



## Comparison of wood energy data in IRENA and FAO-UNECE databases for the year 2013

(Note: Ukraine data has been corrected since the workshop)

Belgium

Supply and consumption 2013	IRENA (IEA)								FAOSTAT						
	Primary solid biomass TJ	Woodfuel TJ	Black liquor TJ	Bagasse TJ	Other veg. TJ	Other PSB TJ	Pellets TJ	Charcoal Tonnes	PSB from wood TJ	Woodfuel WW and pellets TJ	Woodfuel TJ	Wood waste TJ	Black liquor TJ	Pellets TJ	Charcoal Tonnes
Production	58,134	88,967	1,735	0	3,292	133	3,089		16,723	16,723	10,124			6,599	0
Imports	26,264							9,000	19,224		4,061			15,164	67,720
Exports	0								6,958		288			6,670	40,060
Stock changes	0														
International Bunkers															
<b>Domestic supply</b>	<b>89,100</b>	<b>88,967</b>				<b>133</b>		<b>9,000</b>	<b>28,988</b>		<b>13,896</b>			<b>15,092</b>	<b>27,660</b>
Statistical Differences	1								0						
Power plants	22,166														
CHP plants	0														
Commercial heat plants	0														
Charcoal production	0														
Pellet production															
Other transformation	0														
Energy sector and own use	0														
Distribution losses	0														
<b>Total final consumption</b>	<b>0</b>	<b>0</b>				<b>0</b>		<b>9,000</b>							
Industry sector	26,418														
Transport sector	0														
of which road transport	0														
Commercial and public service	810														1,000
Residential	25,346														8,000
Other	486														
Net calorific value (MJ/t)								29,300			15,120			16,920	

Canada

Supply and consumption 2013	IRENA (IEA)							JWEE							
	Primary solid biomass TJ	Woodfuel TJ	Black liquor TJ	Bagasse TJ	Other veg. TJ	Other PSB TJ	Pellets TJ	Charcoal Tonnes	PSB from wood TJ	Woodfuel WW and pellets TJ	Woodfuel TJ	Wood waste TJ	Black liquor TJ	Pellets TJ	Charcoal Tonnes
Production	551,930	88,967	191,861	0	0	0	39,541								
Imports	3,804							562,715	318,362	25,063	250,863	244,353	42,437	0	
Exports	34,047							391		0			391	1,295,143	
Stock changes	0							28,376		0			28,376	970	
International Bunkers															
<b>Domestic supply</b>	<b>88,967</b>	88,967				0		<b>534,731</b>		<b>25,063</b>	<b>250,863</b>	<b>244,353</b>	<b>14,452</b>	<b>1,294,173</b>	
Statistical Differences	0							9,055					9,055	77,650	
Power plants	39,323														
CHP plants	0														
Commercial heat plants	0														
Charcoal production	0														
Pellet production	0														
Other transformation	0														
Energy sector and own use	0														
Distribution losses	0														
<b>Total final consumption</b>	<b>0</b>	0				0		<b>525,676</b>		<b>25,063</b>	<b>250,863</b>	<b>244,353</b>	<b>5,398</b>	<b>1,216,523</b>	
Industry sector	332,973							495,216			250,863	244,353			
Transport sector	0														
of which road transport	0														
Commercial and public service	0														
Residential	149,391							30,460		25,063			5,398	1,216,523	
Other	0														
Net calorific value (MJ/t)										14,582	14,582	12,460	17,300	30,000	

**Germany**

Supply and consumption 2013	IRENA (IEA)							Pellets TJ	Charcoal Tonnes
	Primary solid biomass TJ	Woodfuel TJ	Black liquor TJ	Bagasse TJ	Other veg. TJ	Other PSB TJ			
Production	456,457	88,967	33,674	0	5,614	0	35,280		
Imports	0								
Exports	0								
Stock changes	0								
International Bunkers									
<b>Domestic supply</b>	<b>88,967</b>	88,967				0			
Statistical Differences	0								
Power plants	63,289								
CHP plants	0								
Commercial heat plants	11,171								
Charcoal production	0								
Pellet production	0								
Other transformation	0								
Energy sector and own use	695								
Distribution losses	0								
<b>Total final consumption</b>	<b>0</b>	0				0			
Industry sector	73,659								
Transport sector	0								
of which road transport	0								
Commercial and public service	3,961								
Residential	235,900								
Other	0								
Net calorific value (MJ/t)									

JWEE						
PSB from wood TJ	Woodfuel WW and pellets TJ	Woodfuel TJ	Wood waste TJ	Black liquor TJ	Pellets TJ	Charcoal Tonnes
525,502	482,431	234,101	210,140	43,070	38,190	2,000
12,263		5,562			6,700	218,140
12,350		811			11,539	12,241
<b>525,414</b>		<b>238,852</b>	<b>210,140</b>	<b>43,070</b>	<b>33,351</b>	<b>207,899</b>
3,948					3,948	12,474
66,707		17,879	46,571		2,256	
<b>454,759</b>		<b>220,973</b>	<b>163,569</b>	<b>43,070</b>	<b>27,147</b>	<b>1,216,523</b>
221,606		47,853	124,644	43,070	6,038	
233,153		173,120	38,925		21,109	195,425
		14,582	14,582	12,460	17,300	30,000

