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# Environment Report of the Federal Administration

Review period 2006–2016

Resources and Environment Management  
of the Federal Administration RUMBA

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This is a summary of the Environment Report. The full report, together with additional information on the ecological balance of the various Federal Departments and key data of all RUMBA units, can be downloaded from [www.rumba.admin.ch](http://www.rumba.admin.ch) (in German, French and Italian).

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# Foreword

## RUMBA: from programme to permanent mandate

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Photo: © Marc Wietli



Dear Reader,

With the introduction of the RUMBA programme in 2006, the Federal Council set itself the goal of reducing environmental pollution attributable to the Federal Administration by 10 percent per full-time equivalent employee (FTE) by 2016. Ten years later we are able to report a pleasing outcome: with a reduction of 26.9 percent, the original goal has been well and truly surpassed. This positive result was made possible thanks to the consistent renovation of federal buildings, the construction of new buildings in accordance with the highest energy-efficiency standards, the replacement of existing equipment with appliances based on more efficient technologies, and the regular sensitisation of personnel.

Last year the Federal Council decided to transform the RUMBA programme into a permanent Federal Administration mandate. This means we will now be intensifying environment management within the Federal Administration. Against this backdrop, the Federal Council increased its goals for the period up to 2019: we aim to reduce the environmental burden per FTE by 30 percent versus the 2006 level, and greenhouse gas emissions by 40 percent.

We also want to increase energy efficiency within the federal government. We have created a RUMBA section at the Swiss Federal Office of Energy in order to ease the burden on the involved management personnel in the administrative units. And from now on, reporting will only be required every four years in line with the rhythm of the legislative period. This environment report is therefore the last in the series covering two-year periods: the next report is scheduled for publication in 2020.

We have made a great deal of progress and demonstrated that change is indeed possible. The responsible use of resources remains a permanent requirement – especially for the federal government, which has to perform the function of role model. I wish to sincerely thank all employees of the Federal Administration for their commitment.

Doris Leuthard,  
President of the Swiss Confederation

# Management summary

## Overview of results of the RUMBA programme in the period from 2006 to 2016

### Federal Administration's objectives clearly exceeded up to 2016

The Federal Administration's resources and environment management programme (RUMBA) comprised around 19,600 full-time equivalent employees (FTEs) in 2016 working in 52 different RUMBA units. In 2006 the Federal Council specified the goal for the Federal Departments and the Federal Chancellery of reducing the environmental burden per FTE by 10 percent by 2016. This target was achieved by all the above entities. With a reduction of the burden on the environment by 26.9 percent versus the 2006 level (excluding greenhouse gas compensation) and by 33.0 percent (including greenhouse gas compensation), the Federal Council's target for the entire Federal Administration was exceeded by a significant margin (cf. graph, bottom left).

### Consumption of resources

Versus 2006, heat consumption per FTE fell by 39 percent, electricity and water consumption by 29 percent each, paper consumption by 40 percent and car travel by 35 percent. By contrast, air travel increased by 19 percent and rail travel by 13 percent.

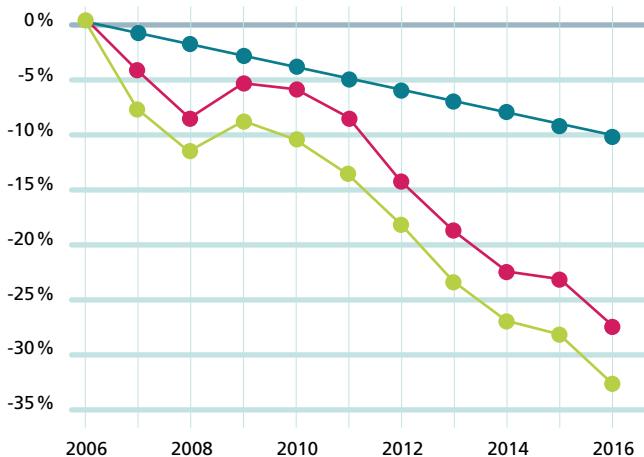
### Environmental burden and greenhouse gas emissions

In 2016, consumption of electricity (calculated mainly on the basis of the Swiss consumer mix) accounted for around 51 percent of the environmental burden, though its share was slightly lower versus 2006 (54 percent) (cf. graph, bottom right). Travel accounted for 30 percent (with air travel alone accounting for 23 percent). This means that the share attributable to air travel was 4 percentage points higher than in 2006. Heat consumption accounted for 10 percent of the environmental burden in 2016.

Greenhouse gas emissions per FTE fell by 28 percent versus 2006 and amounted to 2,354 kilograms of CO<sub>2</sub> equivalents per FTE in 2016. This decrease was attributable to reductions in electricity and heat consumption, but also to the simultaneous shift away from the use of fossil fuels in favour of renewable energy. Consequently, the increase in greenhouse gas emissions from air travel was more than offset. Expressed in absolute figures, in 2016 greenhouse gas emissions amounted to 46,276 tonnes of CO<sub>2</sub> equivalents, which was 13.3 percent below the level recorded in 2006.

