



Industrie Service

**Choose certainty.
Add value.**



Climate protection is an asset, enabling costs to be cut and revenues generated. Trust a qualified partner that offers services for climate change projects throughout the world.

Value added by TÜV SÜD includes impartiality, expertise, cost-effectiveness and safety. Our values guarantee transparent, trust-based and effective realisation of your climate change projects.

Turn carbon into an asset

TÜV SÜD Industrie Service GmbH

TÜV®





Balance the needs of economy and ecology.

Climate change is one of the key challenges of the 21st century. A host of greenhouse gas (GHG) reduction initiatives have been launched worldwide.

- ▶ By signing the Kyoto Protocol, almost all developed nations have confirmed their decision to cut their CO₂ emissions. Under the Kyoto Protocol, international climate change projects can be turned into carbon credits.
- ▶ Some countries, including the USA and China, are establishing their own schemes for trading greenhouse gas reductions.
- ▶ Voluntary measures have opened up a broad field of climate change projects which are taking on increasing significance. Numerous companies are tackling the responsibility for their carbon footprint and exploring the concept of “carbon neutrality”.
- ▶ Binding sustainability standards have been established for biomass and biofuels.
- ▶ The European Union approaches emission reduction targets with the

help of an emissions trading scheme closely linked to the Kyoto Protocol.

Measures mitigating climate change give rise to new business opportunities for cutting costs, ensuring effective communication of CSR (corporate social responsibility) and generating profits. The Carbon Management Service experts at TÜV SÜD provide support along the way.

TÜV SÜD has over 145 years of experience, and ranks among the world’s leading process partners and service providers. Plant and system manufacturers and operators are familiar with TÜV SÜD Industrie Service, a major international provider of engineering and test services with a staff of over 2,400, which assesses and advances systems on a daily basis.

TÜV SÜD’s strengths include unparalleled interdisciplinary engineering know-how and outstanding familiarity with all relevant directives and standards. TÜV SÜD’s expertise, high standards of cost-effective and ecological project realisation, impartiality and objectivity have earned the company its first-class reputation, recognition and acceptance throughout the world – from which you can benefit.

**Unparalleled worldwide:
our expertise
in all areas
of climate change.**



In mitigating climate change, you need expertise and a reliable partner: TÜV SÜD.

You need a partner that is able to see the big picture – particularly when it comes to realising your climate change projects. This kind of integrated approach is precisely where the main strengths of the Carbon Management Service (CMS) experts at TÜV SÜD lie.

Our CMS experts offer ...

... **comprehensive engineering expertise.**

Since our roots lie in the provision of engineering services to business and industry, we also boast the necessary expertise to support you in the registration of complex climate-change projects and verification of emissions reductions. You benefit from TÜV SÜD's expertise throughout a broad array of engineering fields, acquired over decades and from its day-to-day work with state-of-the-art technologies – qualities unparalleled throughout the world.

... **services throughout all project categories.**

TÜV SÜD has been accredited by the UNFCCC for validation and verification of CDM and JI projects in all areas of technology.

... **certification of your carbon footprint.**

Our "Corporate Carbon Footprint" and "Product Carbon Footprint" certifications are based on internationally recognised standards. Both certifications permit you to achieve carbon neutrality in your business activities and have this fact verified and confirmed by TÜV SÜD.

... **support in demonstrating compliance with mandatory sustainability standards.**

We are accredited as a certification body under the Renewable Energy Directive, providing certification in accordance with an array of certification systems including RedCert, ISCC etc.

... **years of experience in the mitigation of climate change.**

The CMS experts at TÜV SÜD have been advancing the mitigation of climate change at international level for over 10 years and have contributed to the success of over a thousand climate-change projects across the world.



Carbon footprint: your first step to carbon neutrality.

Business partners, analysts, investors, the media and consumers judge companies by the sustainability of their operations. By actively mitigating climate change, such as reducing CO₂ emissions, you make a significant contribution to corporate success. The calculation of your carbon footprint is one possible step.

The carbon footprint measures and evaluates the total greenhouse gas emissions caused by, or to be expected from, business operations. A carbon footprint can be either company-wide, i.e. a "Corporate Carbon Footprint" (CCF), including all emissions along the company's supply chain, or cover the life cycle of a specific product or service, i.e. a "Product Carbon Footprint" (PCF). The subsequent certification by an impartial third party provides credible documentation of your company's climate change performance and confirms the correct calculation of your greenhouse gas emissions.

