PEO LOOKS TO MAINTAIN POSITIVE MOMENTUM AT 2010 AGM

By Michael Mastromatteo

President Diane Freeman, P.Eng., FEC, outlined PEO's progress in meeting governance initiatives as part of her inaugural address May 8 at the 2010 annual general meeting. While paying tribute to the work of predecessor Catherine Karakatsanis, MESc, P.Eng., FEC, Freeman also cited teamwork, consultation and succession planning as priorities for her term as president.

Outgoing PEO President Karakatsanis (right) presents the 2010 President's Award to Ruby Heap, PhD, associate vice president, research, at the University of Ottawa. Heap's work specializes in the history of women in higher education and the professions. Her research focuses on women who have completed graduate studies and on women and their careers, with emphasis on women in engineering. In presenting the award, Karakatsanis cited Heap's role in encouraging more young women to study engineering and the sciences.

Ontario's engineering regulator is looking to increased administrative efficiencies as it responds to the licensing and regulatory priorities of 2010 and beyond.

During its 88th annual general meeting May 8 in Toronto, PEO took stock of last year's accomplishments and set up a bold blueprint for the future.

In offering a perspective on her term in office, outgoing President Catherine Karakatsanis, MESc, P.Eng., FEC, sounded an optimistic note about council's commitment to collegiality and stakeholder consultation in determining priorities and meeting new objectives. She also reflected on PEO's lofty goal of becoming a world leader among regulatory organizations. In fact, the theme for the 2010 annual general meeting was "On the path to global leadership."

"As a council, we operate best when there is an atmosphere of collegial exploration, open discussion and communication, and consensus-building on issues of substance," Karakatsanis said at the opening of the business meeting. "I am very pleased to tell you that council operated in just that way this year. It was a pleasure to chair the meetings and work with my colleagues."

The 2010 annual meeting marked a first for PEO in having two female presidents consecutively. Diane Freeman, P.Eng., FEC, will lead council for 2010-2011.

Prior to turning over the presidency to her successor, Karakatsanis reflected on personal high points of her time as president. In particular, she cited labour mobility initiatives, the National Licensing Framework Task Force, a council decision requiring members to annually declare professional competence, and the more recent recognition of nanotechnology/molecular engineering as a new engineering discipline as milestone accomplishments for 2009-2010.

Karakatsanis also took pride in a series of proposed regulation changes adopted at the April council meeting as another highlight of the previous 12 months. Under the Ontario government's Open for Business initiative, council proposed a number of regulatory changes designed to streamline governance and improve PEO's relationship with the attorney general's office and other engineering stakeholders.

And, in keeping with the collaborative approach the outgoing president emphasized at the start of her term, Karakatsanis paid tribute to PEO volunteers and staff in helping accomplish key objectives.

"I would also like to acknowledge the PEO staff that work hard every day to deliver council's objectives and to make the organization run effectively, smoothly, and make it the most envied self-regulatory body in Ontario," she said.

Karakatsanis later cited the recent agreement between PEO and Engineers Without Borders (EWB), which will see more active support by the regulator for this dynamic international development organization and EWB promote licensure among its members.

"Another initiative that was a personal goal of mine–that council supported–was to explore opportunities to create a mutually beneficial relationship with Engineers Without Borders," Karakatsanis said. "PEO and EWB have formalized our relationship with a formal agreement that was signed at our April

council meeting. Our discussions were built on a shared vision that sees Ontario engineers as global leaders contributing to an improved quality of life for all."

EWB President George Roter later provided more details on the PEO-EWB link as AGM luncheon speaker (see sidebar p. 10).

Prior to entertaining member questions, the outgoing president acknowledged special guests from other engineering regulatory organizations in Canada, including Maud Cohen, ing., Ordre des ingénieurs du Québec; Dennis Paddock, P.Eng., Professional Engineers and Geoscientists of Saskatchewan; Grant Koropatnick, P.Eng., Association of Professional Engineers and Geoscientists of the Province of Manitoba; Neil Windsor, P.Eng., and Kim Farwell., P.Eng., Association of Professional Engineers, Geologists and Geophysicists of Alberta; Steve McLean, P.Eng., Professional Engineers and Geoscientists Newfoundland and Labrador; and Dan MacDonald, P.Eng., and Len White, P.Eng., Engineers Nova Scotia.

Dan Motyka, P.Eng., president, Engineers Canada, brought greetings from the national engineering organization, and John Schindler, P.Eng., president and chair, Ontario Society of Professional Engineers, outlined some achievements over the advocacy association's 10-year history in Ontario.

Keynote speaker Brad Duguid, Ontario minister of energy and infrastructure, saluted the Ontario engineering community for moving to bring more diversity to the profession. He later outlined some of the Ontario government's energy initiatives and invited Ontario engineers to speak up in helping the province expeditiously develop energy resources.

During the portion of the meeting devoted to questions from the floor, much discussion centred on recent proposals that council elect the PEO president from among the member-elected council members, and that council be provided authority to enact bylaw changes without confirmation by members while maintaining the ability to require certain changes to be confirmed.

In response to the concerns voiced by some members, outgoing President Karakatsanis affirmed that council is still developing a policy for which kinds of bylaw changes would require confirmation by members and is still consulting with members on the question of the election of the president.