**Hungary**

Supply and consumption	IRENA (IEA)							Pellets	Charcoal
	Primary solid biomass	Woodfuel	Black liquor	Bagasse	Other veg.	Other PSB			
2013	TJ	TJ	TJ	TJ	TJ	TJ	TJ	Tonnes	
Production	58,733	88,967	330	0	12,474	87	0		
Imports	1,899								
Exports	2,439								
Stock changes	0								
International Bunkers									
<b>Domestic supply</b>	<b>89,054</b>	<b>88,967</b>				<b>87</b>			
Statistical Differences	0								
Power plants	18,279								
CHP plants	0								
Commercial heat plants	1,550								
Charcoal production	0								
Pellet production	0								
Other transformation	0								
Energy sector and own use	0								
Distribution losses	0								
<b>Total final consumption</b>	<b>0</b>	<b>0</b>				<b>0</b>			
Industry sector	4,613								
Transport sector	0								
of which road transport	0								
Commercial and public service	4,373								
Residential	25,775								
Other	351								
Net calorific value (MJ/t)									

JWEE						
PSB from wood	Woodfuel WW and pellets	Woodfuel	Wood waste	Black liquor	Pellets	Charcoal
TJ	TJ	TJ	TJ	TJ	TJ	Tonnes
21,803	21,803	21,727			76	0
738		591			147	719
2,721		2,455			266	32
<b>19,820</b>		<b>19,862</b>			<b>-42</b>	<b>687</b>
-42					-42	41
<b>19,862</b>		<b>19,862</b>				<b>646</b>
		19,862				646
		14,582	14,582	12,460	17,300	30,000

Italy

Supply and consumption 2013	IRENA (IEA)								FAOSTAT						
	Primary solid biomass TJ	Woodfuel TJ	Black liquor TJ	Bagasse TJ	Other veg. TJ	Other PSB TJ	Pellets TJ	Charcoal Tonnes	PSB from wood TJ	Woodfuel WW and pellets TJ	Woodfuel TJ	Wood waste TJ	Black liquor TJ	Pellets TJ	Charcoal Tonnes
Production	311,831	88,967	0	0	7,918	0	0	10,000	50,745	50,745	43,977			6,768	10,000
Imports	59,072							57,000	41,512		11,924			29,589	57,493
Exports	452							1,000	228		127			101	1,381
Stock changes	0														
International Bunkers															
<b>Domestic supply</b>	<b>88,967</b>	<b>88,967</b>				<b>0</b>		<b>66,000</b>	<b>92,029</b>		<b>55,774</b>			<b>36,255</b>	<b>66,112</b>
Statistical Differences	0								0						
Power plants	34,022														
CHP plants	0														
Commercial heat plants	3,993														
Charcoal production	616														
Pellet production															
Other transformation	0														
Energy sector and own use	0														
Distribution losses	0														
<b>Total final consumption</b>	<b>0</b>	<b>0</b>				<b>0</b>		<b>66,000</b>							
Industry sector	9,910							10,000							
Transport sector	0							0							
of which road transport	0							0							
Commercial and public service	1,485							0							
Residential	275,973							56,000							
Other	75							0							
Net calorific value (MJ/t)								30,800			15,120			16,920	

**Netherlands**

Supply and consumption	IRENA (IEA)							
	Primary solid biomass	Woodfuel	Black liquor	Bagasse	Other veg.	Other PSB	Pellets	Charcoal
2013	TJ	TJ	TJ	TJ	TJ	TJ	TJ	Tonnes
Production	50,311	88,967	0	0	12,994	0	3,836	6,000
Imports	12,976							59,000
Exports	10,674							56,000
Stock changes	0							
International Bunkers								
<b>Domestic supply</b>	<b>88,967</b>	88,967				0		<b>9,000</b>
Statistical Differences	0							
Power plants	16,364							
CHP plants	0							
Commercial heat plants	76							
Charcoal production	360							
Pellet production								
Other transformation	0							
Energy sector and own use	0							
Distribution losses	0							
<b>Total final consumption</b>	<b>0</b>	0				0		<b>9,000</b>
Industry sector	2,776							
Transport sector	0							
of which road transport	0							
Commercial and public service	474							
Residential	17,640							9,000
Other	2,740							
Net calorific value (MJ/t)								30,000

JWEE						
PSB from wood	Woodfuel WW and pellets	Woodfuel	Wood waste	Black liquor	Pellets	Charcoal
TJ	TJ	TJ	TJ	TJ	TJ	Tonnes
25,094	25,094	8,162	13,040		3,893	
13,678		357			13,321	43,000
4,938		699			4,239	7,000
<b>33,835</b>		<b>7,820</b>	<b>13,040</b>		<b>12,975</b>	<b>36,000</b>
986					986	4,000
21,238		1,148	8,723		11,366	
<b>11,611</b>		<b>6,671</b>	<b>4,317</b>		<b>623</b>	<b>32,000</b>
1,714			1,714			
8,582		6,216	2,142		225	32,000
1,315		456	462		398	
		14,582	14,582	12,460	17,300	30,000





