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Transport, Energy and Communications DETEC

Swiss Federal Office of Energy SFOE

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Energy Consumption in Switzerland 2022

Extract from the Swiss Overall Energy Statistics 2022

Available from August 2023 (German/French)

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Switzerland's energy balance for 2022 (in TJ)

Table 1

	Wood	Coal	Waste	Crude oil	Petroleum products	Gas	Hydro	Nuclear	Other renewable energy	Electricity	District heating	Total
Inland production	45'430		58'540			0	120'600		44'650			269'220
+ Imports	2'390	3'870		133'310	246'440	106'720		252'140	6'270	119'220		870'360
+ Exports	-110	0			-25'170					-107'040		-132'320
+ Change in stock ¹		-20		-600	18'740							18'120
= Total primary energy supply	47'710	3'850	58'540	132'710	240'010	106'720	120'600	252'140	50'920	12'180		1'025'380
+ Transformation sector:												
• Hydro plants							-120'600			120'600		0
• Nuclear plants								-252'140		83'210	1'390	-167'540
• Conventional thermal electricity, CHP and heat plants	-3'720	0	-46'260		-420	-6'460				7'060	22'320	-27'480
• Gas-fired power plants						0						0
• Refinery				-132'710	132'710							0
• Renewables	-2'720					1'520			-18'660	17'740		-2'120
+ Own use, distribution losses, used for storage					-6'320	-130				-35'480	-2'350	-44'280
+ Non-energy use					-18'890							-18'890
= Total final consumption	41'270	3'850	12'280		347'090	101'650			32'260	205'310	21'360	765'070

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 %	
	2021	2022	2021	2022	2021-2022	2021	2022
Petroleum products	8'043'000 t	8'090'000 t	344'920	347'090	0.6	43.3	45.4
Electricity	58'113 GWh	57'030 GWh	209'210	205'310	-1.9	26.3	26.8
Gas¹	34'029 GWh	28'235 GWh	122'500	101'650	-17.0	15.4	13.3
Coal	152'000 t	156'000 t	3'700	3'850	4.1	0.5	0.5
Wood	-		46'900	41'270	-12.0	5.9	5.4
District heating	6'414 GWh	5'933 GWh	23'090	21'360	-7.5	2.9	2.8
Waste	-	-	12'380	12'280	-0.8	1.6	1.6
Other renewable Energy thereof:	-	-	33'110	32'260	-2.6	4.2	4.2
Biogenic fuels	-	-	6'590	6'730	2.1	0.8	0.9
Biogas ²	-	-	1'890	1'900	0.5	0.2	0.2
Solar thermal	-	-	2'660	2'650	-0.4	0.3	0.3
Ambient heat from soil, groundwater, air, etc.	-	-	21'970	20'980	-4.5	2.8	2.7
Total final consumption	-	-	795'810	765'070	-3.9	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 2022, 1'520 TJ of Biogas was injected into the gas distribution system and is included in Gas (2021: 1'330 TJ)

Petroleum Products

Table 3

Energy source	Final consumption in t		Final consumption in TJ		Change in % 2021-2022	Share in %	
	2021	2022	2021	2022		2021	2022
Fuel oils	2'604'000	2'117'000	111'710	90'770	-18.7	32.4	26.2
thereof:							
Extra-light heating oil	2'517'000	2'026'000	107'980	86'920	-19.5	31.3	25.0
Heavy fuel oil	0	0	0	0	-	0.0	0.0
Petroleum coke	19'000	23'000	600	730	21.7	0.2	0.2
Others	68'000	68'000	3'130	3'130	0.0	0.9	0.9
Motor fuels	5'439'000	5'973'000	233'210	256'310	9.9	67.6	73.8
thereof:							
Gasoline	2'065'000	2'005'000	87'970	85'410	-2.9	25.5	24.6
Aviation fuel	787'000	1'386'000	34'000	59'880	76.1	9.9	17.3
Diesel oil	2'587'000	2'582'000	111'240	111'030	-0.2	32.3	32.0
Final consumption	8'043'000	8'090'000	344'920	347'090	0.6	100.0	100.0

