

# Energy and CO<sub>2</sub> management creates corporate values...



## ...and represents a challenge for company executives!

Switzerland's energy and climate change policies are based primarily on voluntary, economically attractive measures rather than on command and control. Trade, industry and services companies have the option of negotiating target levels aimed at increasing energy efficiency and reducing CO<sub>2</sub> emissions in order to avoid the introduction of a CO<sub>2</sub> tax or mitigate its impacts, or qualify for exemption. This brochure describes the various existing tools and measures, as well as ways in which the revenue from the subsidiary CO<sub>2</sub> tax that may have to be introduced at a later date will flow back into the corporate sector.

### 6 good reasons for signing an agreement

- Taking decisive action and making prompt decisions create added value for your company and count towards the energy and climate policy objectives.
- You benefit from the opportunity to comply with a variety of federal and cantonal regulations and legal provisions through a global target agreement.
- By entering into such an agreement, large-scale energy consumers, groups of companies and energy-intensive industries can gain exemption from the possible CO<sub>2</sub> tax.
- Individual companies form groups and jointly define energy efficiency and CO<sub>2</sub> intensity targets.
- You can benefit from support provided by energy consultants as well as from the experience of other companies.
- To small and middle entrepreneurs (SME) a simplified procedure is available to derive targets from an industry benchmark.

### The main facts:

- The Federal Energy Law entered into force on 1 January 1999, the CO<sub>2</sub> Law on 1 May 2000.
- Objectives: To enhance energy efficiency and reduce CO<sub>2</sub> emissions from fossil fuels to 10% below the 1990 level by 2010.
- The Federal Council launched the SwissEnergy programme on 17 January 2001 as a tool for achieving the energy and climate policy objectives.
- Priority is given to voluntary measures, but if these are not sufficiently effective, a CO<sub>2</sub> tax is to be introduced as of 2004 at the earliest.
- The associated tax revenues shall be redistributed to the population and the business community (excluding those companies exempted from the tax).
- Compliance of groups and companies with their targets is verified annually by means of a standardised monitoring system.

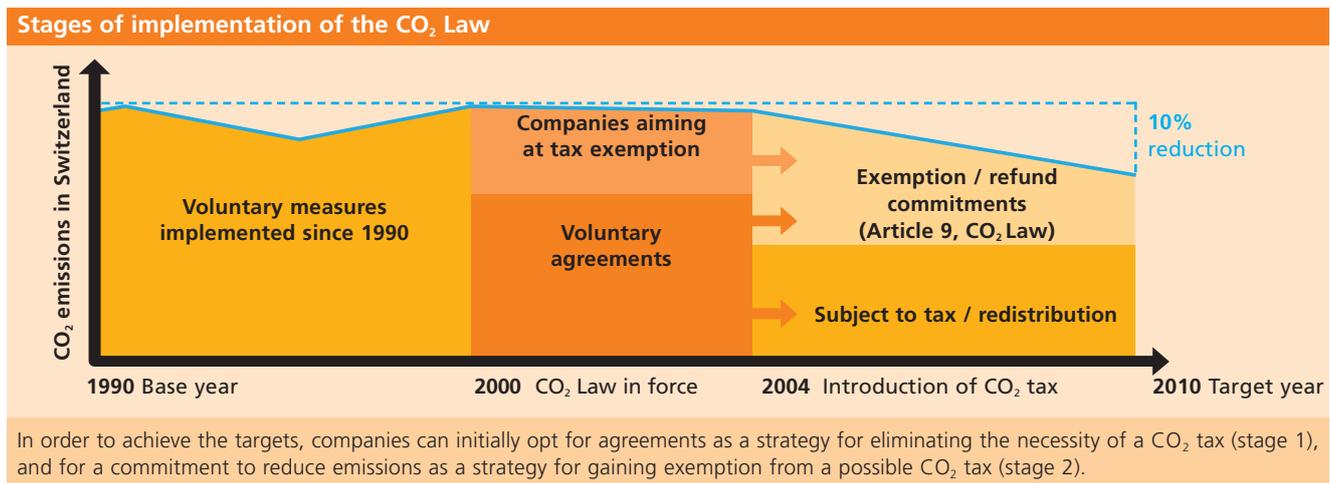
## Two laws – one path

The government and the private sector are working closely together within the scope of SwissEnergy in order to achieve Switzerland's energy and climate policy objectives. Two legislative instruments form the basis for this co-operation:

Energy Law	CO <sub>2</sub> Law
The main aims of the Energy Law are to ensure that energy is used as efficiently and economically as possible, and to promote the use of renewable energies.	In accordance with Articles 3 and 4 of the CO <sub>2</sub> Law, voluntary measures are to make a significant contribution towards the CO <sub>2</sub> reduction targets of CO <sub>2</sub> emissions as stated stipulated in Article 2. According to Article 6, the Federal Council is empowered to introduce a CO <sub>2</sub> tax as of 2004 at the earliest.
Voluntary measures include declarations in which consumers of fossil combustibles and motor fuels voluntarily commit themselves to limit their CO <sub>2</sub> emissions.	

