Let’s Talk HEALTH

Also Inside:
- Early Detection Saved My Life
- President Outlines Energy Priorities in FY2016 Budget
- Briefing WTO Negotiators on Energy-Efficient Products
- Special Feature—Medical Imaging Primer
KNOW UL? THINK AGAIN.

As a wind farm stakeholder or manufacturer of wind turbines or components, you may know UL for our wind turbine testing and type certification. But UL, just like you, is constantly evolving to meet changing market needs on a broader level. That’s why our services also cover wind measurement, energy yield assessment, due diligence, power curve verification, on-/offshore project certification, and much more besides. Tell us your needs, our portfolio may surprise you.

Customer first, safety always.

For more information on UL services for wind energy, please contact ULHELPS@ul.com or call 1.877.ULHELPS (1.877.854.3577)

UL.COM/WIND
FEATURES

Early Detection Saved My Life ................................................................. 10
Advocating LDCT Coverage for High-Risk Patients ............................. 12
Advocacy in the Digital Age ................................................................. 14
Medical Imaging Primer—MITA’s Quick Guide to Tests and Procedures 17
MITA Develops New Standard for X-Ray Equipment for Interventional Procedures 18
MITA PET Group Expanding after Successful 2014 ............................. 19
Radiation Oncology Safety Stakeholders Open Dialog on Error Messages 20
Good Trade Benefits Manufacturers, Hospitals, and Patients ............. 21
Imaging Forward in 2015 ................................................................. 22
Advocacy in Action: MITA’s Patient Fly-in ........................................... 22

Did You Know?

NEMA recently developed an industry position to address the issue of state mandates for 10-year batteries in smoke alarms. These laws restrict consumer choice by limiting the number of life safety options available to consumers. Residents should be free to choose which smoke alarms they install in their homes provided those devices comply with consensus codes and standards.

To learn more, visit www.nema.org/NEMA-Position-Statement-on-10-year-Mandate.

ECO BOX

 electroindustry text and cover pages are printed using SFI®-certified Anthem paper using soy ink.

- SFI fiber sourcing requirements promote responsible forest management on all suppliers’ lands.
- SFI works with environmental, social and industry partners to improve forest practices in North America.
- The SFI certified sourcing label is proof Electroindustry is using fiber from responsible and legal sources.
Newsmakers

NOTES

NEMA Officers ................................................................................................................................................................. 3
Comments from the President .............................................................................................................................................. 3
Views from the Top .............................................................................................................................................................. 4

DEPARTMENTS

Government Relations Update ........................................................................................................................................... 6
- Transportation Section Hears Latest on ITS, Highway Legislation for 2015 ................................................................. 6
- President Obama Outlines Energy Priorities in $4 Trillion FY2016 Budget ................................................................. 7
- President Vetoes Keystone Bill with Energy-Efficiency Amendments ................................................................. 8
- NEMA Pulling Its Weight in Drive for Trade Bills ........................................................................................................... 8
- Lighting Systems Division Summarizes Procurement of Energy-Efficient Lighting .............................................. 9
- New Life Safety Laws Take Effect in New York .................................................................................................................. 9

Electroindustry News ......................................................................................................................................................... 24
- Emerging Opportunities Panel Kicks Off Strategic Initiatives ......................................................................................... 24
- ESFI, IEEE Uncover Occupations Most At-Risk in Fatal Overhead Power Line Incidents ...................................... 25
- NEMA Remembers Bill Beile, Allied Tube & Conduit ..................................................................................................... 25

Code Actions/Standardization Trends ......................................................................................................................... 26
- IEC Market Strategy Board Focuses on Future with White Papers .................................................................................. 26
- Effective IEC Participation ................................................................................................................................................. 26
- Recently Published Standards ............................................................................................................................................. 27
- NEMA Field Reps Recount NEC 2017 First Draft Meetings ......................................................................................... 28
- NEMA, UL Announce Changes to GFCI Standard ........................................................................................................... 28
- Codes and Standards Committee Announces New Chairman ....................................................................................... 28
- NEMA Strengthens Its Cooperation in El Salvador ......................................................................................................... 29

International Roundup .................................................................................................................................................. 29
- WTO Negotiators Briefed on Energy-Efficient Products for Trade Agreement ........................................................... 30

Economic Spotlight ....................................................................................................................................................... 31
- ESFI for Current Conditions Steady in February, Future Conditions Indicator Rises ...................................................... 31
- Available from NEMA/BIS — The Electroindustry Economic Outlook ................................................................. 31

We Are NEMA ............................................................................................................................................................... 32
- Ask the Expert — Peter Weems Explains EMS Reimbursement ..................................................................................... 32
- Listen to the Expert — Greg Sorensen Discusses MITA Membership Benefits ............................................................. 32
- Improving Quality of Life through Service .................................................................................................................... 32

Coming in APRIL

NEMA@Home returns with energy-efficient products and tips just in time for spring. But that’s not all. We will also explore how the quality of life is shaped by building better—and smarter—neighborhoods in the city as well as the jungle.
Recently, I read that BMW is developing a pair of augmented reality glasses that will allow drivers to “see through” their cars when parallel parking or easing into a tight spot. Not all of life’s challenges are so prosaic, but the idea of seeing through something resonated with me and is especially relevant to this month’s issue of *ei* magazine in which we scan medical imaging.

One of the earliest uses of medical imaging is credited to German physicist Wilhelm Roentgen, who took the first x-ray image of his wife’s hand in 1895. After seeing her skeleton, she exclaimed, “I have seen my death.” The first diagnostic scan in the U.S. occurred in 1896 when Dr. Gilman Frost used x-ray imaging to reveal a fracture in the left wrist of a local schoolboy who fell while ice skating. From such humble beginnings, an entire industry was born. But more importantly, a revolution in medicine occurred.

Most of us know firsthand that medical imaging is virtually irreplaceable to early detection, treatment, and survival of disease. It can be used to diagnose aortic aneurysms, treat cancers, transmit digital scans, and even deliver important news to expectant parents. At the most fundamental levels, medical imaging and therapeutics enhance the quality of our lives.

Diagnostic imaging, however, also provides economic value. The U.S. healthcare system increasingly embraces evidence-based medicine in an effort to achieve the best patient outcomes efficiently. Studies have shown that imaging technologies reduce the burden of unnecessary and invasive procedures while offering better treatment options. This means improved outcomes for patients at a lower overall cost.

The lifesaving devices behind these healthy developments are manufactured by NEMA members who spend substantial time and money in research and development (R&D). According to Marcelo Mosci, president and CEO of GE Healthcare U.S. and Canada, and chairman of the MITA Board of Directors, companies do this in order to bring the best new technologies to market and ultimately to consumers (page 4).

This is one reason why repealing the Medical Device Tax is so important. It profoundly and negatively influences the quality of our economic stability by affecting employment and R&D in one of the most innovative sectors in the U.S. Gail M. Rodriguez, PhD, executive director of MITA and vice president of NEMA, asserts that the tax stifles innovation, kills jobs, and weakens the economy (page 5).

We made a commitment in January to embark on a yearlong discussion of the contributions NEMA/MITA products make to quality of life. Paradoxically, the benefits of medical imaging have become so expected as to risk their being under appreciated.  

Kevin J. Cosgriff  
President and CEO
Medical imaging is one of the most important medical interventions of the last century. As a diagnostic tool, imaging provides unique diagnostic information that is crucial for determining the right treatment for patients. The information from a scan will inform treatment options that directly affect the future quality of life for each patient and his or her family.

Coverage for medical technology is extremely important in granting patients access to the right scan at the right time. Coverage decisions, however, are not only important to the patient—they are also integral to the research and development that create innovative technologies to detect disease and develop treatment plans for patients across the U.S.

In order to gain coverage for patient screening, government regulators must first decide if there is sufficient evidence that the benefit of a scan outweighs the cost. The Centers for Medicaid and Medicare Services (CMS) requires several steps before issuing a final coverage decision, and even then it takes several additional months before a ruling is implemented. Meanwhile, patients at risk for cancer and other life-threatening diseases are unable to access these screening tools. In February 2015, James Chambers and colleagues from Tufts University Medical Center found that evidence guidelines for national coverage determinations have become increasingly restrictive since 1999.

Companies devote significant energy and resources toward innovation in order to bring the best new technologies to market. However, a moving target of evidence standards creates unnecessary barriers to entry for these innovative medical interventions. New equipment is built, serviced, and improved upon with patients and radiologists in mind, and clear evidence guidelines promote pathways for innovation that speed time to market and give manufacturers incentive to continue to develop high-quality imaging tools.

As manufacturers across the industry improve our medical technologies, MITA members and imaging industry stakeholders work tirelessly to ease the regulatory burden in Washington. With each success, we celebrate what stakeholders work tirelessly to ease the regulatory burden in Washington. With each success, we celebrate what building on Lung CT SUCCESS
Starting in January 2015, millions of at-risk patients qualify for low-dose computed tomography (CT) screening for lung cancer. MITA convened the coalition of clinicians, physicists, and industry to provide compelling evidence to CMS that ultimately led to the positive coverage decision. Once implemented, it will translate into new CT equipment in circulation and new patients receiving a lifesaving scan. One positive coverage determination has opened the market for low-dose lung CT and allowed millions of Medicare beneficiaries to receive screenings, who only months prior did not have access to the technology.

Throughout 2015, MITA’s Coverage and Research Committee will apply the same successful strategy to encourage CMS to grant coverage of low-dose CT screening for colon cancer—the second highest cause of cancer death in the U.S. Expanded coverage for these targeted screening tests will improve public health by offering millions of new patients an important health benefit.

As the new chairman of the MITA Board of Directors, I am honored to work with my fellow board members and MITA member companies to promote an industry dedicated to saving lives.

As our companies work individually to bring the most innovative technologies to market for the healthcare community, we are also committed to working together as an industry, along with CMS and other regulatory agencies, to promote expanded coverage for medical imaging and radiation therapy technologies.

1 “Medicare Is Scrutinizing Evidence More Tightly For National Coverage Determinations,” content.healthaffairs.org/content/34/2/253.abstract#right

Views from the Top

Expanding Coverage to Improve Patient Access
Marcelo Mosci, President & CEO, GE Healthcare U.S. and Canada

Siemens’ Sorensen Describes Impact of Medical Device Tax

In a recent interview with Greg Sorensen, president and CEO of Siemens Healthcare, a MITA member, Michael Bassett of RadiologyBusiness.com asked if the medical device tax imposed by the Affordable Care Act has had an impact on employment.

