Exemplary Energy and Climate
An initiative of the Confederation

Energy and Climate Report 2021

Contents

The goals of the initiative, the values for the base year, and the joint measures can be seen in the brochure for the second phase of the initiative.

vorbild-energie-klima.ch/broschuere
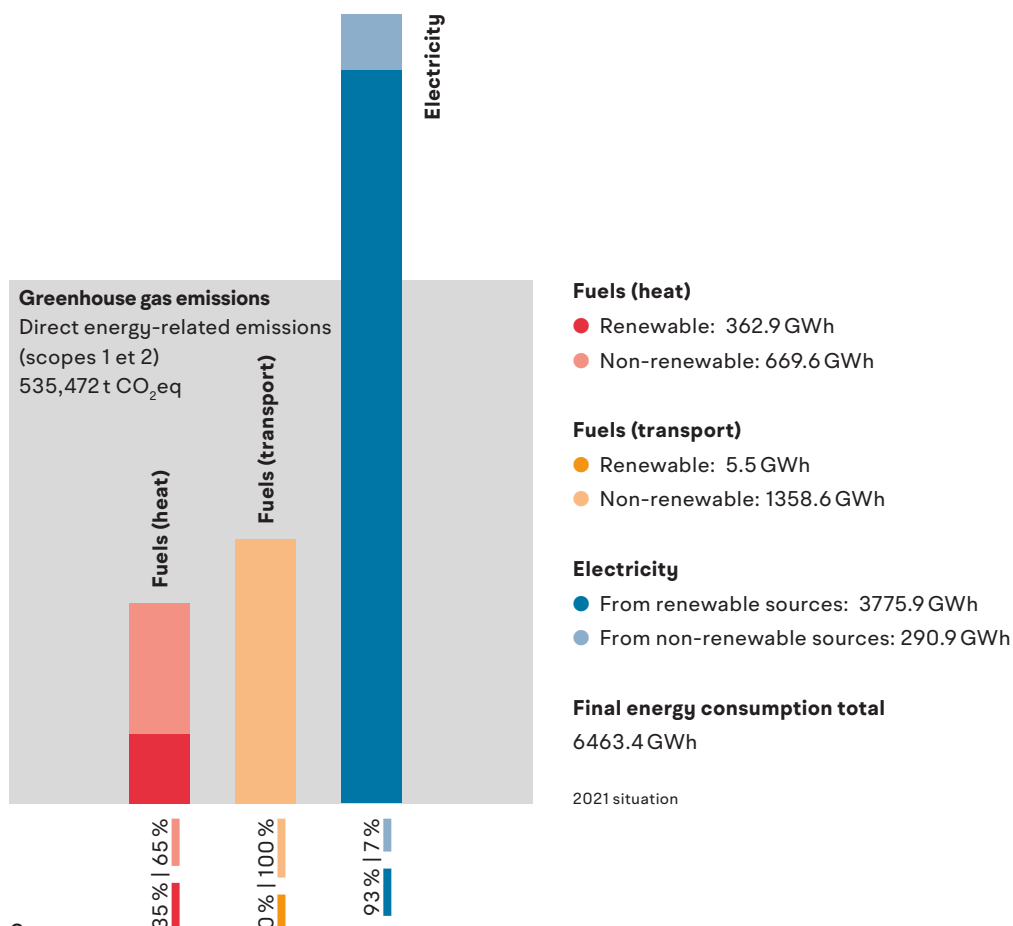
Report version:
August 2022

Joint progress

In 2021, Exemplary Energy and Climate moved into the next phase (2021–2030). Again, the aim is to make progress with a combination of joint measures and individual goals. As in the previous year, the figures have been affected by the COVID-19 pandemic. This can be seen in the area of business traffic, for example, which was much lower than in 2019.

Reducing energy consumption and CO_2 emissions

The actors' final energy consumption was around 6500 GWh in 2021, and they emitted 540,000 tonnes of CO_2 equivalents (direct energy-related emissions). This corresponds to 3 % of Switzerland's total energy consumption and its energy-related greenhouse gas emissions. In addition to this report on energy and climate, most of the actors also publish their own, more detailed greenhouse gas reports. Some actors offset their emissions.

Switching to renewable energy

The actors are aiming to switch completely to electricity from renewable energy sources by 2026. They also want to increase the share of renewable fuels by an average of 50 % to 2030. Measures taken by the actors to achieve these goals include replacing fossil heating systems and electrifying their vehicle fleets. The latter will see more and more fossil fuel being replaced by electricity from renewable sources. This electricity is not shown here as renewable fuel but, rather, together with the other electricity from renewable energy.

Greenhouse gas emissions
Direct energy-related emissions
(scopes 1 et 2)
535,472 t CO_2eq

Electricity

Fuels (transport)

Fuels (heat)

35 % | 65 %   0 % | 100 %   93 % | 7 %

Fuels (heat)
● Renewable: 362.9 GWh
● Non-renewable: 669.6 GWh

Fuels (transport)
● Renewable: 5.5 GWh
● Non-renewable: 1358.6 GWh

Electricity
● From renewable sources: 3775.9 GWh
● From non-renewable sources: 290.9 GWh

Final energy consumption total
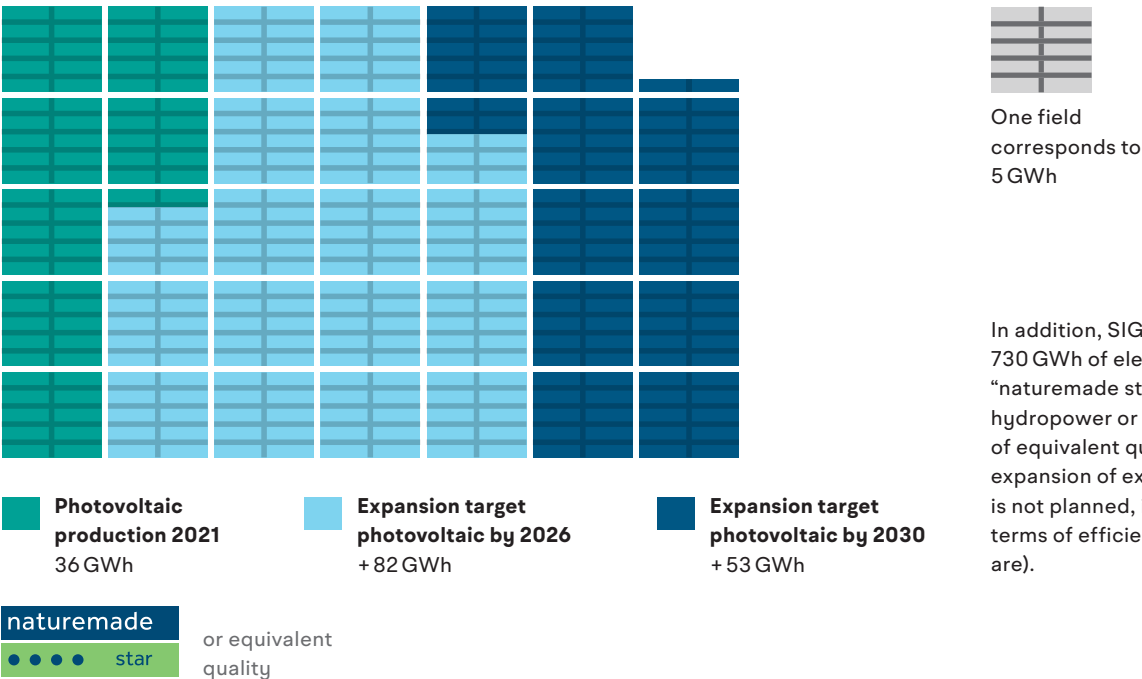6463.4 GWh

2021 situation

3

Further increasing energy efficiency

The most environmentally friendly energy is unused energy. That is the motto of Exemplary Energy and Climate in its efforts to continuously improve energy efficiency. Each actor has set itself a target for increasing energy efficiency by 2030. The progress in 2021 is shown on the individual pages.
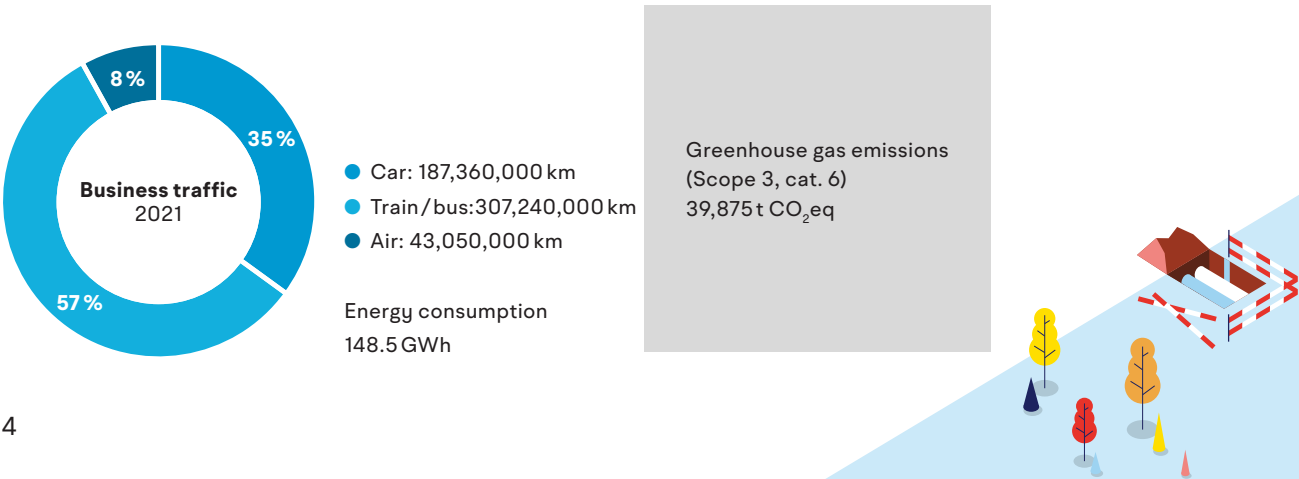
Producing green electricity

The actors produced a total of 766 GWh of green electricity in 2021 (730 GWh hydropower, 36 GWh photovoltaic). For example, a 1500 m² PV system commissioned by the PSI at the end of 2020 contributed to this. Producing around 300 MWh, it doubles the amount of solar electricity previously generated by the research institute.

One field corresponds to 5 GWh

In addition, SIG produces around 730 GWh of electricity from "naturemade star" certified hydropower or from hydropower of equivalent quality (while an expansion of existing facilities is not planned, improvements in terms of efficiency and ecology are).

■ **Photovoltaic production 2021**
36 GWh

■ **Expansion target photovoltaic by 2026**
+ 82 GWh

■ **Expansion target photovoltaic by 2030**
+ 53 GWh

naturemade
●●●● star   or equivalent quality

Climate-friendly travel

Several joint measures are aimed at making mobility more climate-friendly. One way that the actors are measuring the progress is by means of key figures for business traffic. These partially overlap with the data shown above (fuel used by own vehicles).

Business traffic 2021

8 %
35 %
57 %

● Car: 187,360,000 km
● Train/bus: 307,240,000 km
● Air: 43,050,000 km

Energy consumption
148.5 GWh

Greenhouse gas emissions
(Scope 3, cat. 6)
39,875 t CO_2eq

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Swiss Post

More than half of all Swiss Post vehicles are already powered by alternative drive systems. The goal is for all delivery vehicles to run on green electricity by 2030 as an additional measure for enabling climate-neutral delivery. Swiss Post is also optimising its postage operations: since the beginning of 2021, all consignments are carrying the "pro clima" label and the CO_2 emissions are being offset.

Individual measures

1. Net zero from 2040
   Group target 2030: climate-neutral Swiss Post in own operations (-38 % CO_2 compared to 2021; rest neutralised)

2. "pro clima" shipment
   2030: 150,000 t CO_2 offset

3. Certified green electricity for electromobility and post offices
   2030: 106 GWh

By 2025, most deliveries in urban areas will be made using electric vehicles. To this end, the company is experimenting with micro hubs, among other measures.
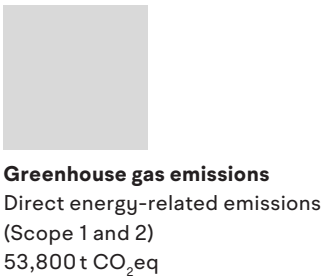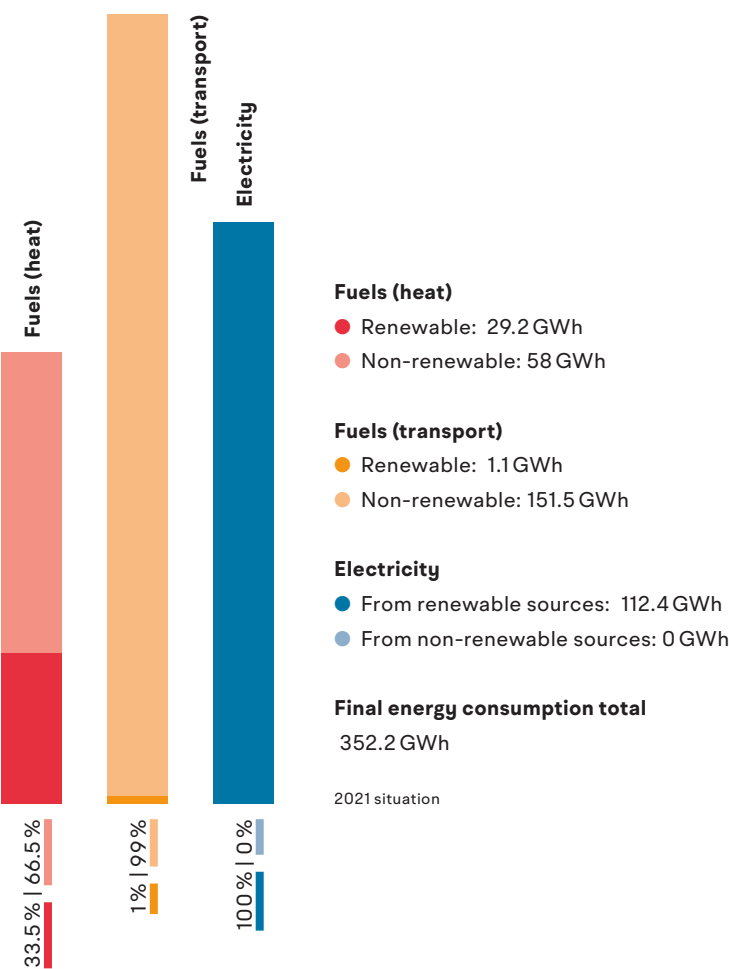
Image: Swiss Post
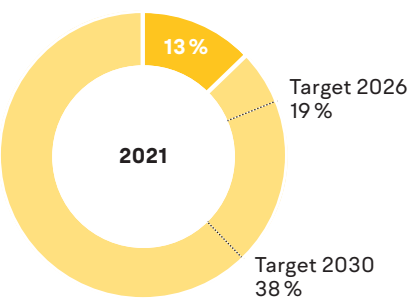
Swiss Post

Reduce energy consumption and CO$_2$ emissions

Reference variable: operating income. Due to growth in the third-party market, as well as reorganisation measures, a full comparison with the base year 2018/2019 is not possible.
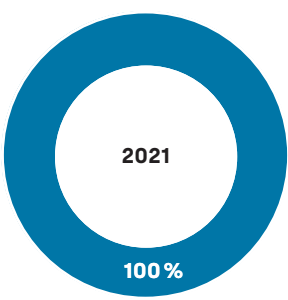
Fuels (heat)

Fuels (transport)

Electricity

Fuels (heat)
- ● Renewable: 29.2 GWh
- ● Non-renewable: 58 GWh

Fuels (transport)
- ● Renewable: 1.1 GWh
- ● Non-renewable: 151.5 GWh

Electricity
- ● From renewable sources: 112.4 GWh
- ● From non-renewable sources: 0 GWh

Final energy consumption total
 352.2 GWh

2021 situation

33.5 % | 66.5 %

1 % | 99 %

100 % | 0 %

Greenhouse gas emissions
Direct energy-related emissions
(Scope 1 and 2)
53,800 t CO$_2$eq

More information on energy and climate in the report of Swiss Post. The calculation methods used in the reports may differ.

