



The Multinational Power Electronics Association

Our Mission

To integrate the power industry resources to profitably serve the needs of the users, industry, providers, and PSMA members.

PSMA is a not-for-profit organization and a CO-SPONSOR OF APEC



Incorporated in 1985



PSMA - Power Sources Manufacturers Association

- Forum for discussing and progressing issues of common concern to the power sources industry, for the benefit of manufacturers, suppliers and users alike
- Enhance the stature and reputation of its members and their products
- Improve members knowledge of technology
- Educate the electronics industry, academia, as well as government and industry agencies through:
 - ***Published reports***
 - ***Educational seminars***
 - ***Technical conferences and workshops***
 - ***Conference exhibits***
- Integrate the resources of the power sources industry to more effectively and profitably serve the needs of the power sources users, providers and PSMA members.

A forum for discussing common concern to the power sources industry, for the benefit of manufacturers, suppliers and users alike.



Capacitor



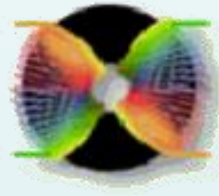
Education



Energy Harvesting



Energy Management



Magnetics



Packaging



Power Technology Roadmap



Reliability



Safety & Compliance



Semiconductor



Transportation PowerElectronics

PSMA Benefits

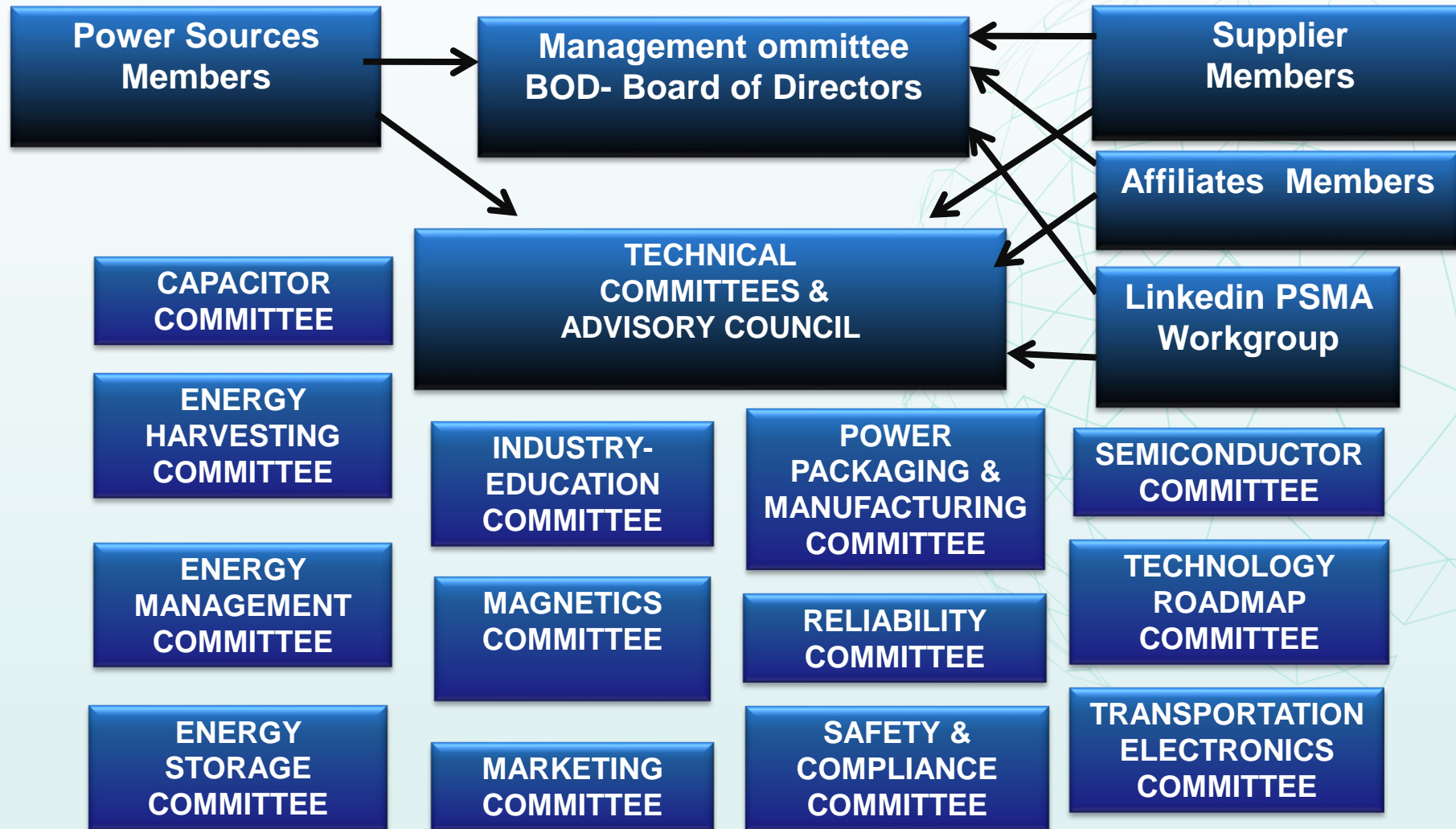
- **Networking:**
interact with your counterparts in other companies
- **Valuable Information:**
Members Only area of the Web site
- **Involvement:**
Planning and managing of PSMA & APEC
- **Participation:**
Participate in committees, workgroups
- **Discounts:**
Receive discounts on APEC registration fees