In his response, Dr. Sorensen said, “Absolutely. I personally have had to let people go as we have had to eliminate jobs. For example, we have a factory in Walpole, Massachusetts, where we make point-of-care devices. . . . When this tax hit, we had to cancel projects, and we laid people off. And that’s just one factory . . . It’s a very painful process for us and is something that our country neither needs nor wants.

Read the interview at www.radiologybusiness.com/topics/policy/siemens-sorensen-describes-impact-medical-device-tax?page=0%2C0
Repeal of Medical Device Tax Receives Bipartisan Support

Gail M. Rodriguez, PhD, Executive Director of MITA, and Vice President, NEMA

On the first day of the 114th Congress, Representatives Erik Paulsen (R-MN) and Ron Kind (D-WI), along with a bipartisan group of 254 cosponsors, launched fresh efforts to repeal the medical device tax with the introduction of HR 160, the Protect Medical Innovation Act of 2015.

The introduction of S 149 by Senators Orrin Hatch (R-UT) and Amy Klobuchar (D-MN) followed the next week. Four additional Democrats and four additional Republicans were listed as original cosponsors to the Senate measure. The bill’s introduction early in the new Congress sends a strong signal that repeal of the medical device tax is a top priority for legislators.

The tax took effect on January 1, 2013, and levies a 2.3 percent tax on medical devices. It has stunted job growth in the recovering U.S. economy, as well as in an industry that manufactures innovative equipment proven to help physicians diagnose and treat disease at earlier stages. This, in turn, reduces costs to the healthcare system.

The tax threatens an estimated 43,000 jobs to the medical imaging industry, which generates approximately $25 billion in payroll and pays its employees 40 percent more than the national average ($58,000 vs. $42,000). In addition, several companies are reporting layoffs and delayed hires as a result of the device tax.

Not only does the tax kill jobs and weaken the economy, it also stifles innovation. Although device manufacturers invest $10 billion in research and development annually, manufacturers have been forced to draw on their R&D budget to pay the IRS an estimated average of $194 million per month ($97 million due bi-monthly).

BIPARTISAN CALL FOR REPEAL

Members of Congress on both sides of the aisle agree the tax is dangerous to the economy and the medical imaging community. The House passed a repeal of the tax in the 113th Congress with bipartisan support; the Senate approved a non-binding amendment to the budget resolution, which cancelled the tax, by an overwhelming vote of 79-20 (including 33 Democrats who voted for the amendment).

Although renewed efforts to repeal the tax early in the 114th Congress are reason for optimism, several significant hurdles remain. Many Democrats agree the tax should be repealed, but are asking for an alternative funding stream, or offset, to replace the tax’s revenue.

In an effort to ensure that repeal efforts do not get bogged down in partisan warfare, congressional champions of the medical imaging community carefully orchestrated the bill’s introduction to stress its bipartisan support. They are also seeking a larger legislative vehicle to make the measure palatable to the president and reticent Democrats.

At a time when bipartisan agreement is rare, members of both parties have gone on record supporting repeal of the medical device tax. This demonstration of broad bipartisan support only further demonstrates how destructive the device tax has been to the economy and to medical innovation.
A small delegation of members of NEMA's Transportation Management and Associated Control Devices Section recently spent a day meeting with key federal decision makers for deployment, operations, and maintenance of intelligent transportation systems (ITS) products. The January 15 meetings marked the sixth year the section performed outreach and advocacy visits around Washington, D.C.

Members began the day with a discussion of hot topics in preparation for discussions with Federal Highway Administration (FHWA) officials. Once the officials arrived, the group learned more about FHWA’s establishment of a National Operations Center of Excellence. It is a collaboration platform for state and local transportation authorities to share best practices and lessons learned in maintenance, operation, and security aspects of ITS equipment.

The group also discussed FHWA’s development of rules under which states will devise measures and metrics for the performance of their highway networks in moving freight and minimizing congestion and associated vehicle tailpipe emissions. The rules are required under the 2012 Moving Ahead for Progress in the 21st Century (MAP-21) highway law that was extended in 2014 but is set to expire in May 2015, absent congressional action.

Members spent the afternoon on Capitol Hill, meeting with key staff members for the lead committees for transportation in the House and Senate. Members requested that staff strive for a long-term authorization of federal highway funding and programs to enable state and local governments to design and deliver roadway improvement projects, which include ITS equipment, to improve safety and efficiency. That said, they acknowledged that the term of the legislation will depend on how much revenue can be raised through federal gasoline and diesel taxes or other means.

The group also reiterated the importance of performance measures for delivering services to motorists while transitioning transportation authority mindsets from asset management to network operations.

With intelligence gathered and relationships strengthened, the section is currently considering additional recommendations to Congress for the upcoming highway legislation.

Craig Updyke, Manager, Trade and Commercial Affairs | craig.updyke@nema.org

What the industry is saying:
The Vehicle-to-Infrastructure (V2I) Safety Technology Investment Flexibility Act of 2015, presented by Congresswoman Candice Miller (R-MI), received support from the American Automotive Policy Council. The V2I proposal would authorize the use of already existing and allocated surface transportation funding to invest in technology that will improve highway safety. Rep. Miller received a letter from AAPP President Matt Blunt, endorsing the validity of V2I and supporting the use of transportation funds to begin the installation of the technology.

Ripon Advance Reports
President Obama released his FY2016 budget February 2. Totalling $4 trillion, he described the budget as a way to “replace mindless austerity with smart investments that strengthen America.” His proposal, which is subject to congressional approval, included increases in spending for a number of agencies and programs that concern NEMA members.

Below is a brief description of energy-related priorities. For a complete overview of how the budget would affect NEMA members, go to www.nema.org/2016-budget-priorities.

DEPARTMENT OF ENERGY

President Obama requested $29.9 billion in discretionary spending for Department of Energy (DOE) programs, an increase of $2.5 billion over the FY2015 enacted level. Since many issues are not isolated within a single office, the president requested a total of $235 million for five crosscutting programs, including three that will impact NEMA members.

- **Grid Modernization**: DOE is seeking $152.5 million to create and deploy the tools and technologies that will help analyze and control the grid of the future, to explore the regulatory and business models needed for a changing electricity sector, and to ensure that the grid is kept safe and secure from natural and manmade threats.

- **Energy-Water Nexus**: The president is seeking $9 million to support three activities related to the link between energy and water: data analysis and modeling to improve our understanding of how energy and water are used, research and development of technologies to improve existing systems, and policy development and stakeholder engagement focused on identifying solutions for a more efficient and resilient energy-water system.

- **Cybersecurity**: In order to protect DOE from cyberthreats, support the federal government’s ability to cope with cyberthreats, and improve the cybersecurity of the electricity, oil, and natural gas sectors, the president is proposing $2 million for a crosscutting cybersecurity program.

OFFICE OF ELECTRICITY DELIVERY AND ENERGY RELIABILITY

The Office of Electricity Delivery and Energy Reliability would receive $270 million, including funding for:

- **Energy Storage**: The president is seeking $21 million (an increase of $9 million over enacted FY2015 levels) to reduce the cost of and regulatory barriers to energy storage systems.

- **State Energy Reliability and Assurance Grants**: This new program would grant $27.5 million to states, localities, and tribes for use in long-term transmission, storage, and distribution reliability and climate resilience planning, and $35.5 million to create or enhance energy emergency response programs.

- **Smart Grid Research and Development**: DOE is seeking $30 million (an increase of $14.6 million over enacted FY2015 levels) to increase grid performance by exploring market-based solutions to integrate increased levels of distributed energy resources, as well as to research the integration of grid technologies and data streams with distribution management systems.

- **Transformer Resilience and Advanced Components**: A new proposal, this program would use $10 million to address the energy reliability risks facing critical grid equipment, such as large power transformers.

- **Additional programs are detailed in our online report, including Clean Energy Transmission and Reliability ($40 million), Cybersecurity for Energy Delivery Systems ($52 million), National Electricity Delivery ($7.5 million), and Infrastructure Security and Energy Restoration ($14 million).

OFFICE OF ENERGY EFFICIENCY AND RENEWABLE ENERGY

President Obama is seeking $2.72 billion (an increase of $809 million over enacted FY2015 levels) for the Office of Energy Efficiency and Renewable Energy, including funding for:

- **Building Technologies Office (BTO)**: The president is asking for $264 million (an increase of $92 million over enacted FY2015 levels) to fund BTO’s efforts to support emerging building technologies. BTO’s work will also focus on grid-connected buildings, product standards, and technical assistance for states and other jurisdictions on building energy codes.

- **Advanced Manufacturing Office (AMO)**: The budget proposes increasing the AMO budget to $404 million (an increase of $204 million over enacted FY2015 levels) in order to fund research, development, demonstration, and deployment of industrial energy efficiency and advanced manufacturing techniques.

- **Federal Energy Management Program (FEMP)**: The budget would provide $43 million (an increase of $16 million over enacted FY2015 levels) to assist federal agencies in meeting their energy goals, including investments in energy efficiency and renewable energy.

- **Vehicle Technologies Office**: The budget would provide $444 million (an increase of $164 million over enacted FY2015 levels) for the research, development, demonstration, and deployment of energy-efficient and alternative-fuel vehicles, including electric vehicles.

Patrick Hughes, Director, Government Relations
patrick.hughes@nema.org

Patrick Hughes, Director, Government Relations
patrick.hughes@nema.org
President Vetoes Keystone Bill with Energy-Efficiency Amendments

Congress sent its first energy bill of the new session to President Obama for his signature after both the House of Representatives and the Senate passed the Keystone XL Pipeline bill. The bill took more than one month to complete. The Senate considered more than 40 amendments out of the more than 200 that were introduced.

Two amendments that NEMA supported regarding energy efficiency were adopted. Senators Portman (R-OH) and Shaheen (D-NH) offered an amendment (adopted by a 94-5 vote) that, if the bill is enacted into law, this amendment would:

- establish “Tenant Star,” a voluntary, market-driven approach to aligning the interests of commercial building owners and their tenants to reduce energy consumption;
- exempt certain electric resistance water heaters used for utility demand response programs from pending Department of Energy regulation; and
- require that federally-leased buildings without ENERGY STAR® labels benchmark and disclose their energy usage data, where practical.

