



fisuel INFO

FISUEL INFORMATION LETTER

International Federation for the Safety of Electricity Users



Editorial

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Dear Friends,

PROQUELEC organized, from 15 to 17 December 2009 in Dakar, a major seminar on Electrotechnical Standardization, Electrical Safety and Energy Efficiency.

Under the high patronage of the Senegalese Ministry of Energy, the meeting recorded the participation of some fifty persons from Cameroon, Ivory Coast, Gabon and Senegal.

This event which was a pleasant environment for exchanges of experience, and was a great success both in terms of organization and in terms of the quality of the different presentations.

Among other topics, LBTP SECUREL, a member of the family of FISUEL, gave an excellent presentation on the subject of the verification of the compliance of electrical installations in the Ivory Coast.

Amongst other subjects, the FISUEL Manuel, which was presented and commented on by PROQUELEC, aroused a deep interest.

In another session, the presentation made by PROQUELEC on Audit and Energy Efficiency was also greatly appreciated by the participants.

Above all, today, faced with the explosion in oil prices, the permanent increase in energy costs and the threat to the planet from the accumulation of greenhouse gases, all experts in the world agree that saving energy and reducing waste is the least expensive and most effective way to increase energy security and improve the environment in the world.

It is desirable therefore that this hot topic should be chosen as one of the issues dealt with during our next meeting.

Let's live FISUEL !

European Commission, DG Enterprise

European Commission has decided to launch in 2011 "a study to assess how to improve the safety of electrical installations in buildings while at the same time increasing their energy efficiency and enabling safe integration of renewable energy sources and new services like charging of electric vehicles." (Electra Communication 28 October 2009).

More on: http://eu/enterprise/sectors/electrical/documents/electra_comm/electra_comm_2009_0594



PROMOTELEC
Promotelec - l'électricité

Photovoltaic in France, be careful with the installations rules !

If the photovoltaic power generation utilities contribute to spread out the Government's objectives, yet they must comply with the wiring rules ... The first reports of application of the Standard are not satisfactory.





Voluntary verifications: worrying figures

Analysis of the results of voluntary verifications of photovoltaic systems reflects a lack of application of the installation rules. These figures are related with the verifications carried out from early 2008 to February 2009. In metropolitan France, out of 310 audited facilities, 153 were not complying ; and out of the metropole, in the overseas departments or territories, 136 out of 324 were not. Meaning in total: a percentage of non-compliances of 45%.

- The installation of photovoltaic equipments is undergoing a strong development.

The Governmental accompanying measures and the obligation to purchase electricity at an attractive price accelerate the spreading of this technology. This is part of the Government's objectives and contributes to meeting the commitments of France and Europe in renewables energies (target 23% of Renewables in France). Connected with the distribution network, production facilities for photovoltaic electricity are all decentralized systems. As such, their connection is subject to essential safety rules. Yet the initial findings regarding the application of these rules are alarming, as showed by the analysis of the verifications made by the CONSUEL further to voluntary approaches. Let us remind that the implementation of PV systems relies on the skills of roofers and electricians. To overcome this worrying trend, practitioners, electrical utilities and consumers' Associations are very glad

of the recently promulgated obligation of the issuance of a certificate of compliance before the network connection of a photovoltaic system, as well as for the connection a new domestic power supply (New decree of March 22, 2010).

Learn more

The major non-compliances

- Absence or inadequate calibration of the differential
- No interconnection between the earthings or incorrect earthing
- Lack of equipment for isolation and / or inverters cutting
- Circuit breakers calibration not suitable
- DC connector not appropriate (locking)
- Equipment not suitable for DC (disconnect and surge)
- Specific marking.

More safety

Since the 22 of March 2010, any new generator installation of a power lower than 250 kVA – and generally speaking, any new installation connected with the public distribution network – must have been given an attestation of compliance with the safety rules stamped by CONSUEL. Photovoltaic must thus meet this requirement . A further step towards more safety.

In France, Compulsory Diagnosis, first results



Promulgated by the Law of July 13, 2006 as Engagement National pour le Logement for a mandatory electrical installation condition

report, it has been followed by three decrees and two orders bringing it into force from 1 January 2009 with the report to be valid for 3 years.