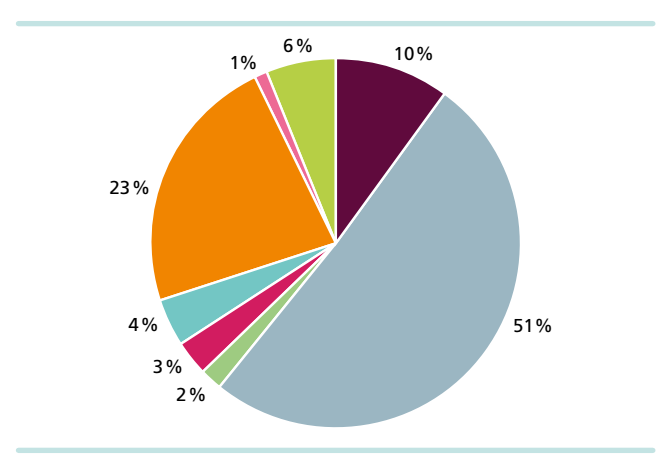
### Achievement of target in 2016

Change in environmental burden per FTE versus 2006



- Achievement of target with offsetting of greenhouse gas emissions
- Achievement of target without offsetting of greenhouse gas emissions
- Target: reduction of impacts by 10% by 2016

### Share of environmental burden in 2016



- Heat
- Electricity
- Water
- Waste
- Paper
- Air travel
- Rail travel

## RUMBA as a permanent Federal Administration mandate as of 2017

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On 25 May 2016, the Federal Council announced its decision to transform the RUMBA programme into a permanent Federal Administration mandate with effect from 1 January 2017. This means that the binding nature and the role of RUMBA are to be intensified and at the same time its structure and content are to be optimised.

### Primary environmental objectives

The Federal Council will be defining the primary RUMBA objectives every four years for the next legislative period, initially for 2019.

- The declared target for the end of 2019 is for the environmental burden per FTE to be reduced by 30 percent versus the 2006 level (excluding greenhouse gas compensation).
- In absolute terms, the goal is for greenhouse gas emissions to be reduced by 40 percent versus 2006. Here, greenhouse gas compensation can be included.
- Wherever possible, unavoidable greenhouse gas emissions are to be offset voluntarily. Compensation certificates have to be obtained from the Federal Office for the Environment (FOEN).

Photo: © Architekturfotografie Gempeler



# Environment management within the federal government

## Overview

### RUMBA within the Federal Administration

In 2016, the resources and environment management system within the Federal Administration comprised an average of 19,600 employees (FTEs) in 59 civil administrative units divided into 52 RUMBA units (cf. table in Annex, page 37 of the full report). The workforce includes apprentices and trainees, as well as external personnel who work for the government in premises belonging to the Federal Administration. The system primarily covers buildings (electricity, heat, water and waste), paper consumption and business travel. RUMBA coordinates the environmental activities of the Federal Administration, targets cost-saving gains in efficiency and reductions in the environmental burden and greenhouse gas emissions, and sensitises the employees to environmental issues. Despite the successes that have been achieved since the inception of the programme, there is still potential for reducing the consumption of resources and the burden on the environment, especially in the areas of heat and electricity consumption and mobility.

Environment management within the federal government is not limited to the Federal Administration's own RUMBA units, but also encompasses other important entities:

### RUMBA within the ETH Domain (Federal Institutes of Technology)

The ETH Domain (Federal Institutes of Technology) implements RUMBA autonomously within the scope of an environment management system that is oriented on the specific requirements of education and research institutions. This system encompasses around 35,300 FTEs (including students and guests) in six institutes.