Senators Collins (R-ME) and Warner (D-VA) offered an amendment that passed by voice vote. If the bill is enacted into law, this amendment would:

- streamline available federal energy programs and financing to help improve efficiency and lower energy costs for our nation’s schools; it will help school officials determine what federal incentives are available to promote efficiency in schools, and know about other schools’ efforts that save energy and lower energy costs; and
- not authorize new programs or funding.

Even with the support of both the House and Senate, the president vetoed the bill. Congress could try to override it, but the Senate does not have the necessary 67 votes needed, leaving supporters unsure of the next steps.

Some supporters want votes in the House and Senate to see if they can override the veto, but congressional leadership has not signed off on that approach. Supporters are also looking at attaching the bill to must-pass legislation, such as an appropriations bill.

NEMA Pulling Its Weight in Drive for Trade Bills

NEMA Government Relations is engaged as an active member in business coalitions advocating for passage of trade legislation in Congress that will help open up international sales opportunities for NEMA members. At press time, Congress was considering bills to set objectives for Executive Branch negotiators to meet in agreements with trading partners around the globe and to provide stable exporting financing assistance to eligible U.S. exporters.

For both initiatives, NEMA staff is meeting with members of Congress to urge their support. Vital pieces of the message are stories from member companies about why foreign markets are important to their businesses and how they have benefited from U.S. policies and programs to make sales abroad. These anecdotes and case studies are important for members of Congress to digest as they consider not only Trade Promotion Authority (TPA) legislation requested by President Obama in his January State of the Union address, but also proposals to provide a long-term approval for ongoing operations of the U.S. Export-Import Bank.

Passage of TPA legislation is essential for the Executive Branch to conclude market-opening trade agreements that meet Congressional objectives and will not be subject to amendments and changes to the often delicate trade-offs achieved in reaching agreement. The 12-country Trans-Pacific Partnership agreement (generally known as TPP) could be concluded as soon as this spring if TPA is approved.

Absent congressional action to extend or reauthorize it, the Export-Import Bank will have to cease finance and credit operations supporting U.S. exporters by May 31. NEMA and several member companies participated in congressional lobby days on February 24-25 to remind legislators of the bank’s crucial functions that are not available from private sector institutions, but that help support millions in direct and indirect exports of NEMA and MITA member company products each year.

Craig Updyke, Manager, Trade and Commercial Affairs | craig.updyke@nema.org
In December 2014, New York Governor Andrew Cuomo signed two life safety bills into law that will require restaurants to install carbon monoxide (CO) detectors. The state is unique in that New York City enacts and maintains its own code, separate and apart from the rest of the state. As such, the state legislature ended up passing two separate bills—one that would modify the city’s code and one that would modify the code for the rest of the state.

The timing of these bills is significant because New York had several serious CO incidents in restaurants in 2014. On February 22, a manager died and one of his employees remained hospitalized after inhaling CO at a restaurant on Long Island. Dozens of patrons were also treated for symptoms of CO poisoning. March 12 and May 30 saw two more near-tragedies when employees from two smaller dining establishments were unknowingly exposed to CO in Staten Island and Carle Place, respectively.

Since April 2014, New York City has had a local law that requires restaurants with fire alarm systems to also install CO detectors. However, there are likely many smaller restaurants (e.g., cafés, delis, etc.) that do not have fire alarm systems and yet use CO-emitting equipment.

The new bill provides employees and patrons of these establishments with important life safety protection as well. Both laws take effect on May 27, 2015, by which time regulators must draft and implement installation standards and a final compliance date.

NEMA, on behalf of its Lighting Systems Division, published a brief white paper on considerations federal, state, and local governments should have in mind when setting requirements for procurement of energy-efficient lighting systems.

Specifically, the paper summarizes issues surrounding requirements that governments may set on the manufacturing location of final products or any product component.

“All of our member companies are operating and competing in the global economy,” said NEMA President and CEO Kevin J. Cosgriff. “Our lighting companies are leading the way in raising issues that governments need to be aware of as they consider placing and enforcing requirements for local or U.S. product content.”

According to the paper, which is intended to assist government policy makers, sourcing requirements that include lighting products should be developed “with a consideration of the complex issues related to end user cost, supply chain logistics, production efficiencies, and international trade agreements.”

A copy of the white paper, Domestic Procurement Policy and Manufacturing Efficiency for Lighting Products, is available at www.nema.org/lighting-procurement.

Craig Updyke, Manager, Trade and Commercial Affairs | craig.updyke@nema.org

Want to learn more? Listen to a related podcast at www.nema.org/LSD-white-paper

Jonathan Stewart, Manager, Government Relations | jonathan.stewart@nema.org

Want to learn more? Listen to our carbon monoxide podcast series at www.nema.org/podcast-series
Early Detection Saved My Life

Dusty Donaldson, Right Scan Right Time Patient Advocate, and Founder of the Dusty Joy Foundation

In September 2005, after undergoing various medical imaging tests, I heard four words that rocked my world and charted a new path for my life.

“You have lung cancer,” my doctor said. I don’t know who was more shocked by the diagnosis, me or my doctor.

I knew little about lung cancer then. As it turns out, I was not unlike the general public who is largely uninformed about this deadliest of cancers. But I learned quickly and was dismayed by common misconceptions about lung cancer. I was appaled by the sheer lack of compassion and the lack of understanding about this disease.

From that very first day of my diagnosis, lung cancer advocacy became my passion and my calling. For the next several years, I volunteered with various nonprofits serving the lung cancer community. Then, five years ago, in March 2010, I founded the Dusty Joy Foundation. The mission: advancing lung cancer awareness, early detection, and compassion for people impacted by lung cancer.

According to the National Transportation Safety Board, the odds of surviving a plane crash are 96 percent, compared to a lung cancer survival rate of 17 percent.

Even today, nearly ten years after my diagnosis, I am surprised at how little people in the healthcare industry know about basic lung cancer facts. Fortunately, through patient advocacy, scientific advancement, new screening protocols, and recent legislation, lung cancer awareness is increasing exponentially.

The Basics

Lung cancer kills more people than any other cancer. It kills nearly twice as many women as breast cancer. In fact, lung cancer kills more people than breast, colon, prostate, and pancreatic cancers combined.1 The number of Americans diagnosed with lung cancer in 2014 was a staggering 224,210; lung cancer kills nearly 160,000 annually. Out of every 100 patients diagnosed, 83 die within five years. As advocates from the Dusty Joy Foundation share these simple facts, we witness the public’s astonishment. Likewise, many in the medical field are shocked by these numbers.

Pivotal Changes

Two major changes are ushering in a new era for lung cancer: targeted therapy and screening.

One instrumental factor changing the lung cancer landscape is targeted therapy, which can literally take some patients from their deathbed to hiking in the mountains within just days of treatment. Targeted therapy is determined by molecular tumor testing and informs the best therapy for each patient.

1 Surveillance, Epidemiology, and End Results (SEER) Program, National Cancer Institute, 2014, seer.cancer.gov/statfacts/html/all.html
Yvette lives her life to the fullest, recently celebrating her 70th birthday on a family cruise in the Bahamas, and enjoying time with her children and grandson. “I would not have been able to do these things if I had not been screened,” Yvette said. Her experience led her to advocacy. “I’d like to see some other lives saved,” she said. “That’s my goal.”

Medical Imaging Saves Lives
Medical imaging is crucial to early detection, treatment management, and survival. Each year hundreds of thousands of people are diagnosed with lung cancer. Improving access to screening may result in an initial spike in new diagnoses, but will eventually lower the number of deaths from lung cancer. Detecting lung cancer early will also increase the number of lung cancer survivors/advocates who live to share their stories and raise awareness to help others.

Currently, based on smoking history and age criteria, screening by low-dose CT will not help many of the people diagnosed with lung cancer, including “never smokers” or people who quit more than 15 years ago. Still, it is the most effective weapon in the fight against lung cancer since the “war” on cancer was declared in 1971. Perhaps one day everyone can be screened for lung cancer. Until that day, it’s imperative to get the word out to the people most at risk.

Medical Imaging Saves Lives
Medical imaging is crucial to early detection, treatment management, and survival. Each year hundreds of thousands of people are diagnosed with lung cancer. Improving access to screening may result in an initial spike in new diagnoses, but will eventually lower the number of deaths from lung cancer. Detecting lung cancer early will also increase the number of lung cancer survivors/advocates who live to share their stories and raise awareness to help others.

Different Journeys
My lung cancer was caught early, but not through the standard screening (I did not meet the smoking history or age criteria). After an ultrasound, x-ray, and several CT scans, a five centimeter tumor was discovered in my right lung. At the time, I was in a fast-track MBA program and working full-time in media relations at Wake Forest University. I withdrew from the MBA program to undergo surgery and chemotherapy. I had two-thirds of my right lung removed, followed by chemotherapy. My oncologist later said three words few lung cancer patients hear: “You are cured.” September 2015 will mark my ten-year cancerversary.

While my lung cancer journey was not typical in any way, my friend Yvette’s was more so. She was one of the 50,000-plus participants of the National Lung Screening Trial. Fortunately for her, she was in the group that received low-dose CT scans. Her lung cancer was detected early and she underwent surgery to have it removed. Now, 10 years after her initial diagnosis, Yvette lives her life to the fullest, recently celebrating her 70th birthday on a family cruise in the Bahamas, and enjoying time with her children and grandson.

“I would not have been able to do these things if I had not been screened,” Yvette said. Her experience led her to advocacy. “I’d like to see some other lives saved,” she said. “That’s my goal.”

Medical Imaging Saves Lives
Medical imaging is crucial to early detection, treatment management, and survival. Each year hundreds of thousands of people are diagnosed with lung cancer. Improving access to screening may result in an initial spike in new diagnoses, but will eventually lower the number of deaths from lung cancer. Detecting lung cancer early will also increase the number of lung cancer survivors/advocates who live to share their stories and raise awareness to help others.

Currently, based on smoking history and age criteria, screening by low-dose CT will not help many of the people diagnosed with lung cancer, including “never smokers” or people who quit more than 15 years ago. Still, it is the most effective weapon in the fight against lung cancer since the “war” on cancer was declared in 1971. Perhaps one day everyone can be screened for lung cancer. Until that day, it’s imperative to get the word out to the people most at risk.

Medical Imaging Saves Lives
Medical imaging is crucial to early detection, treatment management, and survival. Each year hundreds of thousands of people are diagnosed with lung cancer. Improving access to screening may result in an initial spike in new diagnoses, but will eventually lower the number of deaths from lung cancer. Detecting lung cancer early will also increase the number of lung cancer survivors/advocates who live to share their stories and raise awareness to help others.