Another question focused on council's response to a 2009 member submission that proposed that council members not be allowed to hold the same position on council for more than two consecutive terms. Originally proposed by PEO member Raju Chander, P.Eng., of Scarborough Chapter, the matter was discussed at a PEO Executive Committee meeting, where it was decided to recommend the proposal to council as part of an overall package of proposed governance reforms. During the council debate on the question, however, council chose not to support the proposal. Karakatsanis apologized to Chander for failing to invite him to participate at council when the matter was considered.

In discussion of the Ontario Centre for Engineering and Public Policy (OCEPP), former PEO president Peter DeVita, P.Eng., suggested PEO broaden the representation on its Sustaining OCEPP Task Force, which is charged with making recommendations to council on the centre's future direction. His suggestions for additional participants were readily accepted by President Karakatsanis.

Following introduction of the new council and the swearing in of the 2010-2011 president, Diane Freeman outlined her thoughts on the president's relationship with council and the needs for collaboration and wide consultation in developing PEO policy.

"I suggest to you that a president does not have a personal mandate for change based solely on the fact they have been elected by the licence holders at large," Freeman said. "Like Past President Karakatsanis, I see myself as what I truly am, one vote of 29 members of council, an equal among equals, and that policy development should be pursued over the long term, year after year, in a sustainable fashion and based on the thoughtful consideration of all members of council."

continued on p. 10

University of Ottawa civil engineering graduate Andrew Dowie, P.Eng. (left), receives the 2010 G. Gordon M. Sterling Award from Valerie Sterling, wife of late former PEO president Gordon Sterling, P.Eng. The award is given out annually to the engineering intern who demonstrates leadership potential within the engineering profession. The presentation took place May 7 during the 2010 Order of Honour gala. Valued at $3,500, the Sterling Award is applied toward the cost of leadership development programs.

The annual V.G. Smith and S.E. Wolfe awards for academic and thesis writing achievement by recent engineering graduates are presented at PEO's annual meeting luncheon. The 2010 V.G. Smith winner is Steven Michael Fabbro, P.Eng. (right), graduate of McMaster University's manufacturing engineering technology program. At left is Samuel Elijah Morgan, P.Eng., winner of the 2010 S.E. Wolfe Thesis Award. Morgan received the award for his engineering report on water saving and cooling design initiatives. The two awards are named for former members of PEO's Board of Examiners (now the Academic Requirements Committee).

continued from p. 9

Freeman paid tribute to her immediate predecessor by outlining a number of achievements of the past term, including the purchase and occupation of the new headquarters at 40 Sheppard Avenue West, finalization of a peer review protocol for council's use in policy development, and council endorsement of the recommendations of the Engineers Canada Synergy Task Force, which will result in increased representation from PEO, both on the board of directors of Engineers Canada and on its Executive Committee.

"Past President Karakatsanis relied heavily on the very strong group dynamic that comprised PEO council," Freeman said. "She led the team with collaborative leadership and I believe, under her gavel, PEO successfully undertook more work in 2009-2010 than I can recall ever having completed over the years I have served on council."

To maintain that momentum, Freeman emphasized leadership development, attention to succession planning, administrative efficiency and a more sophisticated attitude about the president's relationship to council as priorities for her term in office.

"In light of our envisioned future and in recognition of the importance of long-term strategic planning, as well as council's commitment to conduct extensive consultations with all stakeholders, I believe we have an opportunity this year to strengthen the role of the president within council and to ensure that there is no misunderstanding," Freeman added. "A political science professor [once] said 'beware of the politician who only is concerned about taxpayers rather than citizens.' I suggest to you that a president does not have a personal mandate for change based solely on the fact they have been elected by the licence holders at large."

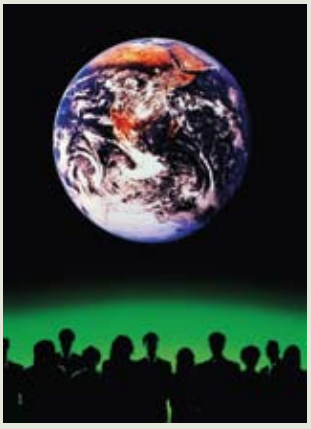
She referred to the agreement with Engineers Without Borders as an example of engineers "designing for the people who need us," and suggested that such a community-minded approach to engineering and its potential will go a long way to adding relevance and prestige to the engineering licence.

"I look forward to building on the tremendous work of last year and capitalizing on the opportunities that lie ahead," Freeman said. "I invite you to join me in continuing to strengthen the value and relevance of our profession and the professional engineer licence."

PEO thanks the sponsors that helped make the 2010 Engineering and Public Policy Conference, annual general meeting and Order of Honour gala possible:

Ameresco
Atomic Energy of Canada Ltd.
BMO Nesbitt Burns
GAL Power Systems
Hubbell Lighting Division
Jones Brown Insurance Brokers
Manulife Financial
The Personal
Stevenson & Hunt Insurance Brokers
TD Meloche Monnex

P.Eng. prestige gives clout to EWB development work



MORE CANADIAN ENGINEERS appear to be heeding the call to put the profession to better use in international development work, says the co-founder of Engineers Without Borders (EWB) Canada.

Appearing May 8 as keynote speaker at PEO's annual general meeting luncheon, George Roter outlined his vision to exploit engineers' talent, expertise and financial clout in improving water systems in drought-stricken regions of sub-Saharan Africa.

Roter believes engineers are well poised to exert "global leadership" not only in African development projects, but with any campaign to improve the inequitable distribution of wealth, health services and water-related infrastructure throughout the world.

