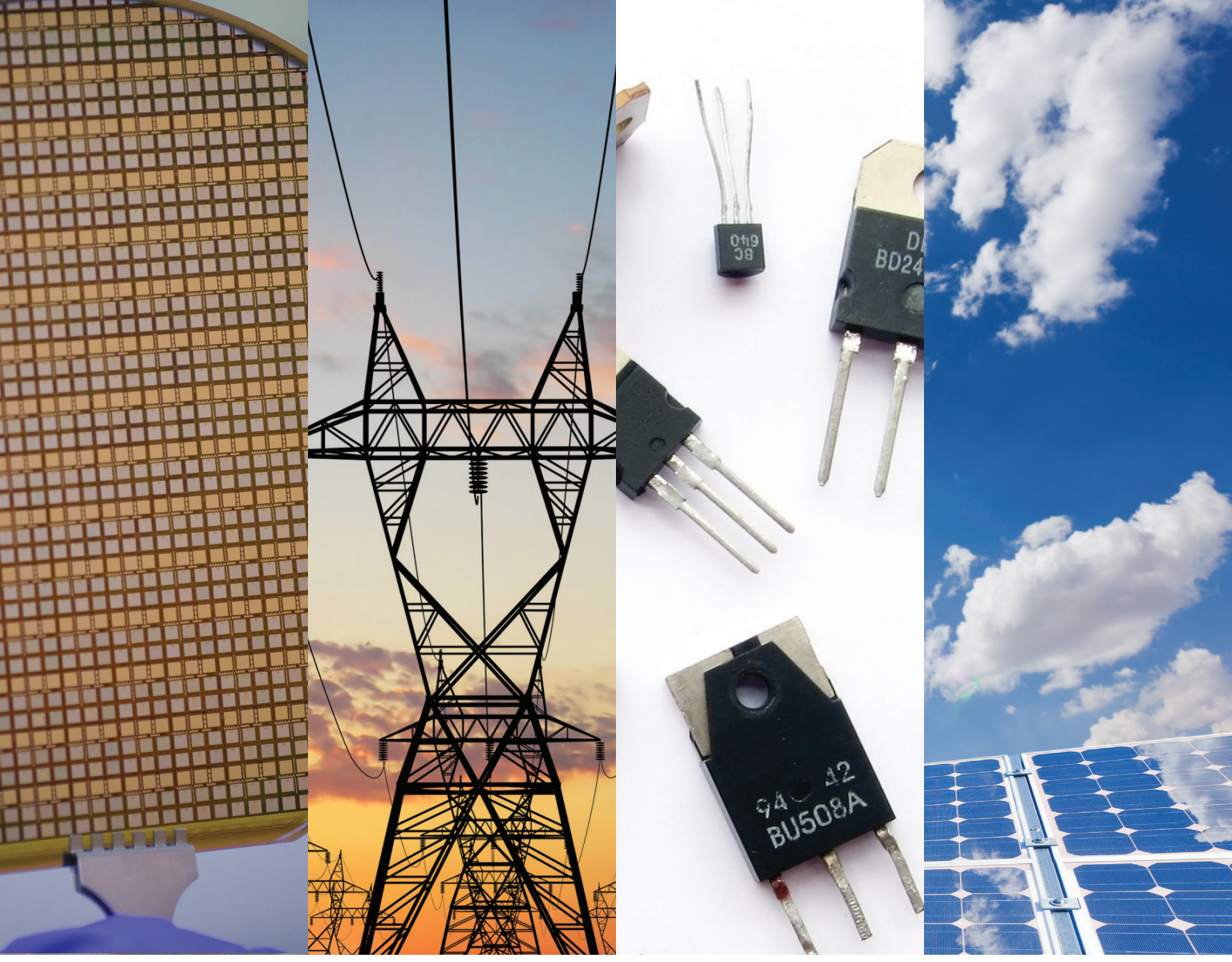


PowerAmerica

Accelerating the Next Generation of SiC and GaN Power Electronics

Who We Are

PowerAmerica, a public-private partnership between industry, the U.S. Department of Energy, national labs, and academia, seeks to save energy and create U.S. manufacturing jobs by accelerating the development and large-scale adoption of wide bandgap semiconductor technology.

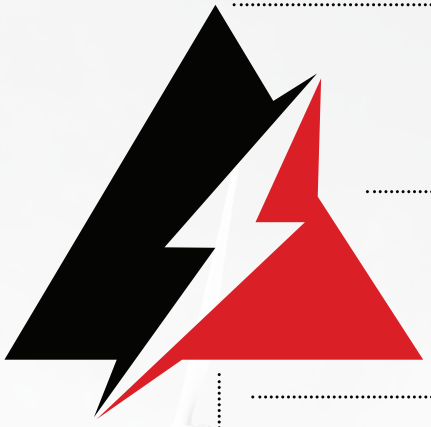
What is a wide bandgap semiconductor?

Wide bandgap semiconductors operate at much higher voltages, frequencies and temperatures than conventional semiconductors. They are also smaller and more energy efficient than the power electronics widely available today. These new semiconductors take advantage of the inherent properties of silicon carbide (SiC) and gallium nitride (GaN) materials to provide performance superior to conventional silicon semiconductors.

Uses for wide bandgap semiconductors include…

- Compact power adapters for consumer electronics that are half the size of current technology
- More efficient electric vehicle charging systems that reduce energy losses by 50%
- More efficient industrial motors that can reduce energy consumption and maintenance costs
- Greater efficiency of energy conversion and distribution for both conventional and renewable energy systems
- More efficient power supply for data centers, reducing the space, cost and energy consumption of power equipment

How we're working to accelerate the adoption of this technology:



Reducing the cost of wide bandgap semiconductors to make them comparable to the silicon semiconductors widely available today.

Improving reliability by funding projects that demonstrate performance and encourage adoption by manufacturers and end users.

Enhancing performance capabilities – working to address technical issues at all levels of design, manufacturing, packaging and qualification.

Bringing together all facets of the supply chain and forming a network of collaboration between manufacturers and end users.

Accelerating the development of an advanced manufacturing workforce through a variety of educational initiatives focused on working professionals, community college, undergraduate and graduate levels.

For information about becoming a member of PowerAmerica, visit www.poweramericainstitute.org.

Why join PowerAmerica?

PowerAmerica helps its members grow their businesses through access to the latest developments and key industry players in wide bandgap semiconductor technology. By accelerating the concept-to-product cycle, we provide opportunities for companies to remain globally competitive and grow their bottom line. PowerAmerica is exclusively focused on silicon carbide and gallium nitride technology and its applications.

Benefits of membership in PowerAmerica include:

- Network with potential customers and suppliers
- Obtain hands-on instruction from application engineers in industry
- Compete for funding to demonstrate improved SiC and GaN technologies and applications
- Gain access to academic experts in WBG technology at leading universities
- Help build and grow U.S. competence and global competitiveness in this critical manufacturing technology

Members already receiving this value include:

For information about becoming a member of PowerAmerica:

Visit www.poweramericainstitute.org
or contact Membership Services Director Jim LeMunyon (919) 513-3849 or jim_lemunyon@ncsu.edu