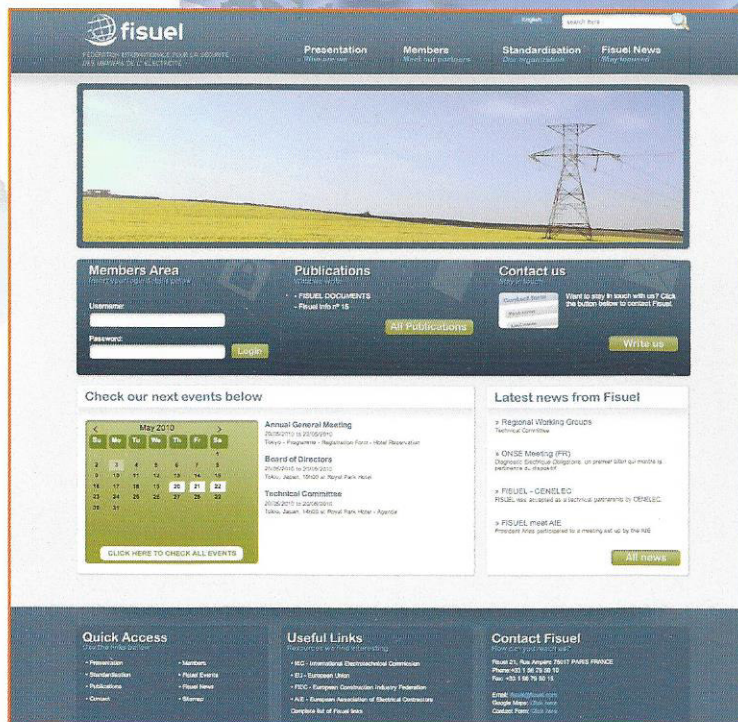
It applies in the context of the sale of a dwelling in which the electrical installation is more than 15 years old.

The six essential technical requirements are:

- The presence of a general control and protection device, easily accessible;
- The presence of at least one residual current device with a sensitivity appropriate to the earthing conditions;
- The presence in each circuit of at least one overcurrent protective device rated in accordance with the conductor size;
- The presence of equipotential bonding and compliance with the rules related to the zones in rooms containing a bath or shower;
- The absence of any obsolete electrical equipment, unsuitable for use or presenting a risk of direct contact with live parts;
- Absence of conductors without mechanical protection.

One year after its introduction, the first feed back on Mandatory Electrical Condition Reporting show the importance and usefulness of this approach. A study conducted by TNS Sofres among new owners of properties has indicated that in two thirds of the cases areas of lack of safety were highlighted and that work was carried out in 96% of the homes affected.

In parallel, a field study conducted by the *Observatoire National de la Sécurité Electrique* indicates that out of the 6 000 compulsory inspections made in 2009, 72% of them revealed at least three simultaneous non compliances (earthing, 79 % ; obsolete equipment, unsuitable for use or with risks of direct contact, 74% ; and in rooms containing a bath or shower, 65%).



www.fisuel.org

The new website of FISUEL is now in function, with a space "for members" (have a "user name" and a "password"). Thanks to send to FISUEL any information likely to be of interest for the other members.



ATTESTATION DE CONFORMITÉ

Formulaire remis le: 1
Visible jusqu'au: 2

INSTALLATION DE PRODUCTION 2
 photovoltaïque solaire cogénération (a)
 Autres rociaux agricole industrielle fortaire (b)

3 CACHET DE L'INSTALLATEUR

4 N° client

5

6

7 Installateur
 Tél. portable :
 Fax :
 Mail :

L'installateur soussigné atteste que l'installation électrique, objet de cette attestation, est conforme aux prescriptions de sécurité en vigueur et que les parties rénovées sont compatibles, du point de vue de la sécurité, avec les parties non rénovées.

