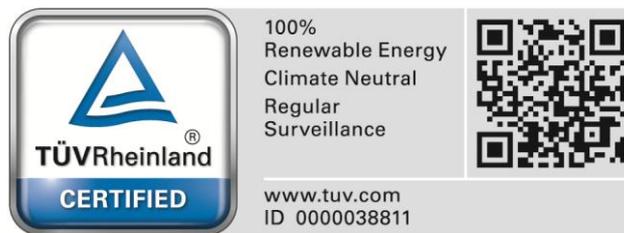


High quality green electricity Audited by TÜV Rheinland

- HKN NEU 100: Catalogue of Criteria 1.1 -



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Background

Climate protection and energy policy need a long term perspective. The great ambitions on the level of the European energy policy are driven by climate change, pressure on energy resources, increased dependency on imports and the pressure to securely and reliably provide energy for all customers at affordable prices.

In 2007 the European Union set the stage for an integrated energy and climate policy by adopting the Third Energy Package. Thereby, the EU made clear that energy and climate policy are to be seen as closely linked and integrated projects. Within the Third Energy Package, essential groundwork for energy and climate policy has been done. A triangle of goals has been defined. The three cornerstones of this triangle are: Security, competitive capacity and sustainability. Meanwhile, in the European landscape of energy and climate politics, a great number of diverse regulatory areas have emerged. Nevertheless, the cornerstones are still upheld. These are: diversification of energy sources, affordable energy for consumers and climate friendly energy production.

At the same time, more and more citizens are interested in purchasing climate friendly and green electricity. People want a secure, sustainable, affordable and, therefore, cost competitive energy supply. Furthermore, customers place a high value on the expansion and development of renewable energy. Therefore, they demand that their energy suppliers have a high percentage of renewables in their portfolio.

The audition and certification of green electricity products by TÜV Rheinland Energy GmbH (TÜV Rheinland) – an independent auditor – is designed to guaranty transparency and credibility to customers. This is achieved by communicating clear and relevant criteria to the customers. The upholding of which is observed by TÜV Rheinland. The results are then publicized.

The following catalogue defines the criteria that determine which GoOs and GoO-blends qualify for the label HKN NEU 100 (ID 38811). This is supervised by TÜV Rheinland. The criteria define and describe the necessary precautions and minimal requirements that have to be upheld in order to qualify for the HKN NEU 100 standard.

Obligation to Prove Energy Origin and Type of Energy Generation

1. Sustainable Electricity Production

- The green energy feature of the label HKN NEU 100 is obtained by ensuring that the Guarantees of Origin (GoOs) used for it come only from renewable energy sources.
- Renewable energy sources are defined by the German Renewable Energy Sources Act (Erneuerbare Energien Gesetz: EEG). Each Megawatt-hour, for which a GoO is granted to the plant operator has to fulfil the criteria defined in EEG and each GoO has to be traceable to a unique source.
- GoO are issued in accordance with article 15 of the directive 2009/28/EG agreed to by both European parliament and council on April 23, 2009. The directive was issued in order to promote the usage of renewable energy. Accordingly, a register of GoOs is kept at the German Federal Environment Agency (Umweltbundesamt: UBA).

- HKN NEU100 is based on GoOs which document and ensure origin and ecologic properties of the electricity gained from renewable energy sources.

2. Mix of energy sources

- The aims pursued are avoidance of the excessive promotion of a single technology and cost efficiency: These goals are pursued in order to secure the realisation of the European energy system transformation in the long term.
- Therefore, the GoOs within the framework provided by HKN NEU 100 should back a distinct variety of renewable energy sources which consists of a blend of controllable and of fluctuating energy sources – mainly wind and/or hydro power.

3. Novelty of plants as a central criterion

- The essential purpose of the label HKN NEU 100 is to make a contribution to the advancement of Renewable Energy sources, beyond what the EEG requires.
- 100% of all GoO come from new power plants – which means: plants that have not been running for longer than at most six years.
- These new power plants have earmark support, which entails additional funding beyond market revenue. Furthermore, the plant operators can claim GoO for each MWh which are accepted by all national registers of GoOs in Europe and, therefore, also by the UBA in Germany.

