

# Service specification

## Certification of Electricity from Renewable Sources

### 1. Backdrop of certification

The certification of electricity from renewables is a service covering all fields from electricity generation to electricity products/tariffs and electricity labelling. In this context, the distinction is made between standards for the certification of electricity generation (proofs of origin), green electricity products /tariffs and electricity labelling (QED). Guarantees of origin (GoO) in accordance with national requirements complete the service portfolio.

The certification of electricity generation (proof of origin) is carried out either by the electricity producer (owner or operator), an energy supplier or a trade organization licensed to market all or part of the electricity generated. It is used as proof of origin in the non-regulated sector or as the basis of national EU-conforming guarantees of origin in trade. The certification of electricity generation always refers to specific sources of generation and guarantees to purchasers that their energy is produced from renewables. The certification of electricity generation and its "Generation EE+" standard cover the generation of electricity and guarantee a certain work and performance.

The certification of products /tariffs, by contrast, is aimed at the distinction of electricity products/ tariffs offered to consumers (households, municipalities, business and industry).

The certification of electricity labelling mainly serves consumers, who can then rely on particularly consumer-friendly, correct and traceable information about the electricity mix offered by electricity suppliers and their products/tariffs.

### 2. Standards

Within the scope of the certification of electricity from renewable sources, TÜV SÜD offers the following certifications and guarantees of origin:

Standard	Revision	Explanation
<b>Proof of origin</b>		
Generation EE	10/2008	Certification of the actually available marketable amount of electricity generated <sup>1</sup> from renewable sources
Generation EE+	10/2008	Certification of the actually available marketable amount of electricity generated from renewable sources plus guarantee of specific work and performance
Generation UE	10/2008	Certification of the actually available marketable amount of electricity generated from 100% eco-friendly energy produced by efficient combined heat-and-power systems
<b>Product/tariff certification</b>		
EE01	10/2008	Certification of electricity products/tariffs from renewable energy sources with minimum 25 % recently built generation capacities (25% of the electricity supplied comes from generation capacities that, at the time of initial certification, were put into operation no more than 36 months ago)
EE02	10/2008	Certification of electricity tariffs from renewable energy sources including guaranteed simultaneous generation and supply at 15-minute intervals
UE01	10/2008	Certification of electricity tariffs from 50 % renewable energy sources and 50 % combined heat-and-power (at least 25 % of the electricity supplied comes from recently built generation capacities and simultaneous supply)
<b>Disclosure of electricity mix</b>		
QED	10/2008	Qualified Electricity Disclosure: Certification of electricity labelling; verification of especially consumer-friendly, correct and traceable labelling of electricity
<b>Guarantee of origin<sup>2</sup> (GoO)</b>		
Guarantee of origin in Germany as per Art. 55 EEG	2009	Inspection of a plant which generates electricity from renewable sources and testing and issuance of guarantees of origin for a produced amount in order to register them in a guarantee of origin database
Guarantee of origin in Switzerland as per EnV	01/2010	Inspection of a plant which generates electricity from renewable sources and certification of the production amounts for registration in a national guarantee of origin database
Guarantee of origin in AT as per eco-power legislation		Inspection of a plant which generates electricity from renewable sources and certification of the production amounts for registration in a national guarantee of origin database

<sup>1</sup> TÜV SÜD defines the actually available marketable amount as the net production plus or minus other delivery rights or obligations (e. g. concession, substitution in kind, restitution power, servitude rights etc.).

<sup>2</sup> Guarantees of origin prove to consumers that a certain part or amount of energy was generated from renewable sources. Guarantees of origin are transferable.

### **3. Process and services provided by TÜV SÜD**

#### **3.1 Certification**

##### **Preliminary assessment**

In a first step, TÜV SÜD will carry out a preliminary assessment. This preliminary assessment is based on a questionnaire that must be completed by the client, documents submitted by the client and interviews (conducted over the phone or on site). In these interviews, the certification body will review whether the client's (auditee's) system fulfils the basic certification criteria. If the auditee fails to fulfil the basic certification criteria, the certification process will be terminated at this point and the costs incurred for this stage 1 billed to the client as set forth in the quotation.

##### **Audit**

If the client fulfils the basic certification criteria, planning of the certification audit follows the preliminary assessment. For this purpose, the client receives a checklist which lists all documents that must be submitted for the certification audit and the certification body defines the sites and power stations that will be visited. The audit covers the on-site audit and the document review following the on-site audit.

