

# 全球 电机系统 网络



EMSA 通讯：2011 第 1 期 ( English version below )

2011 年 2 月，苏黎世：

恭祝大家新春愉快！期待今年 9 月在 EEMODS'11 年会上，在华盛顿与各位相会！

亲爱的：

1	<p>这是电动马达系统附录 ( EMSA ) 最新一期的通讯。我们期刊的订阅用户已经发展到了 65 个不同国家，人数已增长到了 2000 人。</p> <p>全球电机系统网是 EMSA 在国际能源署的 4E ( <b>高效电气终端设备</b> ) 执行项目中的一个延伸项目。</p> <p>如果你想要了解更多关于 4E 的信息，请通过以下链接订阅 <b>Bright Spark</b>： <a href="http://www.iea-4e.org/bright-spark-newsletter">www.iea-4e.org/bright-spark-newsletter</a></p>	 <p>第 2 刊：2010 年 8 月</p>
---	---	--

活动		
2	<p>本届<b>电机峰会</b>于 2010 年 10 月 26 日至 28 日在瑞士苏黎世召开。来自 20 个国家的 160 位与会者参与了关于马达政策和技术发展的讨论。</p> <p>演讲、议程及相片：</p>	 <p><a href="http://www.motorsummit.ch">www.motorsummit.ch</a></p>
3	<p><b>EEMODS'11</b> 将于 2011 年 9 月 12 日至 14 日在美国弗吉尼亚州亚历山德里亚召开 ( 华盛顿附近 )。报告摘要必须于 <b>2011 年 2 月 17 日</b> 前提交。征文及注册：</p>	 <p><a href="http://www.eemods.org">www.eemods.org</a></p>
4	<p>亚洲开发银行下属亚洲清洁能源论坛 <b>ACEF</b> 将于 2011 年 6 月 20 日至 24 日在马尼拉召开</p>	<p>更多信息： <a href="http://www.cleanenergyasia.net">www.cleanenergyasia.net</a></p>
5	<p><b>马达、驱动及自动化系统研讨会</b>将于 2011 年 3 月 1 日至 2 日在德克萨斯州圣安东尼奥召开。</p> <p>会议日程及注册：<a href="http://www.e-driveonline.com">www.e-driveonline.com</a></p>	
6	<p>奥地利能源机构正在组织第二期<b>节能生产培训</b>，将于 2011 年四月开奥地利格拉茨开课。培训内容包括泵、风扇和压缩机系统的优化。详情请访问 klima:aktiv 网站或者联系 Marcus Hoffmann。</p>	 <p><a href="http://www.klimaaktiv.at">www.klimaaktiv.at</a> <a href="mailto:marcus.hofmann@energyagency.at">marcus.hofmann@energyagency.at</a></p>

EMSA		
7	<p><b>EMSA</b>目前的工作围绕列于右表的 7 项<b>任务</b>展开：</p>	<p><b>A</b> 执行支持服务与拓展 <b>B</b> 电机系统技术指导 <b>C</b> 测试中心 <b>D</b> 连贯性电机政策</p>

	<p>如果你有意与某一位项目负责人联系，请访问： <a href="http://www.motorsystems.org/contact">www.motorsystems.org/contact</a></p>	<p><b>E</b> 培训与能力培养 <b>F</b> 工业能源管理 <b>G</b> 新型电机技术</p>
8	<p><b>EMSA 参与情况</b>：英国在 2010 年年底退出，瑞典在 2011 年年初加入。欢迎加入！</p> <p>瑞典的联系人是 Glenn Widerström： <a href="mailto:glenn.widerstrom@energimyndigheten.se">glenn.widerstrom@energimyndigheten.se</a></p>	
9	<p><b>测试中心网络</b></p> <p>澳大利亚（气候变迁与能源效率部门）为EMSA建立了测试中心网。第三届会议将在美国亚历山德里亚的EEMODS'11上举行。</p> <p>上届于2010年10月26日在瑞士苏黎世召开的会议的议程可<a href="#">在线</a>查阅。</p> <p>如果你有意参与，请直接邮件联系Sarah Hatch： <a href="mailto:sarah.hatch@climatechange.gov.au">sarah.hatch@climatechange.gov.au</a></p>	
10	<p><b>新型电机技术</b></p> <p>工作主要集中在成立国际专家组，对新型电机技术，尤其是他们的标准化需求并最终成为最低能耗标准（MEPS）的可能性提供建议资讯。与 2010 年 10 月 28 日在瑞士苏黎世召开的专家组会议议程可<a href="#">在线</a>查阅。</p> <p>如果你有意参与，请直接邮件联系 Rita Werle： <a href="mailto:rw@abinternational.ch">rw@abinternational.ch</a>.</p>	

