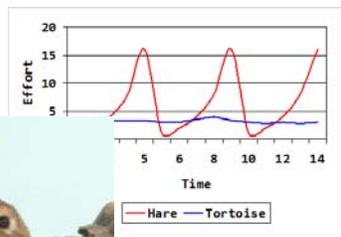


Optimizing the Pace of Standardization

Standards, like any product, are governed by the economic laws of supply and demand. For a century, the demand driver for effective and up-to-date electro-technical standards has been safety. In recent years, global trade, environmental impacts, efficiency of energy using electrical equipment and appliances and the availability of energy management systems has captured the commercial and public spotlight, but safety remains the overwhelming driver. The global outcry over the known incursion of counterfeit electrical components into our electrical systems is testimony to this.

In developed markets around the world, the record of electrical safety is remarkable. And globally, in both developed and undeveloped markets,



the demand for electricity continues to outpace supply. This can only be explained by public confidence, confidence that has its foundation in the historical performance of the products that comprise our systems

and their underlying standards. Given this legacy of safety and the everyday access to electricity by the general public of all ages, standards development and maintenance processes, and the technical resources that man them must be given due credit. Investors in these processes shoulder the awesome responsibility of supporting this public trust.

Today, there is an increasing demand for faster standards development processes and for shorter and more flexible amendment cycles for existing standards to more quickly accommodate for new technologies. Oh, and at the same time, the processes need to

be more globally integrated. Can we "have it all"? Are existing standards development processes broken? How fast is too fast, and does every sub-process involved in standardization need to run at the same pace? Perhaps putting standards development and maintenance in a manufacturing context can shed some light on the answers to these questions.

In a manufacturing context, the present processes produce products (standards) with a stellar record of what the customer (society) wants and values, SAFETY. The owners of the

(Continued on page 7)

Inside this issue:

Executive Committee Restructures	2
Procedural Operations Subcommittee Accepts Challenge	2
Dates to Remember	2
Member Voting Rights	3
Secretary General Report	3
CANENA Technical Programs	4
Meet the CANENA Executive Committee	4
Regional Dialogue on Installation Codes	5
ESFI Leads the Way	6

From the President

When I stepped into the role as CANENA's President in April, 2011, a whole new world opened up to me. I'm not sure that the general members of CANENA fully realize what you have built over the past 20 years. CANENA is clearly a well recognized process throughout the region of the Americas, although perhaps misunderstood. Those both inside and outside of CANENA who are stakeholders in standardization processes with which CANENA has an interface, have expectations. These expectations are for faster processes that will more rapidly accommodate new technologies and more efficiently utilize diminishing

resources. CANENA has been challenged to become part of the solution.

Mobilizing the resources of a volunteer run process like CANENA, a hallmark of which has been independence given its members to set their own program priorities and timetables, presents unique challenges. But, I think these challenges are reflective of those of the rapidly converging standardization infrastructure throughout the region of the Americas. I have full confidence that CANENA is up to the challenge.

The CANENA Executive Committee has formed a Procedural Operations Subcommittee that will provide a point



of focus for CANENA members and the standardization entities with whom CANENA interfaces. The subcommittee will have responsibility for delivering and measuring the Council's commitments so that CANENA continually improves its timing and responsiveness as part the integrated processes of official standardization entities in the region.

(Continued on page 7)

CANENA Executive Committee Restructures

The CANENA Executive Committee took an important step in 2011 by restructuring to complete its set of functional "departments", Registrar, Finance, Procedural Operations and Marketing/Communications. Two objectives are foreseen by this organizational model: It streamlines the oversight responsibilities of the CANENA President and Secretary General and it anticipates involvement by a greater number of CANENA's members in specific administrative areas.

It is intended that the CANENA President and Secretary General delegate responsibility to the chairs of these functional areas thus relieving day-to-day oversight over all CANENA functions. The chairs of these departments are tasked with recruiting regular

members of CANENA to carry out their identified priorities to both share the burden and as a means to develop future CANENA leaders. Standards Development Organization members of CANENA (ANCE, CSA, UL), who have played an instrumental role in evolving the CANENA Harmonization Procedures, will increasingly carry on their roles as part of the new Procedural Operations Subcommittee. As this new management structure takes shape, significant improvement in CANENA's administration and effectiveness of its processes is expected.

The important roles of elected CANENA Vice Presidents and Members-at-Large from each country having participating members, remains unchanged. CANENA's published Cooperation and Communication Strategy

calls for them to share the responsibility of maintaining important liaison with official standardization entities from their respective countries.