Switch to renewable energies

13 %

Target 2026
19 %

2021

Target 2030
38 %

2021

100 %

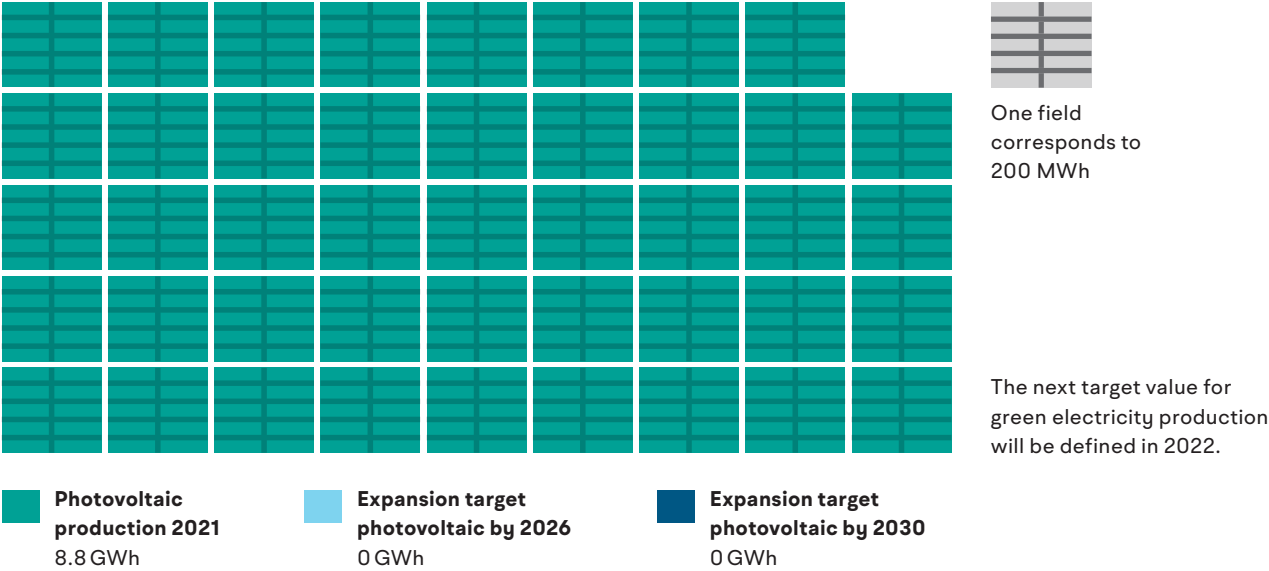**Fuels and propellants**
- ● Renewable
- ● Non-renewable

Electricity
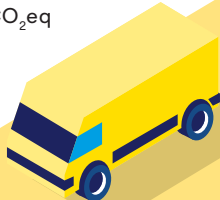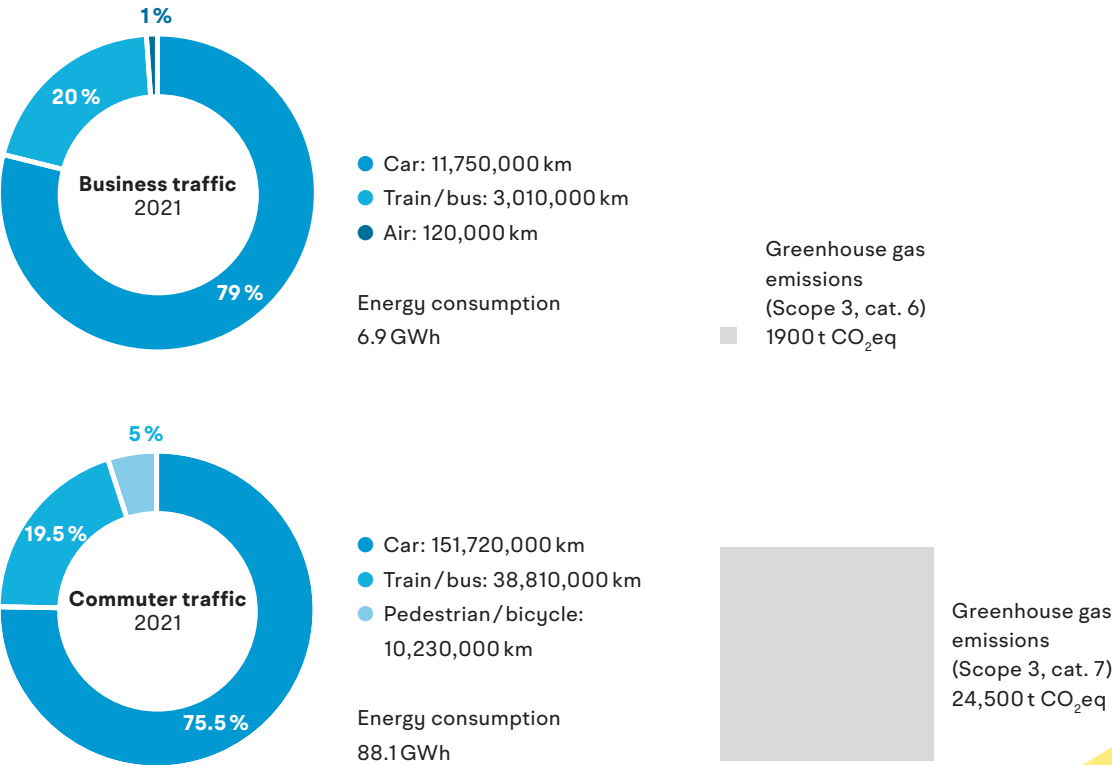- ● From renewable sources
- ● From non-renewable sources

Swiss Post

Swiss Post reports its production of green electricity and mobility data on a group-wide basis.

Produce ecological electricity

One field corresponds to 200 MWh

The next target value for green electricity production will be defined in 2022.

Photovoltaic production 2021
8.8 GWh

Expansion target photovoltaic by 2026
0 GWh

Expansion target photovoltaic by 2030
0 GWh

Travel climate friendly

Business traffic 2021

1 %
20 %
79 %

- Car: 11,750,000 km
- Train / bus: 3,010,000 km
- Air: 120,000 km

Energy consumption
6.9 GWh

Greenhouse gas emissions
(Scope 3, cat. 6)
1900 t CO_2eq

Commuter traffic 2021

5 %
19.5 %
75.5 %

- Car: 151,720,000 km
- Train / bus: 38,810,000 km
- Pedestrian / bicycle: 10,230,000 km

Energy consumption
88.1 GWh

Greenhouse gas emissions
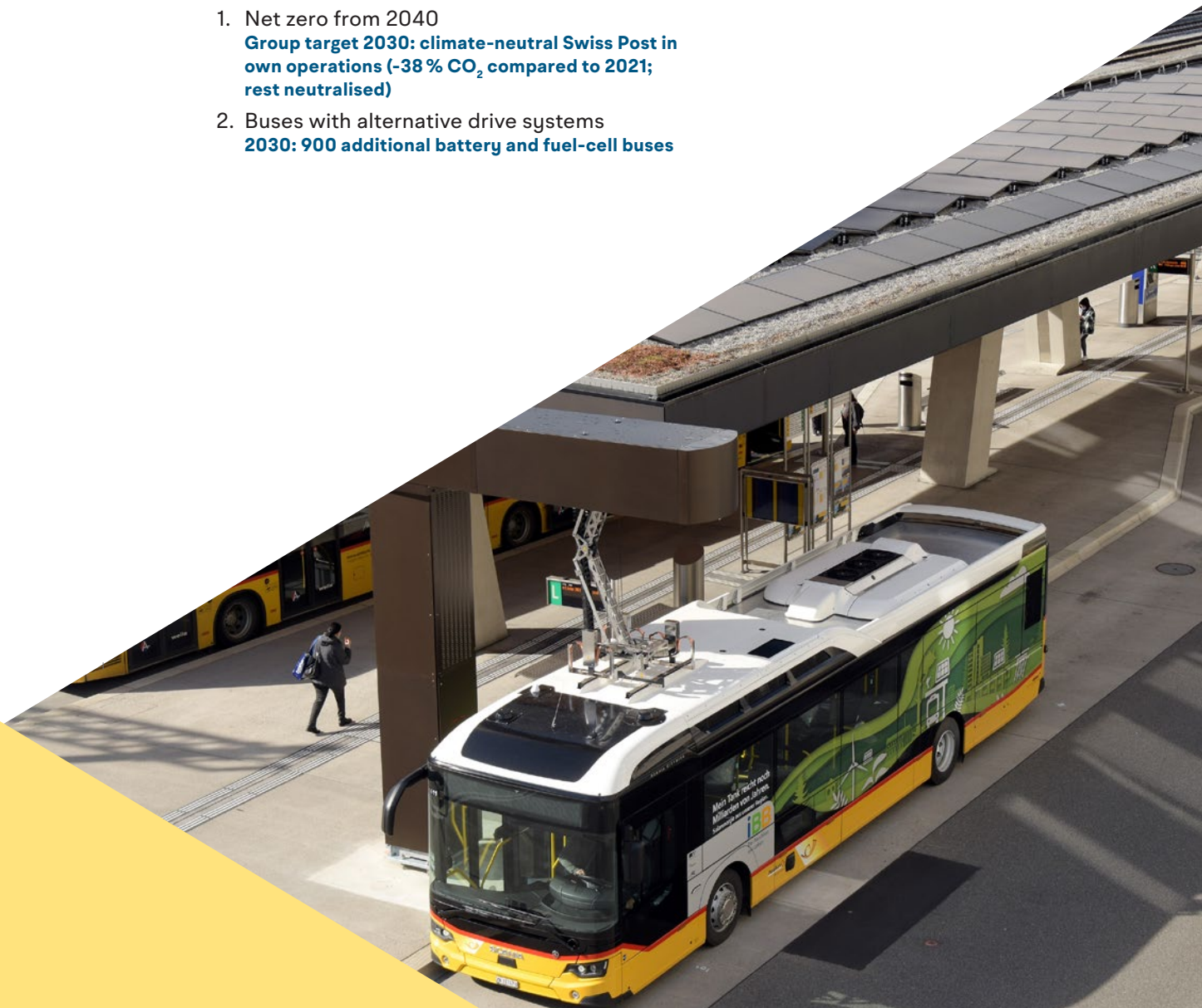(Scope 3, cat. 7)
24,500 t CO_2eq

PostBus

PostBus is aiming to put 100 vehicles with alternative drive systems into operation by the end of 2024, and to run its entire fleet without any fossil fuels from 2040. In 2021, electric PostBus vehicles were on the road in Brugg, Sarnen and Saas-Fee. All of the electricity for these came from renewable energy sources – some was even produced on the bus stop roofs. The company also operates hybrid buses and uses biodiesel.

Individual measures

1. Net zero from 2040
   Group target 2030: climate-neutral Swiss Post in own operations (-38 % CO_2 compared to 2021; rest neutralised)

2. Buses with alternative drive systems
   2030: 900 additional battery and fuel-cell buses

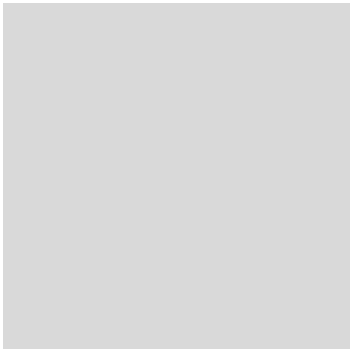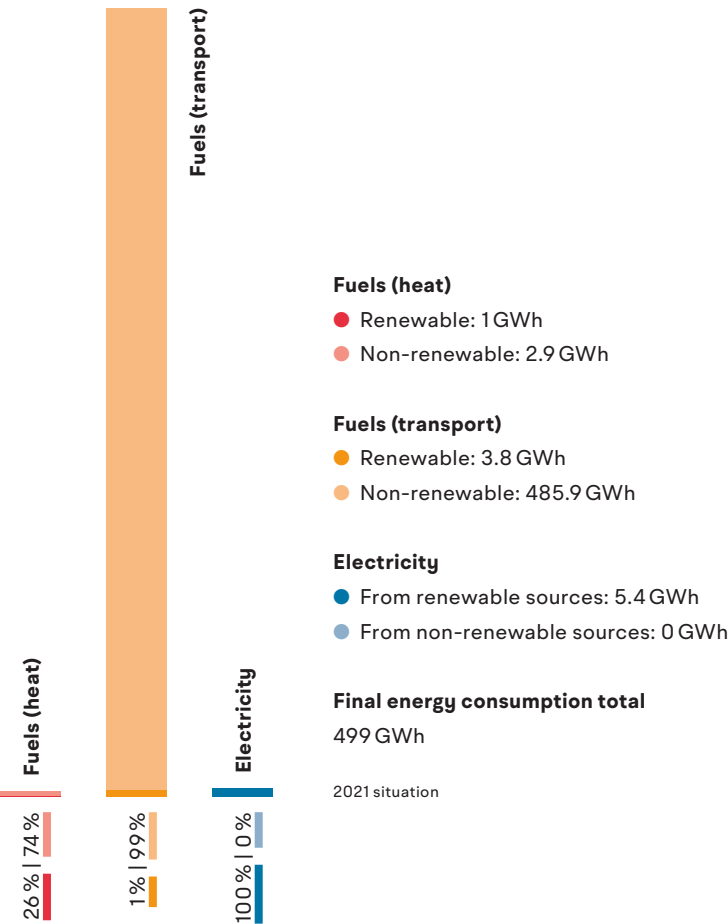The battery is charged while the PostBus stops at Brugg train station.

Image: PostBus Ltd

PostBus

Reduce energy consumption and CO$_2$ emissions

Fuels (transport)

Fuels (heat)

Electricity

26 % | 74 %

1 % | 99 %

100 % | 0 %

Fuels (heat)
● Renewable: 1 GWh
● Non-renewable: 2.9 GWh

Fuels (transport)
● Renewable: 3.8 GWh
● Non-renewable: 485.9 GWh

Electricity
● From renewable sources: 5.4 GWh
● From non-renewable sources: 0 GWh

Final energy consumption total
499 GWh

2021 situation

Greenhouse gas emissions
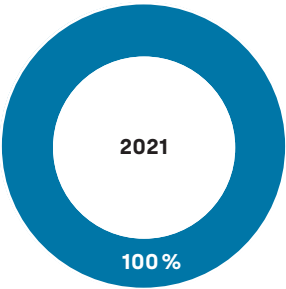Direct energy-related emissions
(Scope 1 and 2)
128,900 t CO$_2$eq

More information on energy and
climate in the report of Swiss Post.
The calculation methods used in
the reports may differ.

Switch to renewable energies

1 %

Target 2026
3 %

Target 2030
6 %
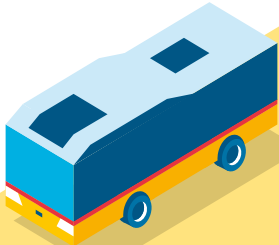
2021

2021

100 %
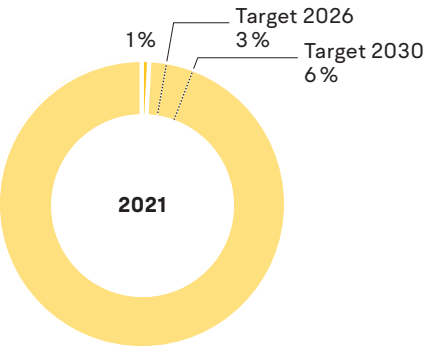
Fuels and propellants
● Renewable
● Non-renewable

Electricity
● From renewable sources
● From non-renewable sources

**Green electricity production
and climate-friendly travel**
Swiss Post reports its green
electricity production and
mobility data on a group-wide
basis. The current status is
shown on the Swiss Post page
above.

PostFinance

PostFinance conducted a detailed analysis of its freehold properties in 2021. The results were used as a basis for developing coordinated measures to reduce energy consumption and emissions. In addition, a data basis for continuously optimising the building operations was developed.

Individual measures

1. Net zero from 2040
   Group target 2030: climate-neutral Swiss Post in own operations: -38 % CO_2 compared to 2021; rest neutralised)

In addition to the decarbonisation of heat generation and the renovation of the building shell, there is a particular focus on the data-based optimisation of building operations.

