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Energy Consumption in Switzerland 2023

Extract from the Swiss Overall Energy Statistics 2023

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Switzerland's energy balance for 2023 (in TJ)

Table 1

	Wood	Coal	Waste	Crude oil	Petroleum products	Gas	Hydro	Nuclear	Other renewable energy	Electricity	District heating	Total
Inland production	48'040		54'170	0		0	146'810		49'570			298'590
+ Imports	1'920	3'140	4'140	122'270	286'900	98'930		254'550	6'610	98'860		877'320
+ Exports	-140	-10			-17'560					-121'880		-139'590
+ Change in stock[1]		-70		430	-11'690							-11'330
= **Total primary energy supply**	**49'820**	**3'060**	**58'310**	**122'700**	**257'650**	**98'930**	**146'810**	**254'550**	**56'180**	**-23'020**	**0**	**1'024'990**
+ Transformation sector:												
• Hydro plants							-146'810			146'810		0
• Nuclear plants								-254'550		84'000	1'430	-169'120
• Conventional thermal electricity, CHP and heat plants	-4'150	0	-46'520		-390	-5'760				7'880	23'130	-25'810
• Gas-fired power plants						0						0
• Refinery				-122'700	122'700							0
• Renewables	-3'050					1'580			-21'550	20'700	0	-2'320
+ Own use, distribution losses, used for storage					-6'030	-120				-34'530	-2'250	-42'930
+ Non-energy use					-17'360							-17'360
= **Total final consumption**	**42'620**	**3'060**	**11'790**	**0**	**356'570**	**94'630**	**0**	**0**	**34'630**	**201'840**	**22'310**	**767'450**

[1] + decrease in stock
- increase in stock

Final Energy Consumption

Table 2

Energy source	Final consumption in original units		Final consumption in TJ		Change in %	Share in %	
	2022	**2023**	2022	**2023**	**2022-2023**	2022	**2023**
Petroleum products	8'090'000 t	**8'310'000 t**	347'090	**356'570**	2.7	45.4	**46.5**
Electricity	57'030 GWh	**56'068 GWh**	205'310	**201'840**	-1.7	26.8	**26.3**
Gas[1]	28'276 GWh	**26'285 GWh**	101'790	**94'630**	-7.0	13.3	**12.3**
Coal	160'000 t	**126'000 t**	3'880	**3'060**	-21.1	0.5	**0.4**
Wood	-	**-**	41'500	**42'620**	2.7	5.4	**5.6**
District heating	5'933 GWh	**6'197 GWh**	21'360	**22'310**	4.4	2.8	**2.9**
Waste	-	**-**	12'110	**11'790**	-2.6	1.6	**1.5**
Other renewable Energy thereof:	-	**-**	32'220	**34'630**	7.5	4.2	**4.5**
Biogenic fuels	-	**-**	6'730	**7'080**	5.2	0.9	**0.9**
Biogas[2]	-	**-**	1'890	**1'950**	3.2	0.2	**0.3**
Solar thermal	-	**-**	2'650	**2'630**	-0.8	0.3	**0.3**
Ambient heat from soil, groundwater, air, etc.	-	**-**	20'950	**22'970**	9.6	2.7	**3.0**
Total final consumption	-	**-**	765'260	**767'450**	0.3	100.0	**100.0**

[1] Net calorific value (NCV: 36,3 MJ/Norm m3); in gas industry the gross calorific value (GCV: 40,3 MJ/Norm m3) is commonly used; NCV = 0,9 * GCV

[2] In 2023, 1'580 TJ of Biogas was injected into the gas distribution system and is included in Gas (2022: 1'520 TJ)

Petroleum Products

Table 3

Energy source	Final consumption in t		Final consumption in TJ		Change in %	Share in %	
	2022	**2023**	2022	**2022**	**2022-2023**	2022	**2023**
Fuel oils	2'117'000	**2'060'000**	90'770	**88'320**	-2.7	26.2	**24.8**
thereof:							
Extra-light heating oil	2'026'000	**1'965'000**	86'920	**84'300**	-3.0	25.0	**23.6**
Heavy fuel oil	0	**1'000**	0	**40**	-	0.0	**0.0**
Petroleum coke	23'000	**24'000**	730	**760**	4.1	0.2	**0.2**
Others	68'000	**70'000**	3'130	**3'220**	2.9	0.9	**0.9**
Motor fuels	5'973'000	**6'250'000**	256'310	**268'250**	4.7	73.8	**75.2**
thereof:							
Gasoline	2'005'000	**2'073'000**	85'410	**88'310**	3.4	24.6	**24.8**
Aviation fuel	1'386'000	**1'649'000**	59'880	**71'240**	19.0	17.3	**20.0**
Diesel oil	2'582'000	**2'528'000**	111'030	**108'700**	-2.1	32.0	**30.5**
Final consumption	8'090'000	**8'310'000**	347'090	**356'570**	2.7	100.0	**100.0**

