




TABLE 3.2.3**CHP GENERATION (TWh)**

The tables below give information on the electricity produced in cogeneration plants in the 27 EU Member States, plus Switzerland, Norway, Turkey and certain Energy Community members. Generation is expressed in TWh, and differentiated by primary energy. The table present both historical data (from 1980 to 2011) and estimates for 2020 and 2030.

 AUSTRIA (AT)							
	1980	1990	2000	2010	2011	2020	2030
Multifuels							
Hard Coal							
Oil							
Natural Gas							
Renewables							
Other Non-Renewables							
Total	3.4	6.1	14.5	22.0			

 BELGIUM (BE)							
	1980	1990	2000	2010	2011	2020	2030
Multifuels							
Hard Coal		6.6	0.1	0.3	0.2	0.2	
Oil		0.5	0.4	0.3	0.2	0.2	
Natural Gas		0.3	4.7	12.0	11.7	16.3	
Renewables		0	0.5	1.8	2.1	5.5	
Other Non-Renewables		0	0	0	0		
Total		7.3	5.7	14.4	14.1	22.2	

 BULGARIA (BG)							
	1980	1990	2000	2010	2011	2020	2030
Multifuels	0	0	0	0		0	0
Hard Coal	0.8	0.7	0.6	2.5	2.1	2.5	2.5
Oil	2.5	2.1	1.2	0.0	0.0	0.0	0.0
Natural Gas	2.5	2.0	1.6	1.7	1.7	2.7	2.7
Renewables	0	0	0	0	0.0	0.2	0.2
Other Non-Renewables	0	0	0	0		0	0
Total	5.8	4.8	3.4	4.2	3.8	5.4	5.4






 CYPRUS (CY)							
	1980	1990	2000	2010	2011	2020	2030
Multifuels	0	0	0	0	0		
Hard Coal	0	0	0	0	0		
Oil	0	0	0	0	0		
Natural Gas	0	0	0	0	0		
Renewables	0	0	0	0	0		
Other Non-Renewables	0	0	0	0	0		
Total	0	0	0	0	0		

TABLE 3.2.3 CHP GENERATION (TWh)

 CZECH REPUBLIC (cz)							
	1980	1990	2000	2010	2011	2020	2030
Multifuels	0	0	0	0	0	0	0
Hard Coal	11.0	15.0	17.0	7.6	6.4	17.0	17.0
Oil	0	0	0	0	0	0	0
Natural Gas	0	0	0	1.1	1.1	3.0	3.0
Renewables	0	0	0	0	0	0	0
Other Non-Renewables	0	0	0	0	0	0	0
Total	11.0	15.0	17.0	8.7	7.5	20.0	20.0

 GERMANY (DE)							
	1980	1990	2000	2010	2011	2020	2030
Multifuels							
Hard Coal				20.8	19.3		
Oil				2.2	1.9		
Natural Gas				54.6	56.5		
Renewables				11.8	12.7		
Other Non-Renewables				3.9	3.5		
Total	38.0	60.0	64.5	93.3	90.9	115.0	125.0

 DENMARK (DK)							
	1980	1990	2000	2010	2011	2020	2030
Multifuels			0	0		0	
Hard Coal			11.7	10.0		8.0	
Oil			4.0	4.0		4.0	
Natural Gas			10.3	12.0		14.0	
Renewables			0	0		0	
Other Non-Renewables			0	0		0	
Total	11.6	14.2	26.0	26.0		26.0	

 ESTONIA (EE)							
	1980	1990	2000	2010	2011	2020	2030
Multifuels			0.4			0.3	
Hard Coal			0			0	
Oil			0			0	
Natural Gas			0.2			0.2	
Renewables			0.0			1.5	
Other Non-Renewables			0.5			0	
Total			1.2			2.0	






 SPAIN (ES)							
	1980	1990	2000	2010	2011	2020	2030
Multifuels	0	0	0	0	0	0	0
Hard Coal	0	0	1.0	0.1	0.1	0	0
Oil	0	2.0	7.0	2.7	2.5	7.0	8.0
Natural Gas	1.0	1.0	18.0	25.6	25.2	36.0	40.0
Renewables	0	0	0	0	0	0	0
Other Non-Renewables	0	0	0	0	0	0	0
Total	1.0	3.0	26.0	28.3	27.8	43.0	48.0

TABLE 3.2.3 CHP GENERATION (TWh)

 FINLAND (FI)							
	1980	1990	2000	2010	2011	2020	2030
Multifuels			0	0	0	0	0
Hard Coal			4.0	4.3	4.0	3.5	3.0
Oil			1.2	0.3	0.3	0.4	0.4
Natural Gas			8.0	10.8	9.0	9.7	10.0
Renewables			8.8	8.8	8.7	10.0	10.6
Other Non-Renewables				0.5	0.5		
Total	10.8	16.1	24.5	28.1	25.5	26.9	26.8