The EWB co-CEO's address at the annual meeting was especially timely given the recent agreement between PEO and EWB to share resources and promote the work of the development organization among Ontario's nearly 80,000 licence holders and engineering interns.

Under the terms of the agreement, PEO will provide opportunities for members to become EWB professional or student members and will add EWB to PEO invoices as a charity to which members can donate directly. In turn, EWB will ensure that all of its staff, chapter presidents and Africa-based volunteers are connected with regulators as student members, engineering interns or licence holders, and will actively promote licensure to its full membership base.

Roter called for a collaborative, creative and complexity-appreciating approach for engineers in developing more reliable water infrastructure in parts of Africa. He said it's unconscionable that thousands of people die each year from problems associated with unhealthy drinking water.

He referred to an international development wish list created by Canadian high school students about how to best serve the wider community. Engineers, he said, can play a prominent role in fulfilling these humanitarian ambitions.

PEO PRESIDENT DISCUSSES EWB WORK WITH GOVERNOR GENERAL

PEO President Diane Freeman, P.Eng., FEC (left), discusses the engineering regulator's recent partnership with Engineers Without Borders (EWB) with Governor General Michaëlle Jean May 10 at a Canadian Club event in Toronto. The pair also discussed the governor general's humanitarian work in Haiti. Her Excellency expressed her admiration for the work of EWB and told Freeman about her visit to Africa with EWB President George Roter to observe first-hand some of the organization's ongoing development work. Second from left is Howard Brown of Brown & Cohen Communications & Public Affairs Inc. Next to him is John Capobianco, then president of the Canadian Club.

"This is the call to our profession from the next generation of engineers to all of us in this room…to step up and incorporate some of these ideas, and be able to figure out how to transform our profession and make it so that people with the dreams of youth can find a place to do so within a profession that has the scope, the skills and the support to be the world's most transformative profession," Roter said.

Roter said EWB now has just under 4000 engineering graduates and volunteers working in Africa, but would like to see that number climb to 10,000 by 2011.

He said Ontario engineers can add their voices, support and dollars to provide a bedrock of resources to further the aims of EWB.

Roter said EWB, through its association with the engineering profession, has already succeeded in convincing the federal government and other development agencies to implement more creative programs to address local infrastructure and irrigation problems in Africa.

"We [EWB] are among the only NGOs [non-governmental organizations] that actually get listened to by the federal government in terms of aid policy," he suggested. "We can get a meeting with them because they know that we are talking from experience; they know that we're talking with a pragmatic voice. They know that we're able to move ideas and issues forward in a really substantive way."

He said the organization will next press the federal government for aid programs characterized by "predictability, accountability, creativity and transparency" in how Canada spends its foreign aid dollars.

Roter urged engineers and other supporters to be bold in attacking the problems associated with inadequate or outmoded infrastructure in the developing world. He also called on Canadians to support fair trade for local farmers and producers so they might earn a living wage for the products they import to Europe and North America.

"When I talk about engineers being bold, I don't mean it in a reckless way," he said. "But because we're engineers, we actually have something in our boldness that is quite interesting. We are bold in that we envision that which is not and try to make it happen. But we're also bold in that we are cautious and conservative in envisioning that which is not and making it happen. I think that tension is actually the reason that EWB itself has been so successful, and why we haven't fallen into the same traps as other organizations working in Africa, and why we've been able to get to the root cause."

Founded in 2000, EWB concentrates especially on water solutions in Malawi, Ghana and other African nations. By adapting and sometimes reworking simple technology and community practices, EWB engineers seek to develop leadership and entrepreneurial talent in rural parts of Africa.

For more on EWB, visit www.ewb.ca.

OCEPP conference explores Ontario's most urgent issues

By Jennifer Coombes

ON MAY 7, OVER 200 of the province's top engineers, legislators, policy-makers, business and association executives, and university scholars converged to delve into some of the most pressing issues affecting the engineering profession in Ontario. The conference agenda, which included 32 speakers, panel chairs and presenters, explored topics ranging from innovation through nanotechnology to waste management.

Hon. Chris Bentley, LLB, Ontario attorney general, greets Catherine Karakatsanis, MESc, P.Eng., FEC, then-president of PEO. Bentley told attendees that the solutions engineers come up with have to stand the test of time. "That's what you achieve day in and day out," he said. He added that no one looks at the pyramids and "admires the great lawyering. No, they admire the great engineering."

Arden Bement Jr., director, National Science Foundation (left), which has similar objectives to the Natural Sciences and Engineering Research Council, said the synergy between engineering research and public policy is leading to advances in the quality of life for all. He said the engineering skill set is needed today, not just to build bridges, design aircraft or circuit boards, but also to find solutions to global problems–for example, climate change and threats of cyberspace–that plague us all. He speaks here to delegate Ravi Gupta, P.Eng., FEC.

Tim Hudak, MPP, leader, Ontario PC party, and Diane Freeman, P.Eng., FEC, PEO president. Hudak said Ontario faces tremendous challenges and engineers' training, background and experience will be required. Where Ontario once led the country, that's no longer the case, he said: "It's time to step forward and put ideas into action to help rebuild our great province."