Among the purposes is to ensure and measure the complementary nature of CANENA with the national standards processes, and the satisfaction of CANENA members. CANENA's Ambassadors at Large are at the disposal of the Vice Presidents to support their efforts and to spread CANENA good will.

CANENA THC/THSC chairs and secretaries, under the direct oversight of the CANENA Secretary General, continue to have joint responsibility for knowledge of and adherence to CANENA policies and procedures in initiating and carrying out their authorized work programs.

"As this new management structure takes shape, significant improvement in CANENA's administration and effectiveness of its processes is expected."

Procedural Operations Subcommittee Accepts Challenge

Challenge: To meet broader expectations for efficiency, transparency and accountability within a voluntary process comprised of independent shared resources. At the same time, remain focused, "lean" in administration and complementary in nature.

The CANENA process has a proven track record, particularly over the past ten years, of evolving to meet the expectations of its members. Admittedly, in its early years when the number of work programs and standardized procedures were few, there were many challenges. Since then however, many CANENA member's initiatives, each a unique challenge in and of itself, have cumulatively modeled today's successful process.

During 2011, CANENA responded to calls for a greater administrative role in standardizing work program scheduling, tracking tools and process performance metrics. A new Procedural Operations Subcommittee was formed to fulfill specific commitments made following a member roundtable that was part of the 2011 CANENA Annual General Meeting.

Chaired by CSA's Michael Wilson, the new Subcommittee went right to work and have implemented the following new procedures and tools:

Standardized Project Schedules: All CANENA THCs have completed standardized project schedules to complement the data posted for each project on the "CANENA Corner" which is inked

from each THC's Committee page on the CANENA website.

Escalation List: THCs have been provided a list of contacts having progressive levels of authority within each SDO process. The accompanying procedure will enable the THC to direct significant issues that may be impeding their progress on a project.

New Project Tracker Tools: A pilot is underway on a tool to simplify development and updating of project schedules by THCs and provide high level process performance metrics. CANENA association member NEMA is also working on an IT/Web based solution to advance this purpose.

The transparency and quantitative



data afforded by these and other actions will form the basis for a continuous improvement process driven by member inputs into the Procedural Operations Subcommittee.

The Procedural Operations Subcommittee is now a standing subcommittee of the CANENA Executive Committee and will stand ready to quickly respond to process and procedural questions or issues in support of CANENA work programs. All CANENA members are encouraged to participate in the subcommittee and to become future leaders to prepare CANENA for each new challenge.

Dates to Remember

- ◆ CANENA Annual General Meeting "Putting Regional Standardization in a Global Perspective-Focus on Mexico"— February 29-March 1, 2012, México City D.F., México
- ◆ CANAME-PEMEX-CFE Electrical Forum – April 18 – 19, 2012, Querétaro Centro de Congresos, México
- ◆ COPANT General Assembly Meeting — May 7-9, 2012, Fortaleza, Brazil
- ◆ NFPA World Safety Conference and Exposition — June 11-14, 2012, Las Vegas, Nevada, U.S.A.
- ◆ CSA Annual Conference and Committee Week — June 10-12, 2012, Quebec City, Quebec, Canada
- ◆ CANAME Latin American Symposium of Energy 2012 – August 15 - 16, 2012, México City, D.F., México
- ◆ 61th Annual SES - Conference — August 19-22, 2012 New Orleans, Louisiana USA
- ◆ 76th IEC General Meeting — October 1-5, 2012, Oslo, Norway

Member Voting Rights

Each individual CANENA member in good standing is considered a voting member of the CANENA Council. Company members of CANENA are entitled to designate up to ten voting representatives. The CANENA by laws provide official details on the voting rights of members and within the CANENA Executive Committee. The CANENA by laws are silent however with respect to voting rights or rules within a Technical Harmonization Committee (THC) or other official CANENA committee or subcommittee.

One of the hallmarks of CANENA has been the independence given to its committees to set their own priorities, timetables and rules for conducting their work programs, within the established procedural guidelines. Sometimes, the leadership of a CANENA committee such as a THC may choose voting as a way of reaching decisions, both technical and procedural. The over use of voting for deci-

sion making may not always be the best approach however, and where used should always be qualified by appropriate rules that have been agreed upon to account for factors such as quorum and balanced representation.