Electricity

Table 4

	GWh (1 GWh =3.6 TJ)		Change in %	Share in %	
	2021	2022	2021-2022	2021	2022
<u>Production</u>					
Hydroelectric plants	39'500	33'501	-15.2	61.5	52.8
Nuclear power plants	18'530	23'113	24.7	28.9	36.4
Conventional thermal power plants:	2'319	1'963	-15.4	3.6	3.1
thereof:					
non-renewable	1'206	871	-27.8	1.9	1.4
renewable	1'113	1'092	-1.9	1.7	1.7
Miscellaneous renewables:	3'866	4'927	27.4	6.0	7.8
thereof:					
Wood	475	509	7.2	0.7	0.8
Biogas	405	410	1.2	0.6	0.6
Photovoltaics	2'842	3'858	35.7	4.4	6.1
Wind	145	150	3.4	0.2	0.2
Domestic production	64'215	63'504	-1.1	100.0	100.0
Consumption by storage pumps (-)	4'145	5'567	34.3	6.5	8.8
Net production	60'070	57'937	-3.6	93.5	91.2
Import (+) ¹	31'532	33'117	5.0	-	-
Export (-) ¹	29'119	29'734	2.1	-	-
Domestic consumption	62'483	61'320	-1.9	100.0	100.0
Losses (-)	4'370	4'290	-1.8	7.0	7.0
Final consumption	58'113	57'030	-1.9	93.0	93.0
<u>Final consumption by sector:</u>				100	100
Households	20'173	19'355	-4.1	34.7	33.9
Agriculture	962	954	-0.8	1.7	1.7
Industry	17'538	17'307	-1.3	30.2	30.3
Services	14'614	14'418	-1.3	25.1	25.3
Transport ²	4'826	4'996	3.5	8.3	8.8

¹ physical

² thereof railways 2022: 2'981 GWh (2021: 2'933 GWh)

thereof electromobility 2022: 588 GWh (2021: 453 GWh)