Gilles Patry, PhD, P.Eng., FCAE, professor and president emeritus, University of Ottawa (left), and PEO Councillor Chris Roney, P.Eng., FEC. Patry said that in a global, knowledge-driven economy, our success or failure will be measured by how well or poorly we do with respect to the innovation agenda. "We rank poorly across almost all aspects of innovation–the creation of knowledge, the diffusion of knowledge, the transformation of knowledge and the use of knowledge through commercialization," he said. While Canada has the highest rate of university completion, Patry said, the country produces few graduates with advanced degrees in science and engineering and few graduates in business. Patry said we need to develop a culture of innovation and entrepreneurship early.

Kim Allen, P.Eng., PEO CEO/registrar (left), with Franklin Holtforster, P.Eng., PMP, president and CEO, MHPM Project Managers Inc. Holtforster told attendees that building in sustainability will be a way to compete in the future and that it can become a source of profit. Sustainability, he said, is the fourth leg of the stool on projects, along with cost, schedule and scope.

Luncheon keynote speaker Janet Holder, president, Enbridge Gas Distribution, presented her vision of the transformations that will be occurring with energy supply, many as a direct result of conservation efforts and the *Green Energy Act*. For example, she said: "We will have to adapt to using new products. Natural gas from biomass will be added to the pipeline. Engineers will ensure that due diligence is done to make these new technologies safe."

Left to right, Gail Krantzberg, PhD, director, ArcelorMittal Dofasco Centre for Engineering and Public Policy, McMaster University; Isabel Heathcote, PhD, retired professor, environmental engineering and environmental sciences, University of Guelph; Andrew Colombo, PhD, special lecturer, department of civil engineering, University of Toronto; and Vic Pakalnis, P.Eng., Kinross professor in mining and sustainability, Queen's University, took part in a panel on the public policy process. The panelists told attendees that engineers are well equipped for informing policy analysis. Some of the discussion touched on what engineers need to know about government, policy analysis as a discipline, the policy cycle, and opportunities for engineering innovation to inform public policy in Great Lakes management.

Left to right, John Yeow, PhD, P.Eng., professor, department of systems design engineering, University of Waterloo; Elizabeth Nielsen, PhD, EBN Consulting, a consultant to the Consumers Council of Canada; Peter DeVita, P.Eng., president, R&D Edge and DeVita Associates; Argyrios Margaritis, PhD, P.Eng., professor, biochemical engineering, University of Western Ontario; and George Comrie, P.Eng., software engineer and independent management consultant. DeVita presented the phase one report on nanotechnology by PEO's Emerging Disciplines Task Force (EDTF) and approved by PEO council, which now recognizes nanotechnology/molecular engineering as a distinct engineering discipline. He also presented a brief overview of nanotechnology and molecular engineering. EDTF members Margaritis and Yeow presented the nanotechnology projects they're working on in the areas of cancer drug delivery and biomedical instruments, respectively, and Nielsen presented some of the public policy issues surrounding nanotechnology, including the possible health risks.

continued on p. 14

continued from p. 13

Li Shu, PhD, P.Eng., Wallace G. Chalmers chair of engineering design, University of Toronto, presented the idea of designing for reuse as part of the panel on Ontario's waste management future. Some approaches to design for reuse involve specifying materials that can be easily recycled, making different materials easily separable from each other, and isolating parts likely to fail in easily replaceable modules.

Diane Freeman, P.Eng., FEC, PEO president; Nancy Hill, LLB, P.Eng.; Monique Frize, PhD, P.Eng., OC, professor, department of systems and computer engineering, Carleton University and professor, School of Information Technology and Engineering, University of Ottawa; Valerie Davidson, PhD, P.Eng., professor, University of Guelph and NSERC chair for women in science and engineering; and Wendy Cukier, PhD, associate dean, academic, Ted Rogers School of Management and founder, Diversity Institute, Ryerson University, took part in a panel session on the role of women in engineering that addressed the number of women in the profession, the factors affecting women entering the profession, and the barriers. Leading-edge strategies presented to increase the participation of women in engineering include the support of CEOs in the companies where female engineers are employed, mentoring and a work-life balance.

Standing, Doug Reeve, PhD, P.Eng., professor and chair, department of chemical engineering and applied chemistry, University of Toronto; George Roter, co-CEO and co-founder, Engineers Without Borders; and PEO Councillor Rakesh Shreewastav, P.Eng.; (seated) Angela Tran, PhD candidate in chemical engineering, University of Toronto; and Marina Freire-Gormaly and Shahed Al-Haque, undergraduate engineering students, University of Toronto. The group took part in a panel session on engineering leadership. Said Reeve: "Engineers must work with others–sometimes to lead, sometimes to follow. We must know our own ambitions, strengths and weaknesses to work with others. Leadership can be learned and it can be taught."

Kyle Ruttan, president, Canadian Federation of Engineering Students (left), with OCEPP student essay competition winners Jane Chui and Arthur Yip. Chui, whose paper surveyed legislation and policy regarding river restoration projects, recently completed her undergraduate degree in engineering at the University of Toronto. Yip, whose essay focused on sustainable versus green energy policy for Ontario, is a third-year student in the chemical engineering program at the University of Waterloo. Each winner received a $1,000 prize and will have their papers published in the August 2010 issue of *The Journal of Policy Engagement.*

ACT CHANGES await third reading

By Jennifer Coombes

PEO President Diane Freeman, P.Eng., FEC, attended an Ontario government press conference announcing Bill 68 May 20 with, from left, Eric Hoskins, PhD, MD, minister of citizenship and immigration, PEO CEO/Registrar Kim Allen, P.Eng., PEO Councillor Bill Kossta, and Ontario Attorney General Chris Bentley, LLB. The bill will make it easier for internationally trained engineering graduates to apply for licensure because it removes the requirement that applicants be Canadian citizens or have permanent residence status to be licensed.