In today's environment, sadly it is difficult to attract technical experts representing all stakeholder groups into the development levels of standards. Therefore, balanced representation is very often not possible. It is then incumbent upon the committee's leadership to use other means than voting to determine consensus for decision making.

Decisions reached during technical work programs carried out by a CANENA THC can usually be character-

ized as a determined consensus. Since the results of the THC work is a draft harmonized standard for delivery into

an official national standards development process, any voting that takes place related to the technical content, is solely a means for confirming a consensus of the active

members. A true consensus can only be achieved through voting when the voting body has a balanced membership and a quorum of the membership is present for a vote.

The expectation of every member of a CANENA THC should be that the result of their work will be suitable for adoption in each country into which the draft standard is delivered. It would seem fruitless for a THC to bind itself to a decision making process that knowingly delivers a draft standard

containing provisions that are "dead on arrival" in one or more of the represented national processes.

In order to be effective and efficient, CANENA committees that do not have balanced membership or balanced regular participation need to discover ways to test the reception of their technical decisions in each represented official national standards development process. One way this can be accomplished is by assigning responsibility to one member from each represented country to determine a national position or confirm the committee's consensus on delicate issues between meetings with a broader industry group at home. This can be particularly useful for under-represented interest groups and can significantly improve the chances for successful adoption of the final draft standard.

Secretary General Report

On November 7th, 2011, NEMA hosted the annual meeting of CANENA Secretaries at its headquarters in Rosslyn, Virginia USA. Invited speakers included Valara Davis (UL), Michael Wilson (CSA) and Luis Ivan Hernandez (ANCE). Also in attendance was Ronald Lai (Burndy LLC), Chairman of CANENA THC99, *Connectors*.

The purpose of the annual meeting of CANENA Secretaries is to review the on-going activity of CANENA's nineteen technical harmonization committees and subcommittees and to provide training on CANENA processes and procedures to technical committee secretaries and chairs who are also invited to attend.

During 2011 three new Secretaries from NEMA's Technical Staff joined in CANENA activities: Megan Hays, Secretary to THC34, *Lighting Equipment*,

Jean Johnson, Secretary to THSC 23A-WG3, *Cable Trays*, and Ryan Franks, Secretary to THSC20, *Flexible Cords and Cable*.

In preparation for the review of the on-going activity of CANENA's technical committees, several technical committee chairmen were contacted to provide input on their committee's activity. Secretaries were reminded of their obligation to submit an annual report at the end of each year as the primary means for providing feedback to the Executive Committee.

Chairs and secretaries reported holding 46 technical committee meetings in 2011 and they expect to hold at least 29 meetings in 2012. Of the 79 active harmonization projects, dissatisfaction with the process was expressed in relation to only two.. Both noted that the harmonization process

is slower than they would have liked but otherwise were satisfied with the final outcome.

Those in attendance were informed that CANENA recently formed the CANENA Procedural Operations Subcommittee which reports directly to the Executive Committee. The new subcommittee intends to provide the THCs with additional tools to make their work programs more efficient as well as offer a "real time" communication channel to help quickly address impediments to the successful accomplishment of their objectives. THCs are now required to agree on a publication schedule at the outset of each work program. Adherence to that schedule will be tracked and performance metrics will be established and managed.

A series of training modules have

been developed by our SDOs that are designed to provide ready access to concise overviews of the CANENA process and procedures. The present modules include:

- Best Practices Guide
- Comparison of UL, CSA and ANCE Standards Development Processes
- CANENA Project Initiation
- The Role of the Publication Coordinator
- The Role of the CANENA THC
- CSA Editing and Publishing Procedures
- The Publication Schedule Template

Several media formats are being considered for these modules to make them most useful and accessible.



CANENA Technical Programs

With the completion of six projects during 2011, the total number of harmonized standards produced through the CANENA process now stands at eighty-one. Considered separately, two-hundred seventeen national standards that are now maintained through CANENA technical committees. More than fifty of these have advanced at least to their second edition.