**Austria**

Supply and consumption	IRENA						
	Primary solid biomass TJ	Woodfuel TJ	Wood waste TJ	Black liquor TJ	Other veg. TJ	Pellets TJ	Charcoal Tonnes
2013							
Production	196,382	88,967	87,588	29,095	10,445	16,627	1,269
Imports	20,241	11,293				8,948	12,687
Exports	9,393	693				8,700	1,766
Stock changes	-1,679					-1,679	
International Bunkers							
<b>Domestic supply</b>	<b>243,321</b>	<b>99,567</b>	<b>87,588</b>	<b>29,095</b>	<b>10,445</b>	<b>16,627</b>	<b>12,190</b>
Statistical Differences							
Power plants	14,589		11,447	1,347	1,796		
CHP plants	33,582		23,860	6,836	2,886		
Commercial heat plants	20,648	53	20,303		225	67	
Charcoal production	99	99					
Pellet production							
Other transformation							
Energy sector and own use							
Distribution losses							
<b>Total final consumption</b>	<b>129,066</b>	<b>63,076</b>	<b>31,978</b>	<b>20,912</b>	<b>5,539</b>	<b>7,563</b>	<b>12,190</b>
Industry sector	52,731	553	25,144	20,912	5,538	584	353
Transport sector							
of which road transport							
Commercial and public service	3,149	810	1,387		1	952	4,735
Residential	71,141	58,132	5,447			7,563	7,103
Other	9,612	3,581				6,030	
Net calorific value (MJ/t)		14,311	10,474	8,293	9,839	17,284	31,000

JWEE					
PSB from wood TJ	Woodfuel TJ	Wood waste TJ	Black liquor TJ	Pellets TJ	Charcoal Tonnes
182,578	53,740	93,778	18,418	16,643	1,380
13,752	7,083			6,668	12,700
8,795	443			8,352	1,790
<b>187,535</b>	<b>60,381</b>	<b>93,778</b>	<b>18,418</b>	<b>14,959</b>	<b>12,290</b>
4,286				4,286	-307
47,456		47,395		61	
<b>135,793</b>	<b>60,381</b>	<b>46,383</b>	<b>18,418</b>	<b>10,612</b>	<b>12,597</b>
54,306		35,357	18,418	532	
2,793	798	1,128		867	5,039
69,478	56,050	6,418		7,010	7,558
9,215	3,533	3,480		2,202	
	14,582	14,582	12,460	17,300	30,000

**Belarus**

Supply and consumption 2013	IRENA						
	Primary solid biomass TJ	Woodfuel TJ	Wood waste TJ	Black liquor TJ	Other veg. TJ	Pellets TJ	Charcoal Tonnes
Production	63,017	88,967	23,021			96	3,622
Imports							
Exports							
Stock changes							
International Bunkers							
<b>Domestic supply</b>	<b>112,084</b>	<b>88,967</b>	<b>23,021</b>			<b>96</b>	<b>3,622</b>
Statistical Differences							
Power plants							
CHP plants	3,354	145	3,209				
Commercial heat plants	24,347	12,554	11,793				
Charcoal production	282	282					
Pellet production							
Other transformation							
Energy sector and own use							
Distribution losses							
<b>Total final consumption</b>	<b>35,034</b>	<b>26,919</b>	<b>8,019</b>			<b>96</b>	<b>3,622</b>
Industry sector							
Transport sector							
of which road transport							
Commercial and public services							
Residential	19,114	17,627	1,391			96	3,622
Other	15,920	9,292	6,628				
Net calorific value (MJ/t)		10,258	10,258			16,920	30,800

PSB from wood TJ	FAOSTAT				Pellets TJ	Charcoal Tonnes
	Woodfuel TJ	Wood waste TJ	Black liquor TJ			
89,096	86,558			2,538	5,360	
11	1			10	1,700	
2,591	461			2,130	2,000	
<b>86,516</b>	<b>86,098</b>			<b>418</b>	<b>5,060</b>	
0						
	15,120			16,920		

**Croatia**

Supply and consumption	IRENA							JWEE						
	Primary solid biomass	Woodfuel	Wood waste	Black liquor	Other veg.	Pellets	Charcoal	PSB from wood	Woodfuel	Wood waste	Black liquor	Pellets	Charcoal	
	TJ	TJ	TJ	TJ	TJ	TJ	Tonnes	TJ	TJ	TJ	TJ	TJ	Tonnes	
2013														
Production	61,324	88,967	4,857				3,632	6,000	27,232	20,682	3,401		3,149	6,000
Imports	258	142	38				77	3,000	100	66			35	3,000
Exports	10,091	4,616	2,379				3,095	4,000	7,819	5,068			2,751	4,000
Stock changes	83		58				25							
International Bunkers														
<b>Domestic supply</b>	<b>90,698</b>	<b>84,493</b>	<b>2,573</b>				<b>3,632</b>	<b>5,000</b>	<b>19,513</b>	<b>15,679</b>	<b>3,401</b>		<b>433</b>	<b>5,000</b>
Statistical Differences									-138				-138	
Power plants									1,414	523	892			
CHP plants	1,146		1,146											
Commercial heat plants														
Charcoal production	395	395												
Pellet production														
Other transformation														
Energy sector and own use														
Distribution losses														
<b>Total final consumption</b>	<b>49,994</b>	<b>47,966</b>	<b>1,427</b>				<b>600</b>	<b>5,000</b>	<b>18,237</b>	<b>15,156</b>	<b>2,510</b>		<b>571</b>	<b>5,000</b>
Industry sector	1,887	446	1,427				14		2,962	453	2,510			
Transport sector														
of which road transport														
Commercial and public service	143	118					25		139	122			17	
Residential	48,003	47,403					600	5,000	15,135	14,581			554	5,000
Other														
Net calorific value (MJ/t)		9,000	9,000				17,200	27,800		13,937	13,937	12,460	17,300	30,000