4. Simultaneity on a monthly basis

- Since 2013 it is mandatory in Germany to use GoOs for electricity from renewable energy sources and to register these with the UBA. When the GoOs are used for the declaration of electricity, it is mandatory that the production of the GoO's energy takes place in that same year. Accordingly, GoO are validated and voided with the UBA on a yearly basis, thus creating simultaneity on a yearly basis as a minimum requirement. Additionally, there is the possibility to issue GoOs on a monthly basis and to note on the confirmation of voidance by the UBA where and when exactly the GoO had been issued, thus making the whole process more transparent.
- In order to ensure transparency and credibility, HKN NEU 100 goes beyond the requirements of EEG and provides simultaneity on a monthly basis. This goal is obtained, when 75 per cent of the customer requirement forecasts are balanced in terms of supply and synchronicity.
- The simultaneity on a monthly basis is accounted for by either an even distribution of the energy amount – prognosed by a yearly customer requirement forecast – across the whole year or by accommodating an individual customer requirement load profile. The necessary adjustment of the exact amounts takes place on a yearly basis when the customers of Bischoff & Ditze Energy (BDE) report their actual annual supply of electricity. Alternatively, an ex-ante individual customer requirement load profile is used. If the use of electricity by the customers of the energy supplier exceeds the amount predicted by the customer requirement forecast and compensatory currents have accrued, this can be offset by the purchase of additional GoOs. Because the EEG only requires simultaneity on a yearly instead of a monthly basis, the difference between actual and projected electricity consumption does not have to be compensated on a monthly basis

5. Climate-Neutral Production of Energy

- The production of energy in HKN NEU 100 power plants is ensured to be 100% climate-neutral - including all elements of the entire supply chain.
- The CO₂-emissions which are created by building and running power plants have to be offset through the use of Verified Emission Reductions (VERs). The VERs used come from sustainable and recognised projects all over the world. The high standard of these projects is ensured by the usage of VERs with the ÖkoPLUS-label. The ÖkoPLUS-label is supervised by TÜV Rheinland. Besides carbon-offsetting ÖkoPLUS-projects are ensured to foster a sustainable social development at their respective locations.

6. Communication

- When presenting HKN NEU 100 to consumers it is to be made sure that all certified features of the label are depicted properly. A misleading public communicative effort regarding the properties of HKN NEU 100 must not be made.
- However, suppliers using of HKN NEU 100 may announce that they surpass the minimum requirements of HKN NEU 100 at any time. But: any statements made regarding the renewable or green properties of a HKN NEU 100 labelled/certified energy product must be in accordance with all other criteria.

7. Transparency and Credibility

- As an independent institution the TÜV Rheinland supervises and certifies the product HKN NEU 100 on a yearly basis.
- In order to assess the verifiability of the product, description and estimation of the product's properties and the energy accounting practises of the product's provider are put to scrutiny by TÜV Rheinland.
- The audit entails a comprehensive documentation: The methods used to account for the amounts of electricity (capture, acquisition and sales) used in HKN NEU 100 and all GoOs involved are reviewed. The respective conditions and use of means are also reviewed and have to be presented clearly and unambiguously.
- Approval is granted by the certification office of TÜV Rheinland through issuance of a certificate.

8. Miscellaneous

- Certification and monitoring take place in accordance with the regulations of TÜV Rheinland. The relevant certification office is obliged to handle as confidential all information made available to them about the enterprise of their clients and to only evaluate them for purposes previously agreed upon with their clients. Furthermore, this client information may under no circumstances be shared with a third party.
- The certification of the label/standard/product HKN NEU 100 and its criteria (ID 38811) is a collaboration of TÜV Rheinland and Bischoff & Ditze Energy (BDE, product vendor). The reproduction of this standard and its criteria as well as the certification of these criteria requires prior permission by BDE.