IF ALL GOES WELL, changes to the *Professional Engineers Act* (PEA) approved by PEO council in April (see *Engineering Dimensions*, May/June 2010, p. 26) are expected to receive third reading and royal assent this fall. The amendments, submitted as part of the Ontario government's Open Ontario plan, an ambitious, three-year initiative to create faster and more streamlined government-to-business services, include both major revisions to the act and minor housekeeping items, some of which have been waiting in the wings for years.

The changes have been rolled into Bill 68, a piece of legislation that amends or repeals some 40 acts and received first reading on May 17 and second reading on May 31. (Bill 68 can be found in its entirety at www.ontla.on.ca/bills/bills-files/39_Parliament/Session2/b068.pdf. The sections pertaining to the PEA are contained in schedule 2 starting on page 40.)

Some of the proposed changes to the PEA, more than 20 in all, include replacing the current definition of the practice of professional engineering with a more comprehensive national definition, providing council the authority to enact bylaws without member confirmation while maintaining the ability to have members confirm bylaws if it wishes, removing all fees from the regulation and placing them in the bylaw, recognition of engineering interns in the act, enabling limited licensees to apply for a Certificate of Authorization, and removing the industrial exception five years after the bill receives royal assent.

One of the most significant amendments in Bill 68 would remove the requirement that licence applicants be Canadian citizens or have permanent resident status to be licensed. It is hoped this will clarify licensure requirements for international engineering graduates, who sometimes wait until they have permanent resident status to even apply to become licensed in Ontario.

PEO President Diane Freeman, P.Eng., FEC, who was invited to speak at the Ontario government press conference introducing Bill 68 at Ryerson University May 20, said the amendments "reflect this government's commitment to a strong engineering profession. But they have a larger purpose. The changes–eliminating the requirement to be a citizen or permanent resident of Canada to obtain a licence to practise professional engineering–have been 25 years in the making. They are going to make a huge difference in the lives of thousands of new Canadians."

Eric Hoskins, PhD, MD, minister of citizenship and immigration, also in attendance, said: "Immigration is Ontario's lifeblood. We need the skills and talents of internationally trained engineers to build a strong and vibrant economy. These steps will help them contribute to an open Ontario where the economy and our communities can thrive."

Added Chris Bentley, LLB, Ontario attorney general: "We want to give self-governing professions the tools they need to better compete in today's business climate. These changes will help us create a stronger and more prosperous Ontario."

OSPE CELEBRATES *10-YEAR MILESTONE*

By Jennifer Coombes

John Schindler, P.Eng., elected as OSPE president and chair for 2010-2011 immediately following the annual general meeting, presents outgoing President and Chair Annette Bergeron, P.Eng., with a certificate commemorating her service to the organization.

The Ontario Society of Professional Engineers' (OSPE) AGM, May 5 in Toronto, was a special one as the event marked the advocacy body's 10th year in operation.

OSPE outgoing President and Chair Annette Bergeron, P.Eng., told members in attendance she is proud of the organization's accomplishments to date and, in particular, the projects completed during her tenure: a complete review of OSPE's strategic plan; the introduction of a social media campaign involving Twitter, Facebook, LinkedIn and YouTube; hosting and sponsorship duties for the Ontario Professional Engineers Awards, and the organization's second international climate change conference. Despite ending 2009 with a slight deficit, Bergeron said the organization has "made strides in presenting a strong public profile and becoming *the* advocacy body for engineering in Ontario." Bergeron added, however, that "while it's good to focus on past accomplishments, we also have to look to what is yet to be done."

Danny Young, P.Eng., acting CEO, echoed Bergeron's comments, adding, "Over the last 10 years, it's fulfilling to see how far we have come, but we do need to do more." Young said it's OSPE's responsibility to ensure that clarity is maintained between OSPE and PEO and that the organization needs the support of members if it is to expand the voice of engineers in Ontario.

Catherine Karakatsanis, MESc, P.Eng., FEC, PEO's then-president, offered greetings and congratulations to OSPE on its 10th anniversary and updated attendees on PEO activities, including the innovation and sustainability considerations going into plans for reconfiguring space in PEO's new headquarters.

Also on hand to offer congratulations and update OSPE members was Marie Carter, P.Eng., COO, Engineers Canada, who discussed the work the two organizations share relating to climate change. She said Engineers Canada values the work being done by OSPE and welcomes more opportunities to work jointly to advance the profession.

Francois Granger, ing., president, Réseau des ingénieurs du Québec, pointed out his organization's parallel with OSPE, which he credited with developing a model for his organization. Said Granger, "I'm pleased to see what's been done in 10 years and hope we can do similar things."

The evening also offered valuable insight into the world of advocacy and secondary insurance through speakers Lawrence Bicknell and Jason Easton, P.Eng.

Bicknell, of Jardine Lloyd Thompson Canada, explained OSPE's secondary indemnity program, into which all OSPE professional and interim members are enrolled, which is intended to protect individual engineers rather than entities. The insurance, he said, doesn't act as primary coverage but rather fills in the gaps, such as coverage for retirement, and covers past work, including free advice and work outside of employment.