Currently, based on smoking history and age criteria, screening by low-dose CT will not help many of the people diagnosed with lung cancer, including "never smokers" or people who quit more than 15 years ago. Still, it is the most effective weapon in the fight against lung cancer since the “war” on cancer was declared in 1971. Perhaps one day everyone can be screened for lung cancer. Until that day, it’s imperative to get the word out to the people most at risk.
Lung cancer is the leading cause of cancer deaths in the United States. In fact, while 27 percent of all cancer deaths are due to it, the disease accounts for only 13 percent of new cancer diagnoses. The American Cancer Society (ACS) estimates 159,260 deaths due to lung cancer in 2014—more than breast, prostate, and colon cancer combined. The relatively high mortality in the lung cancer population is not helped by delayed diagnosis. Typically, symptoms of lung cancer do not appear until the cancer is at an advanced, often incurable, stage. Sometimes, symptoms are blamed or confused with other issues related to a history of smoking, delaying diagnosis even further.

As with many cancers, detecting the disease earlier at its most treatable stages is key to reducing mortality. In order to find cancers like this at an earlier stage, screening programs such as mammography (to detect breast cancer) and colonoscopy (to detect colorectal cancer) are implemented by insurers and Medicare at a national level. It is only in the last few years that a screening test—low-dose computed tomography (LDCT)—has been found to help identify lung cancer earlier and lower the risk of dying from it. In fact, data shows that when using LDCT to screen for lung cancer, deaths are reduced by nearly 20 percent.

Cancer Screening

As our understanding of disease processes has advanced, healthcare has shifted from a reactive to a proactive endeavor. When cancer is found at an earlier stage, the intensity of the intervention necessary to treat the patient is lowered, as well as the lingering health and financial effects. There is no question that treatment for many cancers has improved, and patients are now living longer after diagnosis. However, by finding cancers sooner and avoiding some of the aggressive treatment, patients may also avoid some of the associated burdens such as lasting side-effects treatment, lower treatment costs (long- and short-term), and improved quality of life in their years as a survivor.

Administering screening programs to find cancers at early stages is a complex challenge in which many questions must be addressed, such as which screening test is the most accurate, yet cost-effective. Screening exams must straddle the thin line between being sensitive enough to catch cancers at their earliest...
stages, but not so sensitive that they “over diagnose” and require additional testing for patients without cancer. An important aspect is ensuring the right patients are receiving screening tests at the right time; patient risk factors are used to help determine which patients are most appropriate for screening.

In 2011, the National Cancer Institute-sponsored National Lung Screening Trial (NLST) results were published. LDCT was established as the first validated screening test that can reduce lung cancer mortality. The study followed 53,454 high-risk lung cancer patients over seven years and found that patients screened using LDCT had a 15–20 percent lower risk of dying from lung cancer than patients who were screened using standard chest x-rays.²

After the release of this data, other organizations also supported the use of LDCT to screen high-risk patients for lung cancer: the American Association for Thoracic Surgery, the American Cancer Society, the American College of Chest Physicians, the American Society of Clinical Oncology, the American Thoracic Society, and the National Comprehensive Cancer Network.³

Based on these and other findings, in December 2013 the United States Preventative Services Task Force (USPSTF) updated its recommendation for lung cancer screening to a grade B for annual LDCT screenings in adults aged 55–80 years who have a 30 pack/year smoking history and currently smoke or have quit within the past 15 years. Importantly, under the Affordable Care Act, any screening test that achieves an A or a B rating from the USPSTF must be covered by private insurers at no charge to the patient.⁴ This means that all patients who are within the eligibility criteria set forth by the USPSTF and are covered by some form of private insurance are now able to receive a lung cancer screening with LDCT without any out-of-pocket expenses.

Unlike private insurers, however, it is not incumbent on Medicare to automatically implement screening coverage based on USPSTF recommendations. Paradoxically, when a patient enters the Medicare population, it is at that time when the risk of developing lung cancer rises; two out of three lung cancer diagnoses are made in patients age 65 or older with an average age at the time of diagnosis around 70.¹ In order to achieve the 15–20 percent reduced mortality seen in the NLST results, screening coverage needs to extend into the Medicare program.

**Covering the Medicare Population**

The Centers for Medicare and Medicaid Services (CMS) has a prescriptive and public process to evaluate national coverage for products and services for the Medicare population called a National Coverage Analysis, or NCA. A typical NCA is lengthy at nine months, but CMS can add a Medicare Evidence Development and Coverage Analysis Committee (MEDCAC) meeting or request an independent Technology Assessment, which adds time to the decision-making process.

An NCA was opened on February 10, 2014, to evaluate coverage of LDCT for lung cancer screening. Fortunately, the medical imaging and lung cancer patient advocacy communities were prepared to work together to develop a comprehensive plan to provide CMS with the data necessary to ensure all high-risk patients would have the same access to this important screening tool. During the NCA process, the public is able to provide input immediately upon opening the docket. This initial comment period allows CMS to get a sense of the public’s opinions on whether the product or service should be covered for Medicare beneficiaries.

For LDCT lung cancer screening, CMS received more than 300 comments during this initial period, an indication that the public is passionate about this topic. In April, CMS held a MEDCAC meeting where invited experts, as well as members of industry, patient advocacy organizations, and the public provided testimony to the MEDCAC panel on the merits of LDCT for lung cancer screening. Combining input from the MEDCAC panel and the initial public comment period, CMS deliberated and drafted a proposed decision memorandum, which was posted on November 10, 2014.

This eagerly awaited proposed decision was hailed by members of the medical imaging and patient advocacy community as it proposed to cover high-risk lung cancer Medicare beneficiaries. The memo proposed a registry with eligibility criteria for Medicare beneficiaries similar to those in the NLST trial. It also proposed specific criteria or qualifications for participation by the radiologist who interprets the scan and the imaging center or radiology department.³ Upon the posting of the proposed decision, a second public comment period was opened to allow for review and reaction. This second comment period provided an opportunity to respond to a few burdensome requirements of the proposed eligibility criteria and follow-up by imaging providers.

On February 5, CMS posted its final decision to cover annual low-dose CT scans for Medicare beneficiaries who are at high-risk for lung cancer.

Ms. Wilson (twilson@medicalimaging.org) has held various positions within the nuclear medicine industry, from direct patient care to industry reimbursement specialist, with special emphasis on PET imaging. Prior to joining MITA, she served as industry chair for the PET Coverage Committee for six years.

---

¹ www.cancer.org/cancer/lungcancer-non-smallcell/detailedguide/non-small-cell-lung-cancer-key-statistics
² www.cancer.gov/clinicaltrials/noteworthy-trials/nlst
³ www.uspreventiveservicestaskforce.org/uspstf/usplung.htm
⁴ www.hhs.gov/healthcare/rights/preventive-care/index.html
⁵ www.cms.gov/medicare-coverage-database/details/ncacoveragemedicaid.asp?NCAId=2746&NcaName=5 screenings+for+Lung+Cancer+with+Low+Dose+Computed+Tomography+(LDCT)&ExpandComments=n&blc=AIAAAAAgAAAA%3D%3D&
With this in mind, MITA set out to build a robust online community that would empower and connect patient advocates and enable them to share their stories about the value of medical imaging with members of Congress at opportune legislative moments.

MITA’s community, called “Right Scan Right Time,” grew from a group of a few hundred to almost 100,000 campaign advocates on Facebook in a little over a year.

Right Scan, Right Time

Because online activity continues to grow, digital advocacy is assuming an increasingly important role in engaging policymakers. Online tools reduce the barriers of distance and time, enhancing the ability of advocates to connect with each other and reach elected officials with their message.

Advocacy Spotlight

**Legislative Situation:** In March 2014, faced with an expiration of the existing Medicare Sustainable Growth Rate (SGR) for payments for physicians, Congress had the opportunity to vote on a new package that included MITA’s computed tomography (CT) dose optimization differential payment policy. The policy promotes the adoption of CT safety standards by reducing Medicare reimbursements to hospitals, physician offices, and independent imaging centers that do not have compliant equipment.

Knowing that inclusion of this policy would be critical to the safety of patients across the country, MITA activated our existing Right Scan Right Time community through a series of educational content and opportunities to take action. We reached advocates through Facebook, Twitter, and email content, which enabled interested users to click through to an advocacy tool and send a letter urging elected officials to support inclusion of the CT dose optimization policy in the package of Medicare reforms.

**Advocacy Action:** Within a week, 263 Right Scan Right Time patient advocates took a stand, sending 839 letters to 153 members of Congress, urging they support passage of the policy.

**Result:** These legislative efforts were met with success. Congress voted to pass the CT dose optimization policy as a part of the new Medicare package, and the president signed it into law, helping to ensure that patients have access to the safest, most advanced CT technology that delivers the lowest possible radiation dose.

Get the latest on imaging and show your support by liking MITA’s Facebook page, Right Scan Right Time, and following MITA’s Twitter handle, @MITAtoday.

For years, MITA has worked closely with patient groups and individual advocates to share their stories about the value of advanced medical imaging with elected officials. We also advocate for coverage decisions and legislative policies that protect and promote patient access to the right scan at the right time. Until recently, these efforts focused primarily on face-to-face interactions on Capitol Hill. Today, armed with a growing group of dedicated patient advocates from across the country, advocacy is happening where everyone spends most of their time: online.
We keep the conversation fresh and engaging by incorporating content from a variety of digital platforms, such as Vine and Instagram, and media formats into our posts. As a result of this strategy, our average engagement rate, also known as the percentage of people who see our posts and engage with them, continues to be about three times higher than the average brand page on Facebook.

The content MITA creates and distributes educates our supporters, creates emotional connections, and, most importantly, drives supporters to take action.

**Turning Online Engagement into Legislative Action**

During critical legislative moments throughout the year, MITA mobilizes advocates around priority issues by encouraging and enabling social media users to send letters to lawmakers on legislative policies that protect access to medical imaging and radiation therapy (RT).

In 2014 alone, our digital content drove patient advocates to send 1,686 letters to members of Congress encouraging action on imaging and RT policies. In the same year, close to 3,000 advocates pledged to take action in future legislative opportunities to protect or expand access to imaging.

