EMSA - New Motor Technologies

WORKSHOP

28th October 2010
Motor Summit, Zurich
New Motor Technologies Workshop

Introductions
New Motor Technologies (Task G)

One of 7 tasks within the IEA 4E Implementing Agreement Electric Motor Systems Annex (EMSA)

Participants
- UK (*Leading*)
- Australia
- Netherlands
- Switzerland
- Other countries interested
- *Will also engage with other stakeholders*
Future requirements for policy makers (regulators)

- In order to uplift average performance of products on the market policy makers will develop measures such as:
  - mandatory minimum performance requirements for the bottom of the market and
  - incentives for the top end of the market

- To do this policy makers require
  - Ability to test and classify different motor technologies
  - Ability to test and classify performance of electronic controllers
  - Confidence that fair comparisons can be made
    - Compare different technologies E.g. is it possible to prove a PM package is more efficient than an AC induction motor package?
The risks

- The motor market is changing rapidly

- Demands of climate change policy require rapid increase in energy performance of technology
  - So policy must move ahead quickly
    - E.g. EC has already issued mandates to standards makers to develop standards for VSD’s & other motor technologies

- However standards making process is time consuming
  - Based on sound evidence
  - Robust
  - Consensus

- Diversity in motor technologies requires a complex framework of standards to meet policy makers requirements

- Regulators need high confidence in standards especially when they might be used in the context of legal requirements.
New Motor Technologies (Task G)

Objectives

- To engage with stakeholders (policy makers, standards makers, technical experts, manufacturers, academia and testing institutions) and facilitate dialogue and collaboration resulting in an improved understanding of stakeholders needs and leading to the finalizing of standards that are robust and sufficient for use by regulators.

- To provide information and tools to assist the development of policy for electric motors and their controls
  - Encourage research in support of test methods and classification systems
  - Provide support to the development of test standards and classification standards
  - Learn and respond to lessons from previous standards work

- **Opportunity for 2 way dialogue**
New Motor Technologies (Task G)

- For further information:
  - www.motorsystems.org
  - email: Charles.Gaisford@WSPGroup.com
## Workshop Agenda

**Thursday 28 October 2010**

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<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Topics</th>
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<tbody>
<tr>
<td>08:00 - 08:30</td>
<td>Registration</td>
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<tr>
<td>08:30 - 09:00</td>
<td>Introduction</td>
<td>Welcome &amp; introductions &amp; Summary of the project, aims &amp; objectives</td>
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<td>09:00 - 10:00</td>
<td>Session 1</td>
<td>Presentation: Technologies in scope of the project</td>
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<td>10:00 - 11:00</td>
<td>Lunch Break</td>
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<tr>
<td>10:30 - 11:00</td>
<td>Session 2</td>
<td>Presentation: new &amp; emerging technologies in context of current projects</td>
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<td>11:00 - 12:00</td>
<td>Classification systems</td>
<td>Presentation: Classification systems</td>
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<td>12:30 - 13:30</td>
<td>Lunch Break</td>
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<td>13:30 - 14:30</td>
<td>Session 3</td>
<td>Presentation: Future research on PM &amp; SO motors</td>
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<tr>
<td>14:30 - 15:30</td>
<td>Classification systems</td>
<td>Presentation: Classification systems</td>
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<td>14:30 - 16:00</td>
<td>Session 4</td>
<td>Presentation: Constraints that test centres might face</td>
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<td>16:00</td>
<td>Close</td>
<td>Summarise findings.</td>
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<td>18:00</td>
<td>End</td>
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New Motor Technologies Workshop

Objectives for the day