

February 2011



**EURELECTRIC - T&D Europe Position Paper
on the Implementation of the Regulation on
Fluorinated Gases (No 842/2006) and its review**

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EURELECTRIC

The **Union of the Electricity Industry-EURELECTRIC** is the sector association representing the common interests of the electricity industry at pan-European level, plus its affiliates and associates on several other continents.

In line with its mission, EURELECTRIC seeks to contribute to the competitiveness of the electricity industry, to provide effective representation for the industry in public affairs, and to promote the role of electricity both in the advancement of society and in helping provide solutions to the challenges of sustainable development.

EURELECTRIC's formal opinions, policy positions and reports are formulated in Working Groups, composed of experts from the electricity industry, supervised by five Committees. This "structure of expertise" ensures that EURELECTRIC's published documents are based on high-quality input with up-to-date input information.

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T&D EUROPE

T&D Europe, the first European Association of the Electricity Transmission and Distribution Equipment and Services Industry, aims to promote and defend the common technical, industrial economic, environmental and political interests of the European electricity transmission and distribution manufacturing, and product derives solutions industry.

T&D Europe was created in March 2008 by the merger of two European committees: CAPIEL HV and COTREL. It represents all relevant European national associations. The companies represented by T&D Europe account for a production worth over € 25 billion, and employ over 200.000 people in Europe.

T&D Europe is a driver for advanced solutions and technologies in the field of electricity networks, encouraging an energy-and cost-efficient as well as an environmentally friendly infrastructure.

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We refer to the forthcoming review of Regulation (EC) 842/2006 and we would like to comment on the importance of SF₆ (sulphur hexafluoride) as a switching and insulating medium in medium-voltage, high voltage and very high-voltage switchgear.

The electricity industry has acted to support and implement the Regulation (EC) 842/2006 and is committed to the objective of reducing SF₆ emissions. This is in line with the previous joint EURELECTRIC - CAPIEL position paper of 2006 [1]. (CAPIEL has now been integrated into T&D Europe).

To fulfil the commitment of the electrical sector to environment and to society, it is necessary to ensure that state of the art technologies are taking into account the need for safety, reliability and sustainability. To achieve this, investments are made in most modern safe and sustainable equipment with minimal maintenance requirements and a long life time.

Different technologies are used in transmission and distribution of a voltage range greater than 1 kV to provide a reliable supply of electricity for society and industry. The use of SF₆ in medium voltage, high voltage and very high voltage systems is needed for a modern electricity transmission and distribution network.

SF₆ has unique and presently irreplaceable properties that allow the optimized operation of electrical switchgear and electricity networks. SF₆ technology is used to ensure high reliability of electricity supply. Life Cycle Assessments have shown this technology to contribute less to global warming as well as other environmental impact categories* and therefore is overall of benefit to the environment.

A comparison of air-insulated (AIS) and SF₆-insulated (GIS) technologies shows the advantages of the SF₆-GIS technology with regard to primary energy demand and global warming potential [2]. In medium-voltage systems, the amount of SF₆ used per functional unit is very low and emissions are negligible.

The amount of material used is reduced due to more compact designs and the amount of waste at the end of life is similarly reduced. Alternative technologies would have to operate with less efficient gases or more epoxy, at higher equipment cost and limited applications. This would involve stressing the material at increased risk to safety, without lowering the total environmental impact.

Technological developments in field of SF₆ containment such as sealed-for life and improved/minimal handling result in continuing emission reduction. A closed loop for SF₆ reuse at end of life is ensured by manufacturers as well as specialized companies [3].

We support and follow the obligations based on the existing F-gas regulation EC 842/2006, and consider that it is delivering its objectives in a satisfactory manner. It is therefore our view that the Regulation does not need amendment or revision with regard to the equipment we use.

[1] EURELECTRIC - CAPIEL position Paper on the implementation of the Regulation on Fluorinated Gases (No 842/2006) - 2006.

[2] SF₆-GIS-Technology for Power Distribution - Medium Voltage - 2003
ABB, AREVA, EnBW, E.on, RWE, SIEMENS, Solvay Fluor und Derivate, More information:
www.solvay-fluor.com

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[3] SF6 switchgear End of Life Flowchart - T&D Europe - 2009.

*) Other environmental impact categories are: Ozone-depletion potential, Acidification potential, Photochemical oxidant formation potential, Eutrophication potential, Use of non-renewable resources (ISO/TR 14047, *Environmental management – Life cycle impact assessment – Examples of application of ISO 14042*)