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Federal Department of the Environment,
Transport, Energy and Communications DETEC

Swiss Federal Office of Energy SFOE

June 2021

Energy Consumption in Switzerland 2020

Extract from the Swiss Overall Energy Statistics 2020

Available from August 2021 (German/French)

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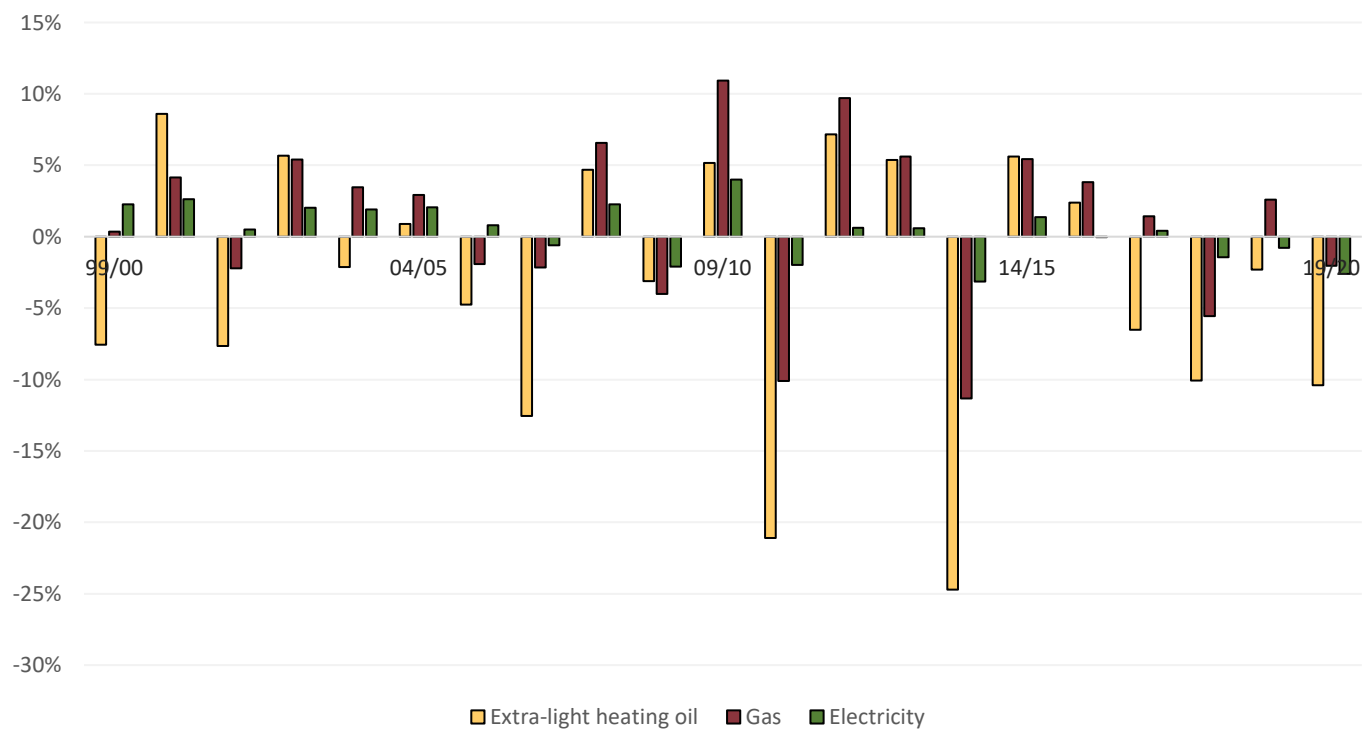
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Figures press release

Figure 1 - Changes in consumption of gasoline & diesel oil and aviation fuel, 2000-2020



Figure 2 - Changes in consumption of electricity, gas and heating oil, 2000-2020



Switzerland's energy balance for 2020 (in TJ)

