



# SWISS CLIMATE PROTECTION INITIATIVE SCPI

Your Commitment to Climate Protection



# SWISS CLIMATE PROTECTION INITIATIVE SCPI

## Climate Protection by Recycling

### Innovation

The Swiss Climate Protection Initiative SCPI is doing pioneering work. In partnership with local recycling companies in emerging markets, SENS International is creating environmentally friendly recycling solutions for CFC-containing refrigeration appliances. Although CFCs are particularly dangerous greenhouse gases, they have hardly been part of the worldwide climate protection markets up to now. Thanks to SCPI, climate protection certificates based on the destruction of CFCs are now being offered for the first time.

Equally pioneering is the industrial recycling plant being brought into use, which combines state-of-the-art technologies in Europe into an innovative three-phase procedure. CFCs from the refrigeration cycle (phase 1) and from insulation (phase 2) are ultimately taken to a high-temperature incinerator where they are completely destroyed (phase 3) as illustrated on the right. This new system design has numerous economic and technical advantages. In particular it allows to measure the CFCs recovered and destroyed, which forms the basis for issuing climate protection certificates.

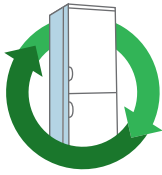
### Efficiency

The powerful effect the SCPI projects have on the environment can be attributed to the enormous Global Warming Potential (GWP) of CFCs. According to calculations by the Intergovernmental Panel on Climate Change (IPCC), one tonne of R12 from the cooling circuit corresponds to a GWP of 10,600 tonnes of CO<sub>2</sub>; the CFC R11 from the insulating layer has a GWP of 4,600 tonnes of CO<sub>2</sub>.

The use of this technology allows SCPI climate protection projects a very high environmental efficiency. The new system can process around 400,000 refrigeration appliances a year, thereby avoiding greenhouse gas emissions equivalent to between one and two tonnes of CO<sub>2</sub> per recycled CFC-containing refrigeration appliance.

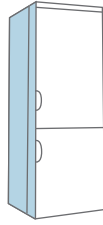
### Sustainability

SCPI climate protection projects provide added value in ecological, social, economic and technological terms. They increase recycling and utilisation rates, thereby saving raw materials. SCPI projects reduce the need for waste disposal sites and ensure the environmentally sound recycling of dangerous pollutants. They lessen the adverse effects on the environment and create sustainable jobs. Important recycling and technological expertise is introduced and consolidated in the host country.



## Recycling

According to the Swiss Charter



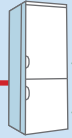
Disposal in an auto shredder

CFCs enter the atmosphere and harm the climate and the ozone layer.



### Phase 1

- Recyclable constituents are removed.
- The CFCs from the cooling circuit and the oil from the compressor are siphoned off.



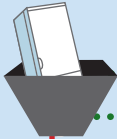
CFCs

Cable, glass

Compressor

### Phase 2

- The refrigeration appliance is shredded, which produces valuable fractions.
- CFCs from the insulation materials are siphoned off.



CFCs

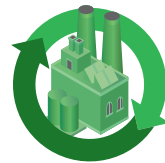
Ferrous metals

Aluminium, copper

Plastics

### Phase 3

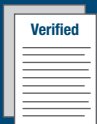
- CFCs from phase 1 and phase 2 are completely destroyed in a high-temperature incinerator.
- Accredited external experts verify the emission reductions in accordance with the methodology.



Valuable raw materials flow back into the circuit

### Registry

- The registry issues the Swiss Charter Units on the basis of the verification report.



Swiss Charter Units



**SENS**  
International

# SWISS CHARTER

## Superior Standard

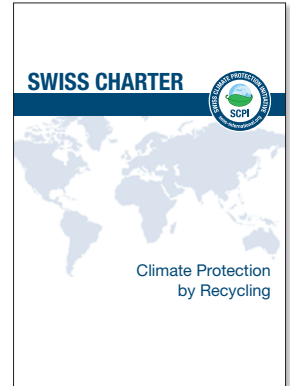
Since CFCs are excluded from the Kyoto Protocol on the reduction of greenhouse gas emissions, climate protection projects aimed at destroying CFCs cannot be submitted under the UN Framework Convention on Climate Change. At the same time the standards established on the voluntary climate protection markets focus on energy efficiency or biomass projects. In order to ensure the quality of Swiss Climate Protection Initiative projects, SENS International has developed a standard, the «Swiss Charter – Climate Protection by Recycling».

The Swiss Charter combines high demands on project-based development impetuses with a rigorous technical and methodological quality assurance. Core components of this quality standard are:

- **Double validation:** the methodology for measuring emission reductions is validated twice by accredited, independent institutions.
- **Ongoing validation and verification of the projects:** the accredited, independent institutions verify both greenhouse gas emission reductions and the development impetuses achieved.
- **Natural additionality:** SCPI projects concentrate on reductions in greenhouse gas emissions which are non-profit-making and not legally binding.
- **Registry:** the certificates are issued via an independent registry, which prevents multiple sales of emission reduction certificates.
- **Guaranteed emission reductions:** the certificates are only ever placed once emissions have actually been reduced and this has been verified by accredited institutions.