It assesses both past (ex-post approach) and future (ex-ante approach) data and measures. In the ex-post approach, the auditor assesses the data of the past year (generally the last complete business year) and verifies compliance with the statements and forecasts. In the ex-ante approach, the auditor asks for examples of processes and systems that have been established and of measures planned to ensure an adequate level of compliance with the criteria in the next year.

Documentation and calculations are reviewed both during and after the on-site audit. Upon completion of the on-site audit, the audit team informs the auditee of the audit findings, if any, and establishes deadlines by which these issues must be closed (generally within 4 weeks after the audit). Failure to submit the requested information or documents within these deadlines may result in a non-conformity.

##### **Report**

After the audit, the audit team prepares the audit report to document the audit and the audit findings (see below).

The "Climate and Energy" certification body of TÜV SÜD reviews the audit report on the basis of the quality criteria of its certification scheme and makes a certification decision.

##### **Certificate issue**

Initial certification is completed upon issue of the certificates. Certificates are sent once in quadruplicate. New certificates are only issued if the information given on the certificates changes. The "month of maturity" is defined within the scope of the initial issue of certificates.

### **Month of maturity**

The month of initial certificate issue is the month of maturity. The month of maturity defines when the next surveillance audit will have to take place. The surveillance audit can also be conducted one month before or after the month of maturity. Upon application of the certificate holder or the competent auditor and justified reasons given the month of maturity may also be permanently deferred; the decision thereon lies in the discretion of the certification body of TÜV SÜD.

### **Surveillance audits**

Surveillance audits are carried out at annual intervals and generally on -site at the certificate holder's premises. The initial certification audit is followed by two surveillance audits with reduced levels of detail.

In cases involving multi-site certifications, the on -site audits are based on a sampling approach. In this case, the sample size is the square root of the number of sites (without central office) rounded up to the nearest whole number plus central office. Multi-site certification based on sampling is only possible in organizations with similar activities and systems at the individual sites. Systems are considered similar if they use identical energy carriers or technologies and are of similar size. Where this is not ensured, a sample must be formed for every sub-group of similar systems.

### **Secondary certificates**

Secondary certificates can be issued for electricity products /tariffs that are identical with the main product/tariff certified by TÜV SÜD. Products/tariffs are considered identical if their physical properties, their origin and their environmental characteristics differ only marginally or not at all. The products may be placed on the market by various legally independent marketing organizations. To meet the requirements for using the TÜV SÜD certification mark, the legally independent marketing organization must be certified. The key difference from a basic certificate is the reduced level of detail of the audits. On-site visits at the holders of secondary certificates may be waived under certain circumstances. In this context it is important that the holder of a basic certificate must approve the issue of secondary certificates. Termination or withdrawal of the basic certificate on the other hand results in withdrawal of the secondary certificate. Given this, the client of a secondary certificate must submit a letter of agreement in which the holder of the basic certificate declares its consent to the issue of secondary certificates.

## **3.2 Guarantees of origin:**

### **Preliminary assessment**

In a first step, the certification body conducts a preliminary assessment based on a questionnaire to be completed by the client. In this preliminary assessment, the auditor(s) verify whether the client's installation which is the subject of the assessment fulfils the basic requirements for the issue of guarantees of origin. If it fails to fulfil the basic requirements, the assessment is terminated at this point and the costs for this step billed as set forth in the quotation.

### **On-site audit**

If the installation fulfils the basic requirements for the issue of guarantees of origin, the on-site audit of the installation to be certified is planned. For this purpose, the client receives a checklist with the documents to be submitted.

In the on-site audit, the data of the installation are recorded and the technical data verified.

The documentation is reviewed both during and after the on-site audit. In Germany, an environmental verifier is called in to witness this audit which is carried out in accordance with the Environmental Audit Act (Umweltauditgesetz, UAG).

### **Report and declaration of installations**

After completion of the audit, the results are documented in an audit report. In addition, an installation declaration containing the relevant formal and technical data in accordance with the national requirements will be drawn up. The installation declaration must be reviewed again and re-confirmed after 3 calendar years.

### **Testing of production data**

Following the installation declaration and after expiry of a certain period of production, the documented production quantities can be verified and confirmed.