Table 1

	Wood	Coal	Waste	Crude oil	Petroleum products	Gas	Hydro	Nuclear	Other renewable energy	Electricity	District heating	Total
Inland production	42'930		60'470				146'220		37'390			287'010
+ Imports	1'930	3'340		122'930	269'880	119'330		250'800	6'810	97'160		872'180
+ Exports	-90	0			-18'890					-117'170		-136'150
+ Change in stock ¹		320		300	-21'550							-20'930
= Total primary energy supply	44'770	3'660	60'470	123'230	229'440	119'330	146'220	250'800	44'200	-20'010		1'002'110
+ Transformation sector:												
• Hydro plants							-146'220			146'220		0
• Nuclear plants								-250'800		82'760	1'450	-166'590
• Conventional thermal electricity, CHP and heat plants	-3'300		-48'960		-340	-7'420				10'040	21'840	-28'140
• Gas-fired power plants												0
• Refinery				-123'230	123'230							0
• Renewables	-1'990					1'330			-13'780	12'700		-1'740
+ Own use, distribution losses, used for storage					-5'890	-380				-31'140	-2'220	-39'630
+ Non-energy use					-18'610							-18'610
= Total final consumption	39'480	3'660	11'510	0	327'830	112'860	0	0	30'420	200'570	21'070	747'400

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 %	
	2019	2020	2019	2020	2019-2020	2019	2020
Petroleum products	9'475'000 t	7'646'000 t	406'670	327'830	-19.4	48.6	43.9
Electricity	57'198 GWh	55'714 GWh	205'910	200'570	-2.6	24.6	26.8
Gas¹	31'998 GWh	31'351 GWh	115'190	112'860	-2.0	13.8	15.1
Coal	156'000 t	151'000 t	3'810	3'660	-3.9	0.5	0.5
Wood	-	-	40'920	39'480	-3.5	4.9	5.3
District heating	5'986 GWh	5'853 GWh	21'550	21'070	-2.2	2.6	2.8
Waste	-	-	11'670	11'510	-1.4	1.4	1.5
Other renewable Energy thereof:	-	-	30'350	30'420	0.2	3.6	4.1
Biogenic fuels	-	-	7'800	7'260	-6.9	0.9	1.0
Biogas ²	-	-	1'890	1'840	-2.6	0.2	0.2
Solar thermal	-	-	2'640	2'660	0.8	0.3	0.4
Ambient heat from soil, groundwater, air, etc.	-	-	18'020	18'670	3.6	2.2	2.5
Total final consumption	-	-	836'070	747'400	-10.6	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 2020, 1'330 TJ of Biogas was injected into the gas distribution system and is included in Gas (2019: 1'300 TJ)

Petroleum Products

Table 3

Energy source	Final consumption in t		Final consumption in TJ		Change in %	Share in %	
	2019	2020	2019	2020	2019-2020	2019	2020
Fuel oils	2'617'000	2'358'000	112'310	101'110	-10.0	27.6	30.8
thereof:							
Extra-light heating oil	2'533'000	2'270'000	108'670	97'380	-10.4	26.7	29.7
Heavy fuel oil	1'000	1'000	40	40	0.0	0.0	0.0
Petroleum coke	15'000	22'000	480	700	45.8	0.1	0.2
Others	68'000	65'000	3'130	2'990	-4.5	0.8	0.9
Motor fuels	6'858'000	5'288'000	294'360	226'720	-23.0	72.4	69.2
thereof:							
Gasoline	2'282'000	2'021'000	97'210	86'090	-11.4	23.9	26.3
Aviation fuel	1'877'000	709'000	81'090	30'630	-62.2	19.9	9.3
Diesel oil	2'699'000	2'558'000	116'060	109'990	-5.2	28.5	33.6
Final consumption	9'475'000	7'646'000	406'670	327'830	-19.4	100.0	100.0

