



OUTDOOR POWER EQUIPMENT  
INSTITUTE

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**The International  
Association of Forestry,  
Utility, Landscape and  
Lawn & Garden Equipment  
Manufacturers.**

**Kris Kiser**

**Executive Vice President**



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- OPEI is a recognized Standards Development Organization for the American National Standards Institute (ANSI) and active internationally through the International Standards Organization (ISO) in the development of safety standards.



# Legacy Equipment

## 250-300 Million Pieces

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### Commercial & Consumer

- Utility Vehicles
- Garden Tractors
- Mowers
- Chippers
- Shredders
- Chainsaws
- Engines
- Generators
- Tillers
- Trimmers
- Snow Throwers
- Leaf Blowers



# OPEI Membership

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- Honda
- Briggs & Stratton
- Toro
- Echo/Shindaiwa
- Techtronic
- Caterpillar
- Textron
- Husqvarna
- Kohler
- John Deere
- Kawasaki
- STIHL
- Club Car
- Black & Decker
- Kubota Tractor
- Suzuki



# Current Power Sources

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- Gasoline
- Propane
- CNG
- Diesel
- Battery
- Electric
- Solar
- Flex Fuel
- Gasoline-Electric Hybrids



# AIISAFE

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## Alliance For Safe Alternative Fuels Environment

- Outdoor Power Equipment Institute
- Motorcycle Industry Council/Specialty Vehicle Institute of America (ATVs)
- National Marine Manufacturers Association
- The American Motorcyclist Association
- Engine Manufacturers Association
- International Snowmobile Manufacturers Association
- Alliance of Automobile Manufacturers
- Association of International Manufacturers



# Environmental Protection Agency

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- Emissions and Evaporative Regulatory Scheme
- 900 Engine Families
- 2008 Phase III
- Industry Request for E-10 Certification Fuel/Handheld



# DOE Test Results

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- Mid-Level Ethanol Blends
- Results October 2008
- 28 Engines Tested





# DOE Findings

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- Exhaust temperatures rise significantly – risk operator burns, fires and severe damage to product.
- Fuel leak risks and potential fires – resulting from alcohol's severe degradation of fuel hoses, tanks and other rubber and plastic components.



# DOE Findings

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- Unintentional clutch engagement caused by higher idle speeds – in the idle position – handheld.
- Failure of emergency generators in a crisis – reliability and safe performance is critical to users.



# EISA Implementation

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- Challenges
  - E-10 Blend Wall
  - Fraud/Mistake
  - Confusion
  - Blender Pumps
  - Mis-fueling



# Consumer Products Companies

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- Safety
- Economic Loss
- Warranty Protection
- Lawsuit Exposure