Image: PostFinance
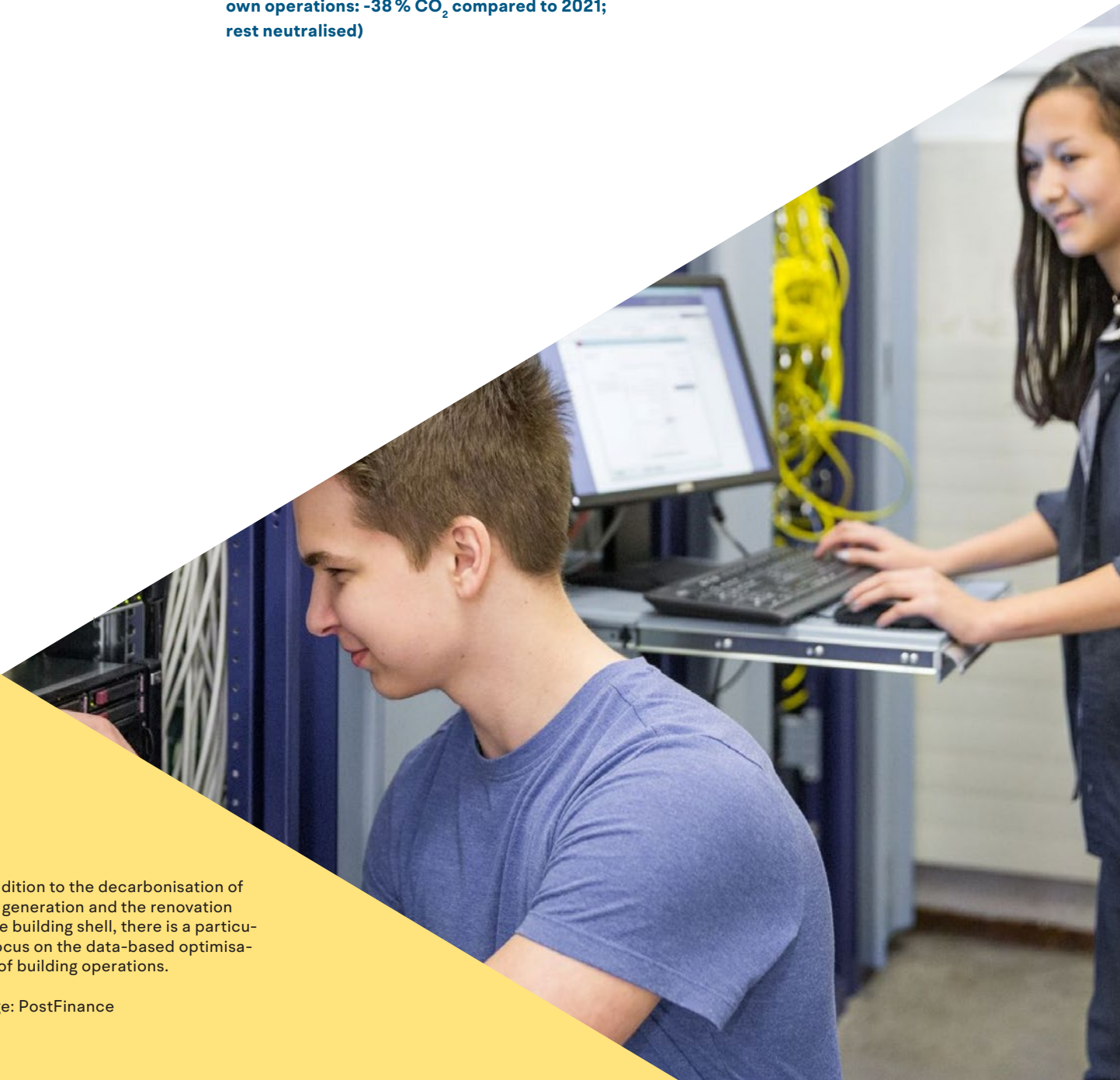
PostFinance

Reduce energy consumption and CO$_2$ emissions
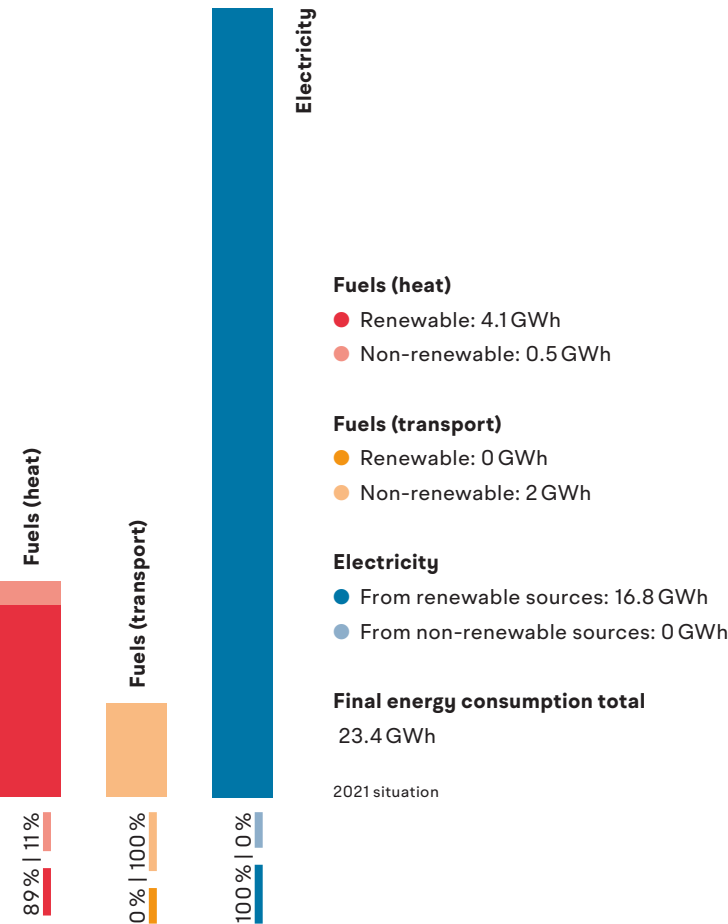
2021 situation: **+38 %**
Target 2026: **+55 %**
Target 2030: **+90 %**

Reference variable: number of transactions

Electricity

Fuels (heat)

Fuels (transport)

Fuels (heat)
● Renewable: 4.1 GWh
● Non-renewable: 0.5 GWh

Fuels (transport)
● Renewable: 0 GWh
● Non-renewable: 2 GWh

Electricity
● From renewable sources: 16.8 GWh
● From non-renewable sources: 0 GWh

Final energy consumption total
23.4 GWh

2021 situation

89 % | 11 %

0 % | 100 %

100 % | 0 %

Greenhouse gas emissions
Direct energy-related emissions
(Scope 1 and 2)
700 t CO$_2$eq

More information on energy and
climate in the report of Swiss Post.
The calculation methods used in
the reports may differ.

Switch to renewable energies

2021

63 %

Target 2030
85 %

Target 2026
65 %

Fuels and propellants
● Renewable
● Non-renewable

2021

100 %
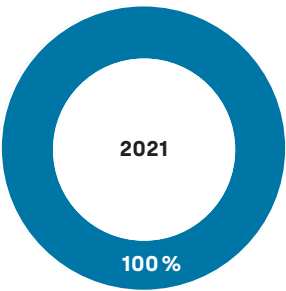
Electricity
● From renewable sources
● From non-renewable sources

**Green electricity production
and climate-friendly travel**
Swiss Post reports its green
electricity production and
mobility data on a group-wide
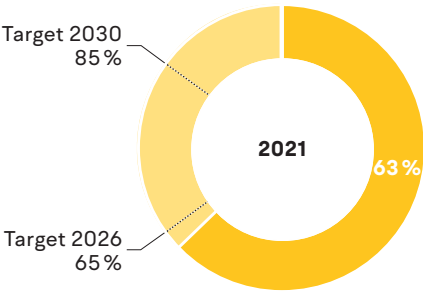basis. The current status is
shown on the Swiss Post page
above.

ETH Domain

In 2021, the six institutions of the ETH Domain were involved in various research projects aimed at increasing knowledge and innovation in the area of energy and sustainability. At the same time, they focused heavily on improving building infrastructure in order to optimise energy consumption and reduce CO_2 emissions.

Individual measures

1. Supplying the heating plant and data centre with renewable energy
   EPFL; 2022: 100 %

2. Energy saving at the large-scale research facility SLS 2.0
   PSI; 2025: 2000 MWh/a

3. Use of waste heat and photovoltaics
   Empa/Eawag; 2026: 100 %

4. Sustainable food and drink on campus
   EPFL; 2030: 80 % vegetarian/vegan menus purchased

5. Reduction of environmental impact of business flights
   ETH Zurich; 2030: -30 % CO_2eq per FTE

6. Two-fold increase in photovoltaic production
   WSL; 2030: 250 MWh/a electricity production

7. Expansion of the Anergy Grid
   ETH Zurich; 2040: 80 % CO_2 reduction compared to 2006

8. Implementation of the ETH Centre Energy Master Plan
   ETH Zurich; 2023: expansion of the cooling network/2036: supplying the university area with lake water
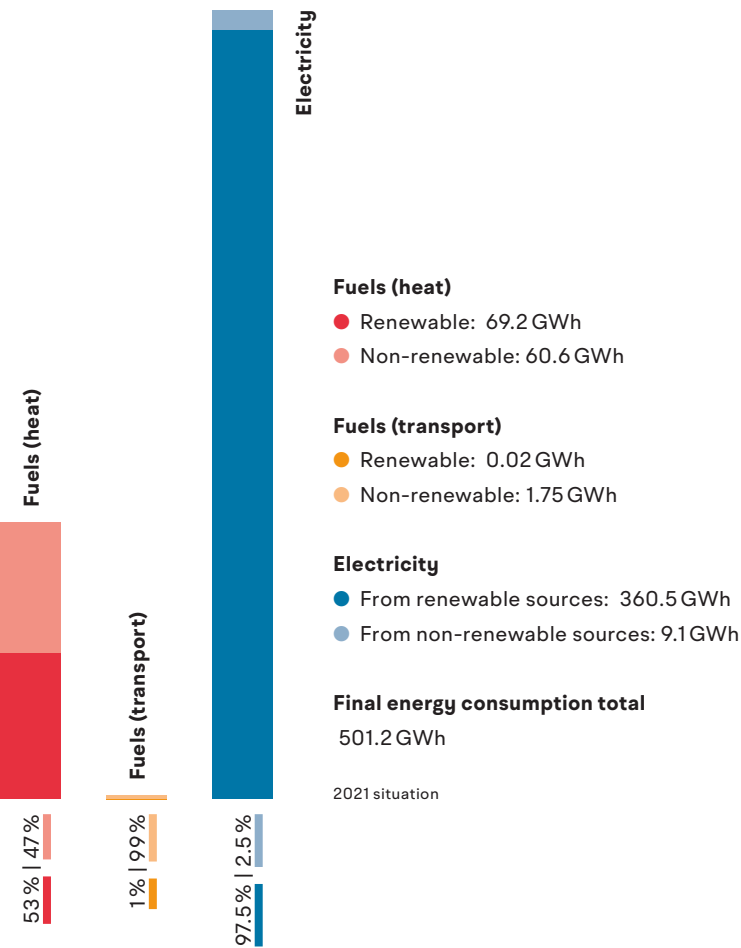
Research has been under way in Eawag's laboratory building FLUX since summer 2021. In the first federal building to be procured through the competitive dialogue procedure, energy consumption is being reduced with the help of decentralised ventilation systems.

Image: Alessandro Della Bella, Eawag

ETH Domain

Reduce energy consumption and CO$_2$ emissions

Fuels (heat)
● Renewable: 69.2 GWh
● Non-renewable: 60.6 GWh

Fuels (transport)
● Renewable: 0.02 GWh
● Non-renewable: 1.75 GWh

Electricity
● From renewable sources: 360.5 GWh
● From non-renewable sources: 9.1 GWh

Final energy consumption total
501.2 GWh

2021 situation

Fuels (heat): 53 % | 47 %
Fuels (transport): 1 % | 99 %
Electricity: 97.5 % | 2.5 %

Greenhouse gas emissions
Direct energy-related emissions (Scope 1 and 2)
31,200 t CO$_2$eq

More information on energy and climate in the report of ETH Domain. The calculation methods used in the reports may differ.

Switch to renewable energies

2021 58 %
Target 2030 76 %
Target 2026 71 %

Fuels and propellants
● Renewable
● Non-renewable

2021 98 %
Target 2026 100 %

Electricity
● From renewable sources
● From non-renewable sources

Produce ecological electricity

One field
corresponds to
200 MWh

Photovoltaic production 2021
1.8 GWh

Expansion target photovoltaic by 2026
+ 3.1 GWh

Expansion target photovoltaic by 2030
+ 0.8 GWh

Travel climate friendly

Business traffic
2021

9 %
46 %
45 %

- Car : 2,970,000 km
- Train / bus : 15,120,000 km
- Air : 15,000,000 km

Energy consumption
9.1 GWh

Greenhouse gas
emissions
(Scope 3, cat. 6)
3700 t CO_2eq

Commuter traffic
2021

31 %
50 %
19 %

- Car : 21,900,000 km
- Train / bus : 35,570,000 km
- Pedestrian / bicycle :
  13,990,000 km

Energy consumption
15.2 GWh

Commuter traffic: for EPFL and PSI,
passenger kilometres Car also includes
motorcycles.

Greenhouse gas
emissions
(Scope 3, cat. 7)
3500 t CO_2eq

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Flughafen Zürich AG

The Circle at Zurich Airport, which has a total energy reference area of 182,000m², became fully operational in 2021. The new buildings have been awarded the highest standard LEED® PLATINUM and are certified according to the Minergie standard. They are helping to make the airport more energy-efficient and increase the share of renewable energies.

Individual measures

1. Public charging points and fast charging stations
   2030: 75 charging points and 1 fast charging station

2. Charging points and fast charging stations on the flight operations area
   2030: 120 charging points and 2 fast charging stations

3. Utilisation rate of existing airplane power supply systems
   2030: utilisation rate of 80 %

4. Number of electricity products from 100 % renewable energy sources in the portfolio
   2030: 1 offer

The Circle at Zurich Airport has a photovoltaic system with an output of 599 kWp.
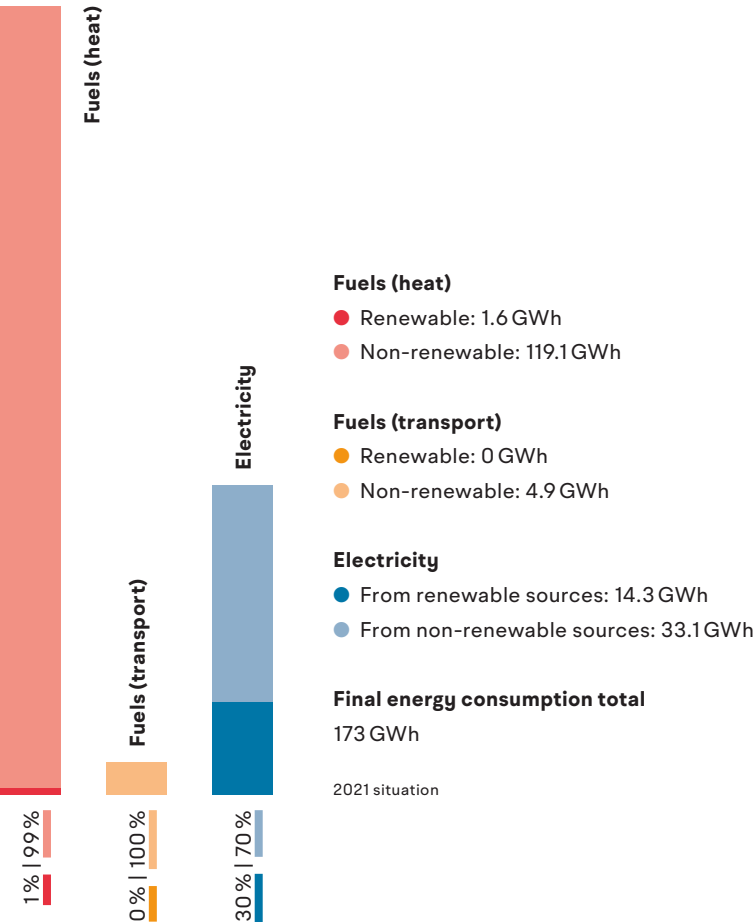
Image: Zurich Airport Ltd

Flughafen Zürich AG

Reduce energy consumption and CO$_2$ emissions

2021 situation: **+3.3%**
Target 2026: **+0.4%**
Target 2030: **+7%**

Reference variables: energy reference area, user units. User units are defined as departing and arriving passengers, handled freight and mail (100 kg equals 1 user unit), and other visitors at Zurich Airport.