Our climate change experts provide both Corporate Carbon Footprint and Product Carbon Footprint certification. We are an impartial third-party organisation, providing activities in accordance with internationally recognised established standards, including the Greenhouse Gas Protocol or the corresponding ISO standard.

Both certifications permit you to render your business activities carbon neutral and have this fact confirmed by TÜV SÜD. A company or a product is considered carbon neutral if the CO₂ emissions caused are offset by CO₂ reduction projects. To reach this goal, companies can buy and retire carbon credits. However, efforts to avoid and reduce CO₂ emissions must always take precedence over carbon offsetting measures. Improve your environmental performance now. Document your sustainable business operations.



Sustainability certification of your biomass.

By introducing the Renewable Energy Directive 2009/28/EC, the EU Members States have defined a framework establishing binding sustainability standards for the production of biomass and its processing into bioenergy. To be eligible for remuneration, tax reductions and crediting to the biofuel quota, liquid and gaseous biofuels and electricity produced from liquid biomass used in the EU must fulfil the following criteria:

- Sustainable cultivation and management of biofuel crop.
- Protection of high conservation value areas.
- Establishment of an effective chain of custody (CoC).
- Ensuring a minimum GHG saving threshold of 35 % (50 % from 2017 onwards) compared to fossil energy carriers.

As a matter of principle, these sustainability criteria apply to all companies along the supply chain, i.e. to companies collecting,

processing and trading in raw materials. To access the European market, the compliance with these criteria must be certified by an accredited certification body such as TÜV SÜD.

Leave the certification of your company in the expert hands of TÜV SÜD's specialists. Our sustainability certification confirms your legal compliance.

There are several good reasons for choosing TÜV SÜD as your partner: We are renowned experts in calculating the greenhouse gas balance of biofuels, and are one of the first organisations to be accredited for sustainability certification of biomass. We enjoy a first-class reputation throughout the world. We offer a worldwide network of auditors. We have received numerous international awards as best certification body for climate change projects. We offer you a choice of certification options. We will be happy to advise you.



Basic package

If you opt for a basic certification package, we check whether your company fulfils the minimum legal requirements. You obtain certainty that you comply with all legal requirements and create ideal conditions for your market entry. TÜV SÜD's basic certification package includes:

- Assessment of production processes and management requirements
- Verification of mass balancing and traceability
- Verification of the emissions of greenhouse gases produced, on the basis of standard values

Full GHG package

On top of the basic certification services, this package includes the verification of individual greenhouse gas balances. Verification is advantageous if you operate in markets that prioritise products certified

as climate-friendly. In the future, additional greenhouse gas reduction measures will be required to reach the legal targets.

Products that can demonstrate a smaller carbon footprint today can be marketed better in the future.

Combined packages

Our certification can build on certain systems and standards already implemented in your company, saving you time and money. We will be pleased to prepare an additional carbon or water footprint, or audit additional social standards within the scope of our sustainability certification.

We offer integrated support on your way to obtaining certification. We select the right certification system and take care of registration, the preliminary audit (optional), the certification audit, conformity assessment and certificate issue.

**Rely on impartiality
and expertise.**



Validation and verification of your climate change projects – TÜV SÜD.

Successful climate change projects rely on third-party assessment. All the better when TÜV SÜD's CMS experts are at your side to assist you in the validation and verification of your projects.

Validation

Prior to project kickoff, we examine a host of issues including project design, reference scenario, additionality, monitoring plan and environmental compatibility. For Kyoto projects carried out in developing countries (CDM), registration by the UNFCCC is the declared target as it creates the eligibility criteria for participation in emissions trading. The validation of Kyoto projects in industrialised countries (JI) is also referred to as determination.

Verification

Once a project has been registered, we perform verification. In the verification process, we assess monitoring, measuring methods, data retention and the calculation

of emission reductions. By carrying out assessments at regular intervals and taking the appropriate corrective actions where necessary, we ensure the effectiveness and efficiency of your projects. The results are documented in reports. A positive "Verification Statement" is the prerequisite for the issuance of certified emission reductions by the UNFCCC. For VER projects which are not governed by the Kyoto Protocol or another public scheme, certificate registration is generally effected in TÜV SÜD's "Blue Registry" database.

TÜV SÜD's CMS experts are among the market leaders in third-party verification of climate change measures across the world. TÜV SÜD is one of the few organisations accredited by the UNFCCC for CDM and JI project validation and verification in all fields of technology.

TÜV SÜD.
Choose certainty. Add value.



