SUPER-EFFICIENT EQUIPMENT AND APPLIANCE DEPLOYMENT INITIATIVE

SEAD GLOBAL EFFICIENCY MEDAL COMPETITION FOR ELECTRIC MOTORS

STATUS UPDATE | MAY 2012

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ABOUT SEAD

• SEAD is an international market transformation program
• Governments work together in informal, voluntary activities to:
  • “raise the efficiency ceiling” by pulling super-efficient appliances and equipment into the market through cooperation on measures like incentives, procurement, **awards**, and R&D investments;
  • “raise the efficiency floor” by working together to bolster national or regional policies like minimum efficiency standards;
  • “strengthen the foundations” of efficiency programs by coordinating technical work to support S&L activities.
ABOUT SEAD

SEAD Initiative

Collaborator

Operating Agent

Efficient Electrical End-Use Equipment
International Energy Agency

APEC

EGEE&C

SEAD is an initiative of the Clean Energy Ministerial and a task within the International Partnership for Energy Efficiency Cooperation.
**Current SEAD Participants**

- China is an observer to the SEAD Initiative
- Highlighted countries participate in the SEAD Awards Working Group
2012 Global Efficiency Medal Competition

- Category: Flat-panel televisions
- 4 regions x 3 TV size categories + global winners
- Commercially available and emerging technology product awards
- Testing per IEC 62087 test procedure
- Round robin testing used to qualify labs
- Manufacturers from all countries may nominate products
- Nominations open until May 31, 2012
- Winners to be announced in September / October 2012
2013 MOTORS AWARD – INTRODUCTION

• Goal is to promote global market transformation:
  • Recognize “super-efficiency” and make it visible to consumers
  • Capture energy savings potential from improved efficiency
  • Use internationally-recognized test methods when possible
• Recognize both established and emerging-technology products
• Compare regional winners to select the world’s most efficient product for a global award (comparability of test results is important)
• Awards identify the single best product within a sub-category and region
2013 Motors Award – Introduction

• Manufacturers will self-nominate products – verification testing confirms efficiency claims
• International round robin testing (or reference test lab) will be used to qualify labs for verification testing
• Regions, size categories, implementation timeline, etc. still to be determined by the SEAD Awards WG
• Scheme may be continued / modified for future years
  • Modify categories / expand scope of coverage
  • Add new awards regions
  • Incorporate new test methods
2013 Motors Award Options

- General-purpose induction motors vs. new technology motors
- Efficiency evaluation of fixed-speed motors at full-load conditions vs. partial-load conditions
- Fixed-speed motors vs. variable-speed motors with controllers
- Evaluation of motor efficiency vs. system efficiency (e.g. pumps, fans)
2013 Motors Award Options

General-purpose Fixed-speed Induction Motors

- Option 1a: Evaluate efficiency at full load
- Option 1b: Evaluate efficiency at partial loads (weighted average)

General-purpose Fixed-speed “New Technology” Motors

- Option 2a: Evaluate efficiency at full load
- Option 2b: Evaluate efficiency at partial loads (weighted average)
SIZE CATEGORIES

- Categories should match natural market segments, and should offer substantial opportunity for efficiency improvement and energy savings

- Current proposal:
  - 50 Hz / 1500 RPM
    - ¼ HP (0.18 kW)
    - 1 HP (0.75 kW)
    - 10 HP (7.5 kW)
  - 60 Hz / 1800 RPM
    - ¼ HP (0.18 kW)
    - 1 HP (0.75 kW)
    - 10 HP (7.5 kW)
FUTURE CONSIDERATIONS

• Variable-speed motors & controllers
  • Development of internationally-recognized test methods is required – SEAD participants would like to help facilitate
  • Greater energy savings opportunity than with fixed-speed motors
• Motor systems (e.g., pumps, fans, compressors)
  • International policies are few, but more are under development
Next Steps

Official Rules will be prepared and shared for public comment

Visit the SEAD Website
www.superefficient.org

Share Additional Comments with the SEAD Program Manager
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Additional Expert Consultation Meetings (TBD)

Other Upcoming Events
Motor Summit 2012 (Zurich)