*Note: IRENA data includes results of new household wood energy survey*

**Czechia**

Supply and consumption	IRENA (IEA+National data)							
	Primary solid biomass	Woodfuel	Wood waste	Black liquor	Other veg.	Other PSB	Pellets	Charcoal
2013	TJ	TJ	TJ	TJ	TJ	TJ	TJ	Tonnes
Production	95,988	88,967	18,149	14,218	4,761	16	3,024	
Imports	4,740	4,740						
Exports	9,736	9,115					621	
Stock changes								
International Bunkers								
<b>Domestic supply</b>	<b>127,784</b>	<b>84,592</b>	<b>24,197</b>	<b>14,218</b>	<b>4,761</b>	<b>16</b>	<b>2,403</b>	
Statistical Differences								
Power plants	191		16		159	16		
CHP plants	17,498		9,139	7,253	1,106		1,921	
Commercial heat plants	1,287		1,287					
Charcoal production								
Pellet production								
Other transformation								
Energy sector and own use								
Distribution losses								
<b>Total final consumption</b>	<b>69,613</b>	<b>51,444</b>	<b>7,707</b>	<b>6,965</b>	<b>3,496</b>	<b>0</b>	<b>482</b>	
Industry sector	18,519	3,114	7,707	6,965	251		482	
Transport sector								
of which road transport								
Commercial and public service	530	530						
Residential	50,663	47,801			2,862			
Other	383				383			
Net calorific value (MJ/t)		15,120	8,560	10,689	9,568	1,839	14,078	

JWEE					
PSB from wood	Woodfuel	Wood waste	Black liquor	Pellets	Charcoal
TJ	TJ	TJ	TJ	TJ	Tonnes
76,222	47,674	11,559	14,218	2,771	6,000
1,038	426			612	16,000
3,534	1,307			2,227	1,000
<b>73,725</b>	<b>46,792</b>	<b>11,559</b>	<b>14,218</b>	<b>1,156</b>	<b>21,000</b>
-1,207				-1,207	1,000
6,623		6,623			
<b>54,091</b>	<b>46,792</b>	<b>4,936</b>		<b>2,363</b>	<b>20,000</b>
21,869	3,390	4,261	14,218		
		504			
45,765	43,402			2,363	20,000
172		172			
	14,582	9,830	10,690	17,000	30,000

**Finland**

Supply and consumption 2013	IRENA						JWEE						
	Primary solid biomass TJ	Woodfuel TJ	Wood waste TJ	Black liquor TJ	Other veg. TJ	Pellets TJ	Charcoal Tonnes	PSB from wood TJ	Woodfuel TJ	Wood waste TJ	Black liquor TJ	Pellets TJ	Charcoal Tonnes
Production	337,726	88,967						330,314	106,512	61,361	157,769	4,671	0
Imports	2,472	2,472					1,630	590				1,040	2,700
Exports	1,649	1,649					2,184	830				1,354	70
Stock changes													
International Bunkers													
<b>Domestic supply</b>	<b>89,790</b>	<b>89,790</b>				0	<b>329,761</b>	<b>106,272</b>	<b>61,361</b>	<b>157,769</b>	<b>4,358</b>	<b>2,630</b>	
Statistical Differences							1,306					1,306	158
Power plants	11,163	11,163					83,975	44,810	37,201			1,964	
CHP plants	96,742	96,742											
Commercial heat plants	28,608	28,608											
Charcoal production													
Pellet production													
Other transformation													
Energy sector and own use													
Distribution losses													
<b>Total final consumption</b>	<b>202,036</b>	<b>202,036</b>				0	<b>244,480</b>	<b>61,463</b>	<b>24,160</b>	<b>157,769</b>	<b>1,088</b>	<b>2,472</b>	
Industry sector	139,651	139,651					189,092	6,999	24,160	157,769	165		
Transport sector													
of which road transport													
Commercial and public service	3,031	3,031					2,851	2,851					
Residential	53,001	53,001					46,118	46,118					2,472
Other	6,353	6,353					6,418	5,495	1		923		
Net calorific value (MJ/t)		15,120						14,582	14,582	12,460	17,300	30,000	