In Germany, an environmental verifier is called in to witness the audit, which is carried out in accordance with the Environmental Audit Act (Umweltauditgesetz, UAG).

### **Submission for registration**

The installation declaration and production data are prepared and sent in such a way that registration can be effected in accordance with the respective national requirements. The registration of installations and production data itself is not the subject of this service specification.

### **Verification of system declaration**

Following expiry of 3 calendar years the installation declaration is re-verified as soon as a new contract is placed. If the client commissioned several installations as a bundle, annual surveillance on site can be carried out in accordance with the above sampling approach, if permitted by the national regulations.

## **4. Termination**

The **certification** contract applies for three years and is not extended automatically. The certificate holder is responsible for requesting a new quotation/a new contract three months before the expiry of the contract term at the latest. The client and the contractor are entitled to terminate the contract at any time, observing a 3-month period of notice. In this case, all process steps that have been started when the termination comes into effect and all certification fees incurred are billed. If the client, after having received two reminders (see Section 6) in this respect, fails to fulfil the clients' duties, TÜV SÜD will be entitled to

terminate this contract on important grounds, withdraw from the contract, withdraw the certificate and bill all costs incurred up to this stage.

In the case of termination of certification, a closing audit must be performed instead of the surveillance audit. Depending on the situation, the closing audit may be performed on the basis of a document review only or an on-site audit. The closing audit verifies whether the certification criteria of the standards were fulfilled and the prerequisites for the validity of the issued certificate were given for the past period.

The contract for the **verification of guarantees of origin** applies for three subsequent calendar years (1st year is the year in which the installation declaration was issued for the first time) and is not extended automatically. Responsibility for the uninterrupted renewal of the guarantees of origin or the confirmation of further production data rests with the certificate holder. Given this, the certificate holder must request a new quotation or a new contract six months before the issue/confirmation at the latest.

In cases involving a combination of certification and verification of guarantees of origin, the earlier deadline shall apply.

## 5. **Qualifications and human resources**

TÜV SÜD has a pool of auditors from Germany, Switzerland, Italy and Slovenia.

Head of Energy Certification is Klaus Nuernberger (Tel.: +49-(0)89-5791-2752), who can be contacted on all issues.

## 6. **Duties to be fulfilled by the client** (Clients' duties)

The certificate holder must:

- Appoint an individual as contact for all questions and arrangements
- Ensure timely submission of the required documents and information and provide access thereto
- Within the scope of on-site audits, ensure access to all parts of the installation
- Ensure fast and complete response to all open issues
- Ensure that the individual responsible for certification is available during the audits (in particular during the opening and closing meetings)
- Arrange on-site interviews with the individuals requested by the certification body
- Ensure the occupational health and safety of the team of auditors by providing appropriate OH&S instructions in the company and, where appropriate, adequate safety gear
- In case of locations outside Europe: arrange safe transport from the nearest international airport to the site of the audit and the accommodation
- Inform the certification body and the competent auditor in writing of any significant changes in the certification criteria for re-assessment
- Certificates or a certification mark may only be used in advertising for the certified scope. Full responsibility for ensuring that the certificate is used in compliance with the regulations and not in a misleading manner rests with the certificate holder, who must meet the requirements of the certification body with respect to reference to its certification status in communication media.

- In the case of certificate suspension and withdrawal, the client must discontinue the use of all advertising materials referring to the status of certification.
- To maintain the certificate validity, the certificate holder must request the surveillance audits, which must be performed at intervals of 12 months, at least 3 months before their due date.
- Certificates that have been terminated, expired or declared invalid must be returned to the certification body.

### Complaints filed with the client

The client further undertakes:

- To keep records of all complaints concerning the compliance of a certified product or process with the requirements of the relevant standard and disclose these records to the certification body on request;
- To initiate appropriate measures in terms of these complaints and all defects which affect conformity with the certification requirements that are identified in products or services;
- To document the implemented measures.

### 7. Remuneration

The fees quoted below apply to any additional services not included in the above scope. These services will be billed on a time and cost basis at the valid daily rates, travel rates/costs and fixed costs as amended:

#### Rates (as at August 2010)

Daily rate	EUR	1,200.00
Travel rate	EUR/hour	120.00
Travel costs, car	EUR/kilometre	0.60
Board and lodging allowance	Against the submission of receipts and/or in line with the legal regulations	

The above amounts do not include the legal rate of VAT, which will be quoted separately on the invoice (in Germany only).