- **Company Profile:**
List your company's profile on the PSMA Web site with a hyperlink directly to your company Web site
- **PSMA Publications:**
Free and discounted
- **PSMA Newsletter:**
Information on activities in the industry and upcoming events.
- **Company Spotlight Banner:**
Feature your company's products on the PSMA Home Page



PSMA Organization



PSMA's work is done by industry leaders on a volunteer basis.

Active Committees

CAPACITOR COMMITTEE

The PSMA Capacitors Committee is a group of volunteers knowledgeable about capacitors and power electronics. The aim of the group is to support the power electronics capacitor industry. The committee is involved in capacitor design papers, education, and design tools.

ENERGY HARVESTING COMMITTEE

Increase the market applications for energy harvesting technology with an emphasis on identifying the barriers inhibiting usage and addressing the applications for broader usage.

Active Committees

ENERGY MANAGEMENT COMMITTEE

Provide education, support, and recommendations in matters regarding the energy efficiency of power supplies and system power architectures (no-load, standby, and active-on) with, as a primary goal, the establishment of a consistent global standard for energy efficiency.

ENERGY STORAGE COMMITTEE

Provide members and other interested parties with a forum to discuss market and technology trends in the broad area of energy storage and its application. Energy storage for power systems comes in many forms, such as electrochemical, molecular (like hydrogen), thermal, mechanical, and combinations of technologies. Applications can include primary, backup, or supplemental power in all types of power systems.

Active Committees

INDUSTRY- EDUCATION COMMITTEE

Promote and improve the communication between Industry and Education; to foster awareness and interest in power electronics conversion and control among our youth; and to identify the long term strategic issues of common interest to Industry and Education.

MAGNETICS COMMITTEE

Provides members with latest advancement information in magnetic, inductor, and transformer technologies. Serves our members, magnetics users, suppliers, and manufacturers with information, resources, subject matter experts in the area of magnetics and power conversion. Nurtures increased interest in magnetics specialization and research, and early career consideration in power electronics.

Active Committees

MARKETING COMMITTEE

Provides marketing support to PSMA activities including marketing communications such as press releases, cooperative efforts with other organizations to assure that the industry and the public have a better knowledge of PSMA's mission, goals, and activities.

POWER PACKAGING & MANUFACTURING COMMITTEE

This Committee provides information and resources on advances in power packaging and manufacturing technologies. Its focus is on high density power packaging design for lowest cost manufacturing, with the goal of achieving global competitiveness for PSMA member companies.

Active Committees

RELIABILITY COMMITTEE

The PSMA Reliability Committee aims to spearhead industry initiatives that identify and attempt to solve the pertinent industry challenges related to the reliability and performance of power supplies and associated products.

SAFETY & COMPLIANCE COMMITTEE

Supports the mission, vision - goals and objectives of PSMA by providing subject matter expertise, information resources supported with ongoing communications to our constituents on Safety and Compliance issues pertaining to power electronics and power conversion.

Active Committees

SEMICONDUCTOR COMMITTEE

Provides members with latest advancement information in IC and power semiconductor technologies.

TECHNOLOGY ROADMAP COMMITTEE

Develops and publishes the Power Technology Roadmap every two years.

TRANSPORTATION POWER ELECTRONICS COMMITTEE

Focuses on component and packaging trends in power electronics for transportation applications.

