
	Coal	Coal Prod	Crude Oil	Petroleum	Gas	Hydro	Nuclear	Geotherm	Others	Electricity	Heat	Total
1. Indigenous Production	285,440		19,081		52,905	1,584		1,616	5,086			365,711
2. Imports	74	52	22,611	20,753	5,964							49,455
3. Exports	-242,283	-549	-12,448	-2,082	-27,176							-284,538
4. International Marine Bunkers				-720								-720
13.1 International Aviation Bunkers				-3,915								-3,915
5. Stock Changes	-1,200	-22	80	349								-794
6. Total Primary Energy Supply	42,030	-519	29,324	14,385	31,693	1,584		1,616	5,086			125,199
7. Transfers			750	4,700								5,450
8. Total Transformation Sector	-40,145	1,977	-29,424	27,849	-11,409	-1,584		-1,300	-967	21,354		-33,650
9. Loss & Own Use		-935	-57	-4,297	-7,244					-3,461		-15,993
10. Discrepancy	87	-23	-577	139	449				0	0		74
11. Total Final Energy Consumption	1,971	501	16	42,776	13,489			316	4,119	17,893		81,081
12. Industry Sector	1,966	501	16	6,489	8,629				2,833	6,836		27,269
13. Transport Sector				31,003	287					410		31,701
14. Other Sector	5			5,284	4,574			316	1,286	10,647		22,111
15. of which Non-Energy Use				4,184	800							4,984
16. Electricity Output in GWh	151,849			5,013	54,394	18,421	0	15,111	3,511			248,299
17. Heat Output in ktoe	0			0	0		0	0	0			0

# Energy balance – New format

Energy Balance Table

Member : Japan

Year : 2015

Unit:KTOE

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.
	Coal	Coal Produ	Crude Oil &	Petroleum	Gas	Hydro	Nuclear	Geotherm	Others	Electricity	Heat	Total	Total Renewables
1. Indigenous Production	671		517		2,409	7,207	1,162	6,169	6,270			24,405	19,646
2. Imports	116,057	1,909	169,499	45,022	103,544							436,030	
3. Exports		-439		-17,206								-17,645	
4. International Marine Bunkers				-4,230								-4,230	
13.1 International Aviation Bunkers				-6,333								-6,333	
5. Stock Changes	-959		-785	392	-797							-2,149	
6. Total Primary Energy Supply	115,769	1,470	169,231	17,645	105,156	7,207	1,162	6,169	6,270			430,078	19,646
7. Transfers			-239	241								2	
8. Total Transformation Sector	-100,204	22,296	-169,063	144,494	-71,909	-7,207	-1,162	-5,726	-9,410	90,351	761	-106,779	-22,343
9. Loss & Own Use	-548	-2,929		-10,423	-4,395					-7,335		-25,630	
10. Discrepancy	-275	-3,022	71	-259	1,236	0			4,856	-963	-75	1,569	4,856
Total final consumption	14,742	17,815		151,697	30,089			443	1,716	82,053	686	299,240	2,159
11. Total Final Energy Consumptions	14,742	17,815		148,331	30,089			443	1,716	82,053	686	295,874	2,159
12. Industry Sector	14,742	17,211		51,633	15,228				1,694	32,952		133,459	1,694
13. Transport Sector				72,134	77					1,867		74,079	
14. Other Sector		605		24,563	14,783			443	22	47,234	686	88,336	465
15. Non-Energy Use				3366.27								3366.2704	
16. Electricity Output in GWh	314,181			80,787	478,343	89,012	4,459	39,563	45,248			1,051,593	173,823
17. Heat Output in ktoe	0			9	466		0	0	115			591	115

Total final consumption = 11. total final energy consumption + 15. non-energy use

The old format has been replaced with the new format in the database





**Thank you for your kind attention**

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