Thus all SCPI projects adhere to the guiding principle of the Clean Development Mechanism as defined in the UN Framework Convention on Climate Change.

The Swiss Charter is recommended by both the Swiss Federal Office for the Environment (FOEN) and by the Swiss Agency for Development and Cooperation (SDC). These federal offices explicitly declare their support for the standard in the Swiss Charter.



# SWISS CHARTER UNITS

## High-quality Climate Protection Certificates

SCPI projects under the Swiss Charter are refinanced on the market for voluntary emission reductions via the placing of climate protection certificates called Swiss Charter Units (SCUs). A striking feature of the rapidly growing voluntary market is its considerable innovative potential, which makes it a suitable context for SCUs. Since all SENS International projects are embedded in the Swiss Charter, SCU owners hold, in this dynamic context, certificates of the highest quality.

Swiss Charter Units are designed for companies who combine innovative, efficient and sustainable climate protection with social commitment and, at the same time wish to see their own quality standards being met. The revenue from the certificates flows directly into operating the systems and funding social projects.

SCUs are traded in Swiss francs per tonne of CO<sub>2</sub> equivalent (CHF/t CO<sub>2</sub>e).

### Glossary

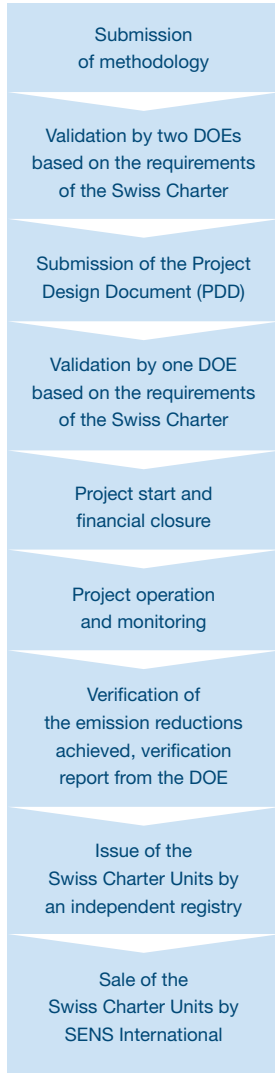
**SCUs:** Swiss Charter Units are climate protection certificates that are based on the destruction of CFCs and meet the specifications of the Swiss Charter.

**DOE:** the Designated Operational Entity is an independent and accredited certification body that validates the climate protection project and verifies the emission reductions.

**PDD:** the Project Design Document contains comprehensive information on the project and reveals the scope of potential for emission reductions over a fixed time period. In addition, it discloses the applied methodology and the reference scenario.

**CO<sub>2</sub>e:** CO<sub>2</sub> equivalent is the unit for the Global Warming Potential (GWP) of a gas. The GWP measurement is based on the damaging effect of carbon dioxide. For example, one tonne of the CFC R12 has the same effect on the climate as 10,600 tonnes of CO<sub>2</sub>.

## From the Project to the Swiss Charter Unit



# VALIDATION, VERIFICATION, REGISTRATION

## Certified Quality

SENS International project development adheres to the specifications laid down in the UN Framework Convention on Climate Change for the Clean Development Mechanism (CDM). The methodologies submitted under the Swiss Charter are validated twice and the emission reductions are verified. The only accepted validators and verifiers are Designated Operational Entities (DOEs) accredited under the UN CDM programme. They audit the project and the methodology in accordance with the Swiss Charter.

The certification bodies SGS and TÜV Rheinland have qualified as validators for the pioneer project in Brazil. Both bodies have certified the project submitted by SENS International.



Only a registry is entitled to issue Swiss Charter Units: the registry ensures that the SCUs are only issued once the emission reductions have occurred. The registry certifies the SCUs on the basis of the verification report from the DOEs. This means that SCU owners can easily trace via the registry's online database whether the emission reductions have in fact taken place and whether the certificates were redeemed after they were placed.

The registry uses well-established financial market tools. SCUs are traded solely through SENS International; the independent registry is responsible for issuing and redeeming the SCUs and ensuring their traceability.

# CLIMATE PROTECTION

## Committed and Communicated

SENS International helps their customers to develop their climate protection strategy and assists them in marketing and communicating their environmental commitment. The service includes:

- **Analysis of greenhouse gas emissions**
- **Support in reducing greenhouse gas emissions**
- **Total or partial offset of the remaining greenhouse gas emissions**
- **Award of the SCPI label**
- **Inclusion on the website**
- **Comprehensive documentation about the project**

Owners of SCUs are provided with the SCPI label, which serves to communicate their commitment. Two versions of the SCPI label are awarded.



**Climate Neutral**



**Climate Protection**

The «Climate Neutral» label is awarded to companies that offset all their greenhouse gas emissions. Any company that makes a substantial contribution through its commitment receives the «Climate Protection» label. In addition, the companies are listed on the website as SCU recipients after consultation with SENS International.

Moreover, by using their wide-ranging communication tools and products (internet, printed products, photographic materials and films), SENS International ensures that the customers of their committed partners can find out about the quality of the Swiss Charter Units and SCPI environmental projects at any time.



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