<b>新闻</b>		
11	<p><b>中国电机系统挑战</b>项目旨在为中国电机系统用户、节能服务公司（ESCO）、电动马达制造商以及节能管理部门设立一个国家级信息平台，并由欧委会下 SWITCH 亚洲项目共同资助。</p>	
12	<p><b>IMS Research</b>期望<b>中国</b>成为<b>永磁电机</b>的主要制造者及消费者。中国在稀土市场上有着显著的中短期优势。钕元素是所有稀土材料中最适合用作生产永磁电机的磁体材料。</p>	 <p style="text-align: center;">来源：Leroy Somer</p>
13	<p>欧委会（EC）<b>要求</b>CEN、CENELEC 和 ETSI <b>扩展电机测试与性能标准的范围</b>：200 瓦至 500 千瓦，所有电机类型，变速驱动，能效等级 IE4 与 IE5，测试报告标准模板。</p> <p>此工作由 IEC 和 Cenelec 共同完成。</p>	
14	IEC 在制定针对 <b>换流器供电电动机</b> 的测试标准的工作上	如果你有意得到一份副本，请电邮至

	取得了进展，委员会投票草案 IEC 60034-2-3 将会在短期内发表。	<a href="mailto:cub@cub.ch">cub@cub.ch</a> 索取
15	欧洲电机法规开始变得更加严格，从 <b>2011 年 6 月 16 日起</b> 0.75 至 375 千瓦的电机只有符合 <b>IE2</b> 标准才能获得在欧盟销售的许可。	<a href="#">Commission Regulation 640/2009</a>
16	一项新的针对 <b>风扇的欧委会法规</b> 通过决议。 125 瓦至 500 千瓦的风扇将从 2012 年（第一阶段）以及 2015 年（第二阶段）开始拥有强制性的最低能耗标准（MEPS）。  如果你有意得到一份法规草案，请电邮至 <a href="mailto:cub@cub.ch">cub@cub.ch</a> 索取。	
17	美国、墨西哥与加拿大正在统一 MEPS：现在开始，输出功率在 0.75 至 150 千瓦之间的电机只有符合了 IE3 高级能效标准才能获准销售：	
	依据 <b>2007 能源独立与安全法案 (EISA)</b> ，美国 <b>MEPS</b> 于 2010 年 12 月开始实施： NEMA 高级能效等级（IE3），针对 1 至 200 马力（0.75 至 150 千瓦）的电机； 能效等级（IE2），针对 201 至 500 马力（0.75 至 150 千瓦）的电机。	
	从 1995 年开始，MEPS 被包括在加拿大立法中。现在 <b>加拿大自然资源部门</b> <b>提议</b> 对能效法规进行修改，使之与美国 MEPS 一致。	
	在 <b>墨西哥</b> ，依据修订能效强制标准 <b>NOM-016-ENER</b> ，针对 0.75 至 373 千瓦的 MEPS 从 2010 年 12 月 19 日开始生效。	
18	NEMA 发布了 <b>MG 1-2009 Motors and Generators</b> 更新，修订了 50Hz 电机的效率表格使之包括最新的 IEC 60034-30 中规定的能效等级。	
19	ICE <b>循环电机测试</b> 项目的结果将由 Axel Möhle 在 EEMODS'11 上在其论文中进行总结。第二技术委员会（TC2）已着手将这些结果以及其他在测量精度和可重复性上的改进添加到 IEC 60034-2-1 修订本中。一种用于测量三相电机的首选测量方法被收纳：在载荷测试中测定损耗总和、用剩余损耗测定杂散载荷损耗。	<a href="http://www.eemods.org">www.eemods.org</a>
20	欧委会的联合研究中心发表了关于欧洲 <b>电机挑战计划</b> 评估的 <b>报告</b> 以及电机挑战合作伙伴所执行项目的 <b>汇编目录</b> 。	

如果你有任何疑问，欢迎随时向我们提出。如果你正在你所在国家负责电机能效项目，请务必告诉我们！

来自瑞士苏黎世的最诚挚的问候

Conrad U. Brunner & Rita Werle

EMSA (Operating Agent)  
Gessnerallee 38a, 8001 Zurich Switzerland  
Tel +41 (0)44 226 30 70 [cub@cub.ch](mailto:cub@cub.ch), [rita.werle@abinternational.ch](mailto:rita.werle@abinternational.ch)

**EMSA 电动马达附录，是国际能源署高效电气终端设备 4E 协议下的附录之一。目前，澳大利亚、奥地利、丹麦、荷兰、瑞典和瑞士都正在积极参与 EMSA 项目。同时，加拿大、法国、韩国、英国与美国也是 4E 参与国。**

如果你想订阅此通讯或者下载有关背景资料，请访问：

[www.motorsystems.org/ems-newsletter](http://www.motorsystems.org/ems-newsletter)。

如果你需要退订此通讯，请电邮至以下地址：

[info@motorsystems.org](mailto:info@motorsystems.org) 谢谢合作!