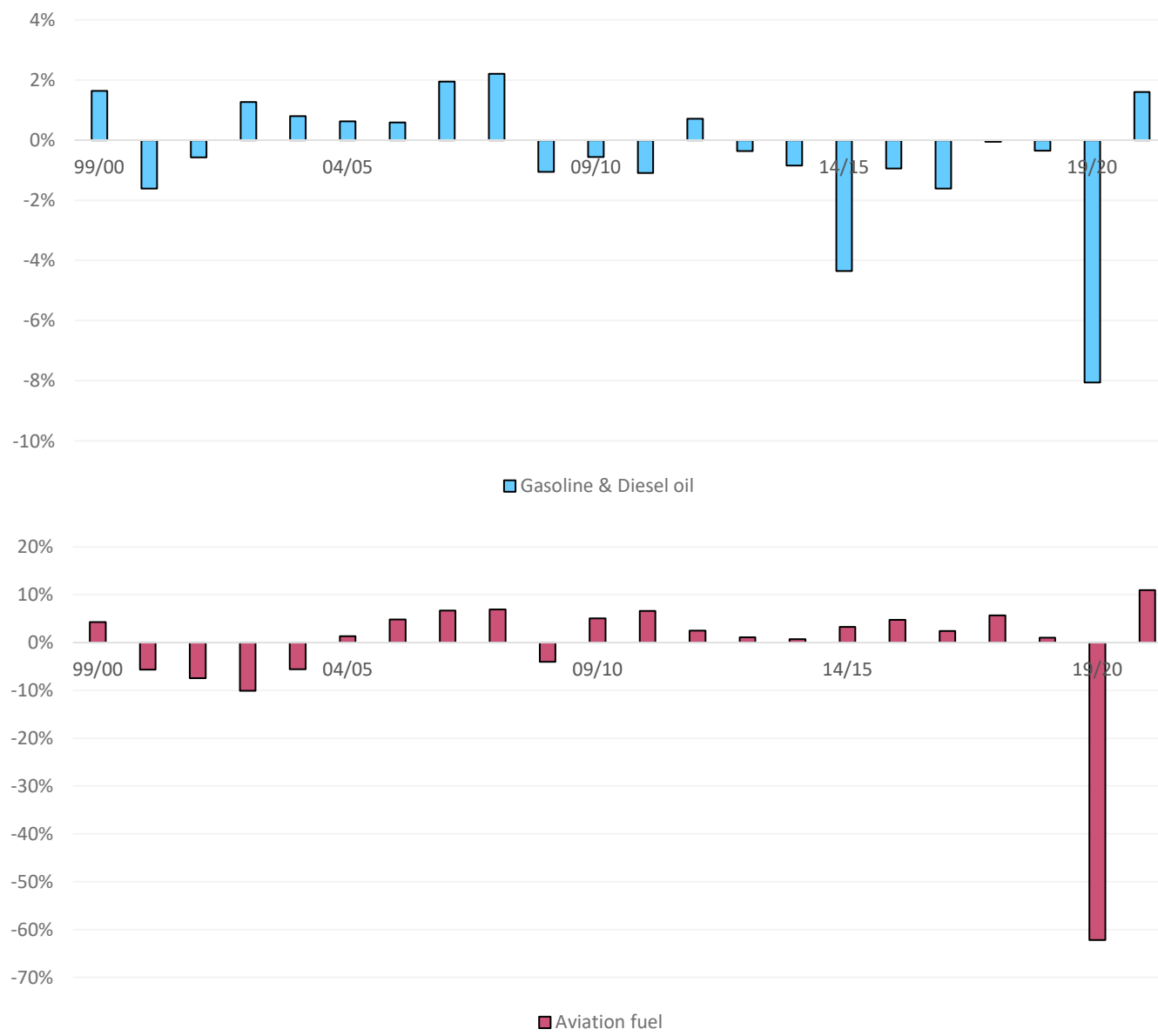
Gas

Table 5

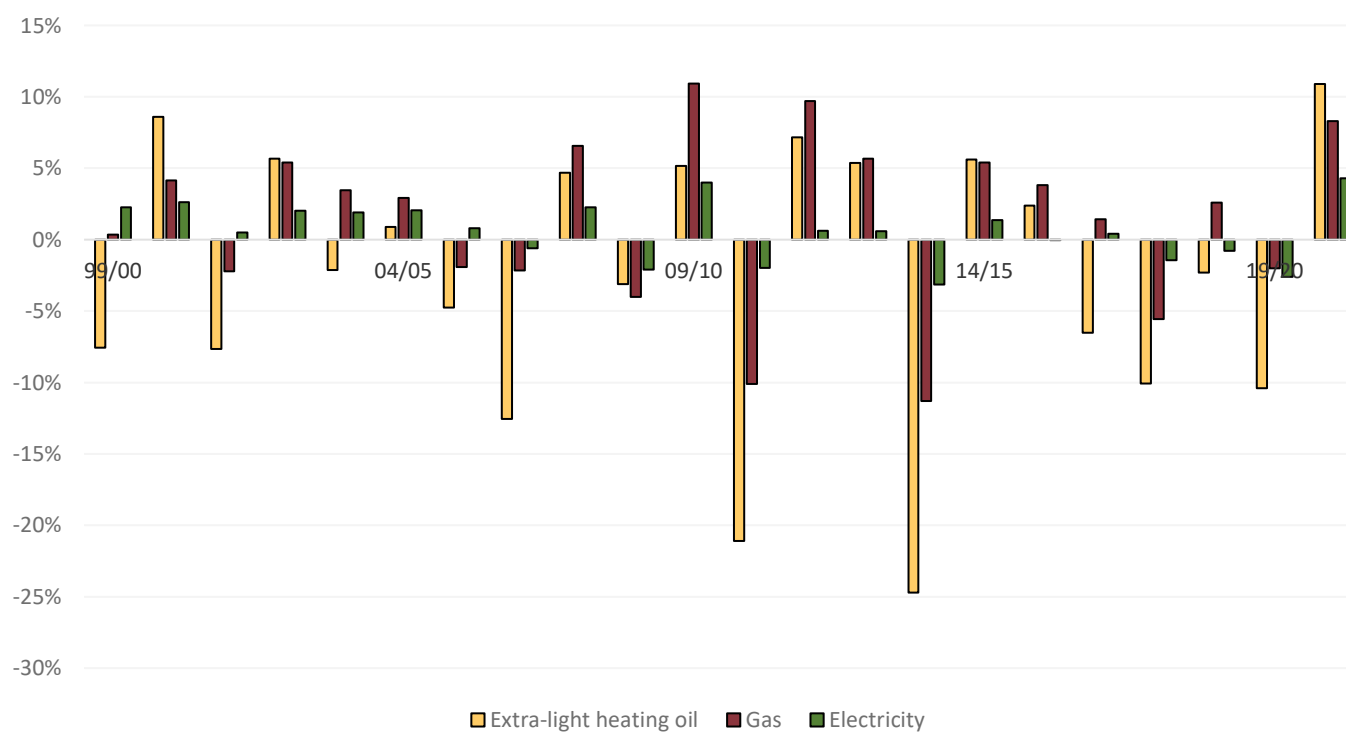
	GWh ¹ (1 GWh =3.6 TJ)		TJ		Change in %
	2021	2022	2021	2022	2021-2022
Imports of natural gas	36'041	29'644	129'750	106'720	-17.7
Feed-in of biogas into the gas distribution system	370	423	1'330	1'520	14.3
Total	36'411	30'067	131'080	108'240	-17.4
Natural gas used for district heating and electricity production (-)	2'339	1'794	8'420	6'460	