Electricity

Table 4

	GWh (1 GWh =3.6 TJ)		Change in %	Share in %	
	2022	**2023**	**2022-2023**	2022	**2023**
Production					
Hydroelectric plants	33'501	**40'780**	21.7	52.8	**56.6**
Nuclear power plants	23'113	**23'334**	1.0	36.4	**32.4**
Conventional thermal power plants:	1'970	**2'191**	11.2	3.1	**3.0**
thereof:					
non-renewable	878	**1'142**	30.1	1.4	**1.6**
renewable	1'092	**1'049**	-3.9	1.7	**1.5**
Miscellaneous renewables:	4'920	**5'749**	16.8	7.7	**8.0**
thereof:					
Wood	505	**539**	6.7	0.8	**0.7**
Biogas	408	**417**	2.2	0.6	**0.6**
Photovoltaics	3'858	**4'624**	19.9	6.1	**6.4**
Wind	150	**169**	12.7	0.2	**0.2**
Domestic production	**63'504**	**72'054**	**13.5**	**100.0**	**100.0**
Consumption by storage pumps (-)	5'567	5'375	-3.4	8.8	7.5
Net production	**57'937**	**66'679**	**15.1**	**91.2**	**92.5**
Import (+)[1]	33'117	27'462	-17.1	-	-
Export (-)[1]	29'734	33'856	13.9	-	-
Domestic consumption	**61'320**	**60'285**	**-1.7**	**100.0**	**100.0**
Losses (-)	4'290	4'217	-1.7	7.0	7.0
Final consumption	**57'030**	**56'068**	**-1.7**	**93.0**	**93.0**
Final consumption by sector:				100	100
Households	19'317	19'218	-0.5	33.9	34.3
Agriculture	954	923	-3.2	1.7	1.6
Industry	17'305	16'252	-6.1	30.3	29.0
Services	14'393	14'448	0.4	25.2	25.8
Transport[2]	5'061	5'227	3.3	8.9	9.3

[1] physical

[2] thereof railways 2023: 2'988 GWh (2022: 2'981 GWh)
thereof electromobility 2023: 2'988 GWh (2022: 2'981 GWh)

Gas

Table 5

	GWh[1] (1 GWh =3.6 TJ)		TJ		Change in %
	2022	**2023**	2022	**2023**	**2022-2023**
Imports of natural gas	29'685	**27'483**	106'870	**98'930**	-7.4
dont LGN	42	**43**	150	**150**	0.0
Feed-in of biogas into the gas distribution system	423	**438**	1'520	**1'580**	3.9
Total	**30'108**	**27'921**	**108'390**	**100'510**	-7.3
Natural gas used for district heating and electricity production (-)	1'794	1'600	6'460	5'760	
Distribution losses and gasworks' own consumption (-)	38	36	140	120	
Final consumption	**28'276**	**26'285**	**101'790**	**94'630**	**-7.0**

[1] net calorific value (NCV: 36,3 MJ/Norm m3); in gas industry the gross calorific value (GCV: 40,3 MJ/Norm m3) is commonly used; NCV = 0,9 * GCV.

