

EuP Preparatory Study ENTR Lot 2: Distribution and Power Transformers

Minutes of the First Stakeholder Meeting

Place: European Commission
Berlaymont building, Brussels

Date / Time: July 6, 2009
10h-16h

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Agenda:

- Presentation of participants
- MEEuP methodology by BIO IS
- Task 1 by VITO
- Task 2 by VITO
- Task 3 by VITO
- Data needs and enquiry by VITO
- Planning & feedback on reports
- Any other business

Participants:

European Commission

Martin Eifel EC – DG ENTR

Lot 2 consortium

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 Eefje Peeters VITO
 Shailendra Mudgal BIO Intelligence Service
 Benoît Tinetti BIO Intelligence Service
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Stakeholders

Bastian Bach ThyssenKrupp Steel AG
 Eric Coen EREA NV
 Maya De Groot Federal public service health, food chain safety and environment (Belgium)
 François-Xavier Dussart GE
 Stefan Fassbinder Deutsches Kupferinstitut
 Cinzia Formica Orgalime
 Klaus Giefer METGLAS® Transformer Products
 Michael Hastenrath ThyssenKrupp Electrical Steel GmbH
 Michael Heinz Sächsisch-Bayerische Starkstrom-Gerätebau
 Sigrid Jacobs ArcelorMittal
 Elodie Jaussaud RTE - CNER - SER
 Hans Lammert ThyssenKrupp Electrical Steel GmbH
 Pierre Lucas Orgalime
 Richard Mc Geehan Hitachi
 Michel Sacotte France Transfo

Hans-Paul Siderius	SenterNovem
Yukihiro Taniguchi	Hitachi
Frans Van Camp	ArcelorMittal

1. INTRODUCTION

Paul Van Tichelen (PVT) of VITO welcomed participants to the meeting and initiated introductions by all participants.

2. PRESENTATION ON MEEUP

Alexander Thornton (AT) of BIO Intelligence Service presented the methodology used in the study.

3. PRESENTATION ON PROGRESS OF TASK 1

PVT begins with a presentation of Task 1. Comments were made:

■ Definition of main Ecodesign parameters (slide 4)

Stefan Fassbinder (SF) of Deutsches Kupferinstitut: Are electrical hazards considered as environmental hazards?

PVT: Safety hazards such as electrical hazards and explosions are dealt with in other directives. However, safety issues should be added for completeness. It is important that the improvement options are safe as well.

Shailendra Mudgal (SM) of BIO Intelligence Service: It is important to discriminate between factors involved in the LCA and other hazards. Also, Ecodesign should not negatively affect the safety and functioning of products.

Martin Eifel (ME) of the European Commission: We should define all relevant hazards, and then filter them for environmental ones. Non-environmental hazards cannot be included within the context of Ecodesign requirements.

■ Definition – Scope (slide 6)

SM: Smaller and specialty transformers may be out of the scope.

ME: The Commission intends to study all transformers including small and specialty. The goal is to have a full picture to know what to include in the first screening. This study will also cover transformers that were not included in the study on External Power Supplies (EPS).

SM: Most stakeholders here represent larger transformers and those smaller are not present.

PVT: Better communication will have to be made to the other manufacturers, .

Eric Coen (EC) of EREA NV (manufacturer of smaller and specialty transformers): It is difficult to know the market as there are many transformers in housing and lighting. It is important to draw a line as

there is the directive already for power supplies. Perhaps it is best to stop with power cutoff or function.

SM: The cutoff cannot be made based on power criteria because of the methodology of the Ecodesign studies. In addition, the data for EPS was very difficult to obtain.

SF: The definition of distribution transformers is from 16 kVA for single-phase and 35 kVA for 3-phase. I am surprised that the study wants to cover all types of transformers but I feel that it is feasible. I offer to provide a list of smaller transformer manufacturers.

PVT: For a study on all types of transformers, the study title is then misleading. It is essential to paint a complete picture with Task 1 and industry (Orgalime federation) is invited to submit information.

■ **Verification of data in Definition – Scope (slide 8)**

PVT: VITO calculated that the overall losses of power transformers in Europe are about 52 TWh, which represents 1.5% of the overall European electricity consumption (3100 TWh). VITO is questioning this high figure because it would signify that transformers are the main source of loss in the electricity transmission system.

Elodie Jaussaud (EJ) of RTE – CNER – SER: confirms that transformers are not the main source of losses in the electricity transmission system. In the French transmission system, it has been evaluated that losses are about 80% from the line and 15% from the transformers.

■ **Test Standards (slide 10)**

SM: It is important to note that standards have a different connotation in Europe than in the US. In Europe, standards mean test standards while in the US, standards mean legislation.

ME: The terminology within the context of this study is the European one. European test and performance standards result from the 3 European Standardisation Organisations (ESOs). This study needs to identify test and performance standards' gaps for all relevant environmental parameters to avoid pitfalls in the future. The Commission can launch mandates for the development of Standards when necessary.

PVT: For Ecodesign, maybe there will be no standards for negative health effects, but other parameters relating to electrical hazards and efficiency which can be measured. Emphasis should be placed on performance and Ecodesign parameters. There is an open invitation to stakeholders to submit information and help identify gaps.

