

## *A MILESTONE WORTH NOTING*

### **PES CELEBRATES 125 YEARS OF DISCOVERY AND INNOVATION**

I am delighted to have the opportunity to mark this significant anniversary of PES and to invite you to join us as we celebrate 125 years of electrical power and energy engineering around the world. We are celebrating the mission that has guided us, the people and traditions that have shaped us, the engineering practices and ideals that have made us great and will continue to help us achieve our goals and objectives now and into the future.

Throughout the 125 years of our existence we have functioned as an unbiased professional organization. Our members have been steadfastly focused on the timely, relevant and impartial study of the science and application of engineering as it relates to all of the facets of the global power and energy industry.

Our society and its members have dedicated themselves to sharing the latest technological developments in the power and energy industry, for developing standards that guide the development and construction of equipment and systems and for educating members of the industry and the general public.

Our traditions of excellence in engineering science and information to the world run deep. For all of our history our members have been involved in the planning, research, development, construction, installation, and operation of equipment and systems for the safe, reliable, and economic generation, transmission, distribution, measurement, and control of electric energy.

### **Flexibility**

As we look to the future it will become increasingly imperative that the PES and its worldwide membership remain flexible with the capacity and capability of embracing new technologies and thought processes as they arise, to respond as new power and energy concerns emerge on the scene, and to seize new ways to increase our information processes that will make it easier and faster to produce and present engineering science.

Our global PES power and energy community will face many challenges and opportunities including: climate change, an ongoing evaluation and consideration of renewable energy options, the necessity of improving environmental quality, distributed generation, power delivery and grid management, demand response, efficient end-use technologies such as plug-in hybrids and development of advanced nuclear plants and clean coal technologies, energy storage and the infrastructure for a hydrogen economy.

By drawing on a diverse mix of engineering skill sets, rigorously preserving the knowledge and data collected, the members of the PES have created a treasure trove of information that engineers worldwide can draw upon to improve their electric utility operating environment and address the many challenges mentioned above.

## **Our History**

Today PES continues to carry on the work begun by those first intrepid pioneers of the power engineering profession. It is not just our longevity that we celebrate, but also the strength of our mission that has varied little from its establishment in 1884.

The roots of IEEE, as well as PES, can be traced back to 1884 when electricity was just beginning to become a major force in society. There was one major established electrical industry, the telegraph, which—beginning in the 1840s—connected the world with a communications system faster than the speed of transportation. The telephone, patented in the 1870s, was in its infancy. Electric power, originating in Thomas Edison’s inventions and his pioneering Pearl Street Station in New York, had only barely gotten underway.

In May 1884, a small group of individuals in the electrical profession met in New York. They formed a new organization to support professionals in their nascent field and to aid them in their efforts to apply innovation for the betterment of humanity—the American Institute of Electrical Engineers (AIEE).

That October AIEE held its first meeting in Philadelphia. Many early leaders, such as founding President Norvin Green of Western Union, came from telegraphy. Others, such as Thomas Edison, came from power, while Alexander Graham Bell represented the telephone industry. As electric power spread rapidly across the land—enhanced by innovations such as Nikola Tesla’s AC induction motor, long distance AC transmission and large-scale power plants, and commercialized by industries such as Westinghouse and General Electric—the AIEE became increasingly focused on electrical power and its ability to change people’s lives through the unprecedented products and services it could deliver.

There was a secondary focus on wired communication, both the telegraph and the telephone. Through technical meetings, publications, and promotion of standards, the AIEE led the growth of the electrical engineering profession, while through local sections and student branches, it brought its benefits to engineers in widespread places.

## **Founding of the IRE**

A new industry arose beginning with Guglielmo Marconi’s wireless telegraphy experiments at the turn of the century. What was originally called “wireless” became radio in the US, with the electrical amplification possibilities inherent in the vacuum tubes which evolved from Fleming’s diode and de Forest’s triode. With the new industry

came a new society in 1912, the Institute of Radio Engineers (IRE). IRE was modeled on AIEE, but was devoted to radio, and then increasingly to electronics. It, too, furthered its profession by linking its members through publications, standards and conferences, and encouraging them to advance their industries by promoting innovation and excellence in the emerging new products and services.

## **The Societies Merge**

Through the help of leadership from the two societies, and with the applications of its members' innovations to industry, electricity wove its way—decade by decade—more deeply into every corner of life—television, radar, transistors, computers. Increasingly, the interests of the societies overlapped. Membership in both societies grew, but beginning in the 1940s, the IRE grew faster and in 1957 became the larger group. On January 1, 1963, the AIEE and the IRE merged to form the Institute of Electrical and Electronics Engineers, or IEEE. At its formation, the IEEE had 150,000 members, 140,000 of whom were in the United States.

## **Growth and Globalization**

Over the decades that followed, with IEEE's continued leadership, the societal roles of the technologies under its aegis continued to spread across the world, and reach into more and more areas of people's lives.

The professional groups and technical boards of the predecessor institutions evolved into IEEE Societies. By the early 21st Century, IEEE served its members and their interests with 38 societies; 130 journals, transactions and magazines, more than 300 conferences annually, and 900 active standards.