Switzerland's private sector is playing an active role in implementing these two laws:

- By making a major contribution to the elaboration and application of guidelines for interpreting the Energy Law and the CO<sub>2</sub> Law.
- By creating attractive business opportunities for economically viable and effective measures which help eliminate the necessity of a CO<sub>2</sub> tax, or mitigate the possible impacts of a CO<sub>2</sub> tax.

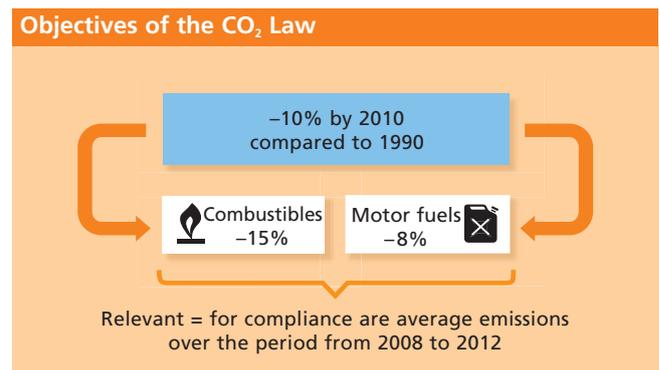


At federal level, responsibility for implementation lies with the Swiss Federal Office of Energy (instruments/agreements) and the Swiss Agency for the Environment, Forests and Landscape (CO<sub>2</sub> Law). However, agreements and commitments to reduce emissions normally take the form of legal relationships between companies and the private Energy Agency for the Economy and

the federal government respectively. The Energy Agency for the Economy and «energho» (an association specialising in large-scale energy consumption in public buildings) provide private-sector companies and public-sector institutions with services to support the implementation of measures aimed at increasing energy efficiency.

## Determining factors for defining targets

Both for reduction commitments and agreements, for large emitters as well as SME, the question of target values remains crucial. Indeed, the complex structure of the economy makes it impossible to define a standard solution. In accordance with the CO<sub>2</sub> Law, the target values depend on a company's remaining potential taking account of CO<sub>2</sub> relevant measures implemented since 1990. Specific industry sector conditions are another determining factor. Finally, the provisions of the CO<sub>2</sub> Law and the SwissEnergy objectives also provide guidance.