Public policy plays a large part in Easton's life. As corporate affairs analyst, government relations, General Motors, Easton supports the government relations staff with policy analysis, message development, and lobbying activities for vehicle-related environmental initiatives, and said he has found his engineering background to be useful. Although he recognizes that "politics can be the exact opposite of what engineers feel comfortable doing," he believes they are ideally suited to play an increasingly large role in public policy and advocacy by tapping into such typical engineering traits as creative problem solving, realistic assessment, hard work and social responsibility.

Easton also believes there is a growing need for engineering perspective, because global public issues are becoming increasingly complex and "engineers can bridge the gap between the ideal and the possible."

Making advocacy effective, he advised, demands the ability to communicate key messages, not telling the typical, too-technical engineering story, finding the wins for both sides of an issue, and repeating until the message sticks.

Preserving Great Lakes focus of OSPE conference

By Jennifer Coombes

Hon. Linda Jeffrey, minister of natural resources, said transforming our energy supply to reduce air pollution and decrease greenhouse gases, and accommodating the demand for clean water will be critical to the province and "engineers will be front and centre" in these efforts.

THE SPOTLIGHT WAS on the Great Lakes April 29 at the second climate change conference co-hosted by the Ontario Society of Professional Engineers (OSPE) and McMaster University.

Gail Krantzberg, PhD, director, ArcelorMittal Dofasco Centre for Engineering and Public Policy, McMaster University, told participants "we must be profound stewards of this great resource." She said strategies are still needed to make the Great Lakes more resilient to a changing climate.

Nadine Miller, P.Eng., an OSPE director and conference chair, echoed that sentiment and added the day would highlight just how engineers are advancing these strategies to mitigate climate change effects in the Great Lakes region.

Lead speaker John Campbell, P.Eng., president and CEO, Waterfront Toronto, showed off the group's plans for revitalizing Toronto's 2000 acres of waterfront. He explained how the organization is bringing together sustainable development and excellence in urban design and real estate development for the multi-year developments in the Donlands, East Bayfront and Portlands areas of the city.

"Sustainable development is a core value of the corporation, so we're designing a carbon neutral environment," Campbell said. "We're focusing on transit, which has a big impact on sustainability plans, recycling 95 per cent of the soil from these formerly Brownfields sites, and building affordable housing within intelligent communities that will attract high-tech companies." He also said that when developers come forward to purchase land in these areas, Waterfront Toronto looks at a combination of factors in choosing the best program, including design, sustainability and price.

In offering a framework for assessing and managing climate change vulnerability and risks in Ontario communities, Allan Douglas, of the Ontario Centre for Climate Impacts and Adaptation Resources, argued that because of the changing climate, past climate may not be a good indicator of future climate. He said existing infrastructure was designed on historical design values and typically with conservative safety factors. Douglas said evidence of climate change is all around us–longer periods of extreme heat, vector- and water-borne diseases, decreased winter precipitation–so we should all enable and encourage climate-sensitive decision making.

But what if we can't get greenhouse gases, and therefore climate change, under control? That was the question posed by Merril Mascarenhas, CMC, managing partner, Arcus Consulting Group. Mascarenhas said there is a 95 per cent chance that carbon dioxide (CO_2) in the atmosphere will eventually exceed 400 ppm, which will increase the Earth's overall temperature by three degrees. "Spring is the new summer in this scenario," he said.

Mascarenhas noted several novel ways to mitigate this potentially disastrous turn of events, including the concept of a mechanical "tree"–developed by Klaus Lackner of Columbia University's Earth Institute–that doesn't actually look like a tree but can absorb CO_2 from the atmosphere at a rate of 10 tons an hour. Another possible solution to climate change, he said, might be solar shields positioned in space that reflect some of the sun's radiation back into space.

The Hon. Linda Jeffrey, minister of natural resources, discussed the steps the government is making to protect Great Lakes' biodiversity in the face of climate change–which she termed "the defining issue of our generation"–and to make Ontario the leader in the green energy and clean water sectors.

Two areas, in particular, in which Jeffrey said "engineers will be front and centre," are renewable energy and water technology. She said transforming our energy supply to reduce air pollution and decrease greenhouse gases, and accommodating the growing demand for clean water technology, will be critical to the province.

Janet Holder, president, Enbridge Gas Distribution, said energy is central to any discussion of climate change. She predicted that the natural gas sector is on the cusp of a transformation driven by conservation and the *Green Energy Act*. "Natural gas will have a role in the future, but future use will be very different than today. For example, it will be used less for home heating," she said. Holder said that in the future–20, 30, or 40 years from now–energy will be a mix of natural gas, biomass and solar, with the mix depending on the needs of the community. She said these changes will not happen overnight because consumers will take some time to warm up to renewable energy, determining the speed of change. Holder said engineers will play a critical role in this transformation.

The *Green Energy Act* was also top of mind for George Smitherman. The Toronto mayoral candidate stopped by to champion the act and discuss the opportunities that will come from the move towards a green economy and the role government must play in that economy. Smitherman, a self-described "celebrant" of our drinking water, called for programs to encourage people, especially newcomers, to trust Toronto's drinking water. If elected mayor, he

continued on p. 18

continued from p. 17

said he will increase the number of city water fountains and ban bottled water in city facilities.