■ **Existing legislation (slide 14)**

ME: It is important to first understand what exists in Europe, including measures relating to Ecodesign, incentives or green public procurement. One can identify the level of incentives and other tools within each Member State. All instruments should be considered. It is important to see what has been done internationally, such as Minimum Energy Performance Standards (MEPS), incentives, public procurement, etc. Have any other parameters been considered?

4. PRESENTATION OF PROGRESS OF TASK 2

Liesbet Goovaerts (LG) of VITO continues with a presentation of task 2.

■ Energy efficiency (slide 25)

Hans-Paul Siderius (HS) of SenterNovem: It seems according to the slide that transformers purchased today are less efficient than those bought earlier. The average no load losses increase with time according to the table.

PVT: The rating is also higher for newer transformers, so this is an incorrect interpretation of the data.

■ General questions/comments

Sigrid Jacobs (SJ) of ArcelorMittal: There is also the possibility of using iron cobalt alloys which can go to rather high levels. These transformers are more compact. Has this been pursued in market data?

PVT: Transformer size has not been considered as a market parameter.

LG: This can be discussed later during Task 5 during research of best available and best not-yet available technology. The goal of Task 2 is to research what is commonly available now on the market.

5. PRESENTATION OF PROGRESS OF TASK 3

PVT and LG present the current status of Task 3.

6. PRESENTATION OF FOLLOWING ACTIONS AND PLANNING

PVT presents the future planning for after the meeting.

■ How to conduct commenting and receive input

PVT: There are two options for the submission of input. Either stakeholders can comment on the chapters line by line, or they can fill out the enquiries that have been made.

Michel Sacotte (MS) of France Transfo: T&D Europe will meet and send unified comments on Tasks 1 – 3.

Cinzia Formica (CF) of Orgalime: Orgalime will try to find manufacturers of smaller transformers so that they can be included.

PVT: Most small- and medium-sized enterprises typically have low participation. It will be best to contact them directly. Also, in the next month the collection of data for tasks 4 and 5 will begin.

7. OPEN DISCUSSION

■ Weighting of environmental factors

Benoît Tinetti (BT) of BIO Intelligence Service: The EcoReport tool will output the necessary environmental impacts. We do not combine or create a weighted average for issues such as noise.

SM: We look for a correlation between factors, for example between electricity and global warming potential. Ecodesign looks for the most significant impacts. Noise is specific for this study and not part of the EcoReport. This must be discussed separately and will be analysed for Task 4.

PVT: A relative comparison will be made and perhaps certain environmental impacts will increase with the improvement options. Relative change is more important than absolute figures.

■ Submission of private information

PVT: It is important to receive information that can be made public. We can speak privately as well on how to handle sensitive information.

SM: Non-disclosure agreements are possible. Data can be aggregated or averaged. Everything published will be verified prior to release.

■ Possibility of legislation

ME: It is not set that there will be legislation. Alternatives to ecodesign requirements could be voluntary agreement, labelling, incentives, etc. The earlier stakeholders submit info and feedback, the greater influence they will have on the outcome. This meeting and the coming months are very crucial.

MS: T&D Europe is in favour of regulation. As a manufacturer, it is difficult to push a client to buy efficient products. The measurement of losses is difficult, and smaller companies could find ways to circumvent voluntary agreements.

■ Readability and consistency of figures

SF: There is a problem of the readability of the figures. For example, the use of commas and periods to represent decimals in table 2.1 and 2.3 in Task 2.

PVT: This is due to computer parameters that are sometimes difficult to change. This problem will be improved upon in the future.

SM: This can be fixed by changing language settings of the computer.

SF: Also, the Excel language settings can be changed.

■ **Scope and classification of study**

EC: It is very important to know where to stop with the small transformers, or to begin with some other kind of classification.

PVT: Originally we understood the study was for distribution and power transformers, but the scope will be discussed further after the meeting. Classification of distribution and industrial transformers is already defined by standards.

HS: The scope should be based on functionality as opposed to technical characteristics. It is important to determine the lower limits of the scope so that there is no overlap or influence with other Ecodesign legislation.

Maya De Groot (MdG) of Federal public service health, food chain safety and environment (Belgium): I am surprised by the extension of the scope as this makes it a horizontal study.

ME: The European Commission does not want to differentiate based on who uses the transformer, including the small ones. The Commission wants a global overall picture of transformers used within networks distributing electrical current, regardless of the owner of the networks.

■ **Utility of DOE Transformer study**

Frans Van Camp (FVC) of ArcelorMittal: The DOE did a study on transformers. How useful is this data for Europe?

PVT: It is dangerous to transfer data because of the difference between the US and Europe in electrical system and economic parameters. The US study had a \$6 million budget and lasted many years and contains therefore valuable information. It should be noted that US legislation is very different from that of the EU and includes formulas for economic optimisation and very specific test methods. It is subjective to economic parameter stability that is highly fluctuating. As a conclusion, it will be important in our study to conduct life-cycle analysis with correct interest and inflation assumptions as the product lifetime is long.

ME: The good ideas of the US study and legislation could be brought to the EU. Examining the scope and how standards, incentives and public procurement are used is very important.