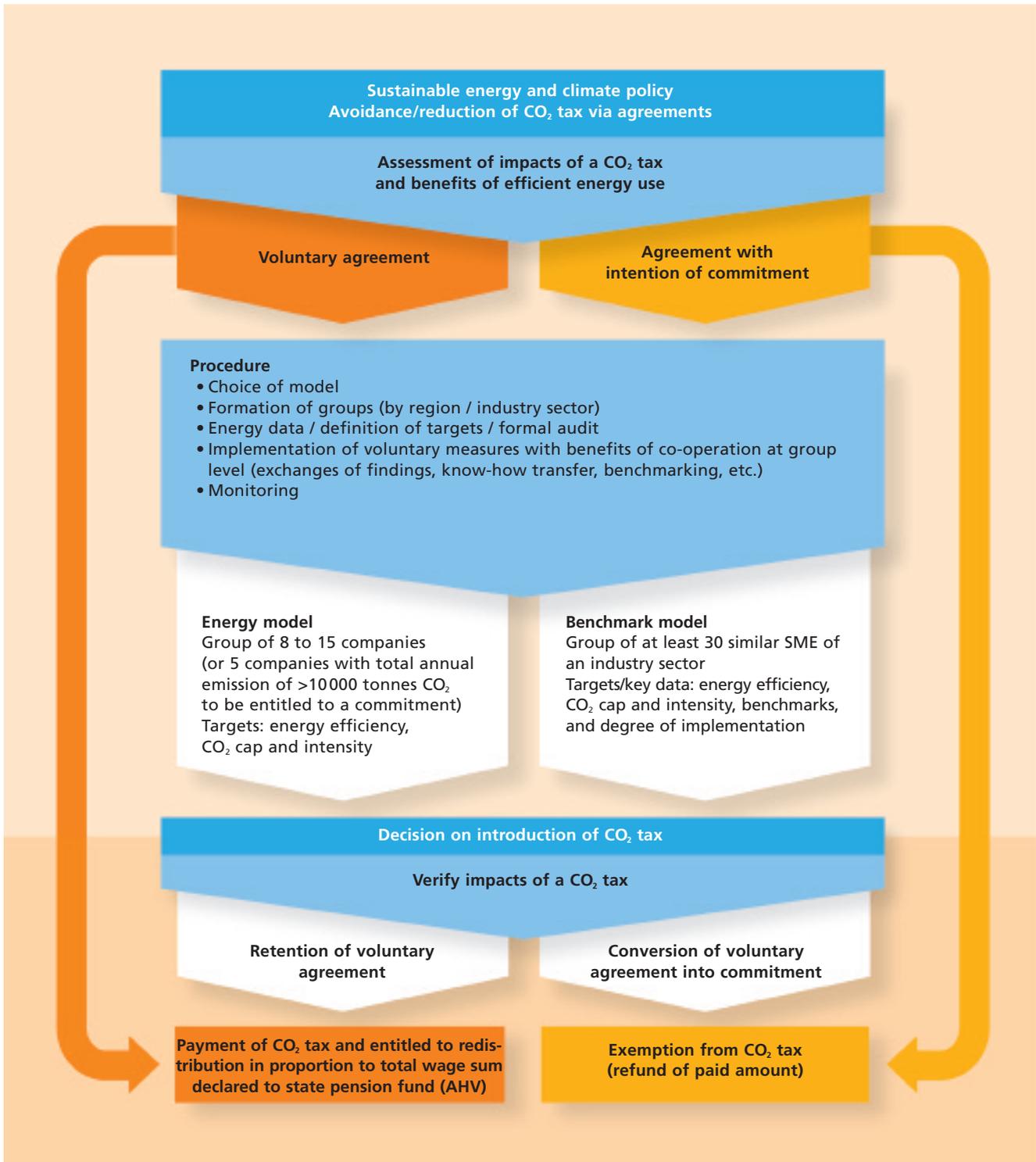


## Voluntary agreement or commitment to reduce emissions?

Whether to opt for a voluntary agreement or to seek exemption from a possible CO<sub>2</sub> tax by signing a commitment to reduce emissions is best decided upon your company's size and/or the CO<sub>2</sub> emission levels.

In either case, your partners will be an association or an energy agency. The Energy Agency for the Economy assists companies teamed up in different industry groups with the target

setting process: groups using the energy and the benchmark model receive support from consultants in both defining targets and implementing measures.



## Defining targets and key data

Above all, the procedure for deriving target values needs to be simple and has to meet ecological as well as economical criteria. The definition of targets is based on key data as well as technically and economically viable potentials. Already implemented measures are taken into account. The federal authorities or an accredited agency examines the impacts of measures as well as energy and CO<sub>2</sub> data.

### Energy model

Targets are determined from energy consumption and related CO<sub>2</sub> emissions and hypothetical projections of emissions without measures.

#### Energy efficiency

Here the degree of increase in energy efficiency is specified that your company is able to achieve in the period from 2000 to 2010. The value is determined on the basis of overall energy consumption and the impacts of measures within the company.

#### CO<sub>2</sub> emissions cap

A projection is made regarding the probable level of CO<sub>2</sub> emissions resulting from fossil fuels in 2010 based on the anticipated uninfluenced development of your company.

#### CO<sub>2</sub> intensity target

The calculation of CO<sub>2</sub> intensity is based on the emissions cap and the impacts of the reduction measures.

#### Monitoring

Companies using the energy model are required to submit an annual report. It is essential to ensure that documentation concerning energy consumption and implemented measures is accurate and complete.

### Benchmark model

Specific energy and CO<sub>2</sub> targets are benchmarked on the basis of reference consumption and emission levels.

#### Benchmarks

Benchmarks represent best practice levels for specific energy consumption and CO<sub>2</sub> emissions that may be achieved through economically viable measures.

#### Degree of implementation

Each company has to narrow the gap between initial level and benchmark. The degree to which this gap has to be narrowed is determined for each company on the basis of a degree of exhaustion.

