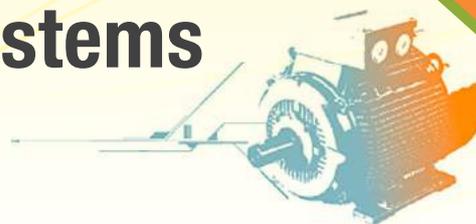


Electric Motor Systems Annex Overview



PHOTOGRAPH BY THOMAS BURLA, SWITZERLAND

Electric motor systems in industrial plants, infrastructure applications and buildings that drive pumps, fans, compressors and other equipment, are responsible for 45% of the world's total electricity consumption. New and existing technologies offer the potential to reduce the energy demand of motor systems across the global economy by 20% to 30%. The know-how to realise energy savings exists but is not widely applied.

The 4E Electric Motor Systems Annex (EMSA) promotes the opportunities for energy efficiency in motor systems by disseminating best practice information worldwide. It supports the development of internationally harmonised test standards and policies to improve the energy performance of new and existing motor systems. This briefing gives an overview on EMSA's work.

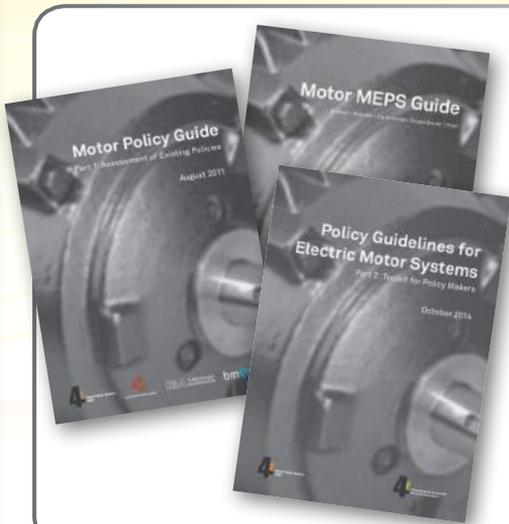
EMSA's work focuses on the following areas:

- **International Standards.** EMSA contributes to the development of internationally harmonized and globally applicable technical standards for motor systems:
 - EMSA participates in relevant International Electrotechnical Commission (IEC) standards committees and contributes independent research results.
 - EMSA is supportive of the IECEE¹ Global Motor Energy Efficiency Program and helps to disseminate its messages.
- **Regulatory Assistance.** EMSA assists policy makers design and implement coherent motor systems policy instruments, based on international best practice and promotes the exchange of experience between countries.
- **Energy management systems and audits for motor systems.** EMSA researches policy mechanisms, tools and methodologies for the implementation of energy management and energy audit.
- **Motor Systems Tool.** EMSA has developed this impartial user-friendly software tool to assess the efficiency of a complete motor system.
- **SEAD Cooperation².** EMSA works with SEAD to mutually benefit from the accumulated knowledge of both initiatives. For example, EMSA expertise was used in the SEAD Global Efficiency Medal competition for electric motors, designed to select the world's most efficient motors.

EMSA provides a platform for an in-depth technical and policy exchange between members and is a vehicle for collaborative projects. EMSA's research results are publicly available.

¹ Worldwide System for Conformity Testing and Certification of Electrotechnical Equipment and Components

² Super-efficient Equipment and Appliance Deployment Initiative www.superefficient.org



EMSA Publications

EMSA publishes a range of guides covering a mix of policy instruments applicable to differing national circumstances. They include case studies of successful implementation and the lessons learnt.

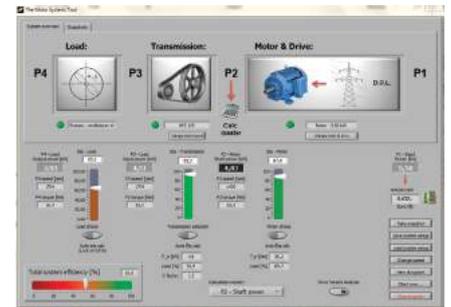
EMSA has published the following guides:

- *Motor MEPS Guide (2009)*
- *Motor Policy Guide – Part 1: Assessment of Existing Policies (2011)*
- *Policy Guidelines for Electric Motor Systems - Part 2: Toolkit for Policy Makers (2014)*
- *Policy Guidelines for Motor Driven Units (to be published in 2017).*

EMSA Capacity Building

The EMSA Motor Systems Tool calculates the energy efficiency of a complete motor system, taking into account the motor and controls, load characteristics and transmission. It is intended for engineers, machine builders, energy consultants and others aiming to optimise existing and new machine systems.

To access: www.motorsystems.org/motor-systems-tool



EMSA Network

EMSA's Global Motor Systems Network comprises over 4000 contacts in 70 countries. Members include representatives of governmental bodies, international organizations, standards developers, researchers, motor systems efficiency experts, utilities, industrial end-users and manufacturers.

Network members receive the EMSA Newsletter in English, Chinese, Japanese, Russian or German, with updates on national and regional policy initiatives and EMSA's activities.

To subscribe: www.motorsystems.org/newsletter

Who's Involved?

The following six national governments are members of EMSA: Australia, Austria, Denmark, Netherlands, Switzerland, and the United States of America*.

Information from other countries is also used in the EMSA work, but those countries do not have access to the benefits of membership.

*Member listing August 2015

Where can I access the EMSA outputs?

All publicly available EMSA outputs can be found on the EMSA website at www.motorsystems.org.

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