The most recent standards to be harmonized are:

Tri-national:

- UL 674/CSA C22.2 No. 145/ANCE NMX-J-652, Electric Motors and Generators for Hazardous (Classified) Locations
- UL 60335-1/CSA C22.2 No. 60335-1/NMX-J-521-ANCE, Safety of Household and Similar Electrical Appliances—Part I: General Requirements

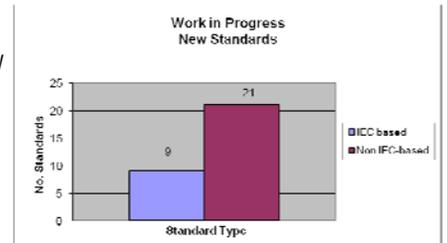
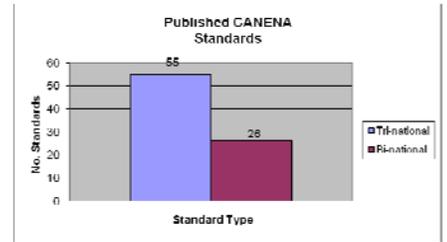
Bi-national:

- UL 60320/CSA C22.2 No. 60320, Appliance Couplers
- UL 60947-7-1/ANCE NMX-J-538/7-1, Low-Voltage Switchgear and Controlgear – Part 7-1: Ancillary Equipment – Terminal Blocks for Copper Conductors
- UL 60947-7-2/ANCE NMX-J-538/7-2, Low-Voltage Switchgear and Controlgear – Part 7-2: Ancillary Equipment – Protective Conductor Terminal Blocks for Copper Conductors
- UL 60947-7-3/ANCE NMX-J-538/7-3, Low-Voltage Switchgear and Controlgear – Part 7-3: Ancillary Equipment – Safety Requirements for Fuse Terminal Blocks

Thirty percent of the current new harmonization projects are based on

IEC standards and many CANENA THC are now considering IEC standards as part of their maintenance work.

CANENA members are discovering new benefits to the cooperation they have achieved over the years. Along with consideration of IEC standards, either directly or indirectly, in CANENA harmonization projects, our members are cooperating regularly in official IEC work programs. The technical expertise represented in each CANENA THC, regardless of country of residence, is a powerful pool resource for considering and debating technical positions that can be taken back to respective IEC national committees.



Meet the CANENA Executive Committee



Pierre Desilets
Canada
President



Joel Solis
United States
Secretary General



Christel Hunter
United States
Treasurer



Carlos Rodriguez
Costa Rica
Vice-President
Ambassador-at-Large



William Bryans
Canada
Vice-President



Julian Yarza
Mexico
Vice-President



William Hansen
United States
Vice-President



Rafael Yañez
Mexico
Immediate Past-President



Timothy McNeive
United States
Ambassador-at-Large



Rafael Nava
Mexico
Ambassador-at-Large



Michael Smith
Canada
Member-at-Large



Noe Garcia
Mexico
Member-at-Large



Greg Steinman
United States
Member-at-Large



Luis Ivan Hernandez
Mexico
SDD Representative-ANCE



Michael Wilson
Canada
SDD Representative-CSA



Sonya Bird
United States
SDD Representative-UL



Stephen Brown
Canada
Audit Committee Chair

Regional Dialogue on Installation Codes

Electrical installation codes play an essential role in establishing effective electrical safety systems. Installation rules direct the safe use and application of products and provide a consistent approach to electrical safety. Electrical codes must relate to the product standards used, certification of products to those standards, and the mechanism used for enforcement of the rules. Authorities in many countries realize that as electrical systems become more complex, using installation codes suitable for inspection and enforcement are one of the most effective ways to provide for public safety.

The complex interplay between national priorities, free market forces and global influences has affected the pace of decision-making in implementing the “right electrical installation code” and the “right product standards” in each nation. Public policy makers who are committed to maximizing the benefits from globalization have been influenced to believe they must adopt the IEC 60364 series of standards as their electrical installation code, and IEC standards that are often most closely related. Technical experts in each country, sometimes very vocally urge caution by policy makers in considering wholesale mandates without due consideration for safety and compatibility with the installed electrical system infrastructure. A model for performing such a broad technical analysis is lacking and financial and technical resources for this purpose are limited.

Mexico enacted its first national electrical installation standard, NOM-001-SEMP “Instalaciones eléctricas (utilización)”, in 1993. Based on the NFPA 70, National Electrical Code® in the United States, NOM-001-SEMP (now NOM-001-SEDE) then and now, represents the installed electrical system infrastructure throughout Mexico and relates closely with the

many NOM and NMX product standards that have been adopted over the past ten or more years. More recently, Costa Rica, Panama and Peru have officially adopted electrical codes and other nations are expected to follow

Electrical installation codes play an essential role in establishing effective electrical safety systems.

suit. Acting on the priority need for an electrical installation code, and heeding the recommendations of in-country technical experts, Costa Rica, Panama and Peru chose to adopt codes that are relevant to their present installed systems, largely representative of North American standard practice and products. As might be expected, these decisions were not made without controversy.