Electricity

Table 4

	GWh (1 GWh =3.6 TJ)		Change in %	Share in %	
	2019	2020	2019-2020	2019	2020
<u>Production</u>					
Hydroelectric plants	40'556	40'616	0.1	56.4	58.1
Nuclear power plants	25'280	22'990	-9.1	35.2	32.9
Conventional thermal power plants:	3'049	2'789	-8.5	4.2	4.0
thereof:					
non-renewable	1'872	1'605	-14.3	2.6	2.3
renewable	1'177	1'184	0.6	1.6	1.7
Miscellaneous renewables:	3'009	3'528	17.2	4.2	5.0
thereof:					
Wood	313	395	26.2	0.4	0.6
Biogas	372	389	4.6	0.5	0.6
Photovoltaics	2'178	2'599	19.3	3.0	3.7
Wind	146	145	-0.7	0.2	0.2
Domestic production	71'894	69'923	-2.7	100.0	100.0
Consumption by storage pumps (-)	4'133	4'459	7.9	5.7	6.4
Net production	67'761	65'464	-3.4	94.3	93.6
Import (+) ¹	29'505	26'988	-8.5	-	-
Export (-) ¹	35'765	32'548	-9.0	-	-
Domestic consumption	61'501	59'904	-2.6	100.0	100.0
Losses (-)	4'303	4'190	-2.6	7.0	7.0
Final consumption	57'198	55'714	-2.6	93.0	93.0
<u>Final consumption by sector:</u>				100	100
Households	19'091	19'298	1.1	33.4	34.6
Agriculture	945	922	-2.4	1.7	1.7
Industry	17'270	16'686	-3.4	30.2	29.9
Services	15'304	14'543	-5.0	26.8	26.1
Transport ²	4'588	4'265	-7.0	8.0	7.7

¹ physical

² thereof railways 2020: 2'799 GWh (2019: 3'043 GWh)

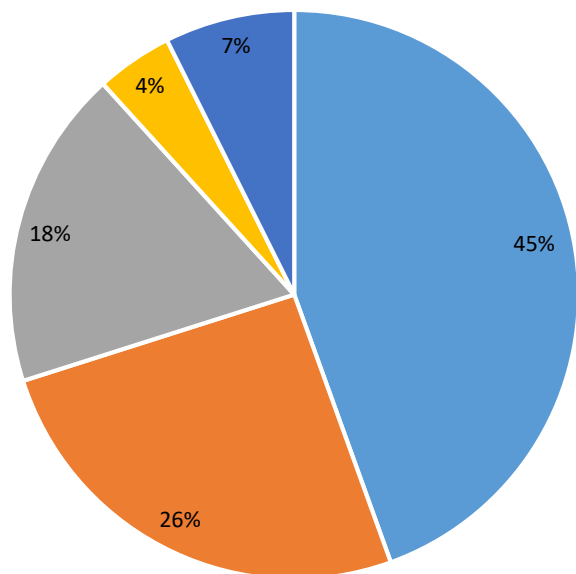
Gas

Table 5

	GWh ¹ (1 GWh =3.6 TJ)		TJ		Change in %
	2019	2020	2019	2020	2019-2020
Imports of natural gas	34'060	33'148	122'610	119'330	-2.7
Feed-in of biogas into the gas distribution system	361	369	1'300	1'330	2.3
Total	34'421	33'517	123'910	120'660	-2.6
Natural gas used for district heating and electricity production (-)	2'317	2'061	8'340	7'420	
Distribution losses and gasworks' own consumption (-)	106	105	380	380	
Final consumption	31'998	31'351	115'190	112'860	-2.0

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.

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



Final Energy Consumption 2020
(Total: 747'400 TJ)