The Right Scan Right Time community gives advocates across the country the opportunity to join MITA’s legislative efforts throughout the year and encourage policymakers to take action on imaging and RT policies. Today, whether an advocate is on the steps of Capitol Hill or behind a computer in California, he or she has the opportunity to be heard.

Prior to MITA, Mr. Dhokai (adhokai@medicalimaging.org) served as director of government relations for the North American Spine Society/National Association of Spine Specialists.

Today, nearly all community members live in priority Congressional districts and have been personally impacted by medical imaging—these are real people who can communicate the lifesaving benefits of these technologies to policymakers in a relatable way.

Through Right Scan Right Time, MITA shares relevant statistics and research findings, inspirational patient stories, and news about the latest innovations in imaging, which prompts real-time discussions and gives advocates a communal space to discuss their individual experiences.

**DID YOU KNOW?**

Since 1990, breast cancer mortality rates have been cut by 34%.

**Join the Right Scan Right Time community at**

rightscanrighttime.org
According to the New England Journal of Medicine, medical imaging is one of the top developments that “changed the face of clinical medicine” during the last millennium. Today, imaging and radiation therapy are cornerstones of quality care, providing earlier, more-accurate diagnoses and highly personalized, more effective treatment.

MITA (NEMA’s Medical Imaging & Technology Alliance) presents the explanations below to provide the general public with a pictorial guide to the use of imaging in modern medicine.

**Magnetic Resonance Imaging (MRI)**

Magnetic resonance imaging (MRI) uses radio waves and a magnetic field to create detailed pictures of organs and tissues. MRI has proven to be highly effective in diagnosing a number of conditions by showing the difference between normal and diseased soft tissues of the body.

MRI is often used to evaluate:

- blood vessels
- breasts
- organs in the pelvis, chest, and abdomen (heart, liver, kidney, spleen)

New, portable magnetic resonance imaging (MRI) devices require minimal power and can be used in clinics, nursing homes, emergency rooms and in the field. 4D magnetic resonance imaging (MRI) provides a non-invasive way to measure and visualize complex blood flow in individual arteries. It also allows physicians to evaluate the entire cardiovascular system, including the heart, adjacent aorta, and carotid arteries in the neck as well as abdominal and peripheral vessels.

**Computed Tomography (CT)**

Computed tomography (CT), also commonly referred to as a CAT scan, combines multiple x-rays taken from different angles to produce detailed cross-sectional pictures of areas inside the body. The resulting images provide more information than regular x-rays and allow doctors to look at individual slices within the 3-D model. Today, low-dose computed tomography (LDCT) can find tiny tumors the size of a grain of rice, which has been shown to reduce lung cancer deaths by 20 percent.

CT is often used to evaluate:

- organs in the pelvis, chest, and abdomen
- colon health (CT colonography)
- presence of tumors
- pulmonary embolism (CT angiography)
- abdominal aortic aneurysms (CT angiography)
- spinal injuries

**Radiopharmaceuticals**

Also known as “contrast agents” or “tracers,” radiopharmaceuticals are used by physicians to enhance images, allowing for improved visualization and characterization of organs and tissues for the diagnosis and treatment of disease. When used together with medical imaging, radiopharmaceuticals highlight specific parts of the body. Physicians may administer radiopharmaceuticals in a few different ways, including though a drink or an intravenous line.
Radiation therapy (RT) is used to treat a wide range of cancers by delivering highly targeted radiation to cancerous cells, destroying their ability to grow and divide, while leaving healthy cells intact. Generally, RT is delivered through beams emitted from a machine outside the body, or through brachytherapy, which involves placing the radiation source directly inside or near the site of the cancerous cells. Cancer patients may be treated with both radiation therapy and chemotherapy to limit the need for more exploratory surgery.

Positron emission tomography (PET) is a type of nuclear medicine procedure that provides physicians with information about how tissues and organs are functioning. PET, often used in combination with CT, uses a scanner and a small amount of radiopharmaceuticals, which is injected into a patient’s vein to assist in making detailed, computerized pictures of areas inside the body. PET imaging can identify where malignant cancers have spread in the body and monitor the effectiveness of chemotherapy.

PET is often used to evaluate:
- neurological diseases, such as Alzheimer’s and multiple sclerosis
- cancer
- heart disease

Diagnostic ultrasound, also known as medical sonography or ultrasonography, uses high frequency sound waves to create pictures of the inside of the body. The ultrasound machine sends sound waves into the patient and converts the returning sound echoes into a picture. Ultrasound technology can also produce audible sounds of blood flow, allowing medical professionals to use both sounds and visuals to assess a patient’s health.

Ultrasound scanners use pulsed Doppler to measure velocity. Smaller ultrasound machines, some so tiny they can fit into the palm of your hand, can deliver color-flow Doppler imaging, often on battery power alone. Given their size, their use is spreading worldwide, bringing state-of-the-art imaging to health clinics, remote rural areas and disaster recovery sites.

Ultrasound is often used to evaluate:
- pregnancy
- abnormalities in the heart and blood vessels
- organs in the pelvis and abdomen
- symptoms of pain

X-ray technology is the oldest and most commonly used form of medical imaging. X-rays use ionizing radiation to produce images of a person’s internal structure by sending x-ray beams through the body that are absorbed in different amounts depending on the density of the material.

X-rays are typically used to evaluate:
- broken bones
- cavities
- swallowed objects
- lungs
- blood vessels
- breasts (mammography)
MITA Develops New Standard for X-Ray Equipment for Interventional Procedures

MITA developed XR 31 Standard Attributes on X-Ray Equipment for Interventional Procedures to identify essential technologies all patients undergoing an interventional fluoroscopic procedure should have access in order to ensure a minimum level of care, reflective of current technology standards. In addition, these features represent the basis upon which future technologies for managing dose will build upon.

Fluoroscopic procedures guide the placement of stents for cardiovascular procedures. Because this equipment provides a live video image (instead of a single x-ray image), the dose is necessarily higher than procedures involving a single, static x-ray. While the benefits of an interventional procedure far outweigh the risks from radiation, the higher exposure raises the importance of adopting dose-reducing technologies.

In this first edition standard, we identified key features of fixed x-ray interventional equipment which contribute to optimizing patient care, or help to perform optimization/management of ionizing radiation doses.

**VIRTUAL COLLIMATION**
Collimators adjust the size of the radiation beam, and thus, can lower radiation dose by shrinking the area imaged by the machine. Virtual collimation provides a graphical display of the collimator’s position while its blades are adjusted. This feature eliminates patient irradiation during collimator adjustment.

**STORED FLUOROSCOPY**
Stored fluoroscopy allows the operator to store the most recent fluoroscopic sequence to the equipment after ceasing radiation exposure. After the storage process is complete, the operator can replay the stored fluoroscopic sequence for review. Storing a sequence reduces the need to acquire another.

**VARIABLE PULSED FLUOROSCOPY RATE**
The reduction of the frame rate to less than 30 frames per second reduces the air kerma rate to the patient, and thus lowers the radiation dose received.

**SOLID STATE X-RAY IMAGING DEVICE (FLAT PANEL)**
Flat panel detectors (FPDs) became available for interventional digital x-ray imaging at the end of the 1990s, and can be considered as state-of-the-art today.

For almost all dose ranges used in interventional radiography and fluoroscopy, FPDs provide a better dose efficiency compared to image intensifier systems. This directly results in dose savings for the same imaging task or better image quality for the same dose applied.

FPDs also allow for better image quality, faster workflow, and/or easier diagnosis, which indirectly results in dose savings. This includes lack of geometric distortion, little or no veiling glare, and a uniform response across the field-of-view. A higher dynamic range and improved large area contrast help to display more anatomic details.

Image intensifiers degrade over time, resulting in an increase in patient dose to maintain image quality. Because this effect does not exist for FPDs, a direct dose saving is obvious.

XR 31-2015 Standard Attributes on X-Ray Equipment for Interventional Procedures will be available at no cost on the NEMA standards website.

Mr. Flood (tflood@medicalimaging.org) previously served as a project officer with the U.S. Department of Health and Human Services, Office of the National Coordinator for Health Information Technology.
The Positron Emission Tomography (PET) Group, a sub-section of MITA, is dedicated to eliminating the burdensome regulatory and coverage policies that hinder the PET imaging industry.

MITA members are actively engaged in three areas that aim to expand the market and promote the value of PET imaging: advocacy and education, evidence development, and coverage. In my third year as chair of the group, we have seen a number of victories and hope to build on those successes in 2015.

One such victory was the expansion of PET imaging in formal guidelines for several cancers. Volunteers from member companies are working to incorporate the updated guidelines into MITA’s DETAIL (Demonstrating Excellence Through Advanced Imaging Learning1) educational pieces for referring physicians to ensure that PET is recognized for its role in detecting and treating cancers.

In 2014, a MITA-supported and well-received Medscape Continuing Medical Education learning activity launched to help educate both referring and interpreting physicians on the national coverage for oncologic PET.

Under the leadership of Terri Wilson, director of PET and molecular imaging for MITA, the group has added five new contributing member companies and increased its coordination with other industry stakeholders, such as the Society for Nuclear Medicine and Molecular Imaging (SNMMI) and the American Society of Nuclear Cardiology. In September 2014, MITA leadership guided the planning for the SNMMI Industry Forum, which brought stakeholders together to create a vision for the future of nuclear medicine and molecular imaging. MITA will continue to build on this coalition in order to move PET imaging forward as a unified industry.

In 2015, the group will continue to build evidence for beta-amyloid PET scans that are instrumental in the early detection of Alzheimer’s disease. Positive coverage decisions are the foundation for successful new entrants into the market and increasing patient access to this ground-breaking technology.

MITA’s strong relationships with key opinion leaders, our world-class consultants, and the PET Group’s passionate volunteers are already improving the landscape for PET imaging technology, and we look forward to another year of success in 2015. ♦

Mr. Tulip chairs the MITA PET Group.

1 DETAIL educational and informational kits are available at www.medicalimaging.org/about-mita/detail-kits
The field of radiotherapy is dependent on complex computer systems. Error messages generated in the daily interaction with these systems are often a source of confusion and frustration. In some cases, critical information for the user can be misunderstood due to poorly constructed error messages, leading to safety concerns. In other instances, error messages are simply disregarded.

How can a mechanism intended to help, end up with such a bad reputation? The answer, along with proposed solutions to address problems with error messages in radiation therapy software, is now only a click away. Thanks to the collaborative efforts of vendors and clinical representatives, three easy-to-read documents, including plenty of how-to instructions and examples, are available to the public online at info.radoncssi.org/publications.