IEEE's fields of interest expanded well beyond electrical/electronic engineering and computing into areas such as micro- and nanotechnology, ultrasonics, bioengineering, robotics, electronic materials, and many others. Electronics became ubiquitous—from jet cockpits to industrial robots to medical imaging.

As technologies and the industries that developed them increasingly transcended national boundaries, IEEE kept pace, becoming a truly global institution which used the innovations of the practitioners it represented in order to enhance its own excellence in delivering products and services to members, industries, and the public at large. Publications and educational programs were delivered online, as were member services such as renewal and elections. By 2008, IEEE had 375,000 members in 160 countries, with 43 percent outside of the country where it was founded a century and a quarter before. Through its worldwide network of geographical units, publications, web services, and conferences, IEEE remains the world's leading professional association for the advancement of technology.

## Participate and Contribute

Along with IEEE, PES is using the entire year of 2009 to showcase our science and to show our appreciation to those with whom we have worked. As a member of IEEE and PES you can be a part of the worldwide celebration by stepping up and making the world aware of who we are and what we do.

- **Be a Part of an International Celebration!**  
125 years of innovation and ingenuity is an accomplishment worth noting. Commemorate past achievements and create excitement for the next 125 years of engineering the future!
- **Show Why IEEE Matters.**  
Take pride in being a part of something special by bringing attention to IEEE, PES and their many contributions to humanity.
- **You're in Great Company.**  
Find out what your colleagues and friends are working on and take advantage of an excellent networking opportunity.
- **Prove How Cutting Edge Technology Professions Are.**  
Highlight the cutting edge technologies IEEE and PES members are developing and show what a career in technology can do to change the world.
- **Your Event, Your Way.**  
Put your own unique spin on an IEEE PES 125th anniversary event. Host a learning series, arrange a new technology display or get everyone to dance—anything is possible!
- **Invest Locally. Get Noticed Internationally.**  
Hosting an IEEE PES 125th anniversary event gives you a chance to show off your leadership skills and will put the international spotlight on your group! Get recognized around the globe and show everyone how you've made a difference.
- **Help Bridge the Gap.**  
Anniversary events are the perfect opportunity to bring together new IEEE and PES members and established professionals.

## A New Name and Logo

As you know, last year we changed our name from the Power Engineering Society to the Power & Energy Society. As we begin our 125<sup>th</sup> Anniversary we are pleased to announce that we have enhanced our new society logo to commemorate the year ahead. You will begin to see our anniversary logo in our publications, at our conferences, meetings, and exhibitions, on our call for papers our website, letterhead and stationary...in short, all that we publish and publicize into the marketplace.

Supporting our 125<sup>th</sup> Anniversary efforts, PES has enlisted the expertise of IEEE's video production services to create and produce a series of videos that can be used to encourage interest and membership in our society. These videos will be available on-line at [ieeetv.org](http://ieeetv.org). Each video has been produced to include the evolution of our society and its place in the

history of electrical advancement. Importantly, the videos are being customized to be regional specific. The first of these videos was introduced at Powercon in New Delhi in October.

## **In My View**

In 2009, the In My View column of each issue of *Power & Energy magazine* will focus on a future issue that is being discussed and debated by our society members. Experts who have something profound to offer about a specific subject of importance to our members will write these columns. In this issue we are featuring the subject of renewable technology.

## **2009 Schedule of Events**

The celebration has already begun and will continue throughout 2009 with several key meetings and conferences that you, as a member of the society, should make plans to attend. Please make a note of the meeting or conference in your area and check the meeting calendar frequently on the PES web site, in the monthly PES e-Newsletter, and in the regular issues of Power & Energy magazine. PES related activities are summarized below:

### **JANUARY, 2009**

#### **Joint Technical Committee Meeting**

12-14 January Location: Atlanta, GA.

### **MARCH, 2009**

#### **Power Systems Conference & Exposition**

15 – 18 March 2009 Location: Seattle, Washington, USA

#### **Asia-Pacific Power and Energy Engineering Conference (APPEEC)**

28 - 30 March 2009 Location: Wuhan, China

### **JUNE, 2009**

#### **Powertech**

28 June - 2 July Location: University Politehnica of Bucharest, Romania

## **JULY, 2009**

### **PES Grand 125<sup>th</sup> Celebration at the PES General Meeting (GM)**

26 - 30 July Location: Calgary, Alberta, Canada

## **SEPTEMBER 2009**

### **IEEE Conference on Sustainable Energy**

28-30 September Location: Valencia, Spain

## **OCTOBER, 2009**

### **T&D Asia**

27 - 30 October COEX Exhibition Center, Seoul, Korea

## **PES Merchandise**

I want to encourage all PES members to visit our web site to review the latest merchandise offered for sale by PES and IEEE. 2008 has been a special year for us as we changed our name and logo. Our product offerings have a new look that reflects the future of the society and the industry we serve. Make a note to visit [www.ieee.org/pes](http://www.ieee.org/pes) often.

This year represents a grand opportunity to review the many successful accomplishments in which PES has played a vital role and apply the strength of our heritage to address the challenges that we will face in the future. I look forward to celebrating our 125<sup>th</sup> anniversary with you.