
Energy Consumption in Switzerland 2019

Extract from the Swiss Overall Energy Statistics 2019

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Switzerland's energy balance for 2019 (in TJ)

Table 1

	Wood	Coal	Waste	Crude oil	Petroleum products	Gas	Hydro	Nuclear	Other renewable energy	Electricity	District heating	Total
Inland production	42'330		60'720			0	146'000		35'020			284'070
+ Imports	1'790	3'360		119'770	347'850	122'610		275'780	7'370	106'220		984'750
+ Exports	-110	-10			-20'010					-128'750		-148'880
+ Change in stock ¹		460		-330	-17'050							-16'920
= Total primary energy supply	44'010	3'810	60'720	119'440	310'790	122'610	146'000	275'780	42'390	-22'530	0	1'103'020
+ Transformation sector:												
• Hydro plants							-146'000			146'000		0
• Nuclear plants								-275'780		91'010	1'420	-183'350
• Conventional thermal electricity, CHP and heat plants	-3'310		-49'050		-450	-8'330				10'980	22'150	-28'010
• Gas-fired power plants												0
• Refinery				-119'440	119'440							0
• Renewables	-1'660					1'300			-12'040	10'830		-1'570
+ Own use, distribution losses, used for storage					-5'830	-380				-30'380	-2'010	-38'600
+ Non-energy use					-17'280							-17'280
= Total final consumption	39'040	3'810	11'670	0	406'670	115'200	0	0	30'350	205'910	21'560	834'210

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 %	
	2018	2019	2018	2019	2018-2019	2018	2019
Petroleum products	9'556'000 t	9'475'000 t	409'930	406'670	-0.8	49.3	48.7
Electricity	57'647 GWh	57'198 GWh	207'530	205'910	-0.8	25.0	24.7
Gas¹	31'189 GWh	32'000 GWh	112'280	115'200	2.6	13.5	13.8
Coal	176'000 t	156'000 t	4'290	3'810	-11.2	0.5	0.5
Wood	-	-	38'630	39'040	1.1	4.6	4.7
District heating	5'383 GWh	5'989 GWh	19'380	21'560	11.2	2.3	2.6
Waste	-	-	11'070	11'670	5.4	1.3	1.4
Other renewable Energy thereof:	-	-	28'310	30'350	7.2	3.4	3.6
Biogenic fuels	-	-	7'520	7'800	3.7	0.9	0.9
Biogas ²	-	-	1'840	1'890	2.7	0.2	0.2
Solar thermal	-	-	2'600	2'640	1.5	0.3	0.3
Ambient heat from soil, groundwater, air, etc.	-	-	16'350	18'010	10.2	2.0	2.2
Total final consumption	-	-	831'420	834'210	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 2019, 1'300 TJ of Biogas was injected into the gas distribution system and is included in Gas (2018: 1'170 TJ)

Petroleum Products

Table 3

Energy source	Final consumption in t		Final consumption in TJ		Change in %	Share in %	
	2018	2019	2018	2019	2018-2019	2018	2019
Fuel oils	2'699'000	2'617'000	115'630	112'310	-2.9	28.2	27.6
thereof:							
Extra-light heating oil	2'593'000	2'533'000	111'240	108'670	-2.3	27.1	26.7
Heavy fuel oil	1'000	1'000	40	40	0.0	0.0	0.0
Petroleum coke	34'000	15'000	1'080	480	-55.6	0.3	0.1
Others	71'000	68'000	3'270	3'130	-4.3	0.8	0.8
Motor fuels	6'857'000	6'858'000	294'300	294'360	0.0	71.8	72.4
thereof:							
Gasoline	2'301'000	2'282'000	98'020	97'210	-0.8	23.9	23.9
Aviation fuel	1'858'000	1'877'000	80'270	81'090	1.0	19.6	19.9
Diesel oil	2'698'000	2'699'000	116'010	116'060	0.0	28.3	28.5
Final consumption	9'556'000	9'475'000	409'930	406'670	-0.8	100.0	100.0