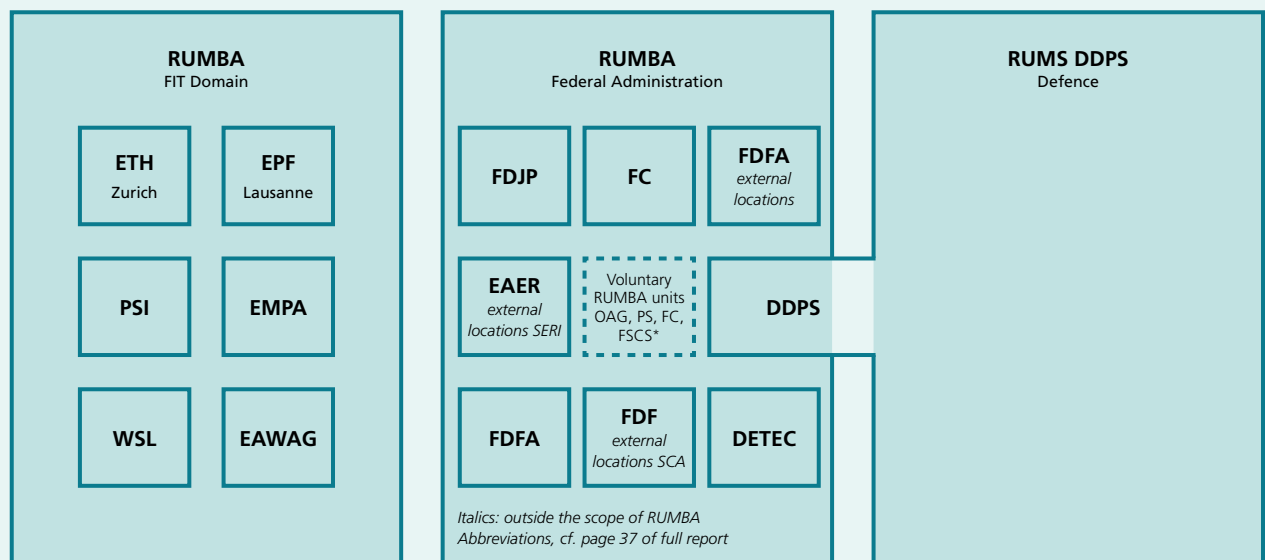
### RUMS DDPS

The main objectives of the Spatial Planning and Environment Management System of the Federal Department of Defence, Civil Protection and Sport (RUMS DDPS) concern the environmental impacts of the armed forces, i.e. on military infrastructure, natural environments used for military purposes, and resources, as well as the burden attributable to military personnel. The system was introduced in 1999 in order to ensure that environmental aspects can be systematically incorporated into the decision-making processes at all levels within the DDPS. Its main focus is on controlling processes (e.g. spatial planning, nature conservation and protection of the environment, real estate management), as well as on enforcement activities relating to military planning approval procedures, protection of the environment, nature and the landscape, and spatial planning. RUMS DDPS and RUMBA overlap in five administrative units (DDPS General Secretariat, armasuisse, Federal Office for Civil Protection, Federal Office for Sport and swisstopo).

### Federal government as role model in the energy sector

The aim of the "Federal government as role model in the energy sector" programme is to increase energy efficiency by 25 percent versus the reference year, 2006. In addition to the entities cited above, the four semi-public enterprises, Swiss Federal Railways, Swiss Post, Swisscom and Skyguide, are involved in this programme. This report focuses on environment management within the Federal Administration. The main results of RUMS DDPS (full report, pp. 26–27) and RUMBA within the Federal Institute of Technology domain (full report, pp. 28–30) are presented in a separate section.

## Environment management at the federal level



\* OAG: Office of the Attorney General of Switzerland, PS: Parliamentary Services, FC: Federal Chancellery, FSCS: Federal Supreme Court of Switzerland

## Restructuring of RUMBA within the Federal Administration

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On 25 May 2016, the Federal Council announced its decision to conclude the RUMBA programme as of the end of 2016 and to transform it into a Federal Administration mandate with effect from 1 January 2017. With this move, the binding nature of RUMBA is to be intensified and its structure and content are to be optimised.

### Primary environmental objectives and target agreements

The Federal Council had originally specified a ten-year target in the RUMBA programme for the individual Federal Departments. From now on, however, it will be defining the primary RUMBA objectives every four years for the next legislative period, initially for 2019.

- The declared target for the end of 2019 is for the environmental burden per FTE to be reduced by 30 percent versus the 2006 level (excluding greenhouse gas compensation).
- In absolute terms, the goal is for greenhouse gas emissions to be reduced by 40 percent versus 2006. Here, greenhouse gas compensation can be included.
- Wherever possible, unavoidable greenhouse gas emissions are to be offset voluntarily. Compensation certificates have to be obtained from the Federal Office for the Environment (FOEN).

The Federal Departments and Federal Chancellery now specify their targets themselves, taking account of the Federal Council's declared objectives. In order to ensure they can achieve their goals, the Federal Departments negotiate specific environmental targets in their service level agreements with the involved RUMBA units. This process has been harmonised with the new federal government management model.

### Strategic management

Strategic management is to remain unchanged. The Federal Council defines the primary objectives, while the Conference of General Secretariats is responsible for the strategic management of RUMBA. The RUMBA Coordination Group, which comprises representatives from the general secretariats of all the Federal Departments plus the Federal Chancellery, coordinates RUMBA-related activities within the Federal Administration and prepares strategic decisions for submission to the Conference of General Secretariats.

Every four years, an environment report is published that provides information about the status of the key data and the future development of the environment management system.

### Operational implementation – new RUMBA section

For the operational management, a new RUMBA section was created within the Swiss Federal Office of Energy (SFOE) with effect from 1 January 2017. This section works closely with the RUMBA Coordination Group on the future organisational and methodological development of RUMBA. It is responsible for monitoring, controlling and reporting, and supports the Federal Departments and RUMBA units during all stages of the management cycle. The new section in turn is supported by the RUMBA Workgroup and (where deemed appropriate) by external consultants.

The RUMBA Workgroup, which in the past was responsible for the overall operational management of the RUMBA programme, now focuses on coordinating operational implementation between RUMBA and the main federal authorities (including the Swiss Federal Office of Energy, the Federal Office for Buildings and Logistics, the Federal Office for the Environment, the Federal Office of Personnel and the Federal Office of Information Technology, Systems and Telecommunications).

In each administrative unit, a member of staff responsible for RUMBA coordinates the tasks relating to environment management and secures harmonisation with the Department management and the RUMBA section (SFOE).

# RUMBA within the Federal Administration – overview of results

## Overview of results of the RUMBA programme in 2016

### Presentation of key data

The key data in this environment report refer to all units of the Federal Administration that implement RUMBA (i.e. RUMBA units as cited on page 34 of the full report). The non-consolidated key data for the Federal Institutes of Technology are presented on page 28 of the full report. All key data are reported per FTE, while greenhouse gas emissions are now reported in absolute terms. The table at bottom left shows the consumption of resources in 2016, the change since 2006 and 2014 and the environmental impacts by source (polluter).