Major Projects

- **13 Industry Sessions at APEC 2021**
- **Power Magnetics @ High Frequency Workshops – at APEC , held virtually in 2020 & 2021**
- **Capacitor Workshops –at APEC, held virtually in 2020 & 2021**
- **Presentation at IPC APEX 2021**
- **CPSS Joint Workshop - PEAC 2018, CPSSC 2019, planned for CPSSC 2021**
- **Power Technology Roadmap – 2019 report, 2020-2021 Webinars**
- **Capacitor, Magnetics & Safety & Compliance Educational Webinars – archived on website**
- **3D-PEIM Second Symposia - June 2018, College Park, MD, Third in June 2021, Osaka Japan**
- **EnerHarv Workshop – June 2018, Cork, Ireland, Second planned for 2022, Raleigh, NC**
- **PwrSoC 2018 – October 2018, Hsinchu, Taiwan, 2020 virtual Corridor Event**
- **Energy Efficiency Data Base – continuously updated**
- **Safety & Compliance Data Base – continuously updated**
- **APEC Student Travel Support – jointly sponsored with IAS and PELS**

PSMA Publications

- ***PSMA Power Supply Software/Firmware Reliability Improvement Report (2019)***
- ***PSMA Power Technology Roadmap (2017, 2019)***
- ***Technology Report - 3d Power Packaging with Focus on Passive Embedded Components and Substrate Technologies (2018)***
- ***Technology Report - Current Developments in 3D Packaging with Focus on Embedded Substrate Technologies (2015)***
- ***Technology Report - 3D Power Packaging (2014)***
- ***Handbook of Standardized Terminology for the Power Sources industry (3rd Edition)***
- ***Units, Symbols and Style Guide for Power Electronics (1998)***



PSMA Publications - Reprints

- ***Soft Ferrites – Properties and Applications* by E. C. Snelling – Reprint (2013)**
- ***Transformers for Electronic Circuits* by Nathan R. Grossner – 2nd Edition Reprint (2011)**
- ***Modern DC-TO-DC Power Converter Circuits* by Rudolf Severns and Ed Bloom - Reprint (2009)**
- ***Application of Magnetism* by J. K. Watson - Reprint (2008)**
- ***Electronic Transformers And Circuits* by Rueben Lee, Leo Wilson, and Charles Carter – Third Edition - Reprint (2007)**



Working With Others



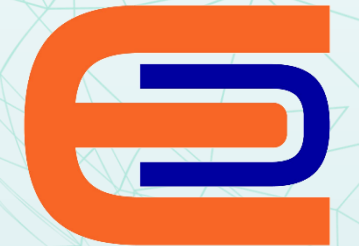
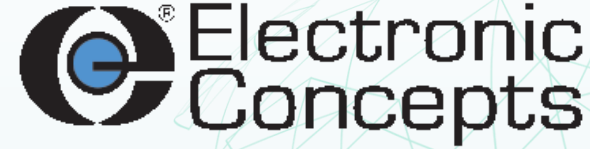
- **CEC - California Energy Commission**
- **CPSS - China Power Supply Society**
- **ECIA – Electronic Components Industry Association**
- **Emerge Alliance**
- **Energy Star**
- **EPA - Environmental Protection Agency**
- **EPRI - Electric Power Research Institute**
- **EPSMA - European Power Supply Manufacturers Association**
- **IEEE - Institute of Electrical and Electronics Engineers**
- **iNEMI - International Electronics Manufacturing Initiative**
- **IPC**
- **NYSERDA - New York State Energy Research and Development Authority**
- **ORNL – Oak Ridge National Laboratory**
- **PEIC – Power Electronics Industry Collaboration**
- **PICMG – PCI Industrial Computer Manufacturers Group**
- **TTA – The Transformer Association**



University Resources

- Arizona State University, Tempe
- Ben-Gurion University of the Negev
- Chongqing University
- Dartmouth College
- Duke University
- Georgia Institute of Technology
- Hong Kong University
- Illinois Institute of Technology
- Kansas State University
- Macquarie University
- Michigan State University
- Michigan Technological University
- National University of Ireland, Galway
- North Carolina State University
- Northeastern University
- Oregon State University
- Sharif University of Technology
- Technical University of Denmark
- Texas A&M University
- The Ohio State University
- University of California Irvine
- University of Central Florida
- University of Colorado at Boulder
- University of Houston
- University of Idaho
- University of Illinois at Urbana-Champaign
- University of Maryland at College Park
- University of Minnesota
- University of Nevada, Reno
- University of North Dakota
- University of Tennessee
- University of Toledo
- University of Victoria
- University of Wisconsin-Madison
- University of Wisconsin-Milwaukee
- Virginia Tech

Some Member Companies



ON Semiconductor®