Georgia

Supply and consumption  2013	IRENA							FAOSTAT					
	Primary solid biomass	Woodfuel	Wood waste	Black liquor	Other veg.	Pellets	Charcoal	PSB from wood	Woodfuel	Wood waste	Black liquor	Pellets	Charcoal
	TJ	TJ	TJ	TJ	TJ	TJ	Tonnes	TJ	TJ	TJ	TJ	TJ	Tonnes
Production	20,143	88,967			14	293		5,613	5,613			0	0
Imports	0							0	0			0	100
Exports	2					2		0	0			0	100
Stock changes	1	1											
International Bunkers													
<b>Domestic supply</b>	<b>89,275</b>	<b>88,967</b>			<b>14</b>	<b>293</b>		<b>5,613</b>	<b>5,613</b>			<b>0</b>	<b>0</b>
Statistical Differences								0					
Power plants													
CHP plants	0												
Commercial heat plants													
Charcoal production													
Pellet production													
Other transformation													
Energy sector and own use													
Distribution losses													
<b>Total final consumption</b>	<b>20,131</b>	<b>19,836</b>			<b>14</b>	<b>281</b>							
Industry sector	9	9											
Transport sector													
of which road transport													
Commercial and public service	333	322				11							
Residential	19,799	19,504			14	281							
Other	2	2											
Net calorific value (MJ/t)		10,400			8,000	18,000			15,120			16,920	

7800 MJ/m<sup>3</sup>

**Kazakhstan**

Supply and consumption 2013	IRENA						FAOSTAT						
	Primary solid biomass TJ	Woodfuel TJ	Wood waste TJ	Black liquor TJ	Other veg. TJ	Pellets TJ	Charcoal Tonnes	PSB from wood TJ	Woodfuel TJ	Wood waste TJ	Black liquor TJ	Pellets TJ	Charcoal Tonnes
Production	2,498	88,967	50					2,438	2,438			0	480
Imports	230	230	0					648	645			2	1,175
Exports	1,186	1,186						0	0			0	38
Stock changes	64	55	8										
International Bunkers													
<b>Domestic supply</b>	<b>88,124</b>	<b>88,066</b>	<b>58</b>			<b>0</b>		<b>3,086</b>	<b>3,083</b>			<b>2</b>	<b>1,617</b>
Statistical Differences								0					
Power plants													
CHP plants	0												
Commercial heat plants													
Charcoal production													
Pellet production													
Other transformation													
Energy sector and own use	880	878	1										
Distribution losses													
<b>Total final consumption</b>	<b>726</b>	<b>669</b>	<b>57</b>			<b>0</b>							
Industry sector	152	115	37										
Transport sector													
of which road transport													
Commercial and public service	482	481	1										
Residential	3	3											
Other	89	71	18										
Net calorific value (MJ/t)		10,258	10,258						15,120			16,920	

Latvia

Supply and consumption	IRENA						
	Primary solid biomass	Woodfuel	Wood waste	Black liquor	Straw	Pellets	Charcoal
2013	TJ	TJ	TJ	TJ	TJ	TJ	Tonnes
Production	72,707	88,967	23,524		58	21,184	10,000
Imports	1,664	27	890			747	2,000
Exports	26,443	2,117	4,315			20,010	9,000
Stock changes	4,825	2,532	2,044			249	
International Bunkers							
<b>Domestic supply</b>	<b>132,792</b>	<b>89,409</b>	<b>22,142</b>		<b>58</b>	<b>21,184</b>	<b>3,000</b>
Statistical Differences							
Power plants	142					142	
CHP plants	4,586		4,586				
Commercial heat plants	5,474	777	4,580		29	89	
Charcoal production	596	596					
Pellet production							
Other transformation							
Energy sector and own use							
Distribution losses							
<b>Total final consumption</b>	<b>41,457</b>	<b>27,010</b>	<b>12,977</b>		<b>29</b>	<b>1,441</b>	<b>3,000</b>
Industry sector	13,436	1,836	11,440			160	
Transport sector							
of which road transport							
Commercial and public service	3,844	2,948	562		14	320	
Residential	24,213	21,879	893			1,441	3,000
Other	463	348	82		14	18	
Net calorific value (MJ/t)		92	118		207	316	30,000

FAOSTAT					
PSB from wood	Woodfuel	Wood waste	Black liquor	Pellets	Charcoal
TJ	TJ	TJ	TJ	TJ	Tonnes
32,765	14,269			18,496	8,310
739	39			699	2,243
21,199	3,333			17,865	8,550
<b>12,305</b>	<b>10,975</b>			<b>1,330</b>	<b>2,003</b>
0					
	15,120			16,920	



