

SUPER-EFFICIENT EQUIPMENT AND APPLIANCE DEPLOYMENT INITIATIVE

SEAD GLOBAL EFFICIENCY MEDAL COMPETITION FOR ELECTRIC MOTORS

EMSA MOTORS SUMMIT
DECEMBER 2012

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LBNL



ABOUT SEAD

- SEAD engages governments and private sector to transform the global market transformation for appliance and equipment
- Three objectives
 - Drive Demand for super-efficient products through cooperation on Awards (SEAD Global Efficiency Medal), Incentives, Procurement
 - Facilitate Information Exchange through product-specific collaborations, data access project
 - Establish Common Foundations for technical dialogue through cross-cutting technical analyses

ABOUT SEAD



Collaborator

Collaborator

Operating Agent



CURRENT SEAD PARTICIPANTS



Brazil



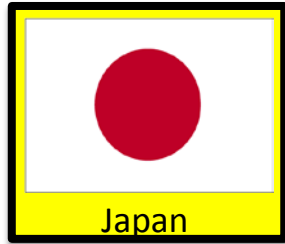
European
Commission



France



Germany



Korea



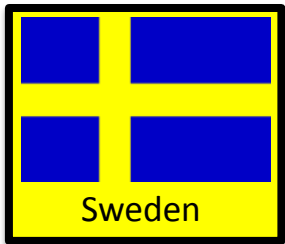
Mexico



Russia



South Africa



United Arab
Emirates



- *China is an observer to the SEAD Initiative*
- *Highlighted countries participate in the SEAD Awards Working Group*

SEAD GLOBAL EFFICIENCY MEDAL COMPETITION GOALS

- Realize greatest energy savings potential
- Increase market share of highly efficient products
- Spur innovation among manufacturers
- Support test harmonization activities
- Build test lab capacity
- Provide internationally-comparable and transparent test results
- Complement Standards and Labeling policies



2013 MOTORS AWARD

INTRODUCTION

- Awards identify the single best product within a sub-category and region
- 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)
- Winners selected from manufacturer nominations, subject to verification testing



2013 MOTORS AWARD

MARKET AND TECHNICAL CONSIDERATIONS

- Target Market Segment
- Size Categories
- Test Method Considerations
- Verification Testing - Test Laboratory Scheme
- Shipment Thresholds
- Market Considerations for North America only:
 - Motor Frame Specifications
 - Test Method



MARKET SEGMENT

- OEM vs. direct replacement customers
 - OEM customers primarily concerned with performance and weight factors

SIZE CATEGORIES

- Currently considering 5 size categories – **3** will be selected for the competition
 - ¼, 1, 5, 10, and 15 horsepower motors
- Factors to consider:
 - Per-unit efficiency improvement potential vs. Total energy savings potential
 - Direct replacement vs. OEM

TEST METHOD CONSIDERATIONS

- Are the small motors test method comparable to the large motor test methods? Do they have the same characteristics for differentiating motors in an awards program?
- Should the percentage of efficiency or difference in motor losses be the metric to compare margins?

VERIFICATION TESTING - TEST LAB. SCHEME

- Single reference test laboratory vs. Regional test laboratories

SHIPMENT THRESHOLDS

- What are the appropriate thresholds for each award region to ensure that award-winning motors realize significant energy savings potential?

NORTH AMERICA MARKET CONSIDERATIONS

MOTOR FRAME SPECIFICATIONS

- IEC vs. NEMA frame specifications
- Factors to consider:
 - Market share of IEC vs. NEMA motors, especially direct replacement ones, in North America
 - Implications for global awards – global winners possibly with IEC frame specifications for comparability globally

NORTH AMERICA MARKET CONSIDERATIONS

TEST METHOD

- IEC vs. IEEE test method
- Factors to consider:
 - Test with both IEEE (aligning with the market) and IEC test method (for global comparison)
 - Implications of using IEEE test method – global winners possibly with IEC test methods for comparability globally

QUESTIONS AND FEEDBACK

Please provide input to:

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