#### Objectives

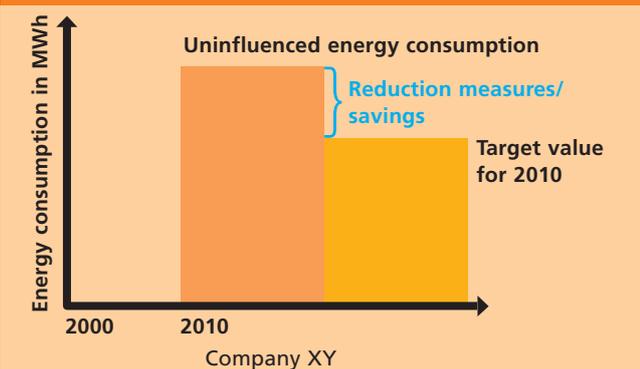
The targets for each company are constricted to simple percentages as indicative values:

- Reduction of specific energy consumption
- Reduction of specific CO<sub>2</sub> emissions

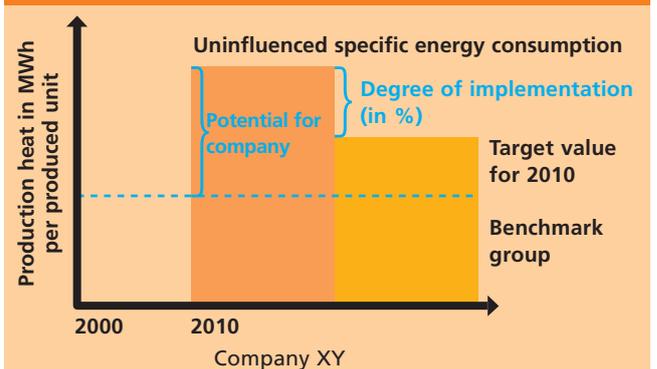
#### Monitoring

An evaluation of the data for each group is carried out once a year. The agency annually provides the federal government with a summary report on measures implemented.

### Uninfluenced development



### Mean level



## Benefits

You can benefit at a variety of levels by deciding to enter into an agreement or a commitment to reduce CO<sub>2</sub> emissions:

### Commercial benefits

- Cost savings (energy and operating costs), and thus competitive advantages
- Possible exemption from a possible CO<sub>2</sub> tax
- Impacts of economically attractive measures for sustainable increase in corporate worth
- Support for your company through a monitoring system and various other instruments
- Share in institutionalised exchange of findings and know-how
- Image gains for your company

### Strategic benefits

- Competitive advantages in terms of innovation through optimisation of processes aimed at increasing energy efficiency within the framework of the SwissEnergy programme

- Identification of improvement potentials and specific scope for manoeuvre for enhancing corporate worth
- Significant advantages on domestic and international markets thanks to sustainable development of your company
- Simultaneous compliance with the Energy Law, the CO<sub>2</sub> Law and cantonal energy legislation. Exemption from certain regulations (depending on canton).

