

Voluntary sector-wide agreement for SF₆



Responsible handling of SF₆

The aim of this voluntary sector-wide agreement is to restrict as far as possible emissions of SF₆ by companies in the MEM industries and by electricity generating companies. The solution is coordinated by Swissmem and implemented by the participating companies.

The voluntary declarations relating to the use of SF₆ are recognized by the Federal Office for the Environment (FOEN) within the meaning of Art. 41a of the Environmental Protection Act (EPA).

This sector-wide agreement is an international role model and represents an unbureaucratic and successful voluntary contribution to climate protection.

By involving all the relevant stakeholders, the SF₆ sector-wide agreement has in the past led to greater awareness of how to deal with SF₆. In many instances, the dialogue has improved gas handling during both the production and operation of installations.



SF₆ is an extremely potent greenhouse gas and its use is essentially prohibited. Exemptions apply to applications where no other options exist or where installations that contain SF₆ offer significant advantages over those containing no SF₆.

The characteristics of SF₆

- Its global warming potential is 22,800 times greater than CO₂.
- It has an atmospheric lifetime of 3,200 years.
- It has no known ecotoxic potential.
- It does not deplete the ozone layer.
- It has a low fire load.

The purpose of the sector-wide agreement

Exemptions from the prohibition of use apply to high-voltage electrical installations and particle accelerators.

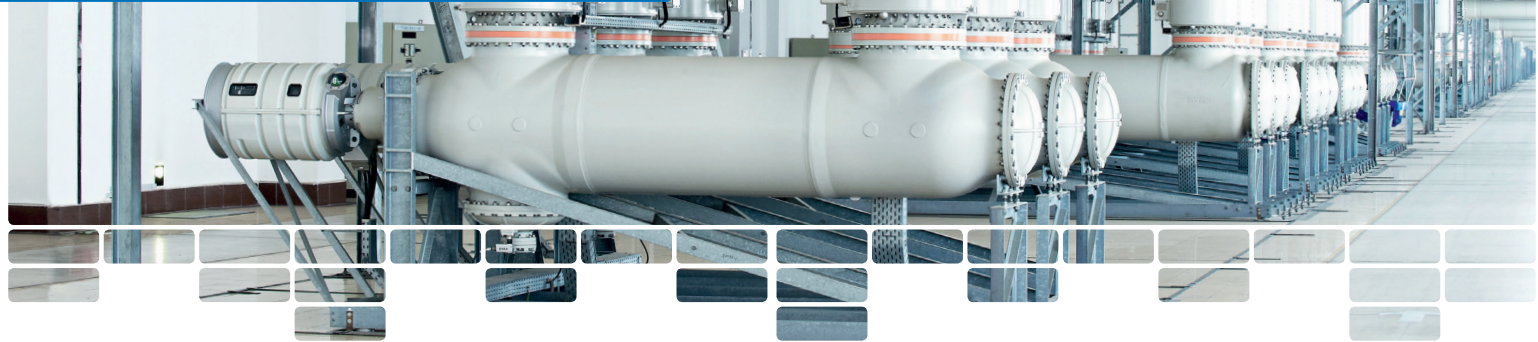
This sector-wide agreement aims to ensure that total SF₆ emissions from the manufacture and operation of high- and medium-voltage installations in Switzerland do not exceed 1 ton per year and that emissions from operating industrial particle accelerators do not exceed 0.35 tonnes per year.

Participating companies undertake to adopt a responsible approach to SF₆ and to provide Swissmem with annual data on their SF₆ turnover and emissions. In return, they are released from their obligation under Annex 1.5 of the Chemical Risk Reduction Ordinance (ORRChem) to report directly to the FOEN.



Electrical switchgear and installations

Data on the ecological impact and safety of SF₆ technology



Compact devices and installations

- Up to 90 per cent saving on space and materials
- Enables location of switchgear in urban and industrial areas close to the consumers
- Positive impact on urban architecture due to indoor installations
- Enables adequate power supply to high density urban and industrial areas
- Low noise emissions

Technologically uncomplicated power supply systems

- Low resource consumption
- Independent from external weather conditions

Low susceptibility to malfunctions, low failure rates

- High safety through insulated metallic shielding
- Low maintenance due to weather-protected and non-ageing insulation
- Highly reliable power supply

Long service life of switchgear

- Economical raw materials and power use
- Easy disposal

Low energy losses in power supply systems

- High freedom of choice of substation sites
- Lower transmission losses and emissions
- Conservation of primary resources

Voluntary agreement for the use of SF₆, updated August 11, 2023



Particle beam accelerators

Data on the ecological impact and safety of SF₆ technology

Technologically uncomplicated, integrated systems

- Low resource consumption
- Independent from weather conditions

Low susceptibility to malfunctions, low failure rates

- High safety through insulated metallic shielding

Long service life of switchgear

- Economical raw materials and power use
- Easy disposal

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SWISSMEM

Please visit www.swissmem.ch/SF6-EN for the voluntary declarations for:

- electrical switchgear and installations
- particle accelerators

If your company would like to join the sector-wide SF₆ agreement, please contact:

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