The three documents have been developed by the Error Messages Working Group of the Radiation Oncology Safety Stakeholder’s Initiative (RO-SSI). RO-SSI was founded by members of the MITA RT Section, AAPM, and ASTRO in 2010. The purpose of the Safety Stakeholder’s Initiative is to combine the expertise of all stakeholders to identify opportunities for improving patient safety in all aspects of the radiation therapy treatment process.

RO-SSI, which is independent from all other organizations, develops recommendations for consideration by the various entities responsible for all or part of the radiation therapy treatment process. The intent of RO-SSI is to advise and suggest rather than prescribe actions or processes. It is hoped that the organizations, societies, and vendors in our field will consider the recommendations and post their support for the document, as well as implement its use in their own environments.

Here is a quick look at what the reader will find in the newly released documents:

**TERMINOLOGY**

The first of the three documents, Terminology, lists all the different type of message dialogs typically presented to the users. It contains easy to follow guidelines to help vendors use consistent terms and help them choose which type of message to display given the particular context in which the message is generated. For each type of message (e.g., error, warning, informational, etc.), the authors suggest a graphic concept which will aid in user’s fast recognition of the message type and ensure consistency within and across applications.

**CONTENT GUIDELINES**

In many instances, message dialogs are poorly written and therefore not very useful (or worse, can be misinterpreted or ignored by the user). This leaves the potential for improper use of the system and even patient harm. Appropriate Frequency of Error Messages describes six best practices for writing more helpful messages. A comprehensive selection of examples of error messages from the radiation therapy field sets this document apart.

Each example is critiqued so that readers can learn to recognize the problems with current messages and how content can be improved to make the message more effective. Lastly, a summary checklist with all the guidelines is meant to facilitate sharing of recommendations with all those who end up crafting error messages. We hope the vendor software engineering community will adopt these recommendations.

**ALERT FATIGUE**

The third document in the series, Alert Fatigue, discusses issues of user interface design and fault management in order to provide software applications that report errors at the appropriate frequency. Manufacturers are encouraged to consider these concepts in new or revised application software and control systems.

These documents are all considered “living” documents, in that stakeholders can comment on them and help revise them over time to better reflect the consensus in our field. We invite you to review them at the link provided and let us know what you think.

Ms. Negrut and Dr. Olch co-chair the RO-SSI Error Messages Working Group.
Most people hear the words “trade policy” and immediately think of policy debates in Washington, D.C., try to recollect their preferred political party’s talking points on the subject, or perhaps do nothing at all. What many don’t realize is how good trade policy can benefit manufacturers of medical devices, hospitals, and even affect patient outcomes.

Although a trade policy expert could fill this space with wonky discussion on countervailing duties, non-tariff barriers, and anti-dumping measures, let’s keep it simple—95 percent of the world’s consumers live outside of the U.S.; for U.S. businesses to grow and be competitive, they must be able to sell products and services to people outside our borders.

Although sometimes contentious, efforts like the Trans-Atlantic Trade and Investment Partnership (TTIP),1 the Trans-Pacific Partnership (TPP),2 and negotiations to expand and improve the World Trade Organization’s (WTO) Information Technology Agreement (ITA) attempt to peacefully resolve trade disputes while strengthening relationships with allies and benefiting all economies involved.

The administration, and specifically the U.S. Trade Representative (USTR), negotiates trade agreements with other nations. It is up to Congress to approve or disapprove those agreements. Trade Promotion Authority (TPA), which will be considered later this year, provides the administration with objectives that will direct the negotiations, requirements for congressional consultation, and the process for Congress to consider trade agreements without amendment once submitted by the administration. With TPA, Congress may approve important multilateral trade agreements like TPP and TTIP when negotiations are concluded.

Traditionally, trade policy benefits U.S. consumers and businesses by reducing tariffs. Tariffs, the taxes that countries charge when imported goods arrive at the border, are intended to protect domestic industry. But, when every country places high tariffs on imports, trade is impeded, competition suffers, and prices are kept artificially high. No one benefits from this arrangement except the customs agencies collecting the fees.

Past trade agreements have focused on reducing tariffs to or near zero percent. Agreements from the 1990s and 2000s, including the WTO’s ITA, have tariff reduction as a principle component. In recent years, however, trade negotiators have grown more ambitious, setting their sights on more ways to benefit the private sector than by simply reducing tariffs. Increasingly, trade negotiations contain provisions for increased regulatory transparency, good government oversight, and improved logistics facilities (e.g., increased capacities at ports, secure storage at customs agencies). All these efforts make it easier and more cost-effective to get products to new markets.

Real Life Dollars

How does this affect manufacturers, hospitals, and patients? Let’s look at an example. A top-of-the line 64-slice CT scanner may cost $500,000. To sell this machine in another country, you may pay an eight percent tariff as soon as it gets to the border, adding $40,000 to the price. When you account for the costs incurred while putting it through the regulatory approval process—after you’ve already demonstrated safety and efficacy in your home country—and then add storage and legal fees while waiting for approval, the price could be $100,000 higher than what it costs at home. These kinds of cost increases can put a lifesaving medical device out of reach for countries with constrained health budgets. In turn, this denies patients access to the most advanced equipment and directly affects their health outcomes.

By reducing unnecessary tariffs and regulatory uncertainty, hospitals and patients get access to higher quality medical equipment at a more affordable cost. But, manufacturers also benefit. Not only because hospitals are now able to afford higher-end, higher-margin products, but because barriers to market are eliminated.

How can you support free trade?

Email or call your elected representatives and tell them that trade is good for your company and good for America. Support TPA and a robust trade agenda. If you have a success story or a pain point that would be resolved by passing a trade agreement, even better!

The government provides free resources to companies exploring new markets, and MITA membership is full of examples of companies that have grown from launching into international markets.

Andrew Northup, Director, Global Affairs, MITA

1 TTIP is a trade and investment agreement being negotiated between the U.S. and the European Union.
2 TPP is a trade agreement that the U.S. is negotiating with 11 other countries throughout the Asia-Pacific region (Australia, Brunei Darussalam, Canada, Chile, Japan, Malaysia, Mexico, New Zealand, Peru, Singapore, and Vietnam).
In March 2014, MITA launched the Imaging Forward campaign, shining a long overdue spotlight on innovation in medical imaging, and showcasing the impact of advances in imaging technology on patient care. Imaging Forward provides a platform for an eye-opening perspective of science, research, and lifesaving innovation through a variety of multi-media channels, including a website featuring a number of educational tools such as one-pagers, videos, and information on innovative medical imaging technologies.

The campaign educates policymakers, media, and the public on the powerful impact imaging has had on targeted disease detection, diagnosis, and treatment, as well as eliminating the need for invasive exploratory surgeries.

Imaging Forward focuses on the progress made in medical imaging over the last 20 years, as well as the next wave of imaging technologies. Specifically, MITA aims to communicate the following key messages:

- Patients and physicians today benefit from the most innovative, advanced medical imaging technologies that not only save lives, but also reduce long-term healthcare spending.
- Innovation in medical imaging is only possible because of continued investment in the research and development of new lifesaving technologies.
- Medical imaging is now a cornerstone of quality patient care, thanks to years of constant innovation led by the world’s top engineers, scientists, and clinicians.

In an effort to disseminate the Imaging Forward message to a wider audience, MITA has partnered with several organizations, including the American College of Radiology, the Association for Medical Imaging Management, and the Radiological Society of North America.

MITA looks forward to new and exciting additions to the campaign in 2015. We will continue to highlight the innovations of imaging technologies, as well as the benefits on patient diagnoses, treatments, and outcomes.

Prior to joining MITA, Ms. Doty Georges (edotygeorges@medicalimaging.org) spent more than six years on Capitol Hill as a legislative staffer.

Advocacy in Action: MITA’s Patient Fly-in

This March, MITA is convening a passionate group of imaging and radiation therapy (RT) advocates for a Right Scan Right Time Advocacy Academy & Capitol Hill Day. The event will unite patients from around the country whose lives have been touched by access to these life-saving technologies.

Participants will learn how to share their own stories and underscore for Members of Congress how vital these technologies are for the detection, diagnosis and treatment of cancers and other deadly diseases that touch millions of Americans. Given upcoming conversations about Medicare’s sustainable growth rate (SGR), advocates will also encourage their Members of Congress to reject additional reimbursement cuts and oppose the use of burdensome, nontransparent obstacles to appropriate scans. Keep an eye on our Right Scan Right Time Facebook page to see photos, videos and other content coming out of this exciting event.
Energy Is One Cost You Can Control

Learn about our Four Steps to Energy Improvement at

graybar.com/save-energy
Emerging Opportunities Panel Kicks off Strategic Initiatives

Each year, NEMA dedicates resources to several areas that present new opportunities for the electrical manufacturing or medical imaging industries. Strategic initiatives are generally cross-cutting ventures that can benefit multiple product sections or sectors.

NEMA’s 2015 Strategic Initiatives cover a broad spectrum that includes:

- grid modernization, focusing on efforts to secure the electroindustry supply chain from cyber and physical security threats
- launching a new energy storage product section to reduce testing and manufacturing costs through standards and removal of market barriers
- a microgrid initiative seeking to reduce costs by resolving vague, conflicting, and unfavorable regulations
- a smart cities plan that represents NEMA members as codes, standards, regulations, and rating systems are developed domestically and internationally for increasingly interconnected energy, water, transportation, building, and communication sectors
- an energy-water nexus that investigates market opportunities to improve energy efficiency in the supply, delivery, and treatment of water
- advancing safety and innovation by preserving the three-year code adoption cycle at the state level
- promoting installation of high performance building technologies through adoption of local benchmarking and disclosure laws to make commercial property energy use and efficiency transparent
- developing Medicare reimbursement policies that properly position diagnostic imaging as integral to patient care

A first step in developing strategic initiatives for 2016 was NEMA’s recent “Emerging Opportunities Panel,” which was held on January 8, 2015, at NEMA Headquarters. Sixty people participated in the panel, including representatives from 38 NEMA member companies.