**版权所有©：** 你可以复制或引用此通讯中的任何条目，但请将所用于的文章或其它形式发送邮件给我们，便于我们的存档。非常感谢。 .

# Global Motor Systems Network



EMSA Newsletter no. 1/2011

Zurich February 2011:

See you all at the **EEMODS'11** in Washington DC in September 2011!

Dear ,

<p>1 This is the latest edition of the Electric Motor Systems Annex (EMSA) Newsletter. Our subscription has grown now to 2'000 people from 65 countries. Global Motor Systems Network is the outreach project of EMSA in the International Energy Agency's Implementation Program 4E: <a href="#">Efficient Electrical End-Use Equipment</a>.</p> <p>If you would like to know more about 4E subscribe to <b>Bright Spark</b> at: <a href="http://www.iea-4e.org/bright-spark-newsletter">www.iea-4e.org/bright-spark-newsletter</a></p>	 <p>Issue 2: August 2010</p>
--	--

Events	
<p>2 The <b>Motor Summit</b> was held from 26 to 28 October 2010 in Zurich, Switzerland. 160 participants from 20 countries discussed new motor policy and technological developments.</p> <p>Presentations, proceedings and photos:</p>	 <p><a href="http://www.motorsummit.ch">www.motorsummit.ch</a></p>
<p>3 <b>EEMODS'11</b> will be held on 12 - 14 September 2011 in Alexandria VA (near Washington DC). <b>Abstracts</b> have to be submitted <b>by 17 February 2011</b>. Call for papers and registration:</p>	 <p><a href="http://www.eemods.org">www.eemods.org</a></p>
<p>4 The Asian Clean Energy Forum <b>ACEF</b> hosted by ADB will be held in <b>Manila</b> on 20 - 24 June 2011.</p>	<p>More information: <a href="http://www.cleanenergyasia.net">www.cleanenergyasia.net</a></p>
<p>5 The <b>Motor, Drive &amp; Automation Systems</b> conference will take place on 1 – 2 March 2011 in San Antonio, Texas. Program and registration: <a href="http://www.e-driveonline.com">www.e-driveonline.com</a></p>	
<p>6 The <b>Austrian Energy Agency</b> is organizing a second set of <a href="#">trainings for energy efficient production</a> in April 2011 in Graz, Austria. The training includes pump, fan and compressor system optimization. For more information visit the related klima:aktiv website or contact Marcus Hoffmann.</p>	 <p><a href="http://www.klimaaktiv.at">www.klimaaktiv.at</a> <a href="mailto:marcus.hofmann@energyagency.at">marcus.hofmann@energyagency.at</a></p>

EMSA	
<p>7 <b>EMSA</b> works at present according to the seven <b>Tasks shown to the right</b>.</p>	<p><b>A</b> Implementation support &amp; outreach <b>B</b> Technical guide for motor systems <b>C</b> Testing centers <b>D</b> Coherent motor policy</p>

	If you would like to reach one of the Task Leaders go directly to: <a href="http://www.motorsystems.org/contact">www.motorsystems.org/contact</a>	<b>E</b> Training & capacity building <b>F</b> Energy management in industry <b>G</b> New motor technologies
8	<b>EMSA participation:</b> UK has left by the end of 2010, Sweden has joined early 2011. Welcome!  The contact person for Sweden is Glenn Widerström: <a href="mailto:glenn.widerstrom@energimyndigheten.se">glenn.widerstrom@energimyndigheten.se</a>	
9	<b>Testing Centres Network</b> Australia (Department of Climate Change and Energy Efficiency) has built up the Testing Centres Network of EMSA. The third meeting will be held at EEMODS'11 in Alexandria, USA. The proceedings of the last meeting from 26 October 2010 in Zurich, Switzerland are available <a href="#">online</a> .  If you would like to join, please contact directly Sarah Hatch by e-mail: <a href="mailto:sarah.hatch@climatechange.gov.au">sarah.hatch@climatechange.gov.au</a>	
10	<b>New Motor Technology</b> The work is focused on building up a group of international experts to advise on new motor technology, particularly their standardization needs and their chances to become minimum energy performance standards (MEPS) eventually. The proceedings of the expert group meeting from 28 October 2010 in Zurich, Switzerland are available <a href="#">online</a> . If you are interested to join contact Rita Werle: <a href="mailto:rw@abinternational.ch">rw@abinternational.ch</a> .	