**Lithuania**

Supply and consumption 2013	IRENA						
	Primary solid biomass TJ	Woodfuel TJ	Black liquor TJ	Black liquor TJ	Straw TJ	Pellets TJ	Charcoal Tonnes
Production	43,593	88,967			239		1,000
Imports	4,949	4,949					1,000
Exports	5,427	5,427					1,000
Stock changes		-187			23		
International Bunkers							
<b>Domestic supply</b>	<b>88,563</b>	<b>88,301</b>			<b>262</b>	<b>0</b>	<b>1,000</b>
Statistical Differences							
Power plants	6,075	6,074			1		
CHP plants	8,778	8,681			97		
Commercial heat plants	43	43					
Charcoal production							
Pellet production							
Other transformation							
Energy sector and own use	6	6					
Distribution losses							
<b>Total final consumption</b>	<b>28,049</b>	<b>27,885</b>			<b>164</b>	<b>0</b>	<b>1,000</b>
Industry sector	3,518	3,505			13		
Transport sector of which road transport							
Commercial and public service	1,448	1,389			59		1,000
Residential	22,595	22,591			4		
Other	488	400			88		
Net calorific value (MJ/t)		15,120			14,650		30,800

FAOSTAT					
PSB from wood TJ	Woodfuel TJ	Wood waste TJ	Black liquor TJ	Pellets TJ	Charcoal Tonnes
32,457	27,568			4,890	600
1,249	268			981	9,273
8,099	2,672			5,428	5,995
<b>25,607</b>	<b>25,164</b>			<b>444</b>	<b>3,878</b>
0					
	15,120			16,920	

**Macedonia**

Supply and consumption 2013	IRENA							JWEE					
	Primary solid biomass TJ	Woodfuel TJ	Wood waste TJ	Black liquor TJ	Other veg. TJ	Pellets TJ	Charcoal Tonnes	PSB from wood TJ	Woodfuel TJ	Wood waste TJ	Black liquor TJ	Pellets TJ	Charcoal Tonnes
Production	6,645	88,967	37					4,321	4,321				
Imports	270	211	60					15	14			1	540
Exports	114	107	7					84	67			17	
Stock changes	-591	-591											
International Bunkers													
<b>Domestic supply</b>	<b>88,570</b>	<b>88,480</b>	<b>90</b>			<b>0</b>		<b>4,252</b>	<b>4,268</b>			<b>-16</b>	<b>540</b>
Statistical Differences								-16				-16	32
Power plants													
CHP plants	0												
Commercial heat plants													
Charcoal production													
Pellet production													
Other transformation													
Energy sector and own use													
Distribution losses													
<b>Total final consumption</b>	<b>6,207</b>	<b>6,117</b>	<b>90</b>			<b>0</b>		<b>4,268</b>	<b>4,268</b>				<b>508</b>
Industry sector	271	233	39					160	160				
Transport sector													
of which road transport													
Commercial and public service	196	196						118	118				
Residential	5,653	5,601	51					3,906	3,906				508
Other	87	87							84				
Net calorific value (MJ/t)		15,598	6,800						14,582	14,582	12,460	17,300	30,000

**Moldova**

Supply and consumption	IRENA						
	Primary solid biomass	Woodfuel	Wood waste	Black liquor	Other veg.	Pellets	Charcoal
2013	TJ	TJ	TJ	TJ	TJ	TJ	Tonnes
Production	11,211	88,967	130		490		519
Imports							
Exports	17				17		
Stock changes	-22	-71	78		-29		-65
International Bunkers							
<b>Domestic supply</b>	<b>89,548</b>	<b>88,896</b>	<b>208</b>		<b>444</b>	<b>0</b>	<b>455</b>
Statistical Differences							
Power plants							
CHP plants	0						
Commercial heat plants	269	37	3		229		
Charcoal production	31	31					
Pellet production							
Other transformation							
Energy sector and own use							
Distribution losses	11	11					
<b>Total final consumption</b>	<b>10,861</b>	<b>10,441</b>	<b>205</b>		<b>215</b>	<b>0</b>	<b>455</b>
Industry sector	35	20	5		10		
Transport sector							
of which road transport							
Commercial and public service	288	185	35		68		97
Residential	10,506	10,208	164		134		357
Other	32	28	1		3		
Net calorific value (MJ/t)		10,405	9,400		14,670		30,800

7804MJ/m<sup>3</sup> 7050MJ/m<sup>3</sup> 14670MJ/m<sup>3</sup>

JWEE					
PSB from wood	Woodfuel	Wood waste	Black liquor	Pellets	Charcoal
TJ	TJ	TJ	TJ	TJ	Tonnes
14,230	14,177	53			460
14,230	14,177	53			460
0					-480
68	68				
14,162	14,109	53			940
4,265	4,265				
182	175	8			940
9,683	9,638	46			
30	30				
	14,582	14,582			30,000

**Montenegro**

Supply and consumption  2013	IRENA						
	Primary solid biomass TJ	Woodfuel TJ	Wood waste TJ	Black liquor TJ	Other veg. TJ	Pellets TJ	Charcoal Tonnes
Production	7,274	88,967	739			6	401
Imports	23					23	310
Exports	285	69	213			4	18
Stock changes							
International Bunkers							
<b>Domestic supply</b>	<b>89,430</b>	<b>88,898</b>	<b>526</b>			<b>6</b>	<b>693</b>
Statistical Differences			1				
Power plants							
CHP plants	0						
Commercial heat plants							
Charcoal production	22	22					
Pellet production							
Other transformation							
Energy sector and own use							
Distribution losses							
<b>Total final consumption</b>	<b>6,977</b>	<b>6,438</b>	<b>525</b>			<b>14</b>	<b>693</b>
Industry sector	209		209				
Transport sector of which road transport							
Commercial and public service	277	262	4			11	60
Residential	6,501	6,176	312			14	633
Other							
Net calorific value (MJ/t)		12,235	9,883			16,920	29,302