The program included four excellent presentations, which can be accessed through the links below:

- Panel I: “What Makes a Smartgrid Smart?” by Phil Davis, Schneider Electric Demand Response Resource Center, focusing on transactive energy (www.nema.org/What-Makes-a-Smartgrid-Smart)
- Panel II: “Internet of Things” by Dr. Sokwoo Rhee, Presidential Innovation Fellow at NIST, recognized by MIT as a “top innovator” (www.nema.org/Internet-of-Things)
- Panel III: ANSI’s “Energy Efficiency Standardization Coordination Collaborative,” by Jana Zabinski, EESCC program manager at ANSI (www.nema.org/Energy-Efficiency-Standardization-Collaborative)
- “DOE’s Building Technologies Office” by Pat Phelan, Department of Energy (www.nema.org/DOE-Building-Technologies-Office)

Charles S. Konigsberg, JD, Vice President for Strategy and Policy | chuck.konigsberg@nema.org

Photos by Gene Eckhart
According to the Census of Fatal Occupational Injury database, which is compiled by the Bureau of Labor Statistics, contact with overhead power lines (OHPL) accounted for 45 percent of all electrical fatalities from 2000-2010. In an effort to uncover the most at-risk occupations for OHPL fatalities, ESFI sought additional data from the Occupational Safety and Health Administration (OSHA), which provides narrative accounts to determine whether safe work practices were followed.

While it should come as no surprise that the most OHPL injuries occurred in occupations whose work involves OHPL (e.g., line workers), the paper also found that a significant number of fatalities were attributed to occupations that don’t directly involve power lines, such as construction laborers and truck drivers. In fact, about two-thirds of OSHA-reported OHPL fatalities occurred to workers with job titles that are nonelectrical in nature. This data demonstrates the need for OHPL safety training beyond those who are likely to have direct contact with power lines.

Recognizing a need for education on the subject, ESFI recently partnered with AgSafe—a non-profit dedicated to providing the agricultural industry with the education and resources needed to prevent injuries, illnesses, and fatalities—to launch a program that raised awareness about the hazards associated with OHPLs in the agricultural workplace. A train-the-trainer program was also developed to help teach managers how to educate their employees at the work-site about the dangers of OHPL. ESFI is currently drawing on this effort by exploring partnerships in the utility, transportation, and construction industries to develop additional programs aimed at reducing the number of OHPL fatalities in these fields.

For the full text of the paper and for more information on ESFI’s safety resources, including overhead power line safety initiatives, visit www.esfi.org.

Julie Chavanne, Communications Director, ESFI | julie.chavanne@esfi.org

NEMA Remembers Bill Beile, Allied Tube & Conduit

Bill Beile, former senior technical adviser at Allied Tube & Conduit and former member of NEMA’s Steel Rigid Conduit and Electrical Metallic Tubing Section (5RN) and Codes & Standards Committee, passed away February 3. He was past chairman of the section steering committee and former co-chairman of the technical committee. His career in codes and standards spanned 30-plus years.

Mr. Beile was an active member of the Council for Harmonization of Electrotechnical Standardization of North America (CANENA) and promoted tri-national standards among the U.S., Canada, and Mexico. A supporter of the NEMA International and Regional Standardization Committee, he helped to develop NEMA’s global strategy business plan. He was also an active member of the National Fire Protection Agency and the National Electrical Code® process since 1971, and served as NEMA’s representative on Code Panel 3 for several cycles.

Co-authored by ESFI President Brett Brenner and Institute of Electrical and Electronics Engineers (IEEE) Senior Member James C. Cawley, P.E., “Occupations Most At-Risk in Fatal Overhead Power Line Incidents: Using OSHA Data to Get a Better Understanding” examined all electrical cases investigated by OSHA from 2000-2011 to determine the industries and occupations that sustain injuries from OHPL incidents and the scenarios associated with these injuries. The paper was presented in January at the 2015 IEEE IAS Electrical Safety Workshop in Louisville, Kentucky.

Mr. Beile was an active member of the Council for Harmonization of Electrotechnical Standardization of North America (CANENA) and promoted tri-national standards among the U.S., Canada, and Mexico. A supporter of the NEMA International and Regional Standardization Committee, he helped to develop NEMA’s global strategy business plan. He was also an active member of the National Fire Protection Agency and the National Electrical Code® process since 1971, and served as NEMA’s representative on Code Panel 3 for several cycles.

ESFI, IEEE Uncover Occupations Most At-Risk in Fatal Overhead Power Line Incidents

July Chavanne, Communications Director, ESFI | julie.chavanne@esfi.org
Effective IEC Participation

There are a multitude of opportunities for participation in the work of the IEC for development of standards relevant to the global electroindustry market. These range from involvement in the domestic-based committees mirroring the various technical horizontal, and system and product committees within IEC to taking on leadership roles in the IEC management structure. Most of us have other assignments from our sponsoring organizations that limit participation to the U.S. National Committee of the IEC Technical Advisory Groups (established for U.S. interests to provide analysis and input to IEC).

Consideration should be given whether some additional time would be well spent to gain early and more detailed insight into the specific requirements under development in the technical committees with other international participants. More information will be provided in articles in following editions. Contact Ken Gettman (ken_gettman@nema.org, 703-841-3254) for more details.

IEC Market Strategy Board Focuses on Future with White Papers

The IEC Market Strategy Board (MSB) helps identify what areas the IEC should focus on in the future through the identification of key technological trends and market needs. It publishes recommendations in the form of white papers. Three new IEC white papers focus on smart cities, the Internet of Things, and microgrids for disaster preparedness and recovery.

**ORCHESTRATING INFRASTRUCTURE FOR SUSTAINABLE SMART CITIES**

Orchestrating infrastructure for sustainable Smart Cities is the fifth in a series of white papers whose purpose is to ensure that the IEC can contribute to solving global challenges through its International Standards and Conformity Assessment services.

Electricity is core in any urban infrastructure system and the key enabler of cities development, so IEC has a specific role to play in the development of smart city standards. Delivering the full value of standards to accelerate the development of smart cities and lower its costs also needs a strong collaboration of all city stakeholders.

**INTERNET OF THINGS: WIRELESS SENSOR NETWORKS**

Internet of Things: Wireless Sensor Networks discusses the use and evolution of wireless sensor networks (WSN) within the wider context of the Internet of Things (IoT). It provides a review of WSN applications, while also focusing the attention on infrastructure technologies, applications, and standards featured in WSN designs.

The idea of the IoT was developed in parallel to WSNs, and refers to uniquely identifiable objects and their virtual representations in an “internet-like” structure. While IoT does not assume a specific communication technology, wireless communication technologies will play a major role in the roll-out of the IoT.

**MICROGRIDS FOR DISASTER PREPAREDNESS AND RECOVERY**

Microgrids for disaster preparedness and recovery: With electricity continuity plans and systems, the fourth in a series of white papers by the IEC MSB, considers preparation for and recovery from major electricity outages, with a focus on customer-side measures. It examines how disaster preparedness and post disaster recovery may benefit from standards and the design of plans for coordinated activity.

Ken Gettman, International Standards Director | ken.gettman@nema.org

What the industry is saying:

ISO 14001, the world’s most popular standard for environmental management, is now under review, with an updated version due to be available in July 2015.

Over 250,000 organizations are certified to ISO 14001 and while it continues to be as relevant as ever, the revision will take into consideration a number of issues to ensure it enhances an organization’s ability to consistently provide products that meet customer requirements.

The draft standard has been written using the new high level structure which is common to all new management systems standards. This will allow easy integration when implementing more than one management system.
Recently Published Standards

The following standards are available on the NEMA website.

**ANSI C12.7-2014 American National Standard for Requirements for Watthour Meter Sockets**

This standard covers the dimensions and functions of meter test switches for transformer-rated watthour meters when used in conjunction with instrument transformers. Revisions include certain performance requirements covered by the latest revision of Underwriters Laboratories’ safety standard UL 414 Standard on Meter Sockets. ANSI C12.7-2014 may be downloaded or purchased in hard copy for $82 on the NEMA website.

**ANSI C78.81-2014 American National Standard for Electric Lamps—Double-Capped Fluorescent Lamps—Dimensional and Electrical Characteristics**

In this updated version, eight datasheet revisions, four new datasheets, and additional information for high-frequency electronic ballast design are included. ANSI C78.81-2014 may be downloaded or purchased in hard copy for $500 on the NEMA website.


This standard describes the procedures to be followed and the precautions to be observed in obtaining uniform and reproducible measurements of the electrical characteristics of fluorescent lamps under standard conditions when operated on alternating current circuits. ANSI C78.375A-2014 may be downloaded or purchased in hard copy for $75 on the NEMA website.

**ANSI/NEMA SB 40-2015 Communications Systems for Life Safety in Schools**

This standard defines signal initiation, transmission, notification, and announcement; level of performance; and the reliability of school communication systems. ANSI/NEMA SB 40-2015 may be downloaded at no cost or purchased in hard copy for $27 on the NEMA website.

**NEMA PB 2.2-2014 Application Guide for Ground Fault Protective Devices for Equipment**

This standard is a guide of practical information containing instructions for the safe and proper application of ground fault protective devices. PB 2.2-2014 revises and supersedes PB 2.2-1999(R2004, R2009) and may be downloaded at no cost or purchased in hard copy for $91 on the NEMA website.

Now you have access to the latest electroindustry standards in the premium formats you need.

Introducing the new Techstreet-powered NEMA storefront. Your single destination for electroindustry standards, complete with print, multi-user PDFs and print+PDF bundles.

Visit techstreet.com/nema to learn more.
NEMA field reps recently attended the National Electrical Code® (NEC) 2017 First Draft meetings. Listen to a podcast with Bryan Holland (Southern Region) and Don Iverson (Midwest Region) about the meetings and the importance of revising the electrical code every three years.

NEMA, UL Announce Changes to GFCI Standard

NEMA, along with UL (Underwriters Laboratories), announced changes to the UL Standard 943 Standard for Safety for Ground-Fault Circuit Interrupters (GFCIs) (Tri-national harmonized UL 943/CSA C22.2 No. 144.1/ANCE NMX-J-520) that will take effect on June 29, 2015.

To maintain certification, all manufacturers must meet these revisions with GFCIs produced after June 28, 2015. The current GFCIs bearing the UL Certification Mark can no longer be produced after June 28, 2015, but can be sold by manufacturers, retailers, and distributors, and can be used by installers until their inventories are depleted.

The revisions to the tri-national standard were developed by a NEMA-led group in response to the Consumer Product Safety Commission (CPSC) requesting auto monitoring requirements on GFCIs. Since GFCIs were introduced in the 1970s, they have reduced the number of electrocutions in residential settings.

