

# 5.4 Revision of annual questionnaires and energy balance table

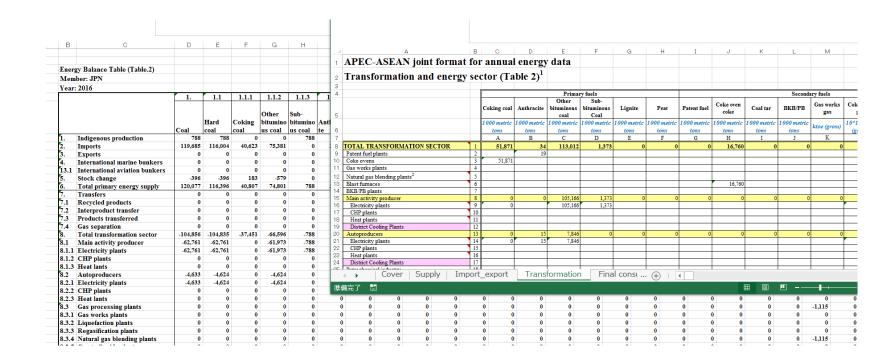
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#### Contents

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





#### Annual new and renewable questionnaire

Industrial waste: broken down to renewable and non-renewable

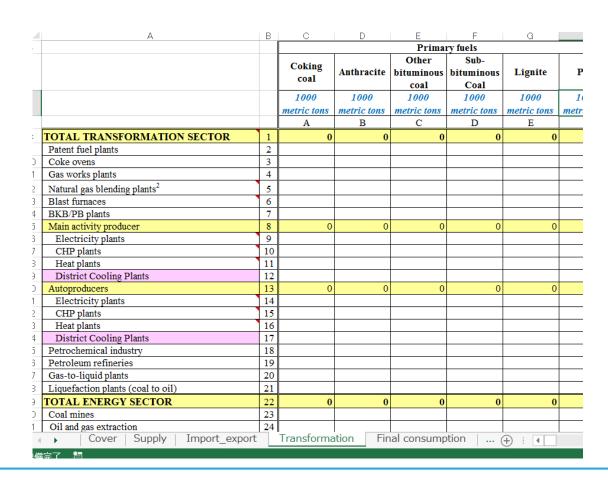
A	D	L	IVI	1.4	V	Г	Q.		13	J	1	+
APEC-ASEAN joint	form								 			
Supply (Table 1)												
		Other			Biogas				In	dustrial was	te	Г
		primary solid biomass	Total	Landfill gas	Sewage sludge gas	Other biogases from anaerobic	Biogas fron therm proces	al	Total	Renewable	Non- renewable	
		select unit	select unit	select unit	select unit	select unit			select unit	select unit	select unit	sele
		J	K	L	M	N	0		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			
Gross inland deliveries (calculated)	(=) 5	0	0	0	0	0		0	0	0	0	
Statistical difference	6	0	0	0	0	0		0	0	0	0	
Gross inland deliveries (observed)	7	0	0	0	0	0		0	0	0	0	
TOTAL STOCKS on NATIONAL TER	RITORY								 			
Total stocks on national territory -												
opening	8											
Total stocks on national territory -									 			
closing	9								I I			



#### District cooling plants

✓ New items in transformation for coal, oil, gas, new and renewable

- ✓ Same way as heat
- ✓ Two types of producers:
   Main activity producers and
   Autoproducers





#### District cooling plants

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

Chilled water <sup>4</sup> pr	od	uction	(Tab	le 1c)											
														Unit:	select un
			Thermal						0	ther renev	vable energ	gy			
		Coal	Oil	Gas	Hydro	Nuclear	Geo- thermal	Solar	Tide, wave, ocean	Wind	Biomass	Wastes <sup>1</sup>	Biogas <sup>2</sup>	Others <sup>3</sup>	Total
		A	В	C	D	E	F	G	H	I	J	K	L	M	N
Main Activity Producers															
Gross chilled water production	1	0	0	0		0	0	0			0	0	0	0	
District cooling plants	2														
Cooling and power plants	3														
Own Use by Plant	4	0	0	0		0	0	0			0	0	0	0	
District cooling plants	5														
Cooling and power plants	6														
Net chilled water production	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	
utoproducers				_		_									
Chilled water sold	16	0	0	0		0	0	0			0	0	0	0	
District cooling plants	17														
Cooling and power plants	18														



#### **Energy balance**

A new format of energy balances was introduced last year

- 1. A new column to show the sum of all renewables
- 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

Unit:KTOE

Year :	2015												Unit:KTOE	
		1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.
														Total
		Coal	Coal Produ	Crude Oil 8	Petroleum	Gas	Hydro	Nuclear	Geotherma	Others	Electricity	Heat	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

http://www.egeda.ewg.apec.org