 FRANCE (FR)							
	1980	1990	2000	2010	2011	2020	2030
Multifuels			0				
Hard Coal			0.7				
Oil			0.7				
Natural Gas			8.6				
Renewables			2.9				
Other Non-Renewables			1.4				
Total			14.3				

 UNITED KINGDOM (UK)							
	1980	1990	2000	2010	2011	2020	2030
Multifuels	0	0	0	0		0	0
Hard Coal	2.9	2.3	0.6	1.5	1.6	0.4	0.3
Oil	4.1	3.9	1.5	0.7	0.5	0.2	0.2
Natural Gas	0.2	1.3	19.0	43.2	35.0	21.0	21.9
Renewables	0	0	0.5	3.4	3.6	3.3	6.2
Other Non-Renewables	1.8	2.8	3.7	9.7	6.1		
Total	9.0	10.3	25.3	58.5	46.9	24.9	28.6

 GREECE (GR)							
	1980	1990	2000	2010	2011	2020	2030
Multifuels	0	0	0	0.1		0.1	
Hard Coal	0	0	0.1	0.1		0.1	
Oil	0.6	0.7	0.7	0.7		0.7	
Natural Gas	0	0.1	0.1	1.2		1.2	
Renewables	0	0	0	0		0.2	
Other Non-Renewables	0	0	0	0		0	
Total	0.6	0.8	1.0	2.1		2.3	






 HUNGARY (HU)							
	1980	1990	2000	2010	2011	2020	2030
Multifuels			0.6	0	0	0	0
Hard Coal			0.8	0.1	0.1	0	0
Oil			0	0	0	0	0
Natural Gas			1.0	6.0	5.2	3.0	3.0
Renewables			0	0.4	0.1	1.5	1.5
Other Non-Renewables			0.1	0.1	0	0	0
Total	2.3	2.0	2.5	6.6	5.4	4.5	4.5

TABLE 3.2.3 CHP GENERATION (TWh)

 IRELAND (IE)							
	1980	1990	2000	2010	2011	2020	2030
Multifuels			0	0		0	
Hard Coal			0	0		0	
Oil			0	0		0	
Natural Gas			0.4	2.0		2.3	
Renewables			0	0		0	
Other Non-Renewables			0.1	0.1		0.1	
Total			0.5	2.1		2.4	

 ITALY (IT)							
	1980	1990	2000	2010	2011	2020	2030
Multifuels							
Hard Coal							
Oil							
Natural Gas							
Renewables							
Other Non-Renewables							
Total	19.7	15.8	57.9	108.3	98.5		

 LITHUANIA (LT)							
	1980	1990	2000	2010	2011	2020	2030
Multifuels	1.1	2.5	1.1	1.5	1.3	3.6	3.6
Hard Coal	0	0	0	0	0	0	0
Oil	0.2	0.5	0.3	0.1	0.1	0.3	0.3
Natural Gas	0	0	0	0.2	0.2	0.3	0.3
Renewables	0	0	0	0.2	0.2	1.4	1.4
Other Non-Renewables	0	0	0	0	0	0	0
Total	1.3	3.0	1.4	2.0	1.9	5.5	5.5

 LUXEMBOURG (LU)							
	1980	1990	2000	2010	2011	2020	2030
Multifuels	0	0	0	0	0	0	0
Hard Coal	0	0	0	0	0	0	0
Oil	0	0	0	0	0	0	0
Natural Gas	0	0	0.4	3.0	2.1	3.0	3.1
Renewables	0	0	0	0	0	0	0
Other Non-Renewables	0	0	0	0	0	0	0
Total	0	0	0.4	3.0	2.1	3.0	3.1






 LATVIA (LV)							
	1980	1990	2000	2010	2011	2020	2030
Multifuels	0	0	0	0	0		
Hard Coal	0	0	0	0	0	0	
Oil	0.5	0.3	0.2	0	0		
Natural Gas	1.1	1.6	1.0	2.8	2.8	2.1	2.3
Renewables	0	0	0	0	0	0.2	0.4
Other Non-Renewables	0	0	0	0	0		
Total	1.6	1.9	1.2	2.8	2.8	2.3	2.7

TABLE 3.2.3 CHP GENERATION (TWh)

 MALTA (MT)							
	1980	1990	2000	2010	2011	2020	2030
Multifuels			0	0	0		
Hard Coal			0	0	0		
Oil			0	0	0		
Natural Gas			0	0	0		
Renewables			0	0	0		
Other Non-Renewables			0	0	0		
Total			0	0	0		

 NETHERLANDS (NL)							
	1980	1990	2000	2010	2011	2020	2030
Multifuels							
Hard Coal		4.8	6.5	5.1	3.8	6.7	3.4
Oil			0	0	0	0	0
Natural Gas		19.3	41.5	54.2	52.1	60.7	63.8
Renewables		0	0	1.8	2.1	2.7	3.0
Other Non-Renewables		0	1.0	0.6	0.6	0	0
Total	16.0	24.1	49.0	61.8	58.6	70.2	70.2