### Consumption of resources

As compared with 2006, heat consumption per FTE fell by 39 percent, electricity and water consumption by 29 percent each, paper consumption by 40 percent and car travel by 35 percent. By contrast, air travel increased by 19 percent and rail travel by 13 percent.

In the two years under review (2015 and 2016), the consumption of paper, heat and electricity fell sharply, while air travel increased significantly.

### Environmental burden and greenhouse gas emissions

In 2016, consumption of electricity (calculated mainly on the basis of the Swiss consumer mix) accounted for around 51 percent of the environmental burden. Travel accounted for 30 per-

cent (with air travel alone accounting for 23 percent). Heat consumption accounted for 10 percent of the environmental burden in 2016. The environmental burden per FTE fell by 26.9 percent versus 2006, excluding greenhouse gas compensation. Including greenhouse gas compensation, the decline is 32.7 percent (cf. graph, bottom right).

Greenhouse gas emissions per FTE fell by 28 percent versus 2006 and amounted to 2,354 kilograms of CO<sub>2</sub> equivalents per FTE in 2016. This decrease was attributable to reductions in electricity and heat consumption, but also to the simultaneous shift away from the use of fossil fuels in favour of renewable energy. Consequently, the increase in greenhouse gas emissions from air travel was more than offset. Expressed in absolute figures, in 2016, greenhouse gas emissions amounted to 46,276 tonnes of CO<sub>2</sub> equivalents, which was 13.3 percent below the level recorded in 2006.

### Federal Administration's objectives clearly exceeded up to 2016

The declared goal of reducing the burden on the environment per FTE in the Federal Departments by 10 percent versus 2006 was achieved in each Department. With a reduction by 26.9 percent versus 2006, the Federal Council's declared target was clearly exceeded, even excluding greenhouse gas compensation. If greenhouse gas compensation is included, the reduction versus 2006 amounts to a notable 33.0 percent.

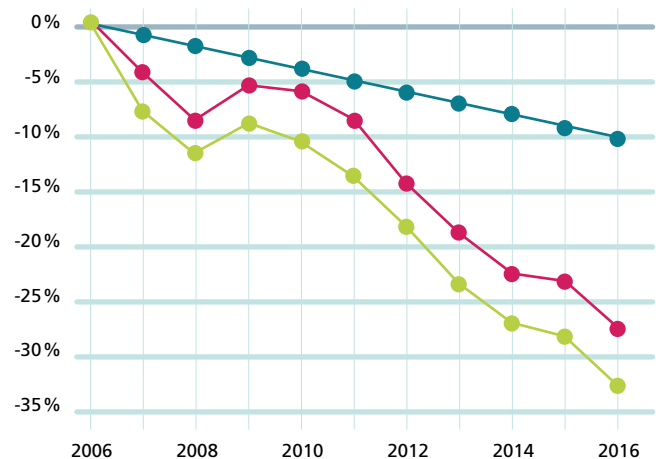
### Total consumption of resources and environmental impacts 2016

	Consumption of resources		Environmental impacts		
	Per FTE	Change versus 2006	2014	1,000 EIF/FTE	Proportion in % (rounded)
Heat	9,764 MJ	-39%	-11%	267	10
Electricity	34,009 MJ	-29%	-9%	1,373	51
Water	13 m <sup>3</sup>	-29%	-2%	55	2
Waste	60 kg	-17%	-6%	68	3
Paper	45 kg	-40%	-12%	114	4
Air travel	3,574 Pkm	19%	16%	612	23
Rail travel	1,337 Pkm	13%	4%	38	1
Car travel	570 km	-35%	-3%	150	6
<b>Total excluding offsetting of greenhouse gas emissions</b>				<b>2,677</b>	
<b>Total including offsetting of greenhouse gas emissions</b>				<b>2,368</b>	

MJ: primary energy consumption in megajoules  
EIF: environmental impact factors (2006 method applied by the FOEN)

### Achievement of target in 2016

Change in environmental burden per FTE versus 2006



- Achievement of target with offsetting of greenhouse gas emissions
- Achievement of target without offsetting of greenhouse gas emissions
- Target: reduction of impacts by 10% by 2016



# Heat

## Heat consumption

After adjustment for climate factors, primary energy consumption for heat production per FTE in the RUMBA units fell by around 39 percent versus 2006 (cf. graph, bottom left). There are two reasons for this: Firstly, since 2006, the annual consumption of heat per square metre of energy reference area has fallen by 27 percent, and secondly the space requirement per FTE has been reduced by 16 percent versus 2006 to 44.3 square metres.

In comparison with 2006, the proportion of fossil fuels (heating oil and gas) fell from 76 to 55 percent, while at the same time the share of district heat rose from 22 to 29 percent, the proportion of electricity consumption for heat pumps increased from 2 to 9 percent and the share of wood consumption rose from 0 to 7 percent.