Fuels (heat)

Electricity

Fuels (transport)

Fuels (heat)
● Renewable: 1.6 GWh
● Non-renewable: 119.1 GWh

Fuels (transport)
● Renewable: 0 GWh
● Non-renewable: 4.9 GWh

Electricity
● From renewable sources: 14.3 GWh
● From non-renewable sources: 33.1 GWh

Final energy consumption total
173 GWh

2021 situation

1% | 99%

0% | 100%

30% | 70%

Greenhouse gas emissions
Direct energy-related emissions (Scope 1 and 2)
32,000 t CO$_2$eq

More information on energy and climate in the report of Flughafen Zürich AG. The calculation methods used in the reports may differ.
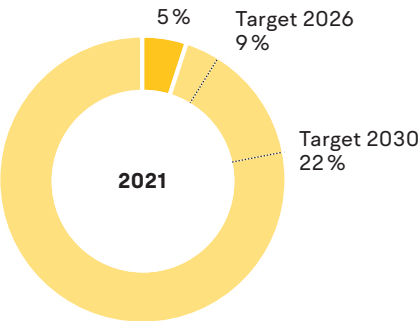
Switch to renewable energies

5%
Target 2026
9%

Target 2030
22%

2021

Target 2030
100%

30%

2021

100%

Fuels and propellants
● Renewable
● Non-renewable

Electricity
● From renewable sources
● From non-renewable sources

Produce ecological electricity

One field
corresponds to
200 MWh

■ **Photovoltaic production 2021**
1.8 GWh

■ **Expansion target photovoltaic by 2026**
+0.4 GWh

■ **Expansion target photovoltaic by 2030**
+2.8 GWh

Travel climate friendly

Business traffic
2021

100 %

● Air : 550,000 km

Energy consumption
0.2 GWh

Greenhouse gas emissions
(Scope 3, cat. 6)
55 t CO_2eq
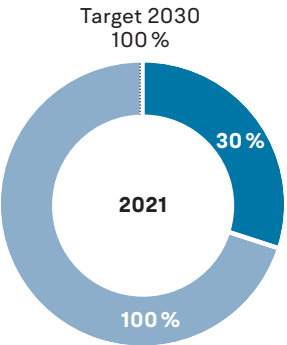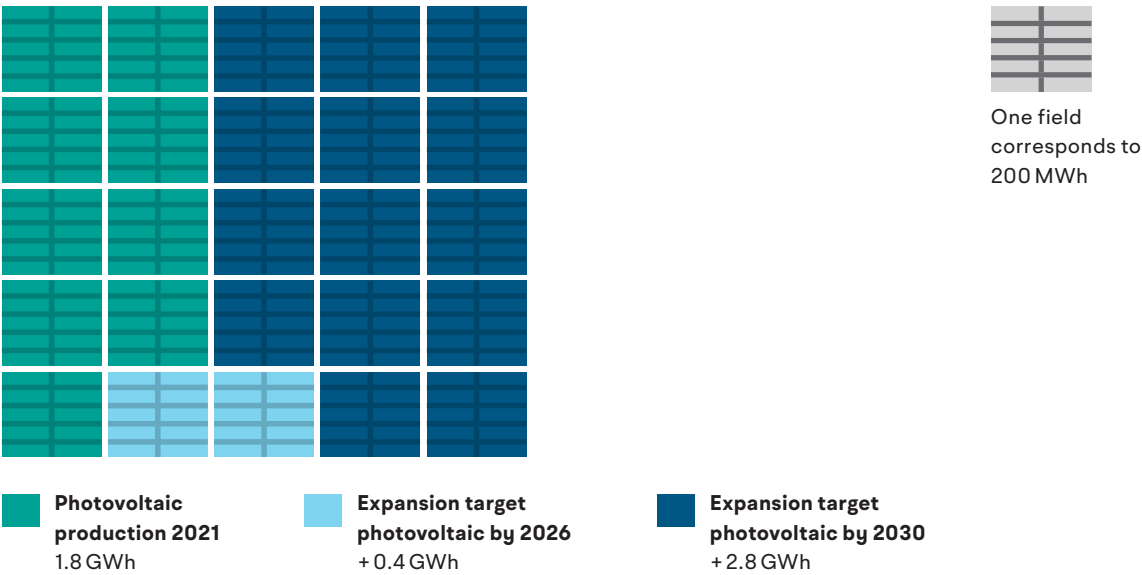
Data has only been collected
for flights so far.

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Genève Aéroport

By 2030, Genève Aéroport wants to use 25 % less energy and increase the share of renewable energies to 70 % in comparison to 2020. The company already saved around 1.2 GWh of electricity in 2021 compared to 2020. All new buildings meet the standards of the Energy Strategy 2050. In addition, the new GeniLac district heating network will heat all buildings and infrastructure in the future.

Individual measures

1. Various energy efficiency measures
   2026: 1800MWh certified energy saving
2. Renovation of building stock
3. Environmentally friendly vehicles and machines airside
   2021: 335 vehicles

The replacement of six lifts ensures optimum utilisation while also reducing operating costs and energy consumption (43.9 MWh annually).

Image: Genève Aéroport

Genève Aéroport

Reduce energy consumption and CO$_2$ emissions

Energy efficiency gain

2021 situation: **+2 %**

Target 2026: **+10 %**

Target 2030: **+15 %**

Reference variables: energy reference area, traffic units (passenger and freight). The number of flights and thus traffic units was lower in 2021 due to the COVID-19 pandemic. This had a negative impact on the energy efficiency figure.

Fuels (heat)
- Renewable: 3.6 GWh
- Non-renewable: 30.5 GWh

Fuels (transport)
- Renewable: 0 GWh
- Non-renewable: 8.6 GWh

Electricity
- From renewable sources: 51.9 GWh
- From non-renewable sources: 0 GWh

Final energy consumption total
94.6 GWh

2021 situation
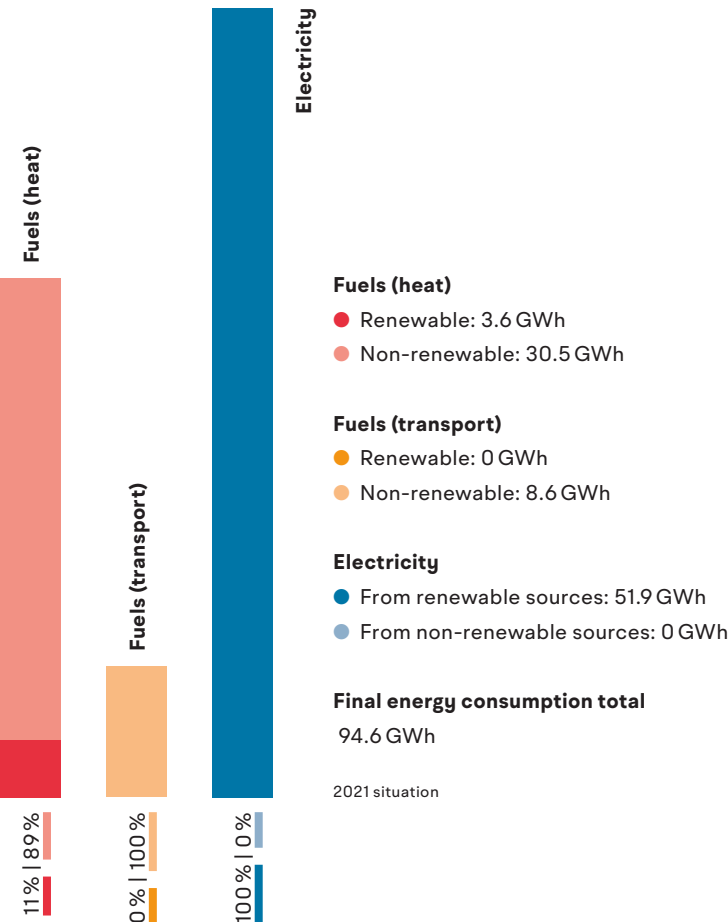
Greenhouse gas emissions
Direct energy-related emissions
(Scope 1 and 2)
10,300 t CO$_2$eq

More information on energy and climate in the report of Genève Aéroport. The calculation methods used in the reports may differ.

Switch to renewable energies

Fuels and propellants
- Renewable
- Non-renewable

2021: 8 %
Target 2030: 70 %
Target 2026: 60 %

Electricity
- From renewable sources
- From non-renewable sources

2021: 100 %

Produce ecological electricity

One field
corresponds to
200 MWh

**Photovoltaic
production 2021**
2.1 GWh

**Expansion target
photovoltaic by 2026**
+ 2.9 GWh

**Expansion target
photovoltaic by 2030**
+ 3 GWh

Travel climate friendly

Business traffic
2021

6 %

94 %

- Train / bus: 15,600 km
- Air: 1,000 km

Energy consumption
0.5 GWh

Greenhouse gas emissions
(Scope 3, cat. 6)
0.26 t CO_2eq
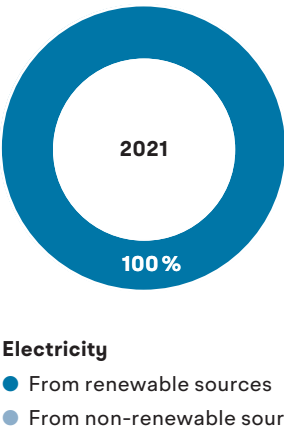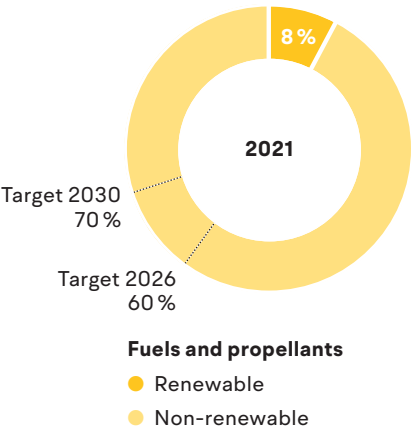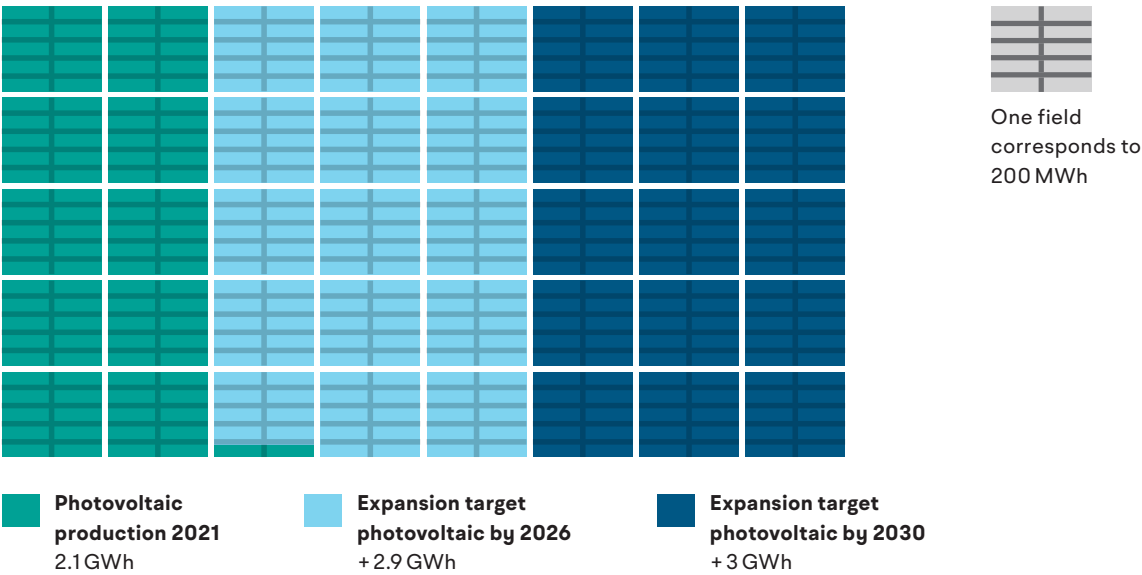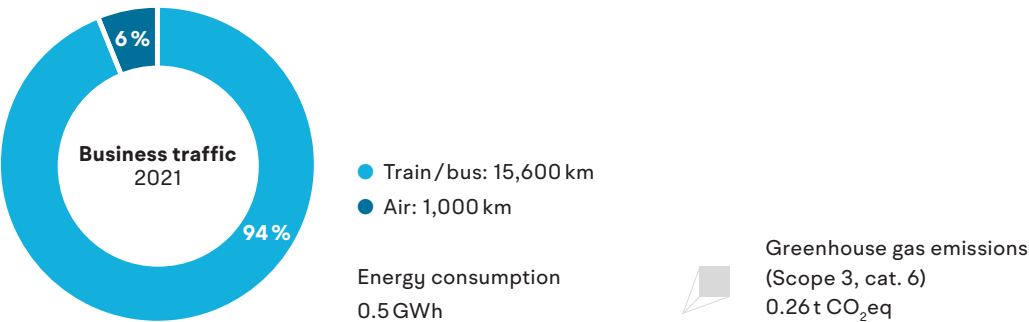
In 2021, the pandemic, working from
home and the reduction of the travel
fund all led to a significantly lower
proportion of air travel in comparison
to 2020.

RUAG MRO Holding Ltd

Since 2021, RUAG MRO Holding Ltd has been sourcing electricity exclusively from certified Swiss hydropower and from solar installations. By conducting an analysis of potential across its entire building portfolio in 2021, it also found suitable locations for producing electricity from its own photovoltaic systems. RUAG will replace 80 % of the vehicles in its fleet with electric models over the next three years.

Individual measures

1. CO_2-neutral heat generation in all buildings
   2030: zero CO_2 emissions from room heating

In 2021, photovoltaic modules were placed on the first of several roofs of the RUAG wind tunnel in Emmen. The systems will be installed on the remaining roofs in 2022.

Image: Christian Rust,
RUAG Real Estate Ltd

RUAG MRO Holding Ltd

2021 situation: **−1.4 %**
Target 2026: **+6 %**
Target 2030: **+10 %**

Reduce energy consumption and CO$_2$ emissions

Reference variable: energy reference area. The energy reference area decreased in 2021, which had a negative effect on energy efficiency.

Fuels (heat)

Electricity

Fuels (transport)

41 % | 59 %

0 % | 100 %

100 % | 0 %

Fuels (heat)
● Renewable: 22.3 GWh
● Non-renewable: 32.1 GWh

Fuels (transport)
● Renewable: 0 GWh
● Non-renewable: 1.3 GWh

Electricity
● From renewable sources: 38.2 GWh
● From non-renewable sources: 0 GWh

Final energy consumption total
93.9 GWh

2021 situation
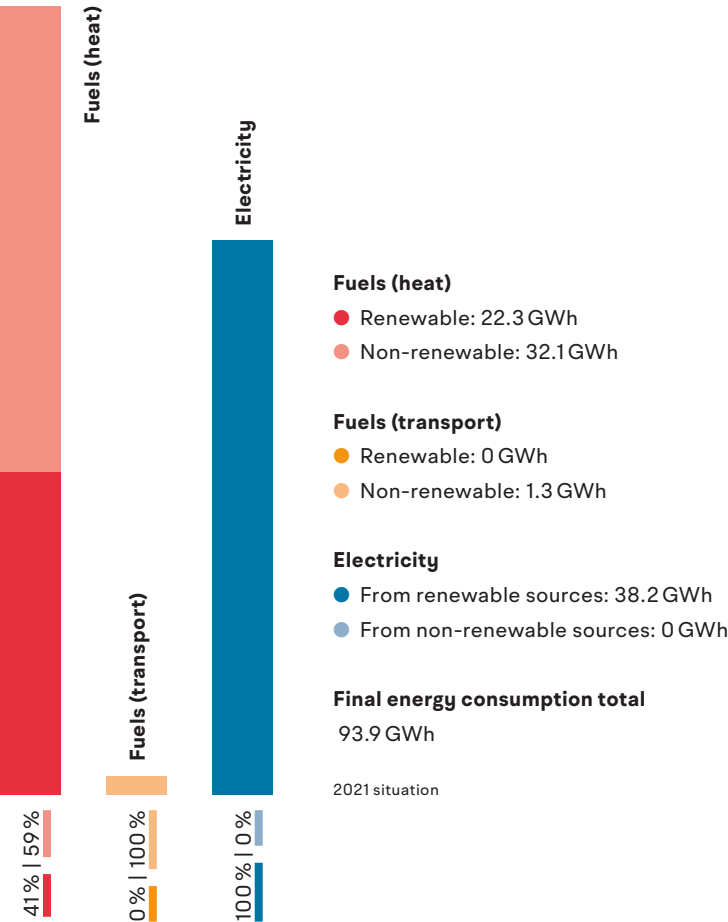
Greenhouse gas emissions
Direct energy-related emissions
(Scope 1 and 2)
7400 t CO$_2$eq

Switch to renewable energies
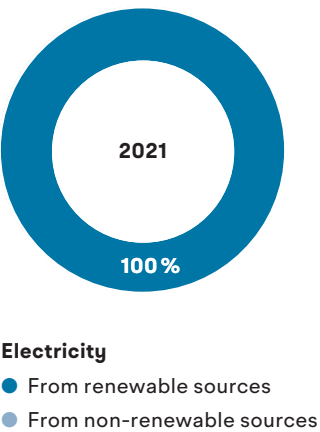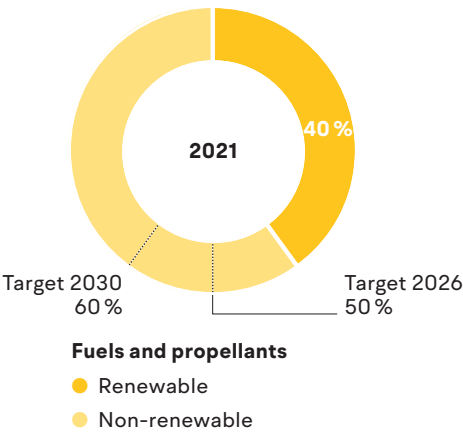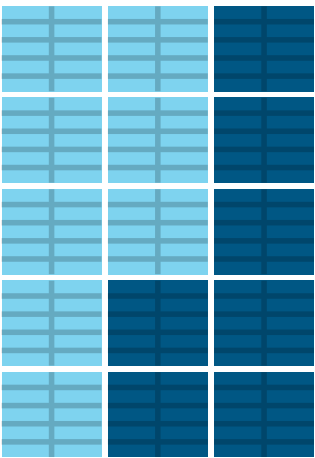
2021

40 %

Target 2030
60 %

Target 2026
50 %

2021

100 %

Fuels and propellants
● Renewable
● Non-renewable

Electricity
● From renewable sources
● From non-renewable sources

22

Produce ecological electricity

One field corresponds to 200 MWh

	Photovoltaic production 2021	Expansion target photovoltaic by 2026	Expansion target photovoltaic by 2030
	0 GWh	+1.6 GWh	+1.4 GWh

Travel climate friendly

The data for commuter and business traffic has not been collected yet.