9176.4MJ/n 7412.4MJ/m<sup>3</sup>

FAOSTAT					
PSB from wood TJ	Woodfuel TJ	Wood waste TJ	Black liquor TJ	Pellets TJ	Charcoal Tonnes
8,187	8,142			45	2,000
55	0			55	530
169	131			38	0
<b>8,072</b>	<b>8,011</b>			<b>62</b>	<b>2,530</b>
0					
	15,120			16,920	

**Portugal**

Supply and consumption	IRENA						
	Primary solid biomass	Woodfuel	Wood waste	Black liquor	Other veg.	Pellets	Charcoal
	2013 TJ	TJ	TJ	TJ	TJ	TJ	Tonnes
Production	112,377	88,967	4,658	41,267	16,050	18,972	19,575
Imports	1,618				1,618	0	32,312
Exports	15,430					15,430	4,667
Stock changes	0					0	
International Bunkers							
<b>Domestic supply</b>	<b>171,531</b>	<b>88,967</b>	<b>4,658</b>	<b>41,267</b>	<b>17,668</b>	<b>18,972</b>	<b>47,220</b>
Statistical Differences							
Power plants	11,172		4,268		6,904		
CHP plants	8,996		390	7,625	981		
Commercial heat plants	0						
Charcoal production	1,475	1,475					
Pellet production							
Other transformation							
Energy sector and own use							
Distribution losses							
<b>Total final consumption</b>	<b>75,794</b>	<b>29,955</b>	<b>0</b>	<b>33,642</b>	<b>9,783</b>	<b>2,414</b>	<b>47,220</b>
Industry sector	44,407			33,642	9,783	983	1,400
Transport sector							
of which road transport							
Commercial and public service	417	401				16	35,339
Residential	31,968	29,554				2,414	10,481
Other	129	0				129	
Net calorific value (MJ/t)		14,311	10,474	8,293	9,839	17,284	29,500

FAOSTAT					
PSB from wood	Woodfuel	Wood waste	Black liquor	Pellets	Charcoal
TJ	TJ	TJ	TJ	TJ	Tonnes
20,543	6,804			13,739	12,478
556	29			527	35,749
13,237	94			13,142	5,331
<b>7,863</b>	<b>6,739</b>			<b>1,124</b>	<b>42,896</b>
0					
	15,120			16,920	

**Russian Federation**

Supply and consumption 2013	IRENA							FAOSTAT					
	Primary solid biomass TJ	Woodfuel TJ	Wood waste TJ	Black liquor TJ	Other veg. TJ	Pellets TJ	Charcoal Tonnes	PSB from wood TJ	Woodfuel TJ	Wood waste TJ	Black liquor TJ	Pellets TJ	Charcoal Tonnes
Production	126,851	88,967						171,248	159,691			11,556	51,200
Imports	62	62						26	1			25	2,478
Exports	277	277						14,273	1,691			12,582	7,900
Stock changes													
International Bunkers													
<b>Domestic supply</b>	<b>88,752</b>	<b>88,752</b>					<b>0</b>	<b>157,001</b>	<b>158,002</b>			<b>-1,001</b>	<b>45,778</b>
Statistical Differences								0					
Power plants													
CHP plants	832	832											
Commercial heat plants	35,125	35,125											
Charcoal production													
Pellet production													
Other transformation													
Energy sector and own use													
Distribution losses													
<b>Total final consumption</b>	<b>90,679</b>	<b>90,679</b>					<b>0</b>						
Industry sector	4,223	4,223											
Transport sector													
of which road transport													
Commercial and public service	30,899	30,899											
Residential	50,414	50,414											
Other	5,143	5,143											
Net calorific value (MJ/t)		15,120							15,120			16,920	

**Serbia**

Supply and consumption	IRENA						
	Primary solid biomass	Woodfuel	Wood waste	Black liquor	Other veg.	Pellets	Charcoal
2013	TJ	TJ	TJ	TJ	TJ	TJ	Tonnes
Production	49,404	88,967	107			2,394	10,866
Imports	197	145				52	335
Exports	2,473	386				2,088	10,179
Stock changes	-485	-516				31	-152
International Bunkers							
<b>Domestic supply</b>	<b>90,711</b>	<b>88,210</b>	<b>107</b>			<b>2,394</b>	<b>870</b>
Statistical Differences							
Power plants							
CHP plants	0						
Commercial heat plants	114	67				47	
Charcoal production	412	305	107				
Pellet production							
Other transformation							
Energy sector and own use							
Distribution losses	24	17				7	106
<b>Total final consumption</b>	<b>45,840</b>	<b>45,758</b>				<b>82</b>	<b>764</b>
Industry sector	8,283	8,078				205	629
Transport sector							
of which road transport							
Commercial and public services							
Residential	36,453	36,371				82	36
Other	1,357	1,308				49	99
Net calorific value (MJ/t)		16,514	8,003			18,600	30,014