## Measures in buildings

The Federal Office of Buildings and Logistics (FBL) is responsible for approximately 2,600 non-military buildings housing more than 30,000 workplaces. In its capacity as owner and developer, as well as landlord and manager, the FBL remains responsible for these buildings throughout their entire service life. The FBL’s strategic duties include spatially concentrating workplaces, optimally managing the utilisable space and preserving the value of the existing structural substance. It is also responsible for implementing the “Sustainable Property Management” directive, as well as for strategic development in the buildings sector together with the other entities responsible for federal buildings and real estate via the Coordination Conference of Public Construction and Property Authorities (KBOB). For the renovation of existing buildings, the FBL applies the Minergie-ECO standard, and for new buildings it implements the Minergie-P-ECO standard. In addition, for planned renovations

the maximum possible use of renewable energy has to be clarified and implemented wherever possible. The Minergie-certified energy-relevant area was increased to 227,000 square metres (cf. graph, bottom right). Here the biggest contribution in the period under review (2015 and 2016) was attributable to the new premises of the Federal Office of Public Health in Liebefeld (approx. 26,800 square metres) and the renovation of the Federal Palace East Wing (13,061 square metres). Four-fifths of the certified space was occupied by RUMBA units. Today, 21 percent of the total space occupied by RUMBA units complies with at least the basic Minergie standard.

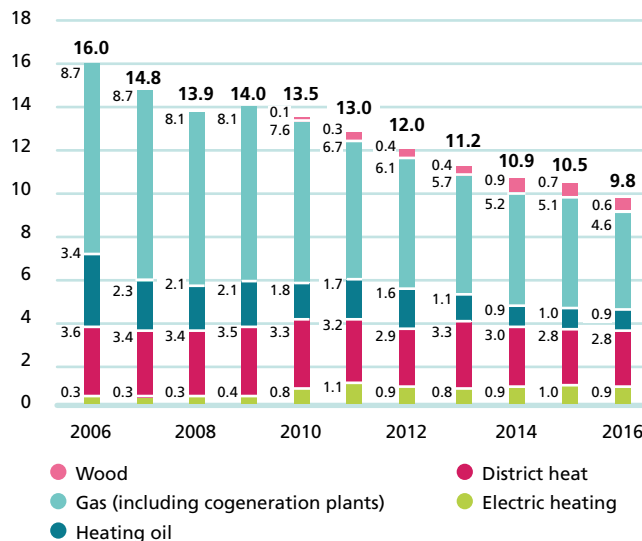
As of 2020, new buildings are to supply their heating and at least part of their electricity themselves throughout the year. In the period under review, the FBL implemented two waste heat projects. Waste heat produced by the data centre in Fellerstrasse is now being supplied to neighbouring buildings. In addition, the FBL warehouse is now supplied with waste heat from a nearby privately-owned computer centre, which results in an annual saving of around 30,000 cubic metres of gas.

In countries in which the FBL renovates or constructs new embassies or consulates, buildings in temperate zones have to be constructed in a similar manner to those in Switzerland, even though certification based on the Minergie standard is not possible. Everywhere, though especially in warmer regions, the planning and implementation of solar or other forms of renewable energy is a requirement. Where cooling is required, solar energy should be considered and used wherever feasible.

Other specific measures in buildings are being implemented within the framework of the “Federal government as role model in the energy sector” programme (cf. [Annual reports](#)).

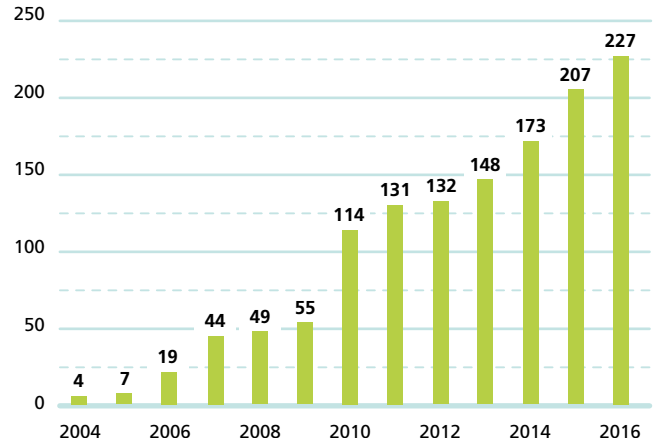
## Heat consumption by RUMBA units, by energy source (primary energy)

Energy consumption in 1,000 MJ per FTE



## MINERGIE-certified area of buildings of the Federal Office of Buildings and Logistics

In 1,000 m² of energy reference area



## Electricity

### Electricity consumption

Electricity consumption per FTE was reduced by 28.6 percent versus 2006 and is currently around 34,009 MJ of primary energy (see graph below), which is equivalent to 3,357 kWh of end energy per FTE.

Absolute electricity consumption is around 668 MJ of primary energy, or approximately 66 million kWh of end energy, which is equivalent to the consumption of around 14,650 households. These figures do not include electricity consumption for heat production (e.g. with the aid of heat pumps).

### Measures to reduce electricity consumption

For the renovation of existing buildings, the FBL applies the Minergie-ECO standard, and for new buildings it implements the Minergie-P-ECO standard. In existing buildings, measures to optimise technical systems are implemented in order to increase energy efficiency and reduce electricity consumption.

IT and communication equipment also consumes a significant amount of electricity. In view of this, the federal government has incorporated sustainability into its [Federal ICT Strategy 2016 to 2019](#) (page 11): “The Federal Administration chooses ICT products and services that are economical and protect the environment and people’s health, and which are produced in a socially responsible manner.”