## 8. Certification fee / Fee for guarantees of origin

### Certification fee

On successful issue of the certificate, the client will receive 4 certificates in A3 and A4 format. On request, the client will also receive the TÜV SÜD certification mark for the respective certification standard in electronic form for use in advertising and in communication media.

Every year, the certification body charges a certification fee for the following year. The fee will become due for the first time on issue of the certificate. The amount of the certification fee is variable and depends on the following tables. If the amount of the annual certification fee changes because of a change in the amount of electricity generated or supplied or because of a change in the number of consumers or clients, the certification body may adjust and bill the fee without having to submit a new quotation.

### Certification of electricity generation and electricity products/tariffs

The annual certification fee is based on the amount of electricity generated or supplied.

Annual certification fee for the certification of electricity generation and electricity products/tariffs						
Annual amount of electricity supplied	Up to 2 GWh	>2 GWh up to 20 GWh	>20 GWh up to 200 GWh	>200 GWh up to 2000 GWh	>2000 GWh up to 20,000 GWh	> 20.000 GWh
Certification fee	€ 400	€ 600	€ 1200	€ 2000	€ 4000	€ 8000

### Certification of electricity labelling (Qualified Electricity Disclosure, QED)

The certification fee depends on the number of consumers or the amount of electricity sold. In the case of classification into two categories, the category with the higher certification fee will be used.

Annual certification fee for qualified electricity disclosure (QED)						
Consumers (thousand)	< 10	11 – 40	40 - 120	120 - 300	300 - 600	> 1200
Amount sold GWh / a	• 50	• 250	• 1000	• 3500	• 10000	> 10000
Certification fee	€ 400	€ 600	€ 1200	€ 2000	€ 4000	€ 8000

### Guarantees of origin

The annual fee for the confirmation of monthly production data depends on the frequency of issue and the number of systems or installations in one bundle. The application of the rates set forth below is based on the assumption that no corrections to the production data were necessary. Possible extra efforts caused by necessary corrections will be billed on a cost basis and in accordance with the currently valid daily rates. The verification for preparation of the installation declaration is not included in the fees listed below.





Industrie Service

Annual fee for the confirmation of production data and the issue of guarantees of origin (without installation declaration)										
Number of plants in one bundle										
Frequency of confirmation/issue	1	2	3	4	5	6	7	8	9	10
Monthly	€ 2200	€ 2700	€ 3200	€ 3700	€ 4200	€ 4700	€ 5200	€ 5600	€ 6100	€ 6600
Quarterly	€ 900	€ 1200	€ 1500	€ 1800	€ 2100	€ 2400	€ 2700	€ 3000	€ 3300	€ 3600
Annually	€ 600	€ 750	€ 900	€ 1150	€ 1350	€ 1600	€ 1850	€ 2100	€ 2300	€ 2500

### **Prices and terms of payment**

Costing in the quotation is based on the assumption that clients will submit all documents and all information requested by the checklist handed over to them in full and at the agreed date, or by the audit date at the latest (this applies to both initial and surveillance or re-certification audits).

We reserve the right to bill any additional efforts that become necessary because of unfavourable underlying data, unforeseeable at the time of quotation preparation, or incomplete documentation if these efforts result in considerable extension of the level of detail or scope of assessment. Any additional efforts that may become necessary will be agreed with the client without delay and billed at the valid daily rate.

Any additional efforts caused because documents required for the closing of audit findings are incomplete or not submitted in a timely manner will also be communicated to the client without delay and billed at the valid daily rate.

Should it become evident after placement of order or during order processing that the costs will clearly exceed the estimates, the certification body will immediately notify the client and discuss the issue.

All quotations will be valid for a period of 2 months. Our services will be billed after completion of our activities, or after dispatch of the certificates at the latest.

Payments are due in full on receipt of invoice unless otherwise agreed in writing and stated on the invoice.

### **10. Other**

Unless otherwise specified above, the General Terms and Conditions of TÜV SÜD will apply in addition. Upon commissioning, the client recognizes the valid Testing and Certification Regulations of the TÜV SÜD Group and the General Terms and Conditions as amended.