The unity of our regional electrotechnical markets and the open dialogue on all matters of standardization is increasingly being demonstrated. Mexico has often proven to be a catalyst in this regard, especially among the Spanish speaking nations of the region. In September, 2011, in anticipation of the start of the revision cycle for NOM-001-SEDE in 2012, Mexico’s Secretary of Energy (SENER) hosted a workshop “Electrical Installations in America – Technical Regulations and Trends”. Sponsors included Mexico’s National Committee of IEC (CEN), ANCE and IEC. The workshop featured standards officials from Brazil, Costa Rica and Mexico who described the basis for their installa-

tion codes, their use and how they are maintained. The spectrum of views represented in these presentations demonstrates the “complex interplay” previously described.

Ing. Eduardo Daniel, Superintendent of CERTIEL, described Brazil’s approach to electrical installations as IEC 60364 based but largely state driven. This decentralization results in somewhat of a national mosaic that is inherently complex. The revision process typically takes as long as seven years. Ing. Daniel explained that in order to accommodate advancing technologies, the code generally relies upon revisions to product standards as the drivers for change. Uniform enforcement of the code is difficult at best with state by state variations and the code often lagging product standards in reflecting the latest technology.

Sra. Alexandra Rodriguez Venegas, Director of Standardization for INTECO, described the controversial process by which Costa Rica recently

The process by which this was accomplished was described as very emotional and public. An objective viewer could describe the effort as a demonstration of passion for safety by the best technical experts in the country. The experience under this new code in Costa Rica will be closely watched.

Wrapping up the program, Ing. Bulmaro Sanchez Hernandez, representing Instituto Politécnico Nacional (IPN) in the CCNNIE in Mexico, explained the process by which NOM-001-SEDE will be reviewed and updated beginning in 2012. This will be the third revision cycle of the code since it was first enacted in 1999. CCNNIE and Industry in Mexico remain in solid support of the present balance of NEC and IEC basis contained in NOM-001-SEDE.

The Mexican Law on Metrology, and therefore public policy in Mexico, favors international standards over all others, so CCNNIE will continue to review both IEC 60364 and NFPA 70 standards to determine the best approach. This workshop afforded an opportunity for a sharing of experiences and perspectives on electrical installation codes. No one denied their importance and there was wide understanding and acceptance that the U.S. NEC, the CEC Part I in Canada and IEC 60364 all are built around the same set of essential safety principles.

Based on the decisions made in Mexico, Costa Rica, Panama and Peru, it’s becoming abundantly clear that, when faced with the choice, adoption of an installation code that reflects most closely the present installed system, is the choice for safety sake.



adopted an electrical installation code based on NFPA 70, National Electrical Code® in the United States. Costa Rica plays a deservedly influential role among the emerging economies of Central America. Its public policy favors open markets and free trade and standards that do not bias differing technologies. Costa Rica’s Professional Engineering Society, CFIA, actively and effectively argued for adoption of an installation code reflecting the present installed system.

ESFI Leads the Way

Each year, too many lives are disrupted by electrical fires and too many families mourn the loss of a loved one who is fatally injured by electricity on the job. This occurs not just in the United States, but in every country across the globe.

Founded in 1994, the Electrical Safety Foundation International (ESFI) is the premier non-profit organization dedicated exclusively to promoting electrical safety. ESFI's mission is to reduce electrically-related fatalities, injuries and property loss through education, awareness, and advocacy.

Over the years, ESFI has become highly regarded by industry, media and consumer safety partners alike by constantly reinvigorating the way electrical safety is addressed. The Foundation develops key resources and consistent electrical safety messages. These resources are used to promote electrical safety education and awareness in schools, communities, and workplaces. ESFI proudly sponsors National Electrical Safety Month each May and engages in other public awareness campaigns throughout the year.

Consumer-focused awareness programs help educate the public about how to recognize the warning signs of home electrical hazards, and provide information about new, advanced safety technology, among other important topics. ESFI is also a recognized leader in electrical safety education for children, providing effective re-

"The Foundation develops key resources and consistent electrical safety messages. These resources are used to promote electrical safety education and awareness in schools, communities, and workplaces."

sources that integrate learning about electricity with electrical safety lessons.