<b>News</b>		
11	The <b>China Motor Systems Challenge</b> project aims to establish a national information platform for Chinese motor system users, energy-saving service companies (ESCOs), electric motor manufacturers and energy-saving administrations. The project is co-funded under the SWITCH-Asia Programme of the European Commission.	
12	<b>IMS Research</b> expects <b>China</b> to become the leading producer and consumer of <b>permanent magnet motors</b> . The country has significant short and medium term advantages in the rare earth mineral market.  For permanent magnet motors Neodym is the most suited magnetic material among all rare earth materials.	 Source: Leroy Somer
13	The European Commission (EC) <b>has mandated</b> CEN, CENELEC and ETSI on <b>expanded scopes of motor testing and performance standards</b> : 200 W to 500 kW, all types of electrical motors, variable speed drives, efficiency classes IE4 and IE5, standard template for test report.  Work will be shared by IEC and Cenelec.	

14	IEC has advanced work on testing standards for <b>electric motors fed by converters</b> . A Commission Draft for Voting IEC 60034-2-3 will be published shortly.	If you would like to have a copy send an e-mail to <a href="mailto:cub@cub.ch">cub@cub.ch</a>
15	European motor regulations are starting to get tough. <b>Only IE2</b> motors from 0.75 – 375 kW can be sold in the European Union <b>from 16 June 2011</b> .	<a href="#">Commission Regulation 640/2009</a>
16	A new <b>EC regulation</b> for <b>fans</b> has been decided. Fans from 125 W - 500 kW have mandatory MEPS from 2012 (first phase) and 2015 (second phase).  If you are interested and would like to receive a copy of the draft regulation send an e-mail to <a href="mailto:cub@cub.ch">cub@cub.ch</a>	
17	MEPS in the USA, Mexico and Canada are synchronized now: today only IE3 Premium Efficiency motors can be sold for output power ratings of 0.75 - 150 kW:	
	<b>USA MEPS</b> by December 2010 according to the <b>Energy Independence and Security Act (EISA) of 2007</b> : NEMA Premium Efficiency (IE3) for motors of 1 - 200 horsepower (0.75 – 150 kW).  Energy Efficient (IE2) level for 201 - 500 horsepower (151 – 375 kW).	
	The Canadian legislation had minimum energy performance standards for motors since 1995. Now <b>Natural Resources Canada proposed</b> to modify the Energy Efficiency Regulations to synchronize with MEPS in the USA.	
	In <b>Mexico</b> MEPS for motors from 0.75 - 373 kW according to the revised Energy Efficient Mandatory Standard <b>NOM-016-ENER</b> are in effect since 19 December 2010.	
18	NEMA has published the updated <b>MG 1-2009 Motors and Generators</b> with revised motor efficiency tables for 50 Hz products to include the latest efficiency classes as per IEC 60034-30.	 <a href="http://www.nema.org">www.nema.org</a>
19	The findings of the IEC <b>Round Robin</b> motor testing program will be summarised in a paper by Axel Möhle at EEMODS'11. Work has started in TC2 to include these findings and other improvements of accuracy and repeatability in the of IEC 60034-2-1. A preferred testing method for 3-phase motors has been adopted: Summation of losses with load test, stray load losses determined from residual loss.	<a href="http://www.eemods.org">www.eemods.org</a>
20	The Joint Research Centre of the European Commission has published a <b>report</b> on the evaluation of the European <b>Motor Challenge Programme</b> and a <b>catalogue</b> of projects implemented by Motor Challenge Partners.	

If you have any questions please feel free to ask. If you are running a national motor efficiency program: Tell us!

Best regards from Zurich Switzerland,

Conrad U. Brunner & Rita Werle

EMSA (Operating Agent)  
Gessnerallee 38a, 8001 Zurich Switzerland  
Tel +41 (0)44 226 30 70 [cub@cub.ch](mailto:cub@cub.ch), [rita.werle@abinternational.ch](mailto:rita.werle@abinternational.ch)

**EMSA is the Electric Motor Systems Annex of the International Energy Agency IEA Implementation Agreement on Efficient Electrical End-Use Equipment 4E. Currently Australia, Austria, Denmark, Netherlands, Sweden and Switzerland participate actively in EMSA together with Canada, France, Korea, United Kingdom and USA in 4E.**

If you would like to subscribe to this Newsletter or would like to download some backup copies go to [www.motorsystems.org/ems-newsletter](http://www.motorsystems.org/ems-newsletter).

If you do not want to receive this Newsletter any more: Please send us a short note to [info@motorsystems.org](mailto:info@motorsystems.org). Thanks!

**Copyright ©:** If you would like to copy or quote one of our items, go ahead. Please send us a proof for the archive.