His plans for Toronto also include protection of our bodies of water. "We have a substantial responsibility to preserve the lakes," Smitherman said. He said that although steady progress has been made since the Trudeau era to protect the lakes, he's not inclined to be satisfied with the progress to date. "Shorelines should not be something you just walk up to, but that you walk up to and in," said Smitherman.

Concurrent breakout sessions held in the afternoon introduced ideas organized around the concepts of resilience, mitigation and adaptation strategies for Great Lakes preservation, as well as practical examples of the strategies in action. Among the ideas discussed by presenters were opportunities for offshore wind energy on the Great Lakes, producing zero effluent discharge to Lake Ontario, greenhouse gas carbon abatement for the steel industry, and a climate change adaptation strategy to address urban flooding in Toronto.

Before closing the conference, Ian Burton, PhD, scientist emeritus, Adaptation and Impacts Research Group, Meteorological Service of Canada, introduced a report released last December by the Expert Panel on Climate Change Adaptation.

Although Burton said the first thing to say about Ontario's climate change adaptation strategy is that there isn't one, that situation is about to change.

Burton said: "In the mid-1990s, we didn't realize what controlling greenhouse gases would entail and the prevailing view was that we could get in charge of it. But we have failed abysmally to control emissions and so we have no choice but to adapt."

Burton said there are still many questions the Ontario government is facing: How is this going to be managed? Do we know enough? Who will be in charge? How will we measure progress? But, he said, the report is the first step.

YORK CHAPTER HOSTS ACCELERATED MENTORING EVENT

By Nicole Axworthy

In March, over 100 participants gathered at a cultural centre in Scarborough for a one-day accelerated mentoring event for engineers. Hosted and led by PEO's York Chapter, in co-operation with the Etobicoke and Mississauga chapters, the event helped connect engineers in need of career mentoring–including internationally trained engineers, engineering students and engineering interns–with senior- and executive-level engineering professionals representing various engineering disciplines, industries and employers.

The event included a mock job interview demonstration to help participants improve their interviewing skills. Matthew Xie, P.Eng., York Chapter past chair and director, Ontario Society of Professional Engineers (OSPE), played the role of an engineer being interviewed for a job in the construction industry. Mentors Francis Chan, P.Eng., vice president of engineering, Aecon; Edward Poon, P.Eng., York Chapter past chair and OSPE director; and Bogdan Damjanovic, P.Eng., president and owner, Express Employment Professionals, played the roles of Xie's potential employers.

"I think a lot of people found great value in the mock interview," says Gordon Ip, P.Eng., York Chapter mentoring director. He says the exercise showed participants how an interview should be conducted and, at the end of the interview, the mentors provided valuable feedback on the pitfalls that should be avoided during a typical job interview.

A networking opportunity was provided during lunch and then, in the afternoon, the main accelerated mentoring session got underway. Teams of four to five mentees were assigned to 15 mentoring stations. The mentees stayed at their assigned stations throughout the session, while the participating mentors rotated from station to station to meet with the mentees for eight minutes of group discussion, giving mentees the opportunity to ask the mentors questions. "Some of the guidance questions we gave them were: Don't ask anything about something that is related to them personally, but something that would benefit the group," says Ip. "Things like,

Engineers demonstrate a mock interview at the York Chapter mentoring event. Left to right: Matthew Xie, P.Eng., York Chapter past chair and OSPE director, is interviewed by Edward Poon, P.Eng., chapter past chair and OSPE director; Francis Chan, P.Eng., VP of engineering, Aecon; and Bogdan Damjanovic, P.Eng., president, Express Employment Professionals.

'What did you do to advance your career?' is a good question, versus 'Why can't I get a job?' is not a good question."

At the end of the allotted time, an alarm sounded to signal the end of the session. The employers rotated until each of the 15 mentee stations met with each of the 16 mentors. "What worked really well was the calibre of mentors we had, and the relatively rigid structure we had in having the mentors rotate when asked. Otherwise the sessions would have run a lot longer than we needed them to," says Ip.

Because the event was such a success, York Chapter plans to organize accelerated mentoring events on an annual or biannual basis. For more information, go to www.peoyork.com.

CONSULTING ENGINEERS LOOK TO ENHANCED STAKEHOLDER ENGAGEMENT

By Michael Mastromatteo

CONSULTING ENGINEERS OF Ontario (CEO) sees effective corporate governance and increased communication with stakeholders as key elements in enhancing commercial opportunities for Ontario consulting engineering firms.

At its annual general meeting June 9 to 10 at the Deerhurst Resort in Huntsville, north of Toronto, consulting engineers discussed strategies for attaining a sustainable business environment.

The meeting marked the 35th anniversary of the 225-member-strong consulting engineers' organization.

While past CEO annual meetings have been dominated by discussion of such business issues as quality-based selection (QBS) and reforms to PEO's consulting engineer designation, this year's meeting emphasized outreach to stakeholders, government relations, involvement in public policy development, and more effective corporate governance.

Keynote speaker Chris Bart, PhD, professor of strategic market leadership, McMaster University, discussed ideas for organizations to get better mileage from boards of directors.

Author of the book *A Tale of Two Employees and the Person Who Wanted to Lead Them*, Bart said organizations should invest more time in selecting and developing corporate leaders. Too often, he said, directors have only a dim understanding of their roles and lack the appropriate means of measuring personal progress in pursuit of corporate objectives.