This vision is being implemented via ICT P025 and P026 procurement and operating standards for information technology at the workplace. These standards are periodically revised and adapted to the latest technology.

Computer centres are also major energy consumers. When the data centre in Fellerstrasse was put into operation in 2009, a significant increase in electricity consumption resulted (cf. graph below). Consequently, the new [data centre network](#) of

the Federal Administration, which is scheduled to be put into operation in 2020, is to be planned in accordance with stringent energy-efficiency criteria. For its choice of locations, the Federal Administration considered whether waste heat from the data centres in the network could be used for providing heating in other buildings.

Other specific measures in the area of green IT are being implemented within the framework of the “Federal government as role model in the energy sector” programme (cf. [Annual reports](#)).

To accompany these measures, the RUMBA management periodically sensitises the employees of the Federal Administration to appropriate ecological and sustainable behaviour.

### Procurement of electricity from renewable sources

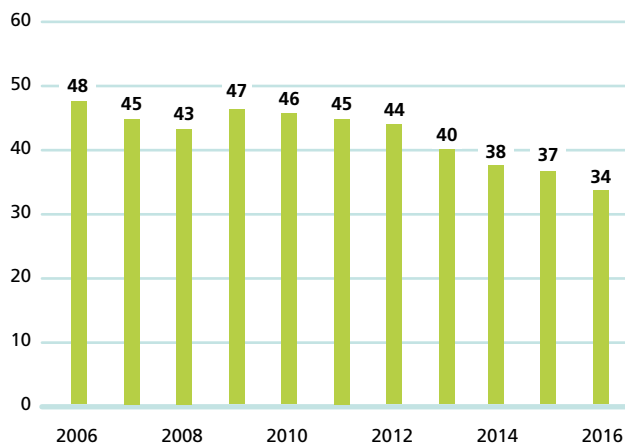
In 2016, 97 percent of the electricity for the non-military segment of the Federal Administration was procured from renewable sources. Electricity with hydropower as its certified origin accounted for approximately 86 percent.

In addition, the FBL purchased around 10 percent of its electricity from certified hydropower (e.g. “naturemade star”) and 0.2 percent from wind power production. Approximately 0.8 percent is produced by the FBL itself, primarily from photovoltaic systems, but also from a small hydropower plant and a cogeneration plant.

In 2015 and 2016, three new photovoltaic systems were put into operation, thus increasing the annual anticipated electricity production from 620,000 kWh in 2014 to 890,000 kWh in 2016. This is equivalent to the electricity consumption of almost 200 households. Most of the produced electricity is used internally.

### Electricity consumption by RUMBA units (primary energy)

In 1,000 MJ per FTE



The new roofing with integrated photovoltaic system at the customs post in St. Margrethen.

# Mobility

## Business travel

Within RUMBA units, business travel encompasses journeys by road, rail and air. It does not include human-powered mobility (walking, cycling, use of e-bikes), business travel by bus and tram, and travel in the Federal Council’s jet, chartered business jets and helicopters. Commuter travel is also excluded, as are journeys by visitors and goods transport.

In 2016, with a total of 5,481 kilometres, business travel per FTE reached the second-highest level since 2006. The overall increase by 8 percent versus 2006 was primarily attributable to air travel (+19 percent), while rail travel increased by 13 percent. In contrast, car travel decreased by 35 percent.

Despite the increase observed in overall travel activity in the past few years, a clear trend with respect to rail and air travel is not apparent. Major fluctuations can occur depending on business activities, particularly in organisational units such as the Federal Department of Foreign Affairs (FDFA) and the State Secretariat for International Financial Affairs (SIF). It is only in the area of car travel that the reduction appears to be constant. This suggests that the directive calling for employees to use public transport wherever possible is being observed more conscientiously.

With regard to air travel, a trend towards economy flights has become apparent. The proportion of economy flights rose from 23 percent in 2006 to 59 percent in 2016. This is partly attributable to the revision of the Federal Personnel Ordinance (Article 47), which raised the duration of journeys that qualify for the purchase of a business class ticket from 3 hours to 4, but also to the fact that an increasing number of long-haul flights are being booked in economy class for financial reasons.

## Introduction of a mobility management system under consideration

To reduce the burden on the environment due to business travel by federal personnel, an integral approach is being pursued that incorporates substitution options such as video and phone conferences and “mobile working”. Steering measures are also included, for example location policy, parking management, procurement of more energy-efficient vehicles, incentives for visitors and commuters to choose more ecological forms of transport, and promotion of human-powered mobility.

In the framework of the “Federal government as role model in the energy sector” programme, 16 measures have been defined that are to be implemented by 2020. In addition, a pilot trial for a mobility management system is being carried out at three federal offices and has yielded some promising results to date. The RUMBA Coordination Group has therefore asked the RUMBA section within the SFOE to examine the option of introducing a comprehensive mobility management system within the Federal Administration by 2019.