NEMA members, in concert with consumer alerts, always emphasized the need for GFCI units to be tested periodically. It was believed, however, that many individuals did not perform these tests, potentially creating a scenario where a consumer mistakenly assumed that the GFCI was functioning correctly and providing protection from electrocution. Further, even if the tests were performed, it was possible for an undetected failure or malfunction to occur between tests without a system of auto-monitoring.

The codification of the important work to improve the safety of GFCIs and respond to CPSC staff concerns was realized with the approval of a NEMA-sponsored proposal to add GFCI self-test and power denial requirements in the most recent edition of UL 943.

Ryan Franks, NEMA Program Manager
ryan.franks@nema.org

Codes and Standards Committee Announces New Chairman

In early February, the NEMA Codes and Standards Committee announced Jim Wright, Siemens Senior Manager of Codes & Standards (left), as its new committee chairman. He will serve a term of two years.

Former Chairman Dave Mercier, Southwire Director of Codes & Standards, received a plaque in recognition of his service.
NEMA staff recently organized and participated in several meetings in El Salvador to discuss standards development, electrical code enforcement, and energy policy. The objective of the meetings was to position NEMA members to improve market access and introduce new products.

NEMA Latin America Director Gustavo Dominguez met with staff of OSN (the Salvador government standardization body) and OSARTEC (the regulatory body of Salvador) to discuss the voluntary standards OSN is developing. In the electrical sector, more than 20 standards have already been developed and include technologies such as wire and cable, receptacles, and heat pumps.

After discussing the importance of having an official electrical installation code, OSN Director Yanira Colindres and OSARTEC Director Mariana Gomez expressed interest working with the National Fire Protection Association and NEMA to implement the National Electrical Code® (NEC). It was noted in these discussions the success that NEMA Mexico achieved in Costa Rica, which included the adoption of the NEC.

Another meeting took place at the U.S. Embassy in El Salvador with regional specialists Maria Irene and Lorena Aceto, both of whom have extensive experience in the Latin American region. Both confirmed the information learned during the previous meeting, and noted that while changes within the El Salvadorian government have slowed standardization activity, the U.S. Embassy offers its assistance to help OSN and OSARTEC in the process of NEC adoption.

The final meeting of the visit, the “El Salvador Energy Roundtable,” included a number of discussions and seminars, which focused on energy policy and use. The objective was to review energy policy under the new government administration of El Salvador President Salvador Sanchez Ceren.

CHARTING PROGRESS
Highlights of the seminar included:

- portrayal of the current energy mix, and opportunities and challenges related to renewable energy; integration of the grid with regional energy sources; and the change to natural gas as the principal source of energy; and
- ongoing activities related to the development of the SIEPAC, an interconnection of power grids in six Central American nations.

SIEPAC is experiencing exciting progress. Currently, new transmission lines have been constructed to connect 37 million customers with power in Costa Rica, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, and Panama.

Attendees at the roundtable included representatives from Alstom, the National Energy Council, NEMA, Siemens Energy, and SIGET, the electricity and telecommunications regulatory body.

Participation in these meetings was part of the ongoing NEMA outreach effort to the ten countries in Latin America having free trade agreements with the U.S., an initiative funded by several product sections.

Currently, NEMA member companies enjoy commercial success in all of these countries (about $2 billion in annual exports). This effort supports the current infrastructure and works to have the NEC adopted on a formal national basis in each of those countries.

Gustavo Dominguez, NEMA Director for Latin America | guguez@prodigy.net.mx

Gene Eckhart, NEMA Senior Director for International Operations | gene.eckhart@nema.org

What the industry is saying: The Obama administration and key congressional leaders have signaled that they largely share the same objectives for advancing U.S. trade policy in 2015. Trade has been named as one of the issues on which the Democratic White House and Republican-controlled Congress may find common ground, and early indications are that both sides are pushing to take advantage of this confluence of interests by accomplishing as much as possible.

Sandler, Travis & Rosenberg Trade Report
NEMA partnered with the Energy Charter to organize a January 29 briefing on energy-efficient products for trade negotiators at the World Trade Organization (WTO). Fifteen parties, including the European Union, China, Korea, Japan and the U.S., are negotiating the first Environmental Goods Agreement (EGA) in the WTO. The agreement is aimed at eliminating customs import tariffs on products that help address environmental challenges, including climate change.

Attendees from every party involved in the talks heard brief presentations and asked questions about highly efficient motor-driven system technologies, advanced process control products, and some consumer-facing elements of the smart grid, programmable thermostats, and smart electricity meters.

Speakers on the panel included Hannu Vaananen, head of public affairs for motors at ABB; Aksel Jepsen, head of industry affairs at Danfoss; and Theo Kuijper van der Duijn, key account leader for Honeywell. The presentations and event were welcomed, but all involved recognized that more work is needed to provide information and case studies on the environmental benefits of the products presented and to build global industry support for the EGA.

The EGA talks were announced in January 2014 and began in earnest in July. Roughly every six weeks since July, EGA negotiating sessions have been organized around specific themes associated with environmental challenges. The January 26-30 sessions were centered on clean and renewable energy and energy efficiency.

NEMA has provided its recommendations for product coverage to U.S. negotiators and many of their foreign counterparts. During the “energy round,” Craig Updyke, trade policy manager in NEMA’s Government Relations Department, participated in private meetings with many of the negotiators and explained NEMA’s recommendations for product coverage, including:

- super-efficient electric motors
- variable frequency drives
- process control equipment
- programmable thermostats
- smart electricity meters

Negotiators also discussed some of the considerations with which they are wrestling, including how to cover only the most efficient products, to ensure the environmental credibility of the agreement, to conclude the first agreement by November this year, and to re-open the agreement periodically to take account of innovations and add new products.

Craig Updyke, Manager, Trade and Commercial Affairs

craig.updyke@nema.org
Economic Spotlight

› **EBCI for Current Conditions Steady in February, Future Conditions Indicator Rises**

NEMA's Electroindustry Business Conditions Index (EBCI) for current conditions in North America was largely steady in February, inching upward to 57.9 from 57.5 in January. In contrast, the survey’s measure of the mean degree of change in current North American conditions softened in February, retreating to +0.2 from +0.4 a month ago. Meanwhile, the EBCI for future North American conditions gained ground, climbing to 78.9 in February, up 11.4 points from January’s reading of 67.5.

Visit [www.nema.org/ebci](http://www.nema.org/ebci) for the complete February 2015 report.

**Tim Gill, Deputy Chief Economist | tim.gill@nema.org**

› **Available from NEMA/BIS—The Electroindustry Economic Outlook**

Based on popular demand for current data and forward-looking analysis of the electroindustry and the economic fundamentals that drive it, NEMA/BIS offers a subscription-based, regularly updated compendium of the information that industry professionals and executives most often request.

The Electroindustry Economic Outlook is the preferred source for timely, comprehensive coverage of the economic trends and events shaping the U.S. electroindustry.

• Extensive Coverage  
• Frequently Updated  
• Affordably Priced

To find out how the Electroindustry Economic Outlook can help your business, contact tim.gill@nema.org (703-841-3298).
Medicare reimbursement is the set of policies which govern how CMS (Centers for Medicare and Medicaid Services) pays for the care provided to the aged, disabled, and those with end-stage renal disease. CMS will only pay for expenses which are determined to be “reasonable and necessary” for the diagnosis or treatment of a beneficiary’s illness or injury. Coding, coverage, and payment are the three processes that determine if and how much money CMS will pay for a product or service. Medicare determines whether it will cover a product or service by examining the data and evidence that support the reasonableness and necessity of care. Payment depends on the site of service in which care is provided.

For institutional care (e.g., hospitalization, skilled nursing facility, home health services, and hospice), Medicare pays on a prospective basis where a set amount of money is paid to the provider for each episode of care depending on the diagnosis or expected resource utilization of the beneficiary, regardless of actual costs. For physician care, Medicare payments are based on fee schedules where a payment rate is assigned to each service or product.

**Got a question?** Ask the experts at ei@nema.org

---

Improving Quality of Life through Service

I joined MITA as an intern in June 2013 to assist the government relations team; I transitioned to a full-time staff member two months later. Prior to that, I had limited knowledge of the electro- and medical imaging industries, and was woefully unaware of the work both consistently do to improve quality of life.

Over the past year and a half, I have seen behind the curtain and watched experts across the medical imaging and radiation therapy industries tactfully build the standards that govern these important technologies; ensuring patient safety through quality healthcare is the number one priority.

Recently, I have also had the pleasure of representing MITA on two NEMA internal committees that address a single pertinent question: What changes are needed to allow NEMA to better serve our membership? Working with staff across all sections, the committees are tasked with improving the association from the inside out to create a better experience for employees and member company representatives.

At NEMA and MITA, whether we are working as global industries to promote lifesaving technology or advocating for more comfortable chairs in the reception area, our goal is to improve quality of life.
Silicon Valley’s a power hungry place. With new businesses seemingly popping up every day, power is critical. And should it fail, exceedingly costly.

So when Silicon Valley decided to invest in a new substation, they knew the project demanded thinking that went beyond today. A solution that could power the ever-growing Valley for years to come. No small feat.

Eaton’s Omaha Power Center (OPC) was ready. With an ability to think outside of the box when imagining how the new substation could take shape. And an appreciation for the tremendous responsibility of designing a substation to serve up to 20% of the utility’s power load.

The technologies, quality products and expertise incorporated into the substation surpass all others. From an arc flash protection system that monitors the switchgear to circuit breakers that saved approximately $60,000 while improving quality and performance.

With Eaton, Silicon Valley Power knows their multi-million dollar investment will endure well beyond today. And they’re confident they’ll remain the power behind the power thinking the Valley’s renowned for.
Customers accept products with confidence when they see CSA marks. They are among the leading marks in North America, appearing on billions of products every year. We are an OSHA Nationally Recognized Testing Laboratory (NRTL), accredited by the Standards Council of Canada (SCC), and fully qualified to confirm products meet U.S. and Canadian national standards for safety or performance. CSA Group tests and certifies a wide range of electrical products to standards written by ANSI, UL, CSA and more. We also verify energy efficiency to ENERGY STAR®, NRCan and CEC requirements. Our one-stop capabilities combine testing in a single, seamless program that helps meet your goals for speed, efficiency and global market access. Contact the experts at CSA Group to discuss your next project.

1.866.797.4272  |  certinfo@csagroup.org