Electricity

Table 4

	GWh (1 GWh =3.6 TJ)		Change in %	Share in %	
	2018	2019	2018-2019	2018	2019
<u>Production</u>					
Hydroelectric plants	37'428	40'556	8.4	55.4	56.4
Nuclear power plants	24'414	25'280	3.5	36.1	35.2
Conventional thermal power plants:	3'008	3'049	1.4	4.5	4.2
thereof:					
non-renewable	1'839	1'872	1.8	2.7	2.6
renewable	1'169	1'177	0.7	1.7	1.6
Miscellaneous renewables:	2'708	3'009	11.1	4.0	4.2
thereof:					
Wood	290	313	7.9	0.4	0.4
Biogas	352	372	5.7	0.5	0.5
Photovoltaics	1'945	2'178	12.0	2.9	3.0
Wind	122	146	19.7	0.2	0.2
Domestic production	67'558	71'894	6.4	100.0	100.0
Consumption by storage pumps (-)	3'987	4'133	3.7	5.9	5.7
Net production	63'571	67'761	6.6	94.1	94.3
Import (+) ¹	31'020	29'505	-4.9	-	-
Export (-) ¹	32'607	35'765	9.7	-	-
Domestic consumption	61'984	61'501	-0.8	100.0	100.0
Losses (-)	4'337	4'303	-0.8	7.0	7.0
Final consumption	57'647	57'198	-0.8	93.0	93.0
<u>Final consumption by sector:</u>				100	100
Households	19'085	19'091	0.0	33.1	33.4
Agriculture	966	945	-2.2	1.7	1.7
Industry	17'311	17'270	-0.2	30.0	30.2
Services	15'623	15'304	-2.0	27.1	26.8
Transport ²	4'662	4'588	-1.6	8.1	8.0

¹ physical

² thereof railways 2019: 3'043 GWh (2018: 3'090 GWh)

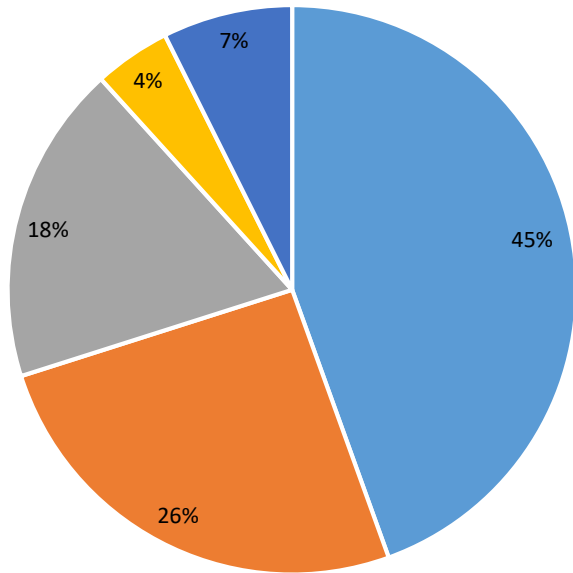
Gas

Table 5

	GWh ¹ (1 GWh =3.6 TJ)		TJ		Change in %
	2018	2019	2018	2019	2018-2019
Imports of natural gas	33'197	34'060	119'510	122'610	2.6
Feed-in of biogas into the gas distribution system	325	361	1'170	1'300	11.1
Total	33'522	34'421	120'680	123'910	2.7
Natural gas used for district heating and electricity production (-)	2'228	2'314	8'020	8'330	
Distribution losses and gasworks' own consumption (-)	105	107	380	380	
Final consumption	31'189	32'000	112'280	115'200	2.6

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.

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



Final Energy Consumption 2019
(Total: 834'210 TJ)