SBB

SBB wants to halve its greenhouse gas emissions by 2030 and become climate-neutral. To achieve this, it is saving energy with an extensive energy programme, as well as using renewable energy and replacing environmentally harmful technical gases. In 2021, SBB saved around 500 GWh of energy in comparison to 2010. This corresponds to the combined electricity demand of all households in the cities of Bern and Lausanne.

Individual measures

1. FLIRT train energy saving package
   2023: -6700 MWh/a

2. More efficient production at the Ritom power plant
   2024: 1300 MWh/a electricity production

3. Modernisation of the IC2000 carriages
   2024: -12,500 MWh/a

4. Optimisation of lighting for station access and track areas
   2025: -10,100 MWh/a

5. Use of up to 25 % HVO biodiesel
   2025: up to -5100 t CO_2/a

6. Energy-optimised parking of regional double-decker (sleep mode)
   2026: -4500 MWh/a

7. Modernisation of shunting locomotive Am843
   2029: -8800 t CO_2/a

8. Modernisation of IC tilting train carriages
   2027: -2300 MWh/a

9. Use of natural refrigerants
   2030: -500t CO_2/a

10. Switch to gas points heaters
    2030: -2600 t CO_2/a

11. Replacement transformer for traction power supply
    2030: -15,600 MWh/a

By expanding its rolling stock by twelve H3 hybrid shunting locomotives, SBB Cargo will reduce CO_2 emissions by 2400 tonnes and diesel consumption by 865,000 litres per year.

Image: SBB/CFF/FFS

SBB

Reduce energy consumption and CO₂ emissions

Energy efficiency gain

2021 situation: **-12 %**
Target 2026: **+6 %**
Target 2030: **+10 %**
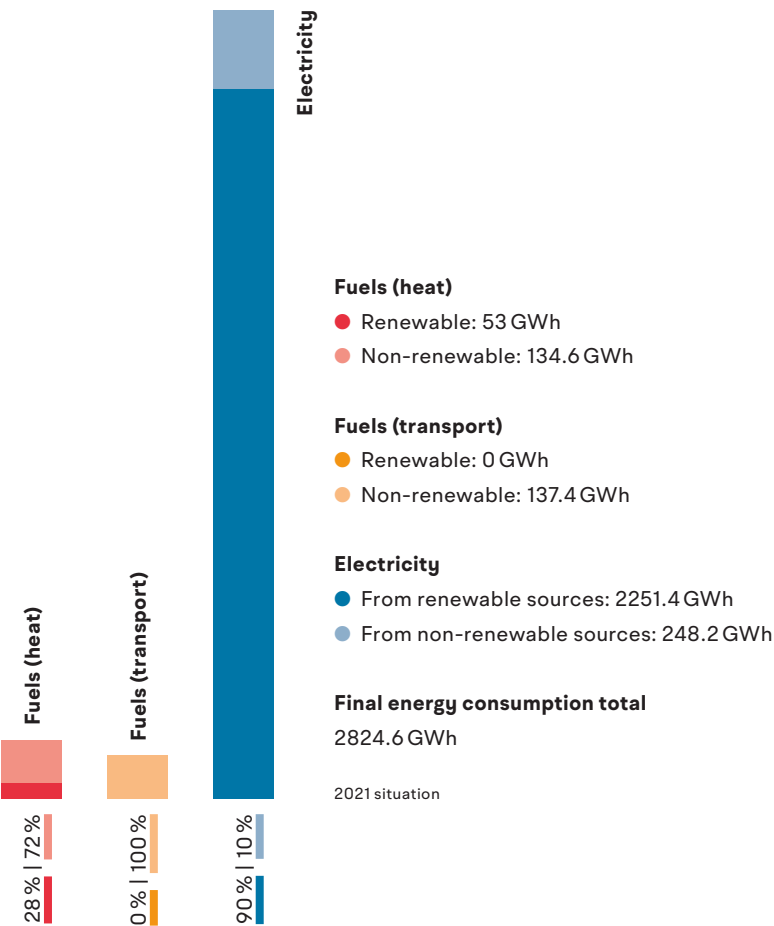
Reference variables: passenger kilometres for passenger traffic, net tonne kilometres for freight traffic. Utilisation was lower in 2021 due to the COVID-19 pandemic. This had a negative effect on the energy efficiency figure.

Fuels (heat)
- Renewable: 53 GWh
- Non-renewable: 134.6 GWh

Fuels (transport)
- Renewable: 0 GWh
- Non-renewable: 137.4 GWh

Electricity
- From renewable sources: 2251.4 GWh
- From non-renewable sources: 248.2 GWh

Final energy consumption total
2824.6 GWh

2021 situation

Fuels (heat) 28 % | 72 %
Fuels (transport) 0 % | 100 %
Electricity 90 % | 10 %

Greenhouse gas emissions
Direct energy-related emissions
(Scope 1 and 2)
64,100 t CO₂eq
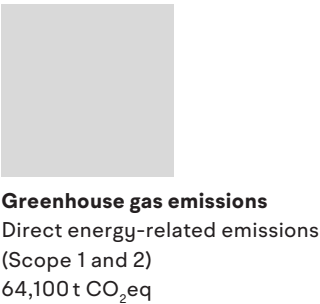
More information on energy and climate in the report of SBB (in German). The calculation methods used in the reports may differ.

Switch to renewable energies

2021
16 %

Target 2026
32 %

Target 2030
50 %

Fuels and propellants
- Renewable
- Non-renewable

Target 2026
100 %

2021
90 %

Electricity
- From renewable sources
- From non-renewable sources

Produce ecological electricity

One field corresponds to 1 GWh

■ **Photovoltaic production 2021**
2.3 GWh

■ **Expansion target photovoltaic by 2026**
+ 17.7 GWh

■ **Expansion target photovoltaic by 2030**
+ 10 GWh

Travel climate friendly

Business traffic
2021

1 %
42.5 %
57 %

● Car: 56,700,000 km
● Train/bus: 75,630,000 km
● Air: 800,000 km

Energy consumption
38.2 GWh

Greenhouse gas emissions
(Scope 3, cat. 6)
9400 t CO_2eq

Commuter traffic
2021

3.5 %
24 %
72.5 %

● Car: 74,900,000 km
● Train/bus: 226,970,000 km
● Pedestrian/bicycle:
11,030,000 km

Energy consumption
60.8 GWh

Greenhouse gas emissions
(Scope 3, cat. 7)
12,100 t CO_2eq

SIG

SIG wants to increase its energy transition efforts sevenfold.
To achieve this, the company has adopted a climate pact. Together
with the people and businesses of the Canton of Geneva and
specialists from the construction industry, SIG is developing
various measures to reduce the canton's CO_2 emissions by 60 %
by 2030.

Individual measures

1. Energy savings among customers
   2030: -425 GWh/a

2. Expansion of geothermal energy
   2030: 65 GWh sold heat from geothermal energy

3. Increase in biogas production
   2030: 80 GWh/a

4. Threefold increase in photovoltaic production
   2025: 170.6 MWp

5. Gas savings among customers through
   the éco21 programme
   2025: -5900 t CO_2/a

SIG uses a renewable heating network
with heat recovery to reduce reliance
on fossil fuels.

Image: Frank Chaussivert, Global-Images

SIG

Reduce energy consumption and CO$_2$ emissions

Reference variables: cubic metres of waste water treated, cubic metres of drinking water supplied, waste processed, energy reference area

Fuels (heat)
- Renewable: 9 GWh
- Non-renewable: 16.4 GWh

Fuels (transport)
- Renewable: 0.7 GWh
- Non-renewable: 2.1 GWh

Electricity
- From renewable sources: 141.9 GWh
- From non-renewable sources: 0 GWh

Final energy consumption total
170.1 GWh

2021 situation
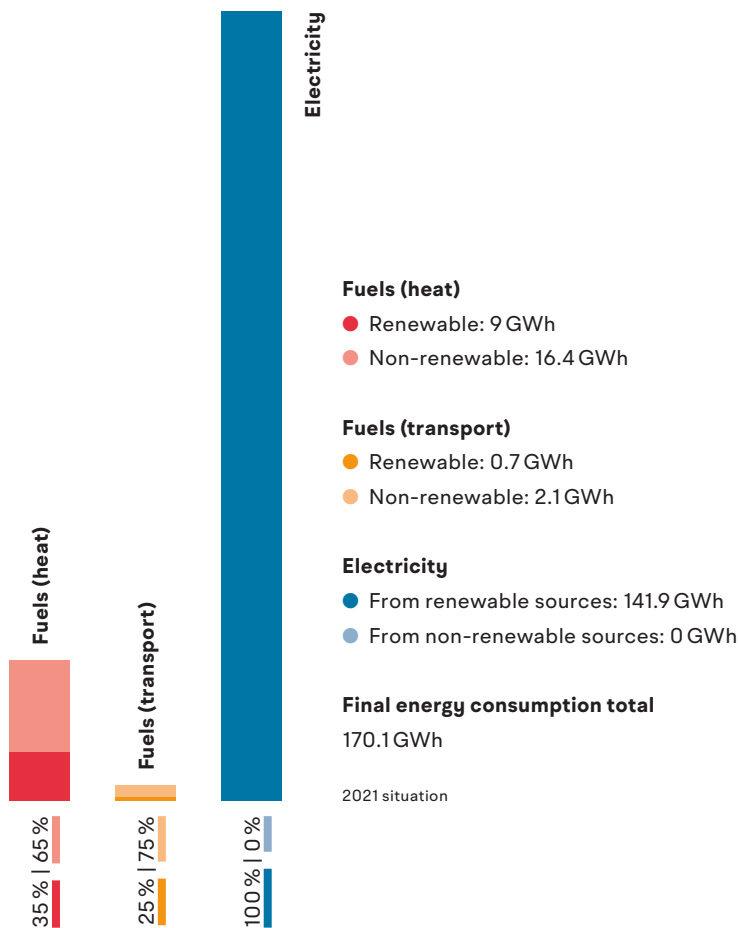
Greenhouse gas emissions
Direct energy-related emissions
(Scope 1 and 2)
5800 t CO$_2$eq

More information on energy and climate in the report of SIG. The calculation methods used in the reports may differ.

Fuels (heat): 35 % | 65 %
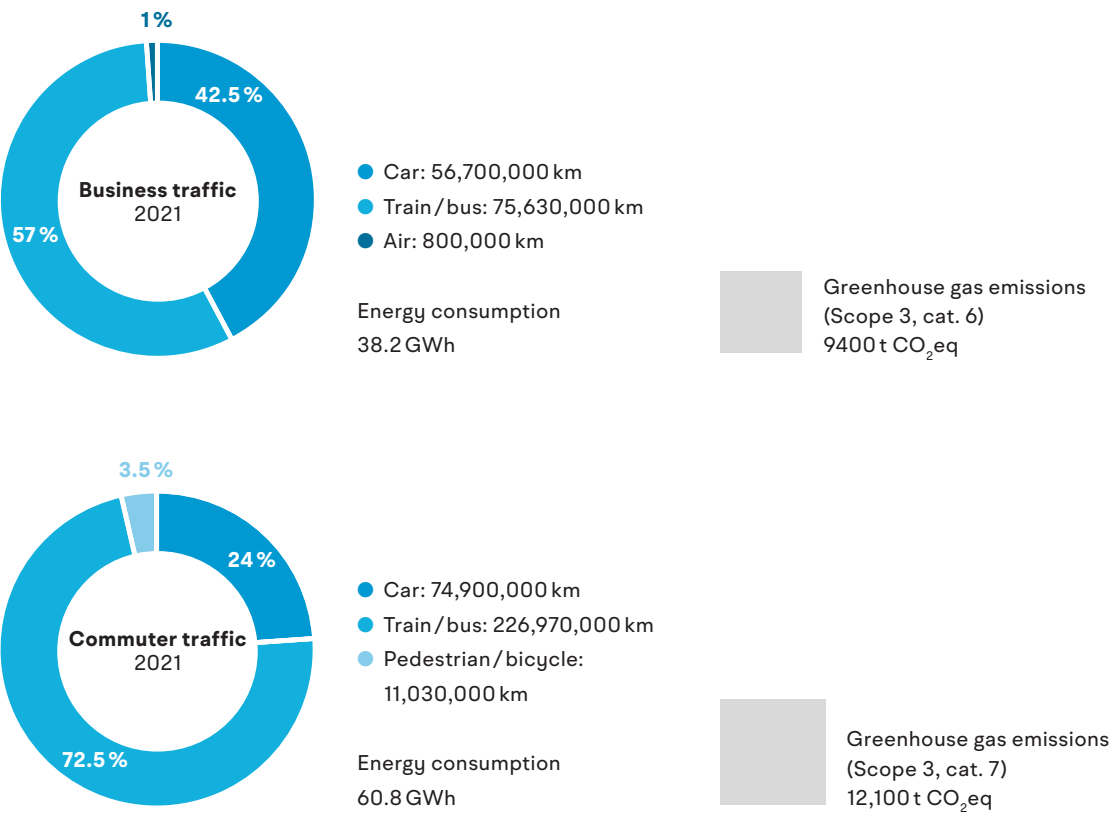Fuels (transport): 25 % | 75 %
Electricity: 100 % | 0 %

Switch to renewable energies

2021 — 34 %

Target 2030
51 %

Target 2026
44 %

Fuels and propellants
- Renewable
- Non-renewable

2021 — 100 %

Electricity
- From renewable sources
- From non-renewable sources

28

Produce ecological electricity

One field
corresponds to
2.5 GWh

In addition, SIG produces around
730 GWh of electricity from
"naturemade star" certified
hydropower or from hydropower
of equivalent quality (while an
expansion of existing facilities
is not planned, improvements in
terms of efficiency and ecology
are).

**Photovoltaic
production 2021**
6.1 GWh

**Expansion target
photovoltaic by 2026**
+ 46 GWh

**Expansion target
photovoltaic by 2030**
+ 24 GWh

Travel climate friendly

Business traffic
2021

1 %

99 %

- Car: 2,070,000 km
- Air: 20,000 km

Energy consumption
1.2 GWh

Greenhouse gas emissions
(Scope 3, cat. 6)
300 t CO$_2$eq

Commuter traffic
2021

6 %

34 %

60 %

- Car: 3,280,000 km
- Train / bus: 1,840,000 km
- Pedestrian / bicycle: 310,000 km

Energy consumption
2.1 GWh

Greenhouse gas emissions
(Scope 3, cat. 7)
500 t CO$_2$eq

Skyguide

To improve its environmental footprint, Skyguide is taking measures in two areas. On the one hand, it is reducing CO_2 emissions by optimising its air traffic control procedures; on the other, the company is reducing its own greenhouse gas emissions.

Individual measures

1. Reducing calibration flights through the use of drones
   2021: -541 MWh/a

2. Smart radio: next-generation radio system
   2022: -200 MWh/a

3. Swiss free route airspace
   2022: -55,000 MWh/a

4. Introduction of expanded approach management for the Zurich region (XMAN)
   2023: -127,000 MWh/a

5. Replacement of cooling machines in the Geneva air traffic control centre
   2024: -350 MWh/a

Skyguide is committed to guiding aircraft to their destination via the shortest possible route. This reduces fuel consumption and greenhouse gas emissions.
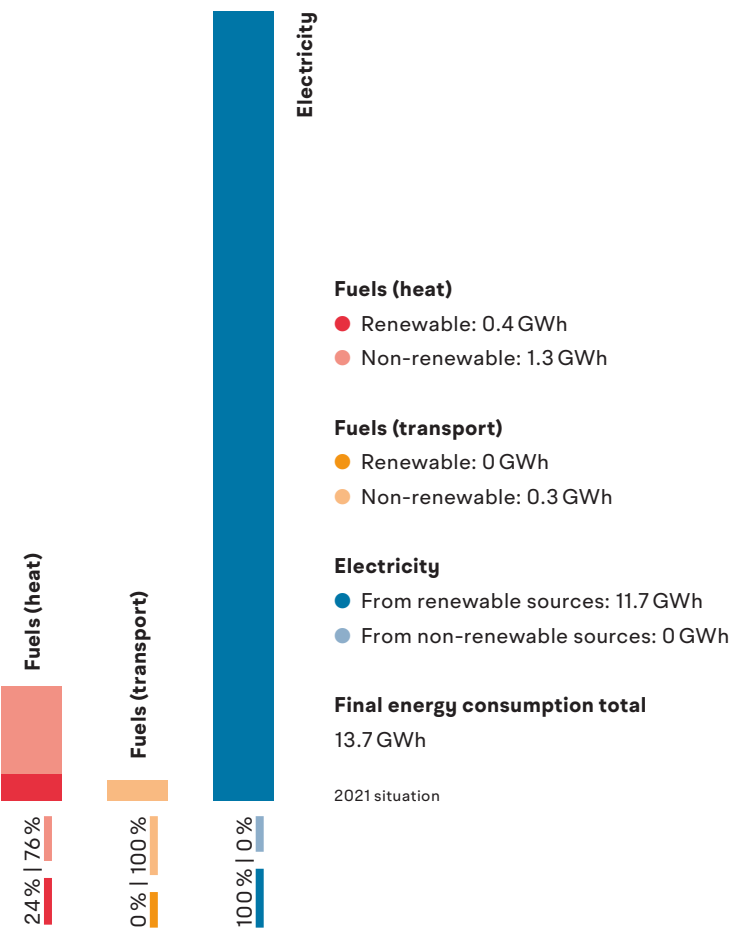
Image: Skyguide

Skyguide

Reduce energy consumption and CO$_2$ emissions

2021 situation: **+ 19.9 %**
Target 2026: **+ 7 %**
Target 2030: **+ 9 %**

Reference variables: energy reference area, number of flights, FTE. During the pandemic, skyguide improved the energy efficiency of its buildings and in the area of mobility, mainly thanks to working from home.