### Business travel by RUMBA units

In 1,000 kilometres per FTE

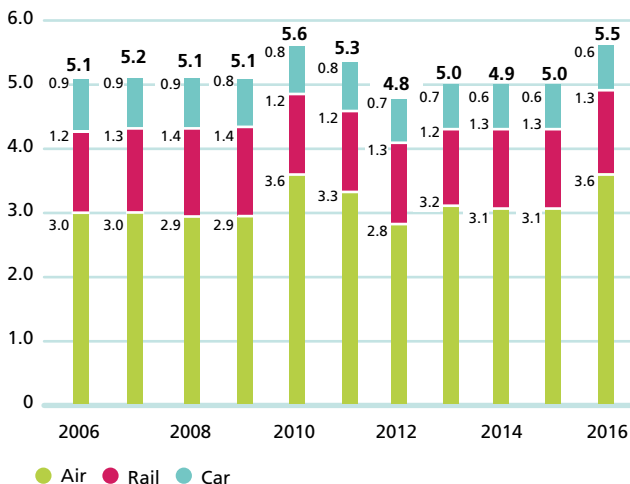


Photo: © Miami Spotter



An increasing number of flights are being booked in economy class.

# Paper, water and waste

## Paper

### Paper consumption

In 2016, the consumption of printing and copy paper per FTE fell by 40 percent versus 2006 to 45 kilograms (cf. graph, bottom left).

This is equivalent to approximately 9,000 A4 sheets per FTE, or around 40 sheets per day. Although the target of an entirely paper-free office has not yet been achieved, electronic management and other efforts to reduce paper consumption would seem to be having an effect.

### Recycled fibres in print and copy paper

The RUMBA units have increased the proportion of recycled fibres for print and copy paper to 49 percent, compared with 31 percent in 2006.

This positive result is attributable to the initiative on the part of environment team leaders and the subsequent coordination of efforts between the RUMBA Workgroup, the FBL and the Swiss Federal Archives. At the request of some administrative units, the FBL carried out a trial with a new type of recycling paper in 2015 and 2016. This paper consists of 100 percent recycled fibres, but unlike its predecessor it is completely white, is suitable for everyday use in office machines and meets the requirements of the Swiss Federal Archives. Following a WTO tender, this product has been at the disposal of the Federal Administration as its standard paper since the middle of 2016.

The graph at bottom left shows that the new paper has been a resounding success. Within just six months, it already repre-

sented 26 percent of the print and copy paper utilised. And since many RUMBA units have meanwhile introduced a one-paper strategy that relies exclusively on the new white recycling paper, this proportion is expected to increase. Even though the grey recycling paper previously used would burden the environment to an even lesser degree, the overall effect of a one-paper strategy is positive from both an ecological point of view, as well as in terms of the simplified logistics.

Note: In the graph on the left, the product that was used as the standard white paper for many years is only shown separately from 2014 onwards. Prior to 2014, the proportion of recycled fibres of 30 percent has been disclosed under “grey recycled paper” and the proportion of virgin fibres of 70 percent under “white virgin-fibre paper”.

## Water

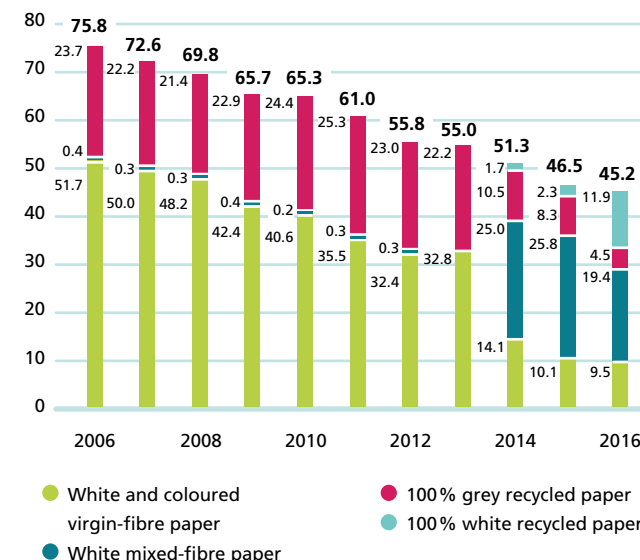
The average water consumption per FTE within the RUMBA units was 12.6 cubic metres in 2016, which was 29 percent lower than in 2006 (cf. graph, bottom right). However, new developments such as the promotion of bicycle travel, which is resulting in higher water consumption because of the increased need for showering, make achieving a further reduction more difficult.

## Waste

In the Federal Administration, the separate collection of waste paper was introduced more than 10 years ago. In addition, numerous other recyclables are also collected and processed. The annual volume of waste per FTE in the RUMBA units fell to 60 kilograms in 2016 (minus 17 percent versus 2006).

