LCIE Bureau Veritas

Solar Energy

Electrical photovoltaic products for the French marketplace: How can their potential be successfully unleashed?

As a result of the increasing importance of renewable energy, and thanks in part to subsidies and programs put into place by national and regional governments, photovoltaic solar energy and related technologies are really beginning to take off in France.

It is estimated that by 2020, the market for photovoltaic products will increase by a factor of par 5 (according to Eurostaf estimates). **What are the obligations for companies planning to distribute solar panel equipment in the French marketplace?**

Ensuring Standards Compliance

Connection cables play an important role in the operation of a photovoltaic installation, as they allow solar panels to be connected to an AC/DC inverter.

These cables must operate under particularly strenuous conditions:
- direct current
- solar UV radiation
- severe variations in weather
- and other requirements…

In order to obtain the NF mark, these cables must meet the specifications of the UTE C 32 502 standard (December 2008) +A1 (March 2010).

It is essential to check these cables before they reach the market, in order to demonstrate their fitness for use, through an appropriate testing regime.

Certification as Proof of Compliance

The NF USE mark is the certification mark specifically designed for cables for the French market.

Cable manufacturers find that in our customers' eyes, the NF USE mark is the best proof of compliance for your products. It confirms that cables carrying the mark meet all applicable regulatory standards.

Only one organisation approved by AFNOR can deliver the NF USE mark. In France, that organisation is LCIE Bureau Veritas.

Electricity Buy-Back by EDF

By order of 10 July 2006 published on 26/07/06, each photovoltaic kWh of power is repurchased by EDF at € 0.30 ET in continental France and € 0.40 ET in Corsica and Overseas Territories for installed solar panel installations. These rates are increased respectively by € 0.25 ET and € 0.15 ET– for an overall price of € 0.55 ET / kWh – in the case of power produced by building-integrated panels.

The price per kWh is re-evaluated each year as a function of an index. Thus from 1 January 2009, the repurchase rates are set as follows:

- 0.60176 €/kWh for building-integrated
- 0.32823 €/kWh for all other panels.

Benefits of the NF USE mark

The NF USE mark:

- **Guarantees the quality and safety of products carrying it**
- **Demonstrates validation by a third party testing service**
- **Means there are frequent checks and production quality control**
- **Is widely recognised throughout the French marketplace**

LCIE Bureau Veritas

In the photovoltaic field, LCIE Bureau Veritas tests and certifies cables, but also…

> Connective Equipment

The connection boxes between panels and inverters (DC) and those installed between the inverter and the grid (AC) can be certified to the NF EN 60439-1 standard.

The electrical apparatus inside these boxes must also conform to this standard, and can earn the NF mark.

> Inverters

The inverters must also meet all requirements applicable in France, in addition to the German DIN VDE 0126-1 standard for "islanding."

> Panels

To be in compliance, photovoltaic panels must meet the requirements of the NF EN 61215 standard (for crystalline silicon), the NF-CEI 61646 standard (for thin layered panels), and NF EN 61730 (safety). They are also eligible for certification with the NF mark.

What LCIE Bureau Veritas Provides

- Over 100 years' experience in testing and certifying electrical and electronic products
- LCIE Bureau Veritas sits on a number of mark committees including that of the NF USE standard
- COFRAC-accredited laboratories
- Numerous testing programmes and facilities
- Specialised and highly qualified interdisciplinary teams
- Rapid planning and implementation of projects

For Further Information

Site of the French Government Environment and Energy Agency:	www.ademe.fr
New guide on standards for cables used in photovoltaic applications:	www.ute.fr
Site of the NF standard:	www.marque-nf.com

Any questions? Contact us!

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