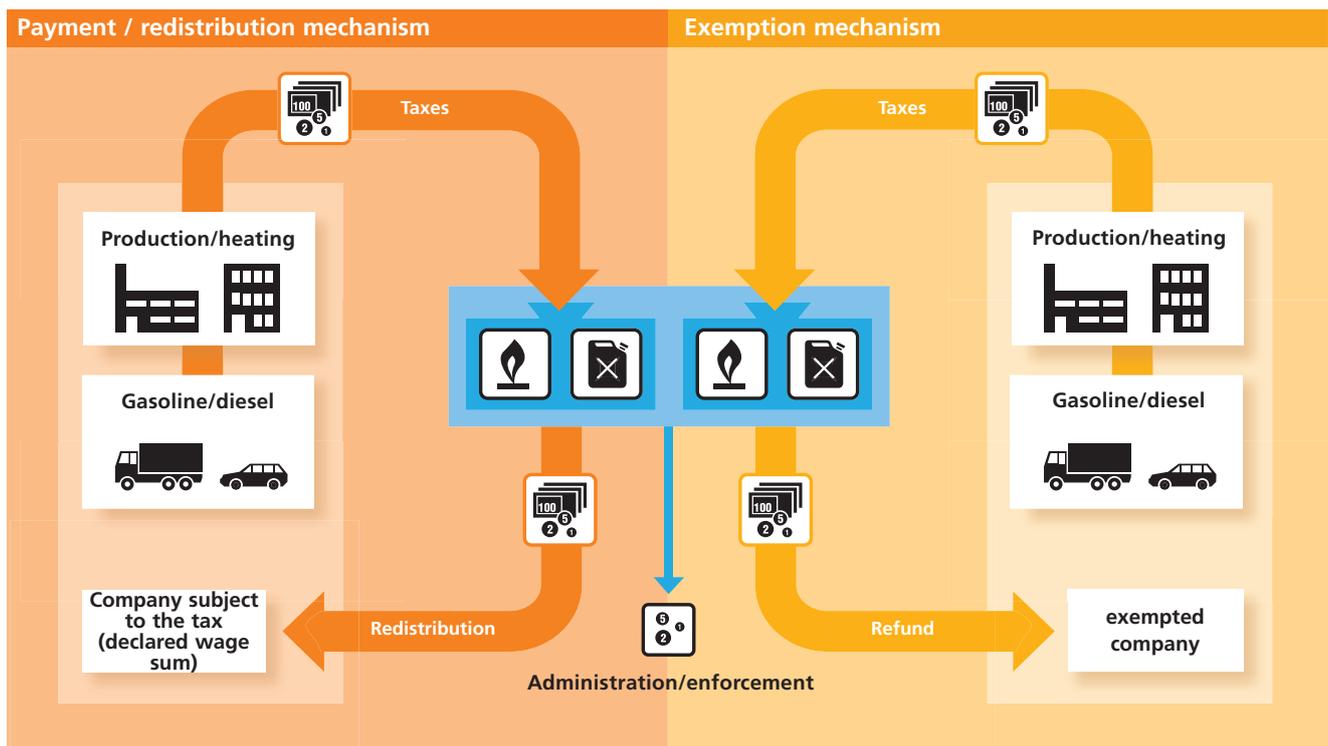
### Political benefits

- Contribution towards the goals of Switzerland's energy and climate policies within the scope of SwissEnergy
- Inclusion of the business community in the definition of climate policy
- Proof that the concept of voluntary measures is effective
- Close co-operation between government and the business community through definition of targets and subsequent implementation.

## Redistribution mechanism

The CO<sub>2</sub> tax is fiscal neutral. Revenues are redistributed to the population and companies. The redistribution mechanism is simple since already existing procedures can be used. Redistribution to companies that have signed an agreement will be made via state pension fund (AHV) compensation offices. For this purpose, the declared wage sum paid into the AHV will

be the applicable criterion. Companies that have signed a commitment to reduce CO<sub>2</sub> emissions will be exempt from the tax. Here, it is the amount of paid taxes that is the applicable criterion (full refund). However, companies exempted from the tax will not be entitled to redistribution.



## Declared goals for 2010

Switzerland's energy and climate policies are based on the objectives that were internationally negotiated under the Kyoto Protocol. Our CO<sub>2</sub> Law stipulates binding targets: by 2010, CO<sub>2</sub> emissions from combustibles must be lowered by 15 percent, and those from motor fuels by 8 percent under 1990 levels (excluding the proportion of fuel used for international civil aviation). A comparison between the current trend and the targets stipulated in the CO<sub>2</sub> Law reveals that while CO<sub>2</sub> emissions from combustibles are slightly declining towards the 1990 level, additional efforts will be required in the area of transport.

The CO<sub>2</sub> Law primarily calls for voluntary measures before 2004, but if by this time it is apparent that the fixed targets can not be met, a CO<sub>2</sub> tax is to be introduced (maximum, CHF 210 per tonne of CO<sub>2</sub>). For this purpose, the Federal Council will request Parliament to adopt the tax rates proposed on the basis of available projections at that time. It is likely that different rates will apply for combustibles and motor fuels (max. CHF 0.50 per litre for motor fuels, and max. CHF 10 per 100 kilograms of heating oil).

## Additional information

Documentation / information	Web site
SwissEnergy / energy policy	<a href="http://www.energie-schweiz.ch">www.energie-schweiz.ch</a> => English => Politics and legislation => Energy policy
Federal Energy Law	<a href="http://www.energie-schweiz.ch">www.energie-schweiz.ch</a> => English => Politics and legislation => Energy law
Cantonal energy legislation	<a href="http://www.energie-schweiz.ch">www.energie-schweiz.ch</a> => English => Energy in my canton
Federal government climate policy	<a href="http://www.klima-schweiz.ch">www.klima-schweiz.ch</a> => en => Swiss climate policy
CO <sub>2</sub> Act	<a href="http://www.energie-schweiz.ch">www.energie-schweiz.ch</a> => English
Guidelines on voluntary measures in the trade, industry and services sectors / Calculation of CO <sub>2</sub> Law	=> Helpful hints & special offers => Products for companies => CO <sub>2</sub> target agreements => Calculation tool of a CO <sub>2</sub> fee
Energy Agency for the Economy	<a href="http://www.energie-agentur.ch">www.energie-agentur.ch</a>
Activities of «energho»	<a href="http://www.energho.ch">www.energho.ch</a>

## Contacts

Agencies	
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