Changes in consumption of gasoline & diesel oil and aviation fuel, 2000-2023

Changes in consumption of electricuty, gas and heating oil, 2000-2023

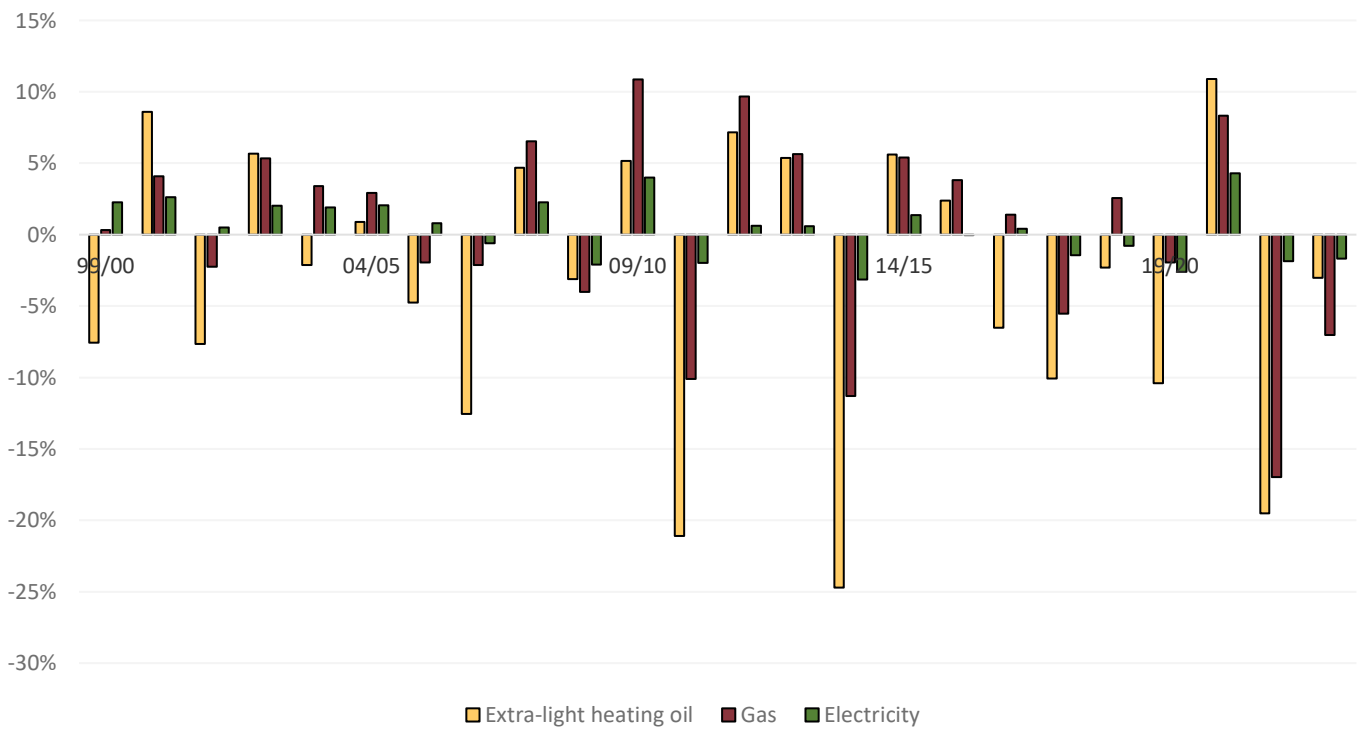
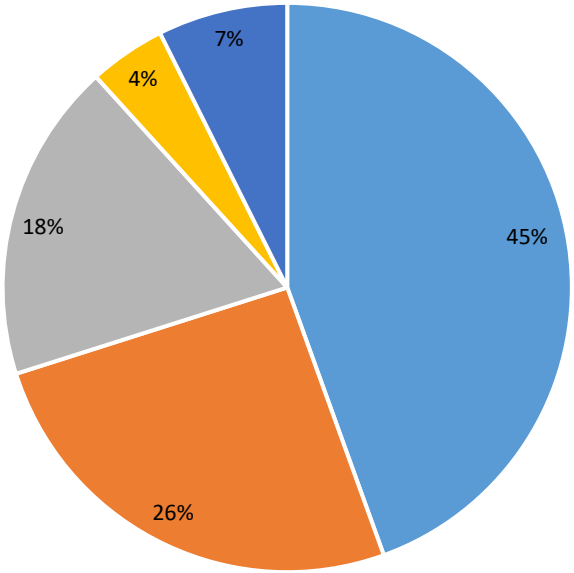
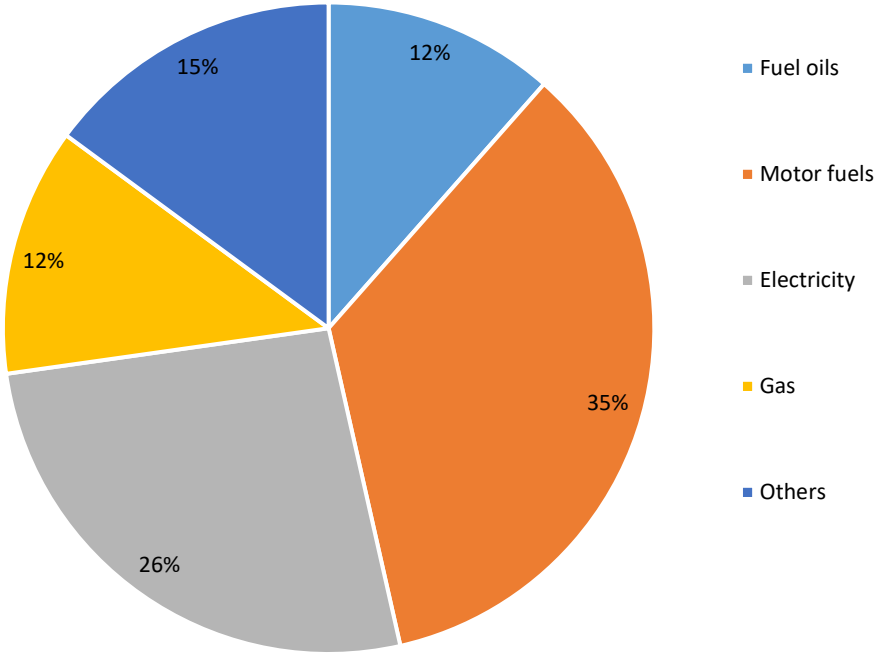