Electricity

Fuels (heat)
- Renewable: 0.4 GWh
- Non-renewable: 1.3 GWh

Fuels (transport)
- Renewable: 0 GWh
- Non-renewable: 0.3 GWh

Electricity
- From renewable sources: 11.7 GWh
- From non-renewable sources: 0 GWh

Final energy consumption total
13.7 GWh

2021 situation

Fuels (heat)

Fuels (transport)

24 % | 76 %

0 % | 100 %

100 % | 0 %

Greenhouse gas emissions
Direct energy-related emissions
(Scope 1 and 2)
300 t CO$_2$eq

More information on energy and climate in the report of Skyguide. The calculation methods used in the reports may differ.
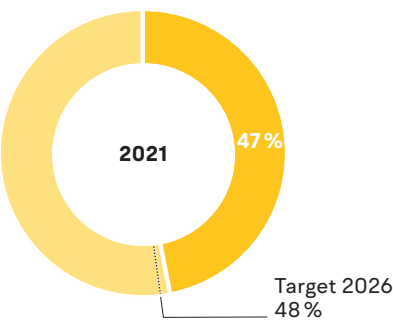
Switch to renewable energies

2021

47 %

Target 2026
48 %

2021

100 %

Fuels and propellants
- Renewable
- Non-renewable

Electricity
- From renewable sources
- From non-renewable sources

Produce ecological electricity

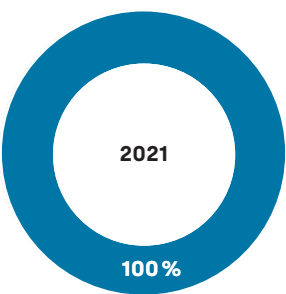One field
corresponds to
200 MWh

■ **Photovoltaic production 2021** 0 GWh

■ **Expansion target photovoltaic by 2026** + 0.4 GWh

■ **Expansion target photovoltaic by 2030** + 0 GWh

Travel climate friendly

Business traffic 2021

6 %
18 %
76 %

● Car: 750,000 km
● Train / bus: 3,120,000 km
● Air: 230,000 km

Energy consumption
0.8 GWh

Greenhouse gas emissions
(Scope 3, cat. 6)
200 t CO_2eq

Commuter traffic 2021

3 %
30 %
67 %

● Car: 4,820,000 km
● Train / bus: 2,190,000 km
● Pedestrian/bicycle:190,000 km

Energy consumption
2.9 GWh

Greenhouse gas emissions
(Scope 3, cat. 7)
800 t CO_2eq
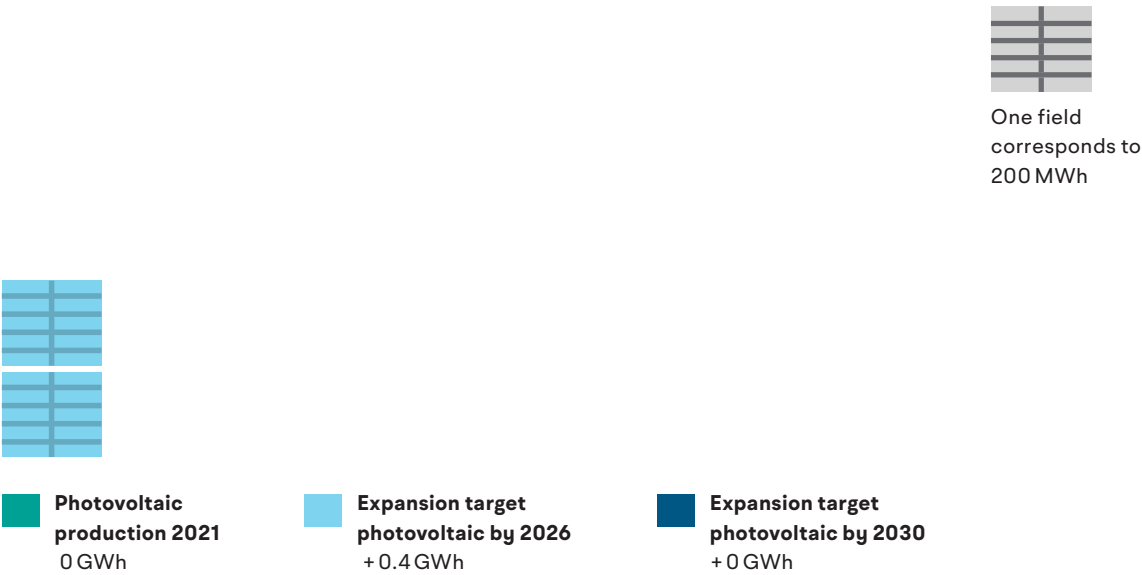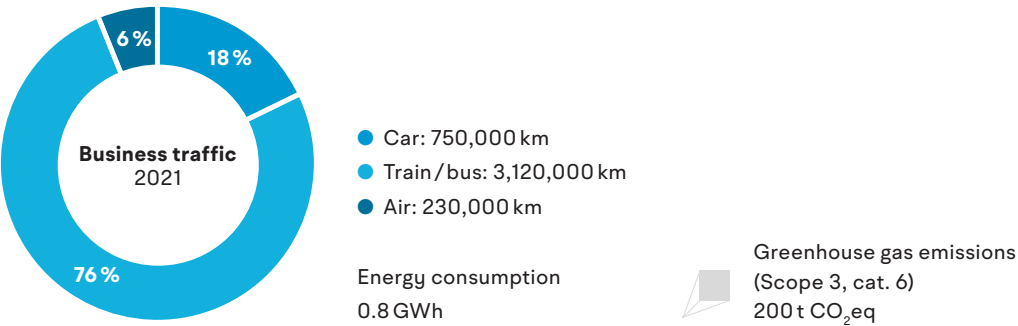
SRG SSR

SRG SSR wants to decrease its energy consumption by 15 % and its premises by 27 % by 2030. To achieve this, the company is consolidating a large part of its radio, television and multimedia production activities at its main locations. This is reducing total energy consumption considerably while also increasing energy efficiency.

Individual measures

1. Analysis of the carbon footprint of television productions
   2023: report created

Some TV productions are already being created in a sustainable way. The best-known example is the Swiss crime series "Tatort", which has improved its carbon footprint continuously since 2019.

Image: Sava Hlavacek, SRG SSR

SRG SSR

Reduce energy consumption and CO$_2$ emissions

Energy efficiency gain

2021 situation: **+11 %**
Target 2026: **+6 %**
Target 2030: **+10 %**

Reference variables: net floor space, broadcast hours

Fuels (heat)
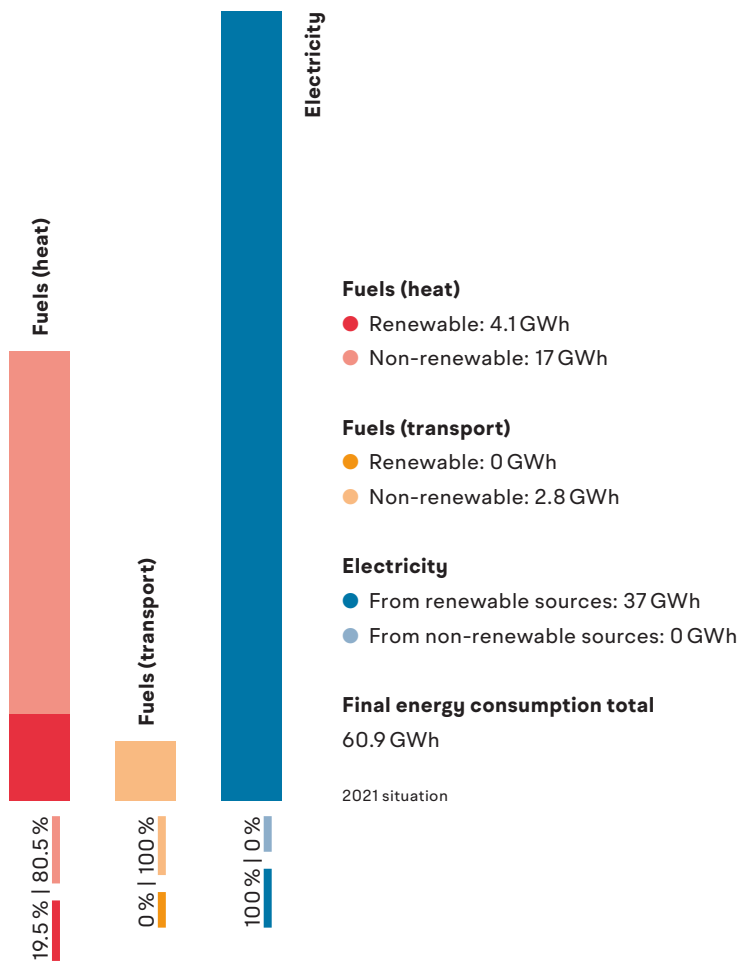- Renewable: 4.1 GWh
- Non-renewable: 17 GWh

Fuels (transport)
- Renewable: 0 GWh
- Non-renewable: 2.8 GWh

Electricity
- From renewable sources: 37 GWh
- From non-renewable sources: 0 GWh

Final energy consumption total
60.9 GWh

2021 situation

Greenhouse gas emissions
Direct energy-related emissions
(Scope 1 and 2)
4500 t CO$_2$eq

Fuels (heat) — 19.5 % | 80.5 %
Fuels (transport) — 0 % | 100 %
Electricity — 100 % | 0 %

Switch to renewable energies

2021

17 %

Target 2026
30 %

Target 2030
52 %

Fuels and propellants
- Renewable
- Non-renewable

2021

100 %

Electricity
- From renewable sources
- From non-renewable sources

34

Produce ecological electricity

One field
corresponds to
200 MWh

**Photovoltaic
production 2021**
0.2 GWh

**Expansion target
photovoltaic by 2026**
+ 0.4 GWh

**Expansion target
photovoltaic by 2030**
+ 0.6 GWh

Travel climate friendly

Business traffic
2021

37 %

63 %

● Train / bus: 2,930,000 km
● Air: 4,930,000 km

Energy consumption
2.5 GWh

Greenhouse gas emissions
(Scope 3, cat. 6)
1100 t CO_2eq

The energy consumption of
cars has not been recorded.

Suva

In 2021, Suva incorporated sustainability and the reduction of greenhouse emissions into the company's strategic objectives. It is aiming to reduce emissions to 3600 tonnes CO_2eq by 2030, and to net zero by 2050. Planned measures for achieving this include using lake water to heat its head office in Lucerne, expanding its solar installations and electrifying its entire fleet.

Individual measures

1. Reduction of greenhouse gas emissions from business traffic
    2030: -10 % CO_2

2. Net zero reduction pathway in operations
    2030: -3600 t CO_2eq

3. Net zero reduction pathway in financial investments
    2030: -42 % CO_2eq

4. PET-free Suva
    2030: -90 %

5. Universal target agreement at the nine largest sites
    2030: +30 % energy efficiency

By optimising the management of free cooling in the data centre in 2021, Suva reduced its energy consumption at the Rösslimatt head office by 16 % to 1.2 GWh.

Image: Suva

Suva

Reduce energy consumption and CO$_2$ emissions

2021 situation: **+3.5 %**
Target 2026: **+9 %**
Target 2030: **+15 %**
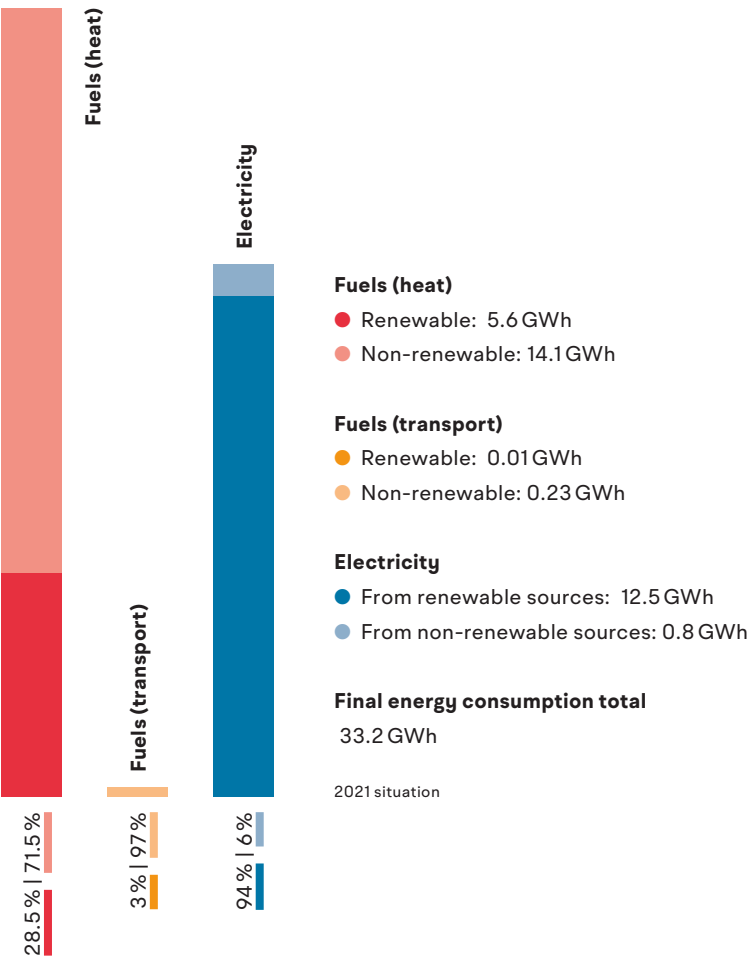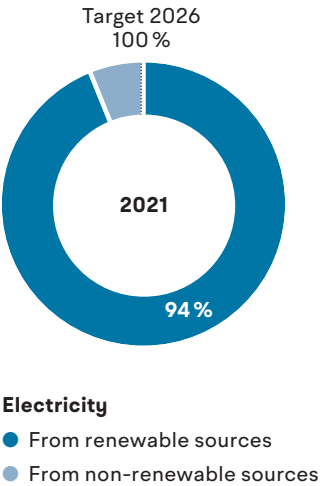
Reference variables: FTE for head office and agencies, care days for the two clinics

Fuels (heat)
- Renewable: 5.6 GWh
- Non-renewable: 14.1 GWh

Fuels (transport)
- Renewable: 0.01 GWh
- Non-renewable: 0.23 GWh

Electricity
- From renewable sources: 12.5 GWh
- From non-renewable sources: 0.8 GWh

Final energy consumption total
33.2 GWh

2021 situation

Greenhouse gas emissions
Direct energy-related emissions
(Scope 1 and 2)
3300 t CO$_2$eq

More information on energy and climate in the report of Suva. The calculation methods used in the reports may differ.

Fuels (heat)
Electricity
Fuels (transport)

28.5 % | 71.5 %
3 % | 97 %
94 % | 6 %

Switch to renewable energies

2021
28 %
Target 2030
56 %
Target 2026
40 %

Fuels and propellants
- Renewable
- Non-renewable

2021
Target 2026
100 %
94 %

Electricity
- From renewable sources
- From non-renewable sources

Produce ecological electricity

One field corresponds to 200 MWh

- **Photovoltaic production 2021** +0.9 GWh
- **Expansion target photovoltaic by 2026** +1.7 GWh
- **Expansion target photovoltaic by 2030** +1.4 GWh

Travel climate friendly

Business traffic 2021

1%
43%
56%

- Car: 3,170,000 km
- Train/bus: 2,480,000 km
- Air: 70,000 km

Energy consumption 2 GWh

Greenhouse gas emissions (Scope 3, cat. 6) 500 t CO_2eq

Commuter traffic 2021

6%
45%
49%

- Car: 8,560,000 km
- Train/bus: 9,190,000 km
- Pedestrian/bicycle: 1,160,000 km

Energy consumption 5.6 GWh

Greenhouse gas emissions (Scope 3, cat. 7) 1400 t CO_2eq

Swisscom

Swisscom has been a climate-neutral company since 2020, and is aiming to become climate-neutral along the entire value chain by 2025. In 2021, Swisscom reduced its carbon footprint by 6.4 %. It did so in particular by reducing CO_2 emissions in the supply chain, switching to electric vehicles and not using fossil heating systems. In addition, more and more customers are taking advantage of Swisscom's reuse offer for smartphones.