Distribution losses and gasworks' own consumption (-)	43	38	160	130	
Final consumption	34'029	28'235	122'500	101'650	-17.0

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.

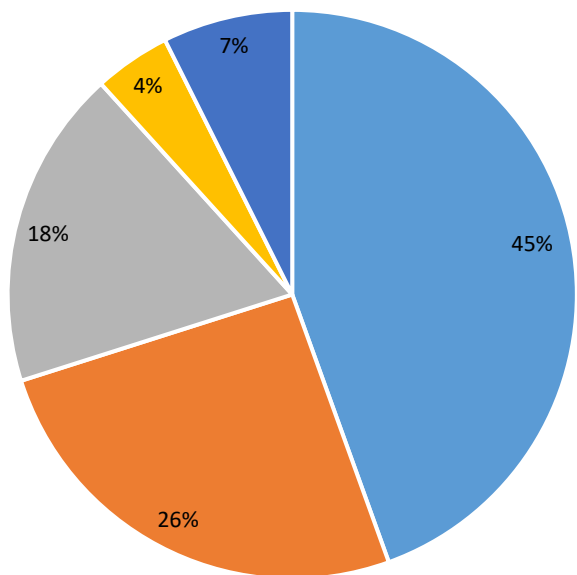
Changes in consumption of gasoline & diesel oil and aviation fuel, 2000-2022



Changes in consumption of electricity, gas and heating oil, 2000-2022



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



Final Energy Consumption 2022
(Total: 765'070 TJ)