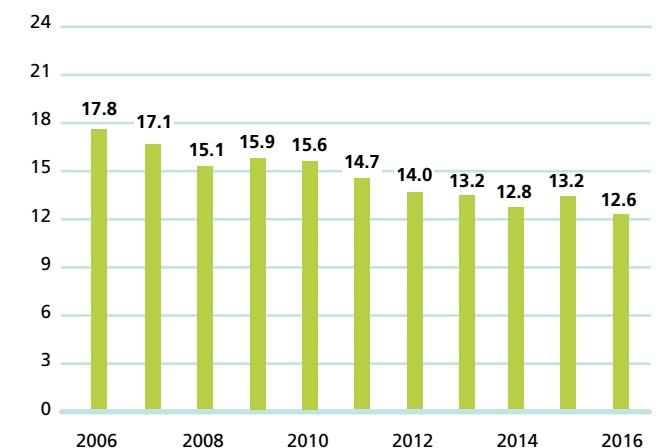
### Paper consumption by RUMBA units

Kilograms per FTE



### Water consumption of RUMBA units

In cubic metres per FTE



## Greenhouse gas emissions and compensation

### Greenhouse gas emissions

The calculation of greenhouse gas emissions is explained in detail on page 32 of the full report. Emissions per FTE have fallen by 28.1 percent since 2006 and amounted to 2,354 kilograms of CO<sub>2</sub> equivalents in 2016 (cf. graph below). For these key data, improvements were achieved in all areas (including heat consumption, business travel). If greenhouse gas compensation is included in the calculation, the reduction since 2006 amounts to 51.2 percent. In absolute terms, greenhouse gas emissions by the RUMBA units amounted to 46,300 tonnes of CO<sub>2</sub> equivalents in 2016 – a decrease of around 13 percent versus the 2006 level. Greenhouse gas emissions from business travel account for 56 percent of the total, with air travel on its own accounting for 49 percent. Electricity and heat consumption account for 21 and 19 percent respectively, while the figures for the other segments are negligible.

In contrast to the specific key data per FTE, in absolute terms the emissions from air travel increased, while the figures were lower in all other segments. The biggest reduction was recorded in the area of heating, thanks to lower consumption as well as a decline in the use of fossil combustibles. Greenhouse gas emissions attributable to electricity consumption were also significantly lower.

### Offsetting of greenhouse gas emissions

Compensation for greenhouse gas emissions is voluntary for the Federal Administration units. A set of recommendations regarding the offsetting of greenhouse gas emissions ([Empfehlung zur Kompensation von Treibhausgasemissionen](#), not available in English) serves as an orientation aid within the framework of RUMBA. Eight RUMBA units (General Secretariat of the Federal Department of Home Affairs; Federal Office for Gender Equality; SwissMeteo; Federal Office for Spatial Development; Federal Office for the Environment; Federal Office for Agriculture; State Secretariat for Economic Affairs; and

Parliamentary Services) compensated all reported greenhouse gas emissions for 2016 and received the label, “Climate-Neutral Administration”. Twelve other RUMBA units partially compensated their greenhouse gas emissions: Federal Department of Foreign Affairs; Federal Office for Culture; Swiss Federal Archives; General Secretariat of the Federal Department of the Environment, Transport, Energy and Communications; Federal Roads Office; Federal Office of Transport; Federal Office of Civil Aviation; Federal Office of Energy; Agroscope; State Secretariat for Education, Research and Innovation (including the Commission for Technology and Innovation); Federal Office for Housing; Federal Chancellery.

A total of around 19,166 tonnes of CO<sub>2</sub> equivalents were compensated in 2016, above all by the FDFA (53 percent). This is equivalent to 41 percent of the total greenhouse gas emissions attributable to the RUMBA units.

The largest number of emission reduction certificates was acquired by the Federal Office for the Environment (FOEN) as the central procurement unit in cooperation with the RUMBA section within the SFOE. Here, only certified emission reductions already issued via clean development mechanism projects are acquired, based on a verified contribution towards sustainable development. Certified emission reductions have to be based on the Gold Standard or comply with equivalent requirements. Thanks to this collective approach it is possible to procure high-quality certificates at a lower price than would be the case for individual administrative units.

In the past few years, the selected projects have included bio-gas projects in India; projects aimed at optimising cooking stoves in Rwanda and Nepal; a small hydropower plant in the Republic of Honduras; two sewage treatment plants in Thailand; and two wind power plants in China. A detailed [description of the projects](#) has been posted on the [RUMBA website](#).

### Change in greenhouse gas emissions

per FTE and in absolute terms, in % versus 2006

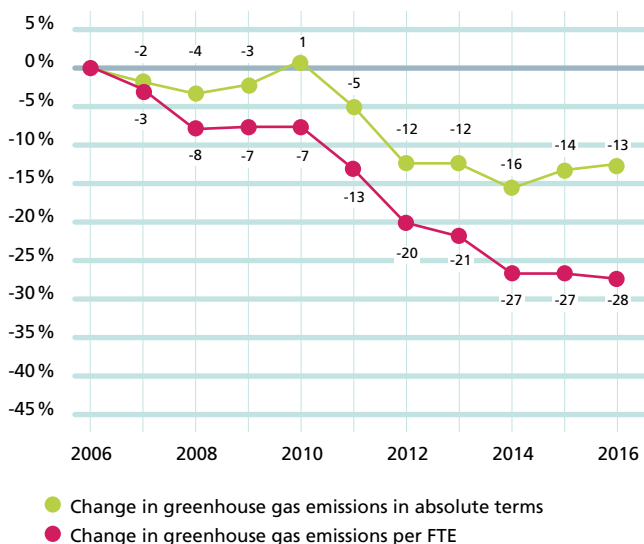


Photo: © Gold Standard



Construction of a micro-biogas plant in one of the selected compensation projects.

# Appendix

## Further information

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**References:**

At [www.rumba.admin.ch](http://www.rumba.admin.ch), all the previous environment reports of the Federal Administration can be found, as well as the environment reports of the individual RUMBA units up to 2016 and additional information about RUMBA. The composition of the [RUMBA Coordination Group](#) and the [RUMBA Workgroup](#) can also be viewed online.

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