TÜV SÜD's CMS experts provide validation and verification of your projects in line with leading climate-change regimes.

A. Projects and programmes of activities (PoAs) under the Kyoto Protocol:

- ▶ "Joint Implementation" (JI) – projects carried out in industrialised countries
- ▶ "Clean Development Mechanism" (CDM) – projects carried out in developing and emerging countries

B. Projects governed by other trading schemes:

- ▶ Projects in developing and developed countries as part of non-Kyoto trading schemes, including trading schemes in the USA such as the California Climate Action Registry (CCAR), Regional Greenhouse Gas Initiative (RGGI) etc.

C. Projects implemented independently of specific trading schemes:

- ▶ "Verified Emission Reduction Projects" (VER) – projects in developed and developing countries which are realised on a voluntary basis and used, for example, to offset emissions from defined products and services, e. g. the Gold Standard-VER, VER+ or VCS.





Rely on a strong partner. The UNFCCC has accredited TÜV SÜD as the first certification body worldwide throughout all areas of technology.

- ▶ **Energy industries**
(renewable and non-renewable sources)
- ▶ **Energy distribution**
- ▶ **Energy demand**
- ▶ **Manufacturing industry**
- ▶ **Chemical industry**
- ▶ **Construction**
- ▶ **Transport**
- ▶ **Mining/mineral production (JI)**
- ▶ **Metal production**
- ▶ **Fugitive emissions from fuels**
(solid, liquid and gas)
- ▶ **Fugitive emissions from production and consumption of halocarbons and sulphur hexafluoride**
- ▶ **Solvent use**
- ▶ **Waste handling and disposal**
- ▶ **Afforestation and reforestation**
- ▶ **Agriculture**

TÜV SÜD:
Recognised.
Renowned.
Reliable.



Go green and benefit from European emissions trading.

The European Union has established an emissions trading scheme that includes several emission-intensive business sectors and plants, including power stations, steel mills and pulp and paper plants.

The scheme functions as follows:

The competent national authorities in the EU Member States annually allocate a certain number of emissions allowances to the individual companies. The companies have to report their annual CO₂ emissions to the national authorities and offset them against their allocations at annual intervals. Companies whose annual emissions exceed the allowances allocated to them face fines, which they can avoid by purchasing emission credits or allowances in the EU Emissions Trading Scheme. Companies which can prove that they have reduced their emissions through technical measures can sell corresponding allowances at a profit on the emissions market.

However, emissions trading also involves a number of obligations:

- ▶ Implementation and updating of a CO₂ monitoring concept
- ▶ Monitoring of CO₂ emissions
- ▶ Adherence to reporting and notification requirements

Our CMS experts ensure that your company is ideally prepared for emissions trading.

On your behalf, we provide ...

... **certification of your CO₂ monitoring concept.**

By participating in the emissions trading scheme, companies undertake to monitor their emissions. We ensure that your methods are in line with the regulatory requirements.

... **verification of your emissions report.**

At annual intervals, companies must furnish evidence that their accounts are balanced. Our experts verify the annual emissions reports which have to be submitted to the authorities.



Rely on a partner operating at global level – TÜV SÜD.

Wherever you are and whatever climate change project you aim to implement, the CMS experts at TÜV SÜD offer support throughout the world. We have been supporting climate change projects on all continents, in over 88 countries worldwide, since 2000. TÜV SÜD has helped to achieve important milestones in the mitigation of climate change. For example, we validated the first CDM project in China and submitted the world's first

J1 project in Ukraine for registration. At international level, we have received several awards as best certification body for climate change projects.

Rely on experts familiar with all relevant technologies, plants, systems and areas. Contact us. We look forward to hearing from you.

TÜV SÜD. Choose certainty. Add value.



Your benefits

1 Create transparency.

Validation and verification of your projects by TÜV SÜD ensure effective process handling, full transparency and environmental integrity.

2 Save money.

Our experts know the projects and methods that ensure secure investments and planning.

3 Save time.

Our experts monitor regulatory developments and consider regulatory expectations right from the runup stage of a project.

4 Secure impartiality.

TÜV SÜD stands for impartiality and cost-effectiveness throughout the world.

5 Rely on a strong brand.

TÜV SÜD offers a first-class global reputation.





Industrie Service



www.tuev-sued.com/climatechange

This mark adds value that extends beyond certainty and safety. It stands for impartiality and expertise. It stands for quality and trust. It stands for acceptance and recognition, and enjoys worldwide respect and esteem. **Call us! We will be happy to offer expert advice.**



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