 POLAND (PL)							
	1980	1990	2000	2010	2011	2020	2030
Multifuels	0	0	0	0	0	0	0
Hard Coal	26.9	26.0	28.1	24.8	23.4	25.3	32.4
Oil	0	0	0	0	0	0	0
Natural Gas	0	0	0.4	5.0	5.2	5.7	6.1
Renewables	0	0	0	0.2	0.2	0.3	0.3
Other Non-Renewables	0	0	0	0	0	0	0
Total	26.9	26.0	28.5	30.0	28.8	31.3	38.8

 PORTUGAL (PT)							
	1980	1990	2000	2010	2011	2020	2030
Multifuels	0	0	0	0	0	0	0
Hard Coal	0	0	0	0	0	0	0
Oil	1.2	1.6	3.7	1.0	0.9	0	0
Natural Gas	0	0	0.7	4.2	4.6	6.7	7.7
Renewables	0	0	0.4	2.0	2.1	2.1	2.4
Other Non-Renewables	0	0	0	0	0	0	0
Total	1.2	1.6	4.9	7.1	7.6	8.8	10.0






 ROMANIA (RO)							
	1980	1990	2000	2010	2011	2020	2030
Multifuels							
Hard Coal	1.5	5.3	2.8	4.4		4.4	3.9
Oil	1.7	4.7	1.8	0.6		0.3	0.2
Natural Gas	6.8	9.5	5.1	4.0		7.1	8.8
Renewables	0	0	0	0		0.2	1.0
Other Non-Renewables	0	0	0	0		0	0
Total	10.0	19.5	9.7	9.0		11.9	13.9

TABLE 3.2.3 CHP GENERATION (TWh)

 SWEDEN (SE)							
	1980	1990	2000	2010	2011	2020	2030
Multifuels	0	0	0	0		0	0
Hard Coal	0.2	1.1	1.5	0.8		0	0
Oil	8.3	1.1	1.4	1.2		0.6	0.6
Natural Gas	0	0.3	0.4	2.2		2.6	2.6
Renewables	0.6	1.7	3.8	11.5		16.0	16.3
Other Non-Renewables	0.0	0.6	1.4	2.3		1.4	1.4
Total	9.1	4.8	8.5	17.9		20.6	20.9

 SLOVENIA (SI)							
	1980	1990	2000	2010	2011	2020	2030
Multifuels	0	0	0	0		0	
Hard Coal	0.2	0.3	0.4	0.4		0.4	
Oil	0	0	0	0		0	
Natural Gas	0	0	0	0		0	
Renewables	0	0	0	0		0	
Other Non-Renewables	0	0	0	0		0	
Total	0.2	0.3	0.4	0.4		0.4	

 SLOVAKIA (SK)							
	1980	1990	2000	2010	2011	2020	2030
Multifuels	0	0	0	0		0	
Hard Coal	1.8	1.9	1.8	2.2		2.2	
Oil	0.5	0.6	0.5	0.3		0.3	
Natural Gas	0.9	1.3	2.7	6.4		7.6	
Renewables	0	0	0	0		0	
Other Non-Renewables	0	0	0	0		0	
Total	3.2	3.8	5.0	8.9		10.1	

 NORWAY (NO)							
	1980	1990	2000	2010	2011	2020	2030
Multifuels	0	0	0	0	0	0	0
Hard Coal	0	0	0	0	0	0	0
Oil	0	0	0	0	0	0	0
Natural Gas	0	0	0	2.9	2.8	1.0	1.0
Renewables	0	0	0.1	0	0	0	0
Other Non-Renewables	0.1	0.4	0.6	0	0	0	0
Total	0.1	0.4	0.7	2.9	2.8	1.0	1.0



 TURKEY (TR)							
	1980	1990	2000	2010	2011	2020	2030
Multifuels			2.0	3.2	3.8		
Hard Coal			0.4	0.2	0.2		
Oil			0.9	0.1	0.1		
Natural Gas			1.5	3.9	4.5		
Renewables			0	0	0		
Other Non-Renewables			0	0.1	0.1		
Total	0	0	4.8	7.5	8.7		

TABLE 3.2.3 CHP GENERATION (TWH)

 SERBIA (RS)							
	1980	1990	2000	2010	2011	2020	2030
Multifuels	0	0	0	0	0	0	0
Hard Coal	2.4	1.9	1.2	2.4	2.5	2.1	0
Oil	0	0	0	0	0	0	0
Natural Gas	0.1	1.6	0.3	0.2	0.4	2.6	2.6
Renewables	0	0	0	0	0		
Other Non-Renewables	0	0	0	0	0		
Total	2.5	3.5	1.4	2.6	2.9	4.7	2.6