Individual measures

1. Efficient cooling of mobile telephony base stations
   2023: -7 GWh/a

2. Reuse offer for smartphones
   2025: 250,000 devices

3. CO_2 emissions reduced by customers and in portfolio
   2025: -1 million t CO_2/a

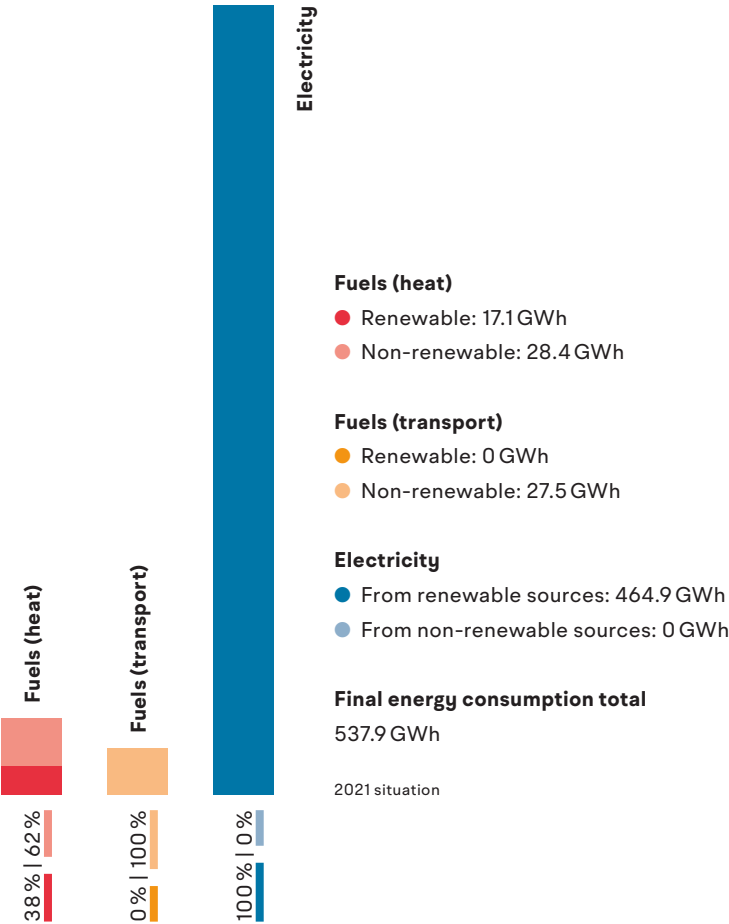Swisscom procured 80 electric cars in 2021. By 2030, its entire fleet will be CO_2-neutral.

Image: Swisscom

Swisscom

Reduce energy consumption and CO$_2$ emissions

Energy efficiency gain

2021 situation: **+1.7 %**

Target 2026: **+6 %**

Target 2030: **+18 %**

Reference variables: natural logarithm of transmitted pbits, route driven, energy reference area
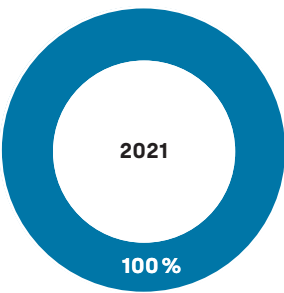
Electricity

Fuels (heat)

Fuels (transport)

Fuels (heat)
- Renewable: 17.1 GWh
- Non-renewable: 28.4 GWh

Fuels (transport)
- Renewable: 0 GWh
- Non-renewable: 27.5 GWh

Electricity
- From renewable sources: 464.9 GWh
- From non-renewable sources: 0 GWh

Final energy consumption total
537.9 GWh

2021 situation

38 % | 62 %

0 % | 100 %

100 % | 0 %

Greenhouse gas emissions
Direct energy-related emissions
(Scope 1 and 2)
14,300 t CO$_2$eq

More information on energy and climate in the report of Swisscom. The calculation methods used in the reports may differ.
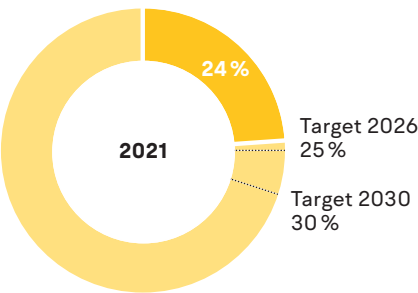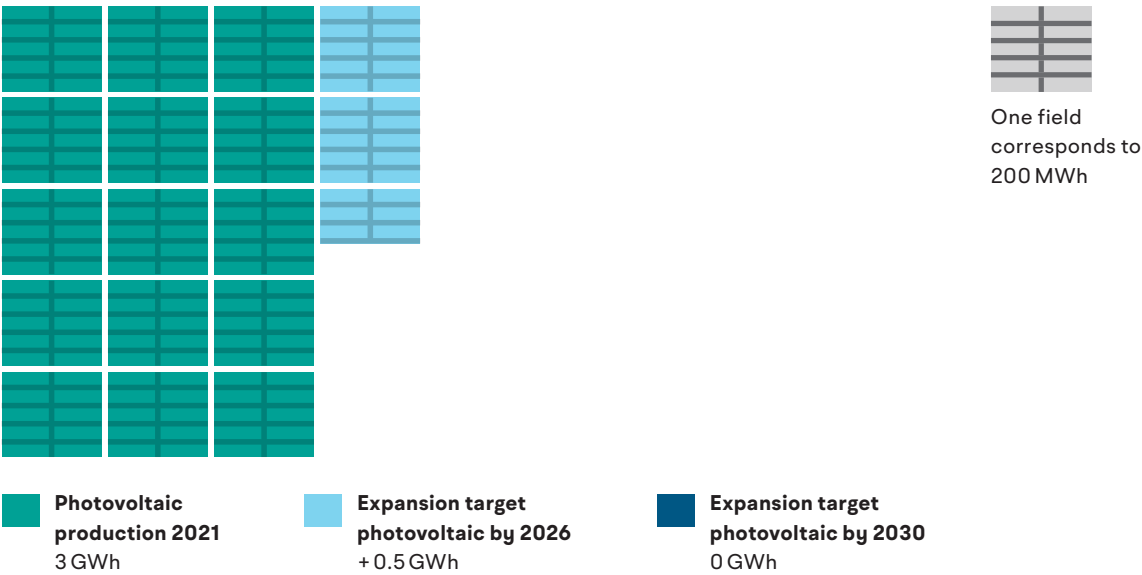
Switch to renewable energies

24 %

2021

Target 2026
25 %

Target 2030
30 %

2021

100 %

Fuels and propellants
- Renewable
- Non-renewable

Electricity
- From renewable sources
- From non-renewable sources

Produce ecological electricity

One field corresponds to 200 MWh

■ **Photovoltaic production 2021**
3 GWh

■ **Expansion target photovoltaic by 2026**
+ 0.5 GWh

■ **Expansion target photovoltaic by 2030**
0 GWh

Travel climate friendly

Business traffic
2021

4 %
15 %
81 %

● Car: 44,530,000 km
● Train / bus: 8,390,000 km
● Air: 2,340,000 km

Energy consumption
26.6 GWh

Greenhouse gas emissions
(Scope 3, cat. 6)
7700 t CO_2eq

Commuter traffic
2021

25 %
75 %

● Car: 13,850,000 km
● Train / bus: 42,350,000 km

Energy consumption
11.1 GWh

Greenhouse gas emissions
(Scope 3, cat. 7)
2200 t CO_2eq
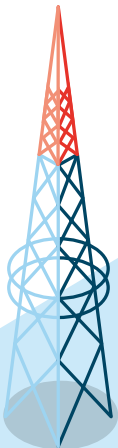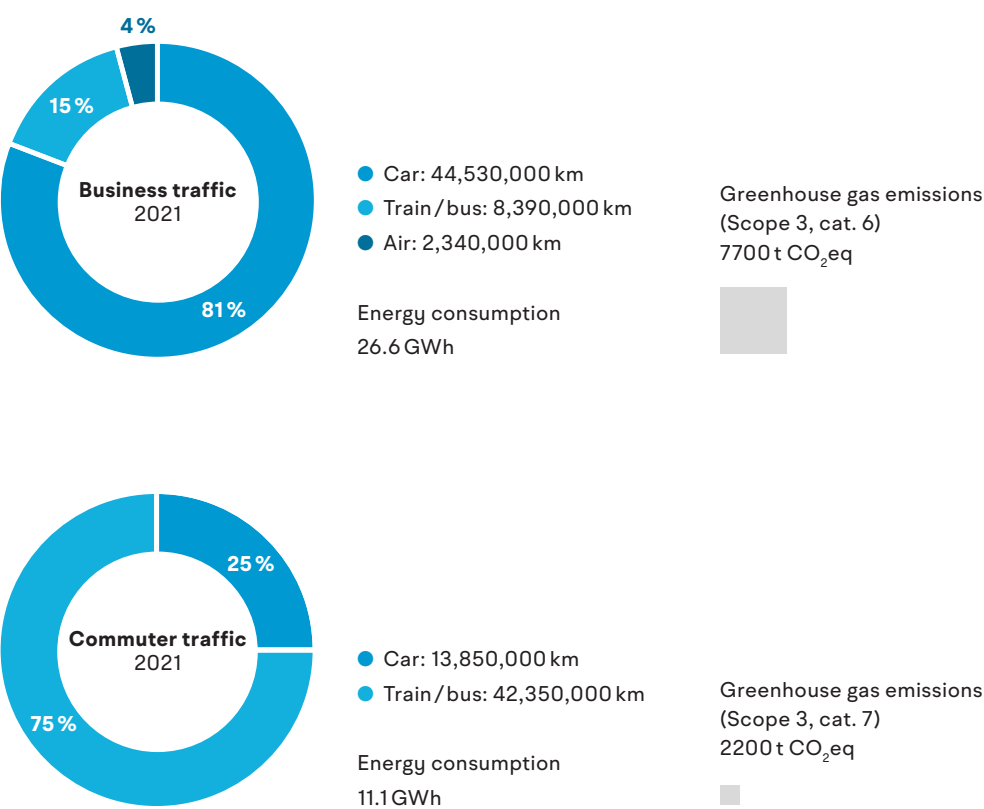
DDPS

In 2021, the DDPS adopted a new environmental mission statement and the DDPS Energy and Climate Action Plan. The department wants to reduce its CO_2 emissions by 40 % compared to 2001 and is aiming to reach net zero by 2050. To achieve this, it is switching to renewable energy, expanding its own energy production and storage capacities, and supporting innovative projects.

Individual measures

1. Pilot study – energy self-sufficient military training ground
   2030: Implementation of various measures

2. Reduction of CO_2 emissions in the area of ground mobility
   2030: -22 % CO_2

3. Reduction of CO_2 emissions from food and drink
   2030: 4 measures

4. Expansion of photovoltaic production
   2030: 25 GWh/a electricity production

5. Support for innovations and pilot projects
   2030: 8 projects

Photovoltaic systems with an output of 455kWp were installed on an area of more than 3600m^2 on top of the tank depots in Bure.
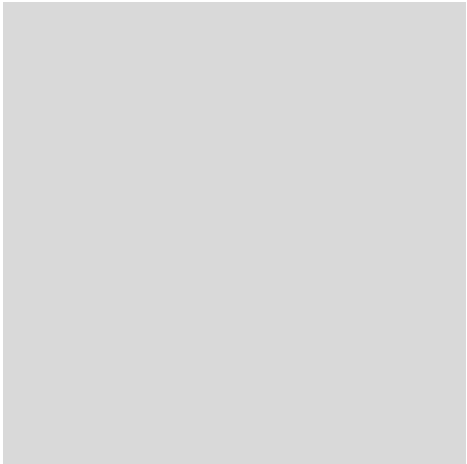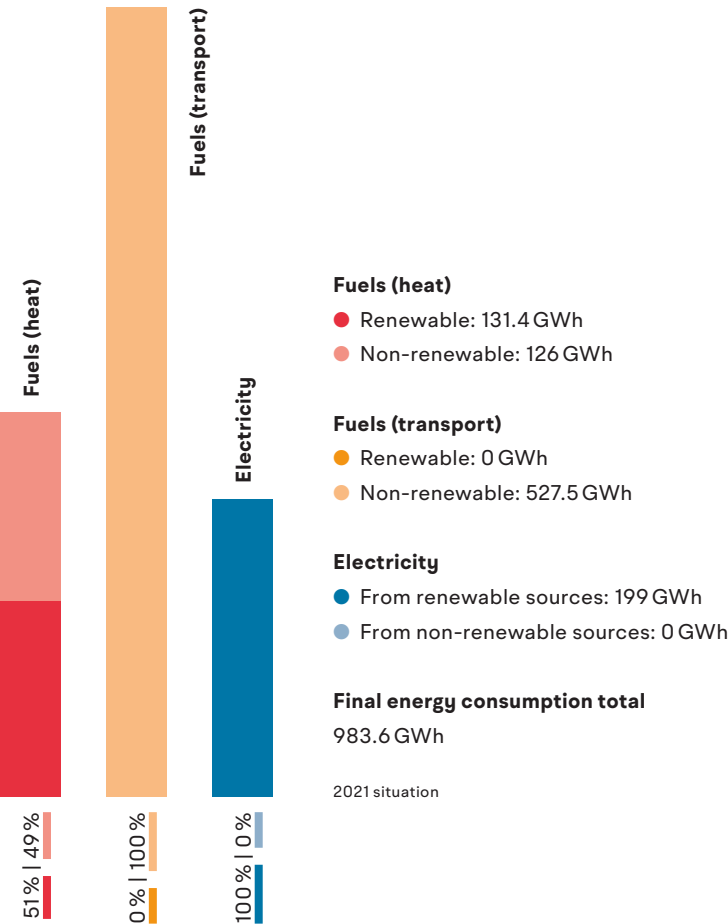
Image: DDPS

DDPS

Reduce energy consumption and CO$_2$ emissions

Reference variables: energy reference area, FTE. Excluding air force, energy efficiency in 2021 is -0.2 % (target 2026: 4 %, target 2030: 8 %).

Fuels (heat)
- Renewable: 131.4 GWh
- Non-renewable: 126 GWh

Fuels (transport)
- Renewable: 0 GWh
- Non-renewable: 527.5 GWh

Electricity
- From renewable sources: 199 GWh
- From non-renewable sources: 0 GWh

Final energy consumption total
983.6 GWh

2021 situation

Fuels (heat): 51 % | 49 %
Fuels (transport): 0 % | 100 %
Electricity: 100 % | 0 %

Greenhouse gas emissions
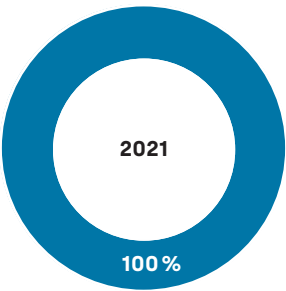Direct energy-related emissions
(Scope 1 and 2)
172,000 t CO$_2$eq

More information on energy and climate in the report of DDPS. The calculation methods used in the reports may differ.
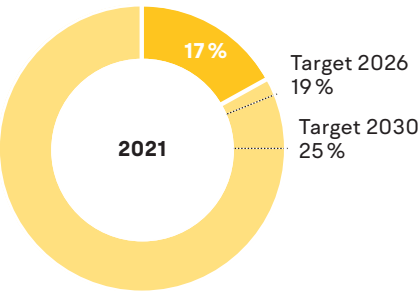
Switch to renewable energies

2021

17 %
Target 2026
19 %
Target 2030
25 %

Fuels and propellants
- Renewable
- Non-renewable

2021

100 %

Electricity
- From renewable sources
- From non-renewable sources

Produce ecological electricity

One field corresponds to 1 GWh

Photovoltaic production 2021
+ 7.2 GWh

Expansion target photovoltaic by 2026
+ 9.8 GWh

Expansion target photovoltaic by 2030
+ 8 GWh

Travel climate friendly

Business traffic 2021

1 %
23 %
76 %

- Car: 57,200,000 km
- Train / bus: 186,970,000 km
- Air: 3,130,000 km

Energy consumption 48.5 GWh

Greenhouse gas emissions (Scope 3, cat. 6) 10,000 t CO_2eq
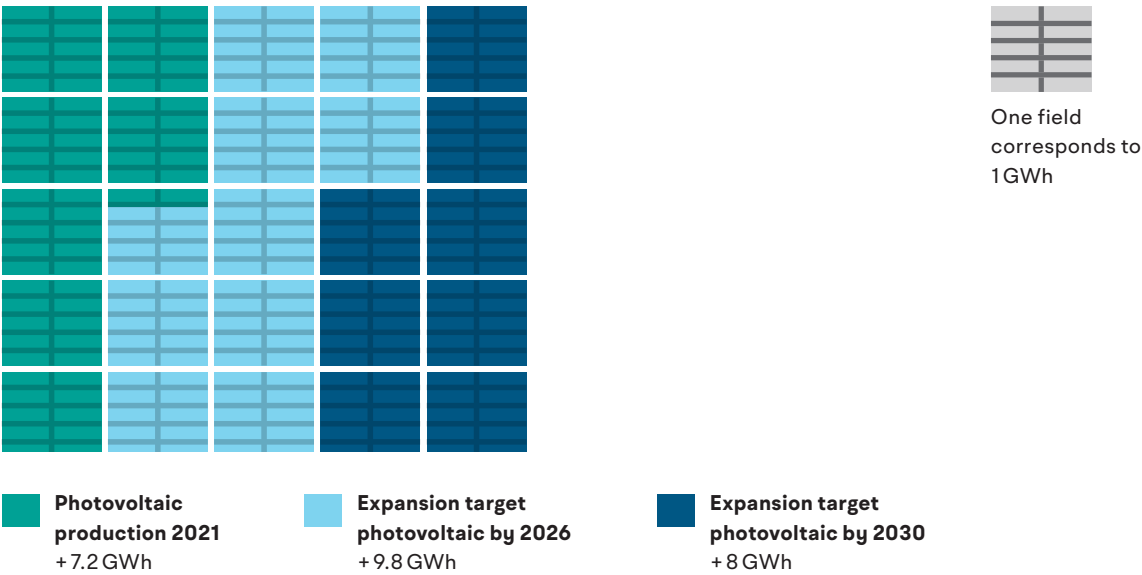
Civil Federal Administration

By implementing the federal government's "climate package", the Civil Federal Administration is aiming to reduce its emissions by 50% by 2030 (compared to 2006). With the federal government's Resources and Environmental Management programme ("RUM-BA"), it is taking measures in various areas, such as real estate, business travel and paper consumption. The Civil Federal Administration has also been fully offsetting its greenhouse gas emissions since 2020.

