Standards for Energy Efficiency of Electric Motor Systems

PRESS RELEASE

Energy Efficiency Potential Untapped

Broad Coalition Calls for Action on Efficient Industrial Motor Systems

Beijing, 14 June 2007

Representatives of industry and business organizations, governments, utilities, academics, and energy agencies participated in the annual Steering Committee meeting of the SEEEM (Standards for Energy Efficiency of Electric Motor Systems) initiative, today in Beijing, at a side event to the 5th International Conference on Energy Efficiency in Motor Driven Systems, EEMODS'07.

SEEEM is an independent, multi-stakeholder effort to promote rapid market diffusion of high-efficiency motor component technologies and systems worldwide. Motor driven systems account for 40 % of total electricity demand worldwide (including up to 65 to 70% of industrial demand). There is an economic potential to improve the energy efficiency of industrial motor systems by roughly 25 to 30%, with payback times of less than three, often less than one year.

The participants welcomed news of global developments regarding energy efficient motor systems since the launch of SEEEM in June 2006 in London:

1) The European Committee of Manufacturers of Electrical Machines and Power Electronics (CEMEP), represented by Jürgen Sander, Chair Low Voltage Motors Work Group, agreed to support Minimum Energy Performance Standards (MEPS) for motors at Eff 1 level under the EU Ecodesign of Energy-using Products Directive.

2) Together with the American Council for an Energy Efficient Economy (ACEEE), the USA National Electrical Manufacturers Association (NEMA), represented by Rob Boteler, Chair Energy Management Task Force, has asked the U.S. Congress to raise the current MEPS level to NEMA Premium within 3 years of enactment and to support the transition with financial incentives. The new MEPS calls for motors to have on average 15% lower losses than current EPAct levels.

3) The International Energy Agency (IEA), represented by Paul Waide, Senior Energy Efficiency Advisor, has estimated that 7% of global electricity demand could be saved with energy efficient motor systems.

4) The International Electrotechnical Commission (IEC) has proposed a new harmonized testing method. The IEC, represented by chair Working Group 31, Martin Doppelbauer, SEW-Eurodrive, Germany, also proposed a new international motor efficiency classification system IEC 60034-30 that can eventually include a new Super Premium efficiency level. In order to improve the

reliability of testing accuracy and repeatability, IEC is launching a round robin test of methodologies by qualified international motor testing laboratories.

5) Preliminary results of the technical Ecodesign studies on motors, presented by Prof. Anibal de Almeida (University of Coimbra, Portugal), show that life cycle costs of Premium efficiency motors are 2% to 11 % lower than present standard efficiency motors.

So far 10 countries have mandatory Minimum Energy Performance Standards for motors. These countries have 34% of world population and 47% of world electrical consumption.

SEEEM will continue to encourage the 20 largest countries with 66% of global population, using 80% of global electricity demand, to adopt and enforce MEPS for motors at a premium efficiency level. Specifically SEEEM will:

- Work on a Road Map for Motor Market transformation to promote the diffusion of efficient industrial electric motor systems worldwide;
- Continue to advocate harmonization of energy efficiency testing procedures, efficiency classes and marking schemes for motors and system equipment;
- Engage the SEEEM community of practice to share experience, derive best practice, and coordinate measures to promote efficient motor systems.

Global cooperative action is needed now to overcome barriers to the wider deployment of energy efficient motor systems, one of which is a lack of harmonization.

The SEEEM process will promote international agreements on testing procedures, efficiency classes and marking schemes that will make it possible to compare products globally. This, in turn, will allow for international benchmarking and steps to align performance requirements (e.g. minimum energy performance standards) and to design/implement cost-effective policies and incentives, to promote the most efficient motor systems.

To achieve its overall objective, the SEEEM community of practice has identified four areas for cooperative action:

- *Efficiency testing procedures and tolerances*
- *Efficiency classes and marking schemes*
- *Mandatory performance requirements*
- *Effective policies and incentives for energy efficient motor systems.*

SEEEM received start-up funding from the Australian Greenhouse Office, the International Copper Association, Natural Resources Canada, Senternovem from the Netherlands, the Swiss Agency for Efficient Energy Use and the UK Market Transformation Program, and is supported by various stakeholder groups worldwide. SEEEM welcomes additional sponsors, to reinforce this collaborative effort, and to help advance the delivery of substantial economic, environmental and social benefits (see www.seeem.org for details).

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Annex: SEEEM Fact Sheet