JWEE					
PSB from wood	Woodfuel	Wood waste	Black liquor	Pellets	Charcoal
TJ	TJ	TJ	TJ	TJ	Tonnes
56,342	49,222	4,231		2,889	27,000
143	91			52	300
1,778	30			1,747	10,000
<b>54,708</b>	<b>49,283</b>	<b>4,231</b>		<b>1,194</b>	<b>17,300</b>
-52				-52	1,300
103	68			35	
<b>54,656</b>	<b>49,214</b>	<b>4,231</b>		<b>1,211</b>	<b>16,000</b>
5,903	2,160	3,743			
1,880	1,569			311	9,000
45,798	44,518	415		865	7,000
1,076	968	73		35	
	14,582	14,582	12,460	17,300	30,000

## Slovakia

Supply and consumption 2013	IRENA						FAOSTAT						
	Primary solid biomass TJ	Woodfuel TJ	Wood waste TJ	Black liquor TJ	Other veg. TJ	Pellets TJ	Charcoal Tonnes	PSB from wood TJ	Woodfuel TJ	Wood waste TJ	Black liquor TJ	Pellets TJ	Charcoal Tonnes
Production	32,180	88,967						9,379	7,822			1,557	4,000
Imports	28	28						1,560	1,427			133	1,491
Exports	453	453						6,094	5,212			881	1,055
Stock changes	22	22											
International Bunkers													
<b>Domestic supply</b>	<b>88,564</b>	<b>88,564</b>					0	<b>4,845</b>	<b>4,037</b>			<b>809</b>	<b>4,436</b>
Statistical Differences								0					
Power plants	205	205											
CHP plants	16,394	16,394											
Commercial heat plants	2,946	2,946											
Charcoal production													
Pellet production													
Other transformation													
Energy sector and own use	4	4											
Distribution losses	6	6											
<b>Total final consumption</b>	<b>12,222</b>	<b>12,222</b>					0						844
Industry sector	10,398	10,398											
Transport sector of which road transport													
Commercial and public service	115	115											
Residential	1,590	1,590											844
Other	119	119											
Net calorific value (MJ/t)		15,120					30,800		15,120				16,920



**Turkey**

Supply and consumption	IRENA						
	Primary solid biomass	Woodfuel	Wood waste	Black liquor	Other veg.	Pellets	Charcoal
2013	TJ	TJ	TJ	TJ	TJ	TJ	Tonnes
Production	179,239	88,967	588				
Imports							
Exports							
Stock changes							
International Bunkers							
<b>Domestic supply</b>	<b>89,555</b>	<b>88,967</b>	<b>588</b>			<b>0</b>	
Statistical Differences							
Power plants	217		217				
CHP plants	371		371				
Commercial heat plants							
Charcoal production							
Pellet production							
Other transformation							
Energy sector and own use							
Distribution losses							
<b>Total final consumption</b>	<b>178,651</b>	<b>178,651</b>				<b>0</b>	
Industry sector							
Transport sector							
of which road transport							
Commercial and public services							
Residential	178,651	178,651					
Other							
Net calorific value (MJ/t)		15,120	15,120				

FAOSTAT					
PSB from wood	Woodfuel	Wood waste	Black liquor	Pellets	Charcoal
TJ	TJ	TJ	TJ	TJ	Tonnes
46,449	46,449			0	0
309	306			2	73,708
24	23			2	777
<b>46,733</b>	<b>46,732</b>			<b>1</b>	<b>72,931</b>
0					
	15,120			16,920	

**Ukraine**

Supply and consumption	IRENA						
	Primary solid biomass	Woodfuel	Wood waste	Black liquor	Other veg.	Pellets	Charcoal
2013	TJ	TJ	TJ	TJ	TJ	TJ	Tonnes
Production	90,241	88,967				1,274	133,000
Imports	0	0					1,000
Exports	11,497	11,497					89,000
Stock changes	705	705					
International Bunkers							
<b>Domestic supply</b>	<b>79,449</b>	<b>78,175</b>				<b>1,274</b>	<b>45,000</b>
Statistical Differences							
Power plants	883	883					
CHP plants	18,988	17,899				1,089	
Commercial heat plants	3,194	3,194					
Charcoal production	12,413	12,413					
Pellet production							
Other transformation	39	39					
Energy sector and own use	255	255					
Distribution losses							
<b>Total final consumption</b>	<b>43,677</b>	<b>43,491</b>				<b>186</b>	<b>45,000</b>
Industry sector	1,603	1,603					
Transport sector							
of which road transport							
Commercial and public service	1,061	1,061					
Residential	40,331	40,145				186	45,000
Other	682	682					
Net calorific value (MJ/t)		15,120				16,920	30,800

FAOSTAT					
PSB from wood	Woodfuel	Wood waste	Black liquor	Pellets	Charcoal
TJ	TJ	TJ	TJ	TJ	Tonnes
116,044	112,491			3,553	100,000
11	2			8	1,350
14,864	12,072			2,792	89,110
<b>101,191</b>	<b>100,421</b>			<b>770</b>	<b>12,240</b>
0					
	15,120			16,920	