Workplace safety awareness programs provide vital information to help employees make safe choices every day and tips for creating a safer work environment, whether it is in an office, on a job site, or in a manufacturing

setting.

The ESFI model can be successfully replicated around the world, by bringing together the entire electrical supply chain to deliver clear and consistent electrical safety messages to children, communities, and businesses. While each ESFI affiliate organization focuses on addressing the unique needs of its own country, they share the common mission of reducing electrically-related fatalities, injuries and property loss worldwide.

ESFI Canada, established in September 2011, is leveraging the visibility, history and success of ESFI in its efforts to promote electrical safety awareness in that country. They have created a national forum where all electrical industry and safety stakeholders can collaborate to improve electrical safety across Canada, and have plans to develop new awareness programs, promote electrical safety best practices, and support the development of new safety technology.

In 2007, CANAME, ANCE and ESFI formed the Electrical Safety Commission to further promote electrical



safety for Mexican consumers. They have translated existing ESFI materials and produced other unique resources that provide consumers with useful and critical information about the proper use of electrical products and the safety hazards associated with them. This group has made tremendous progress in establishing a footprint for ESFI, not only in Mexico, but also in Central and South America.

ESFI applauds these efforts, and encourages the electrical industry in Mexico to become more involved in ESFI's activities, with the hope of formally establishing ESFI Mexico as an ESFI affiliate organization in 2012. Formalizing this relationship will provide additional opportunities to promote electrical safety throughout Mexico and Latin America.

Brett Brenner—
President, Electrical Safety Foundation

Scenes from 2011 CANENA Annual Meeting—San Antonio, Texas U.S.A.



Optimizing the Pace of Standardization- *Continued from Page 1*

existing processes (standards development organizations-SDOs) have generally been diligent in employing “lean” principles and the latest technologies to continuously improve their processes. These existing processes produce new products and upgrade existing products often using overlapping resources. Increasingly, customers are asking for “new bells and whistles” on the old products such as energy efficient and environmentally sustainable features, or performance based alternatives rather than historical design prescriptions. Then, there is pressure in some sectors to adapt the old models to global market needs or produce parallel product lines (standards) to address those broader markets. Finally, there is demand for entirely new standards, many of which address systems interoperability or new system infrastructure such as renewable energy and electric

vehicles.

Are existing processes broken? NO! They are simply overwhelmed by a more diverse demand on existing resources, limited production capacity and stakeholder investment. It’s important to remind ourselves that the standards themselves are not sufficiently profitable to provide sustaining funding for new or existing processes. The process owners depend heavily on investment by users of the standards and other stakeholders to keep production lines running, quality at expected levels and deliveries on schedule.

Does every sub-process involved in the development and maintenance of standards need to run at the same pace? NO! Customer demand and expectation drives priorities in manufacturing. Effective communication, planning and execution drive priorities

and production and the utilization of finite resources. Priorities can vary widely, especially with diverse products and markets and the degree of commitment by volunteer technical resources that are essential to the processes. Efficiency is not always measured by speed. Effective standards processes require broad and well documented technical inputs and considerable due diligence in order to be effective, accepted and employed. Publication of a standard does not

ensure its use.

Can we have it all? YES! If we stay focused on who the customer is and what he wants; if stakeholders are willing to invest at the level of their priority; if industry driven priorities are aligned; and, if process management and metrics are transparent, there is no reason why processes cannot be flexible to accommodate new demand while continuing to serve the old.

“Effective communication, planning and execution drive priorities and production and the utilization of finite resources.”

From the President- *Continued from Page 1*

The Subcommittee will also create an open and ongoing dialogue so CANENA’s continued evolution will mirror the transformation in national and international standardization processes and remain transparent in its operations.

I invite and encourage more CANENA members to become more directly involved in Council administration. We need your talents and inputs. With CANENA, become part of the solution.

Pierre Desilets

Thanks to the 2011
CANENA Sustaining and Supporting Company
& Association Members



Air-Conditioning, Heating, and Refrigeration Institute



ASOCIACION DE NORMALIZACION Y CERTIFICACION, A.C.



ELECTRO-FEDERATION
C·A·N·A·D·A



Underwriters Laboratories

CANENA Secretariat: NEMA · 1300 North 17th Street, Suite 1752 · Rosslyn, VA 22209
Telephone: +(01) 703.841.3267 · Fax: +(01) 703.841.3367 · joel.solis@nema.org internet: www.CANENA.org