Figure 3

Final Energy Consumption 1980
(Total: 698'290 TJ)

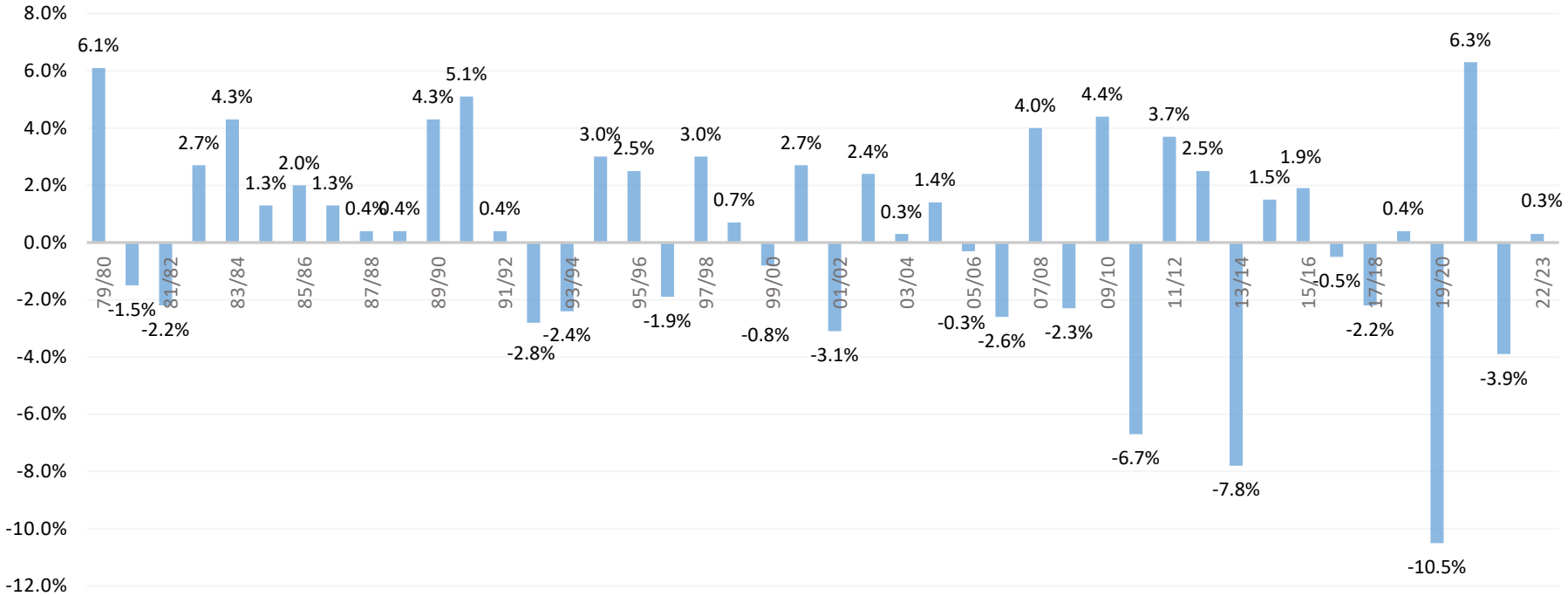


Final Energy Consumption 2023
(Total: 767'450 TJ)



Rate of Change in Final Energy Consumption per Year

Figure 4



Final Energy Consumption since 1910

Figure 5