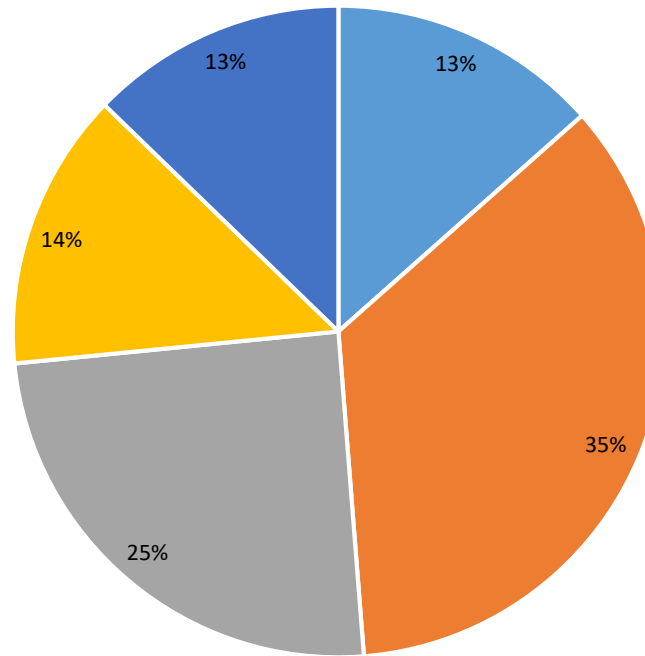
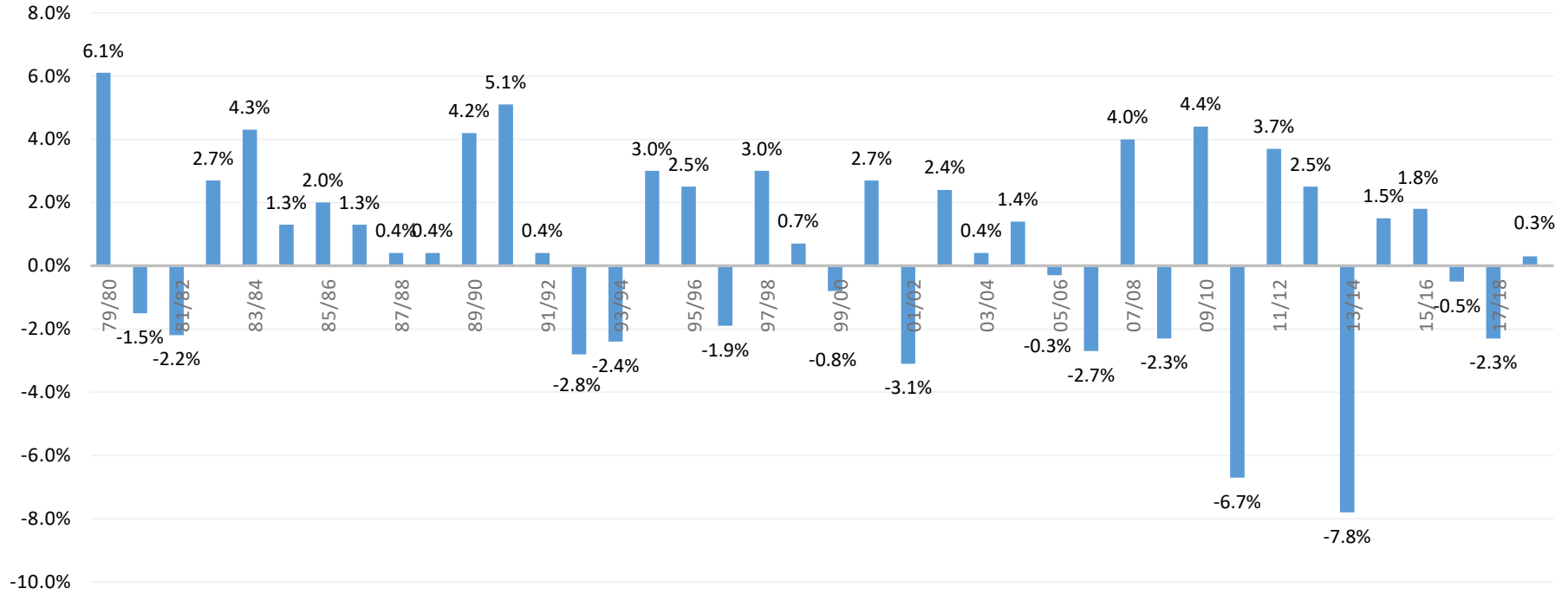


Figure 1

- Fuel oils
- Motor fuels
- Electricity
- Gas
- Others

Rate of Change in Final Energy Consumption per Year

Figure 2



Final Energy Consumption since 1910

Figure 3