Individual measures

1. LED lighting in national road tunnels
   FEDRO; 2030: 250 tunnels

The Guisanplatz administrative centre in Bern was awarded the platinum certificate of the Swiss Sustainable Building standard
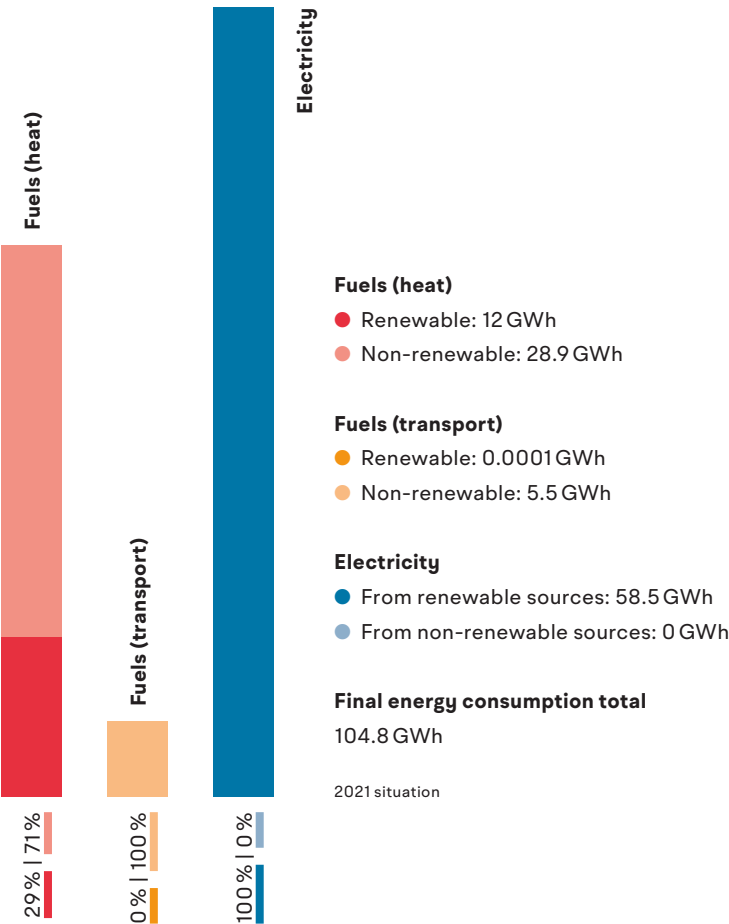
Image: Rolf Siegenthaler

Civil Federal Administration

Reduce energy consumption and CO$_2$ emissions

Fuels (heat)
- Renewable: 12 GWh
- Non-renewable: 28.9 GWh

Fuels (transport)
- Renewable: 0.0001 GWh
- Non-renewable: 5.5 GWh

Electricity
- From renewable sources: 58.5 GWh
- From non-renewable sources: 0 GWh

Final energy consumption total
104.8 GWh

2021 situation

Greenhouse gas emissions
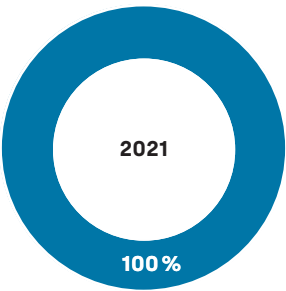Direct energy-related emissions
(Scope 1 and 2)
6800 t CO$_2$eq

More information on energy and climate in the report of Civil Federal Administration. The calculation methods used in the reports may differ.
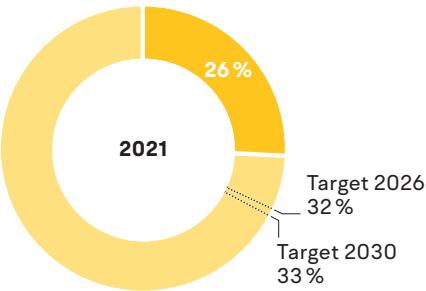
Switch to renewable energies

Target 2026
32%

Target 2030
33%

Fuels and propellants
- Renewable
- Non-renewable

Electricity
- From renewable sources
- From non-renewable sources

Produce ecological electricity

One field corresponds to 200 MWh

Photovoltaic production 2021
2.2 GWh

Expansion target photovoltaic by 2026
+ 0 GWh

Expansion target photovoltaic by 2030
+ 0.1 GWh

Travel climate friendly

Business traffic 2021

24 %
48 %
28 %

- Car: 8,250,000 km
- Train / bus: 9,600,000 km
- Air: 16,220,000 km

Energy consumption
12.6 GWh

Greenhouse gas emissions
(Scope 3, cat. 6)
4900 t CO_2eq
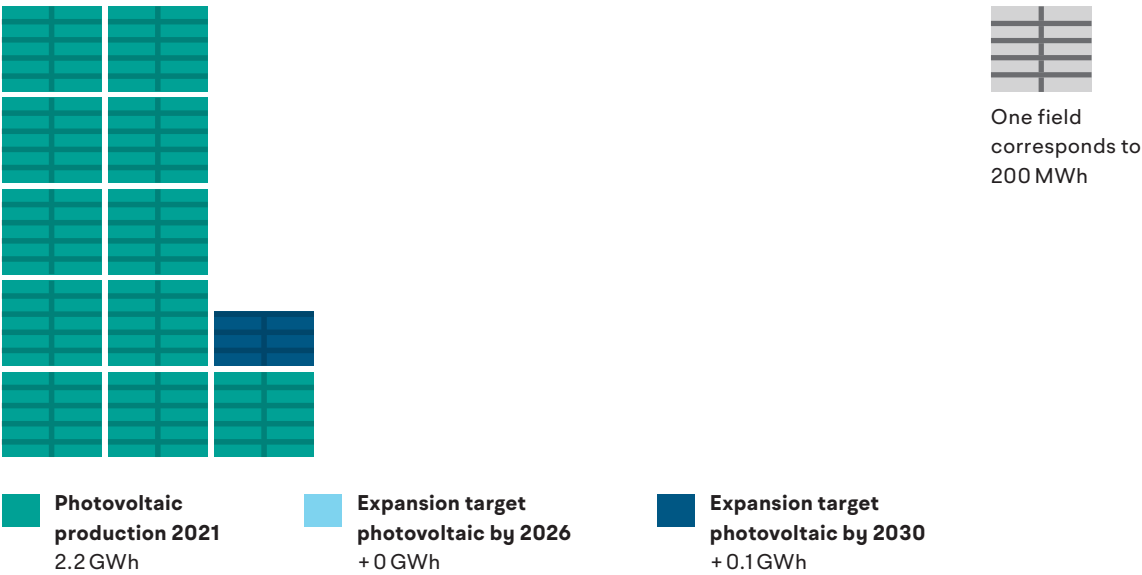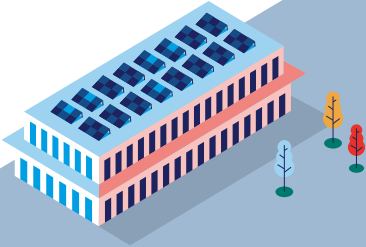
What is behind the numbers?

Details of methodology

Swiss Post

More than half of all Swiss Post vehicles are already powered by alternative drive systems. The goal is for all delivery vehicles to run on green electricity by 2030 as an additional measure for enabling climate-neutral delivery. Swiss Post is also optimising its postage operations: since the beginning of 2021, all consignments have carried the "pro clima" label and the CO_2 emissions have been offset.

Individual measures

1. Net zero from 2040
   Group target 2030: climate-neutral Swiss Post in own operations (–38 % CO_2 compared to 2021; rest neutralised)
2. "pro clima" postage
   2030: 150,000 t CO_2 offset
3. Certified green electricity for electromobility and post offices
   2030: 106 GWh

By 2025, most deliveries in urban areas will be made using electric vehicles. To this end, the company is experimenting with micro hubs, among other measures.

Image: Swiss Post

① Individual measures
The individual measures are defined by the actors themselves. For each measure, the actors set a target year and, if possible, a quantitative target.

Swiss Post

Reduce energy consumption and CO$_2$ emissions

Fuels (heat)

Fuels (transport)

Electricity

Energy efficiency gain

2021 situation: **-9.9 %**
Target 2026: **+10 %**
Target 2030: **+50 %**

Reference variable: operating income. Due to growth in the third-party market, as well as reorganisation measures, a full comparison with the base year 2020 is not possible.

Fuels (heat)
● Renewable: 29.2 GWh
● Non-renewable: 58 GWh

Fuels (transport)
● Renewable: 1.1 GWh
● Non-renewable: 151.5 GWh

Electricity
● From renewable sources: 112.4 GWh
● From non-renewable sources: 0 GWh

Final energy consumption total
352.2 GWh

2021 situation

33.5 % | 66.5 %   1% | 99 %   100 % | 0 %

Greenhouse gas emissions
Direct energy-related emissions
(Scope 1 and 2)
53,800 t CO$_2$eq

More information on energy and climate in the report of Swiss Post. The calculation methods used in the reports may differ.

Switch to renewable energies

13 %
Target 2026 19 %
Target 2030 38 %

100 %

Fuels and propellants
● Renewable
● Non-renewable

Electricity
● From renewable sources
● From non-renewable sources

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③ Energy consumption
The final energy consumption relates to the final energy consumed by the organisation in Switzerland (e.g. in own buildings, own vehicles). Each actor set its own detailed system limits (e.g. whether or not rented buildings are included).

Fuels (heat)
Renewable: environmental heat, wood, biogas, solar thermal energy, renewable proportion of district heating

Non-renewable: heating oil, natural gas, non-renewable proportion of district heating

Electricity for heat pumps is shown under 'Electricity'.

Fuels (transport)
Renewable: biogas, biogenic liquid fuels

Non-renewable: petrol, diesel, natural gas, fossil-derived aviation fuel

Electricity used to power vehicles is shown under 'Electricity'.

Electricity
Renewable sources: water, solar, biomass, wind, renewable proportion of waste

Non-renewable sources: rest (nuclear power, fossil energy sources, non-renewable proportion of waste, grey energy)

④ Greenhouse gas emissions
This includes direct, energy-related green-house gas emissions that are produced when burning fossil fuels and propellants (Scope 1) and when generating electricity and district heating (Scope 2) for consumption.

Scope 3 emissions (e.g. from upstream energy supply processes) and any carbon offsetting by the actors are not taken into account, with the exception of certificates of origin for renewable electricity and renewable district heating. These are also fully counted as renewable at emission factor level and are not classed as offsetting.

② Energy efficiency
The energy efficiency shows how the annual energy intensity (i.e. the relationship between energy consumption and a selected reference variable) develops in comparison to the reference energy intensity. This is determined from the average final energy consumption for 2018/2019 and the average reference variable for the same period. Due to COVID-19, 2020 was not chosen as the base and reference year as originally intended.

The actors chose different reference variables. Some defined several reference variables (e.g. one per business unit). In this case, the energy intensities are calculated for each business unit and subsequently assigned a weighting factor (based on the business unit's energy consumption) and added together.

Calculation formula:

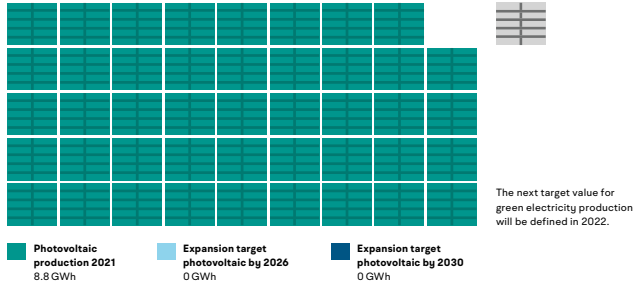$$energy\ intensity = \frac{final\ energy\ consumption}{reference\ variable\ [individual\ unit]}$$

$$energy\ efficiency_{2030}[\%] = \sum_{business\ unit\ i=1}^{n}\left[\frac{average\ EI_{i,2018/2019}}{EI_{i,2030}} - 1\right] * weighting_i$$
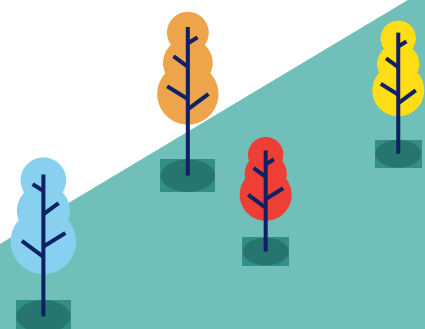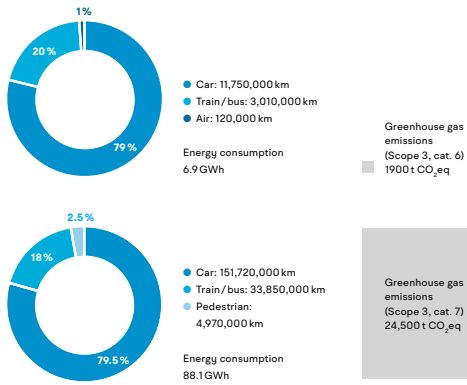
Swiss Post

Swiss Post reports its production of green electricity and mobility data on a group-wide basis.

Produce ecological electricity

The next target value for green electricity production will be defined in 2022.

■ **Photovoltaic production 2021** 8.8 GWh

▢ **Expansion target photovoltaic by 2026** 0 GWh

■ **Expansion target photovoltaic by 2030** 0 GWh

Travel climate friendly

1 %
20 %
79 %

● Car: 11,750,000 km
● Train / bus: 3,010,000 km
● Air: 120,000 km

Energy consumption 6.9 GWh

Greenhouse gas emissions (Scope 3, cat. 6) 1900 t CO_2eq

2.5 %
18 %
79.5 %

● Car: 151,720,000 km
● Train / bus: 33,850,000 km
● Pedestrian: 4,970,000 km

Energy consumption 88.1 GWh

Greenhouse gas emissions (Scope 3, cat. 7) 24,500 t CO_2eq

7

⑤ Production of green electricity

Self-generated electricity, as well as electricity from contracting systems on own roofs/premises, is taken into account here. The electricity must be of "naturemade star" standard or equivalent quality. The production shows the actual amount of electricity produced each year, while the targets show the expected production volume based on the planned capacities.

Expansion targets mainly relate to photovoltaics, but they can also include systems in the areas of hydropower, wind power or energy from biomass. This is indicated where applicable.

⑥ Business and commuter traffic

Passenger kilometres are used as the underlying data. These are converted into energy consumption and greenhouse gas emissions using mobitool factors. For GHG emission factors, only direct emissions from operations are included, not emissions from upstream processes.

Visible commitment to the Energy Strategy 2050

The Exemplary Energy and Climate initiative is one of the measures contained in the Energy Strategy 2050. It is aimed at the main Swiss providers of publicly relevant services that are seeking to operate in an innovative and exemplary manner in terms of energy.

The participants are contributing to the implementation of the 2015 Paris Agreement. This aims to limit global warming to well below 2 degrees Celsius compared to pre-industrial times and to achieve a maximum temperature increase of no more than 1.5 degrees Celsius.

To this end, the participants are continuously increasing their energy efficiency and consistently switching to renewable energies. They also report transparently on their target achievement and share their experiences so that other companies and organisations can also benefit from them.

Exemplary Energy and Climate was launched in 2013 with an initial set of targets by 2020. The ten participants exceeded these: they increased their energy efficiency by more than 30 per cent compared to 2006 and increased the share of renewable energy in their total consumption from 36 per cent (2006) to 60 per cent (2020). For the second phase (2021-2030), the 15 participants have committed to new targets.

The 15 participants

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