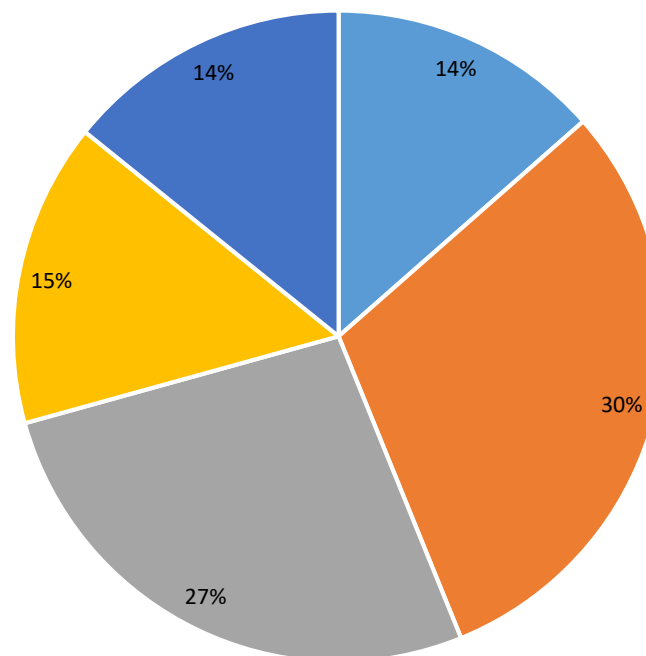
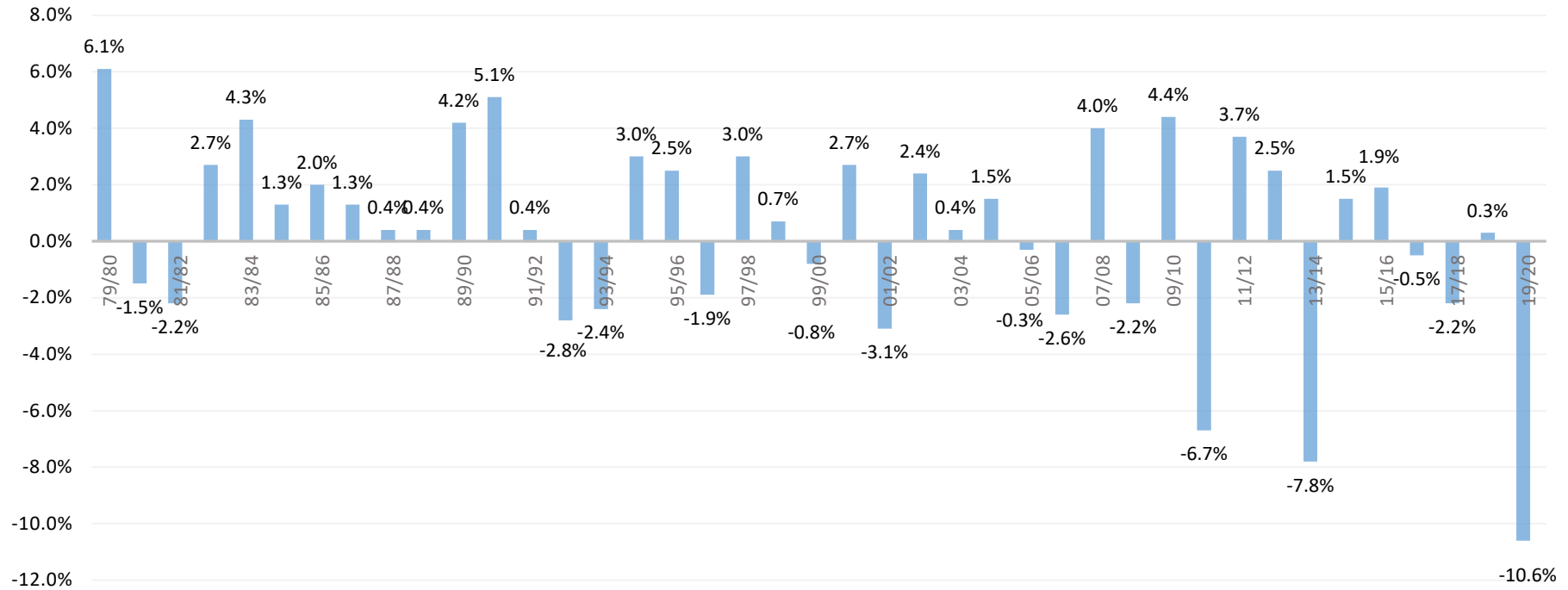


Figure 1

- 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