Référence du point de livraison attribuée par le gestionnaire du réseau DP (1) : 8

9 NOM DU CLIENT : (en lettres capitales)
10 ADRESSE DU CHANTIER : (en lettres capitales)
 Immeuble : Escalier : Etage : Porte :
 Rue : N° :
 Date : / / Signature : **12**

11 Coordonnées GPS du chantier
 Latitude : Longitude :

13 Puissance : kW (c)
14 Tension câble courant alternatif (1) : < 1000 V > 1000 V (d)
15 Installation (1) : neuve existante **16** Raccordement au réseau DP (1) (1) : non oui
17 Installation de production a été réalisée totalement par vos soins (1) : oui non
 Nom et coordonnées des autres intervenants en électricité :

18 Précisions complémentaires

IMPORTANT : voir conditions générales au verso du 3^{ème} feuillet.

With the aging of housing stock, older installations are no longer suited to the modern equipment which has appeared in our homes (induction hobs, multimedia equipment, dryers ...). In France, 16 million dwellings are affected. Built before 1974, these buildings were not subject to the certificate of conformity issued by CONSUEL. They may therefore present particular risks of overheating of circuits or of fire and of being the cause of electric shock in people.

Broadening the scope for the safety of all

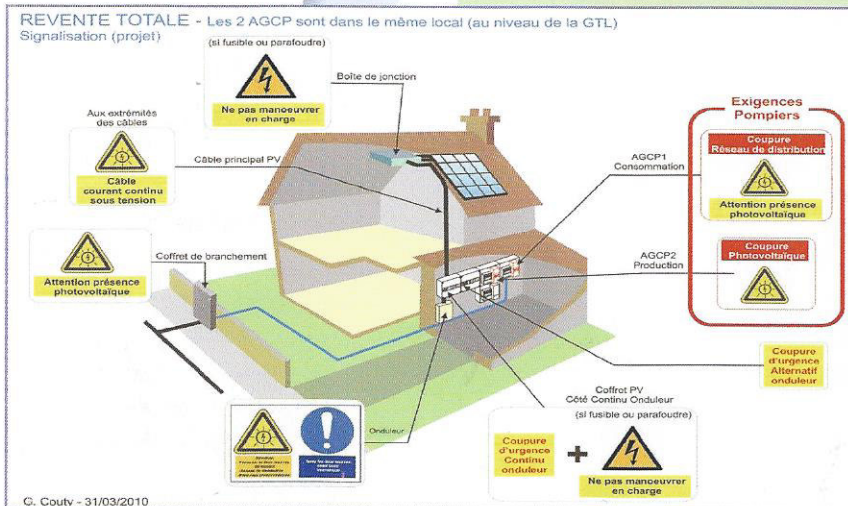
Today, these early results demonstrate the real benefits of the regulatory requirements and their importance of extending its application to ensure the safety of all.



FISUEL Working Groups

■ *The European working Group met in Paris on Friday 19 March; it successively dealt with: the grid of the points of verification in photovoltaic installations, the Electra Communication of the European*

Commission (see above: have a safe installation in order to be able to have it updated, therefore have a periodically verified installation), fires on photovoltaic roofs, a Portuguese study on energy efficiency, training at photovoltaic in AIB, Belgium, and Regulations in force in Switzerland. (Minutes and related documentation on the website).



■ *The Asian Working Group met in Jakarta on the Thursday 25 March; it dealt with the "essential safety requirements" in existing dwellings (cf. FISUEL Manual), and safety of connection installations for electric vehicles.*

THE MEMORY OF FISUEL

It is the collection of :

- informations collected by FISUEL
- the documents it has made and the results of the works it has lead since its creation in 2002.

- The first ones are classified, first by continents (Africa, Europe, Middle East, Asia), then by countries, as well as in a chapter "institutional".

- The seconds are in the chapter "FISUEL documentation", in which in particular, one will find the Directory and the collection of statistics and inquiries (in the International Data Collection Centre)

From now, this "tool" will be put on the web site and permanently updated.

In this respect, any communication (article, presentation,...) likely to enrich the knowledge of the Federation and complete this "FISUEL library" will be most welcome.

2010

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- des principaux documents et travaux publiés :

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MOYEN ORIENT : Saudi Arabia, Lebanon

- the main documents and works that have been published:

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