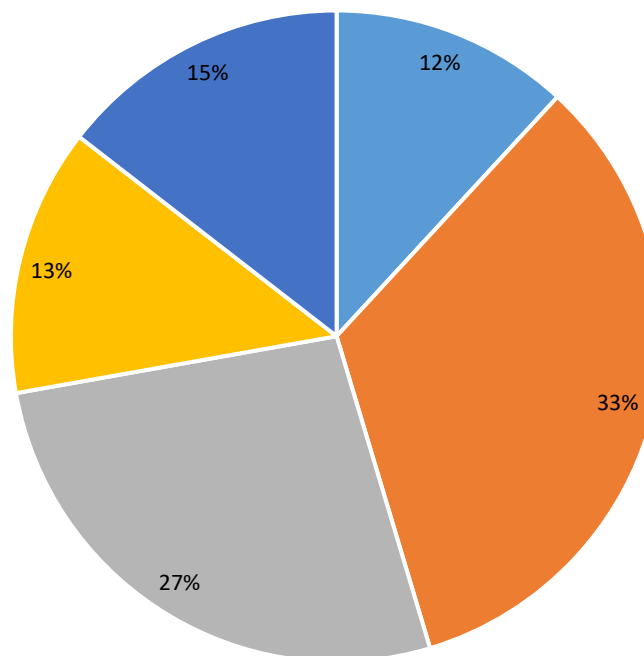
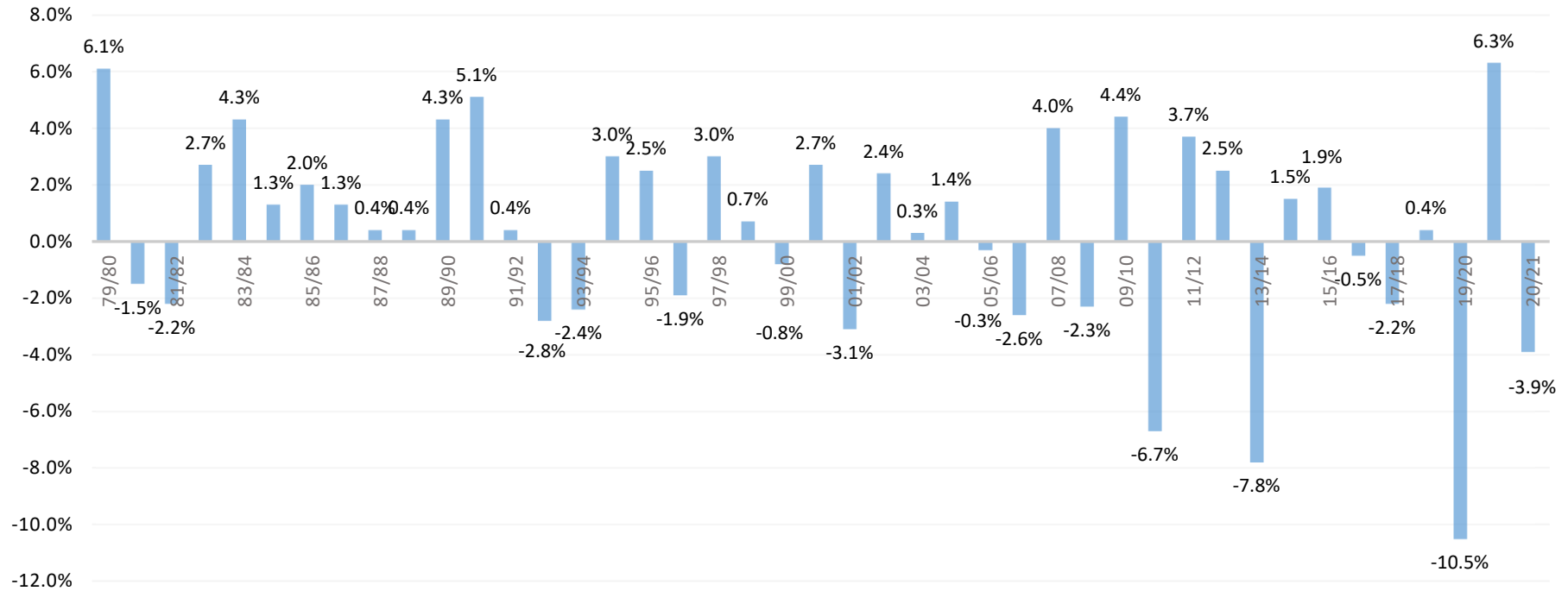


Figure 3

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

Rate of Change in Final Energy Consumption per Year

Figure 4



Final Energy Consumption since 1910

Figure 5

