



# E3 Transformers Newsletter

## Issue One - August 2009

E3 Transformer newsletters will be periodically issued on behalf of the Equipment Energy Efficiency (E3) Committee. These newsletters will be emailed to a list of stakeholders and uploaded to the [www.energyrating.gov.au](http://www.energyrating.gov.au) website. If you would like to receive each new E3 Transformers Newsletter as it is released, email [lelde.vitols@environment.gov.au](mailto:lelde.vitols@environment.gov.au) to be added to the emailing list.

The newsletters are intended to keep industry stakeholders informed and updated about mandatory Minimum Energy Performance Standards (MEPS) for transformers.

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### 1. History of transformer MEPS

Since 1 October 2004, distribution transformers manufactured in or imported into Australia have had to comply with Minimum Energy Performance Standards (MEPS) requirements that are set out in AS 2374.1.2-2003. The current scope of transformer MEPS covers oil-immersed and dry-type distribution transformers with power ratings from 10 kVA to 2500 kVA intended to be used on 11 kV and 22 kV networks.

The aim is to increase energy efficiency by eliminating low efficiency transformers from the market by setting MEPS and encouraging the use of high efficiency transformers. The standard also defines voluntary minimum efficiency levels for "High Efficiency Transformers". Only products which meet the specified efficiency levels can apply this term to promotional or advertising materials.

Details of current MEPS for transformers are set out as power efficiency levels at 50% of rated load in AS 2374.1.2, when tested in accordance with AS 2374.1 or AS 2735 as applicable. For more information, see <http://www.energyrating.gov.au/transformers2.html>

In 2008, E3 and the Australian Industry Group (AiG) jointly developed an information brochure for MEPS for transformers. An electronic copy is available here: <http://www.energyrating.gov.au/library/pubs/2008-info-brochure-transformers.pdf>

### 2. Proposed new MEPS levels for transformers – Consultation to date

At the Energy21C conference in November 2007, E3 announced the proposed move to increase the stringency of MEPS levels for transformers, no earlier than October 2010. Ongoing consultation with AiG Electrical Capital Equipment Forum as well as ad hoc consultation is informing the development process.

The proposed new MEPS levels for both oil-immersed and dry-type transformers are based on the current voluntary High Efficiency levels, but reduced slightly for the larger oil-immersed transformers. New voluntary Higher Efficiency levels will be included as a guide for

purchasers who wish to use more efficient products. The draft new standard proposes an increase in the size range to be covered by MEPS, to include transformers up to and including 3,150kVA. The draft standard will also add a requirement that transformers are to be labelled as compliant with MEPS.

The development process for the new Standard started in December 2007 with the release, for public comment, of a Technical Report "Distribution Transformers: Proposal to Increase MEPS Levels". The Standards Committee, EL-0008, has discussed the scope of a draft new MEPS standard and the technical feasibility of its introduction. A stakeholder forum was also held in Sydney in February 2005 to discuss the proposed new MEPS levels.

### **3. Proposal to include 33kV network transformers in MEPS 2 standard**

A proposal to add 33kV network transformers to the scope of the new Standard emerged during the development of the new efficiency levels. The proposal is to cover the same size range as for the new MEPS (i.e. 10kVA up to and including 3,150kVA).

Such an inclusion of 33kV network transformers would incorporate some distribution transformers used in the wind farm sector into the scope of MEPS regulation. Discussions have been held with industry and independent consultants on this proposed extension of the scope of MEPS to include 33kV network transformers. Specifically, a Wind Farms Distribution Transformers Stakeholder Consultation Forum was held in Adelaide in February 2009. Possible efficiency levels for the 33kV transformers have been developed in consultation with key industry stakeholders and taking into account current local practice.

### **4. Next steps**

The move to more stringent MEPS levels has been agreed in-principle, with a proposed implementation date of no earlier than October 2010.

A draft standard is being developed which takes into account stakeholder issues raised to date, including those of government, suppliers and customers.

After completion of the draft standard, the standard development process will be paused until the Regulatory Impact Statement process has been finalised. A Consultation Regulatory Impact Statement is expected to be released for public comment late in 2009.

### **5. Conclusion**

For further information, please see the [www.energyrating.gov.au](http://www.energyrating.gov.au) website or email Lelde Vitols, [lelde.vitols@environment.gov.au](mailto:lelde.vitols@environment.gov.au)

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