One highlight of the 2010 annual meeting was discussion of the result of a recent CEO member survey. Conducted in fall 2009, the survey found CEO members generally satisfied with the work of the organization. The survey also indicated that growth in CEO is coming primarily from medium-sized firms. Consulting engineers, however, would like to see the organization raise its profile throughout the wider consulting engineering community.

"The results of the member survey, which was central to the development of our strategic plan, told us that our members considered government

relations, aimed at having engineers become more involved in public policy development, as a key priority," said new CEO President Barry Steinberg, P.Eng. "The other priorities were communication and public awareness, and member services. It is important that these three strategic goals have a high degree of governance if they are to be achieved. Effective governance requires member engagement and this was one of the key underlying themes of our conference. So, as you can see, government relations, member engagement and effective governance are all connected as is everything else in our plan."

Midway through the meeting, PEO CEO/Registrar Kim Allen, P.Eng., outlined recent initiatives by the Ontario engineering regulator. Allen encouraged CEO in its quest for more proactive government relations by citing PEO's experience in overcoming government intrusion of its self-regulatory realm in relation to engineers and the Ontario Building Code.

He also walked consulting engineers through PEO's goal of helping engineers become more active in public policy activity. Citing PEO's founding of the Ontario Centre for Engineering and Public Policy (OCEPP) in 2008, Allen said it's important for engineers to be seen as the "go-to professionals" for public policy insights, and to promote the "hard-wired link" between infrastructure, technology and quality of life.

The annual meeting featured a government relations panel, in which four leading consultants and lobbyists advised consulting engineers on the best practices for influencing government policy-makers. The panel included Liberal party consultant Warren Kinsella, who encouraged consulting engineers to "tell better stories" when bringing their concerns to government officials and policy-makers. "At the end of it all, government relations is still much like public relations," Kinsella said. "It's key to craft your message, and make it coherent, compelling, relevant and, above all, easy to express."

The annual meeting this year also included a panel of young engineering professionals who outlined the importance of volunteering, networking and professional development to a consulting engineer's career. Panelists emphasized the importance of working with older mentors to encourage younger engineers to become more involved with professional organizations and with the engineering profession at large.

CEO's executive for 2010 is Shawn Gibbons, P.Eng. (chair); Bill De Angelis, P.Eng. (vice chair); Michael Snow, P.Eng. (treasurer); Mike Stocks, P.Eng. (secretary); and David Amm, P.Eng. (past chair).

Newly elected directors are Brian Jackson, P.Eng., Anthony Karakatsanis, P.Eng., Robert Kivi, P.Eng., and Fouad Mustafa, P.Eng.

President Steinberg succeeds the long-serving John Gamble, P.Eng., who moved on to head the Ottawa-based Association of Consulting Engineering Companies-Canada (ACEC) in late 2009.

In his president's report, Steinberg outlined the goal of positioning CEO as the authoritative voice for Ontario's consulting engineers. Objectives for the upcoming year include articulating the CEO position to government leaders and policy-makers, taking a greater role in public policy formation, and extolling the benefits and value of CEO to member firms and clients.

"When we talk about communication and public awareness, we are not just talking about communication with members," Steinberg said. "We are talking about a two-way communication process that includes government, clients, public and members. Moreover, in order to have a strong, engaged volunteer membership, we must develop a systematic approach to engaging young professionals in the volunteer process, starting with chapters, committees and task forces and moving through boards of directors at the provincial and national level. It is my experience that this is the most effective approach to developing committed, experienced volunteer leaders."

The 2010 annual meeting of Consulting Engineers of Ontario (CEO) featured a panel discussion led by young, emerging professionals. Left to right are: Valery Woloshyn, CH2M Hill Canada; Daryl Scheerer, P.Eng., Hatch Ltd.; Kimberly Mowat, P.Eng., R.V. Anderson Associates; and Debanjan Mookerjea, P.Eng., RJ Burnside and Associates.

CEO Past Chair David Amm, P.Eng. (right), offers reflections on 2009 achievements. The consulting engineers' new president, Barry Steinberg, P.Eng., is at left.

TORONTO CONFERENCE A FIRST FOR BLACK ENGINEERS GROUP

By Michael Mastromatteo

Anick Silencieux of Kroll Ontrack in Toronto gave out information about student and alumni memberships at the National Society of Black Engineers annual convention, March 31 to April 4 in Toronto.

PEO's Scarborough Chapter played a key role in the recent NSBE convention in Toronto. In addition to conducting Mathletics competitions for NSBE student members, the chapter organized a seminar on engineering licensing in Ontario. Joe Ha, engineering intern (right), presents one of the Mathletics awards to an NSBE student recipient. Scarborough Chapter Chair Raju Chander, P.Eng., is on the stage.

To raise its profile beyond the United States, the National Society of Black Engineers (NSBE) chose Toronto as the site of its 2010 annual convention.

Held March 31 to April 4 at the Metro Toronto Convention Centre, the event attracted more than 7000 delegates to reflect on the theme of engineering a global impact.

It marked the first time the NSBE (www.nsbe.org) convention has been held outside the US.

With more than 33,000 collegiate and professional members (and 3500 pre-college student members), NSBE's mandate is to increase the number of "culturally responsible" black engineers dedicated to academic and professional excellence and making a positive impact on their communities.

The society is regarded as one of the largest student-managed organizations in the US, comprising nearly 450 chapters in the US, Canada and internationally.

Stacyann Russell, then NSBE national chair, used the occasion of the first international convention to reiterate NSBE's commitment to become a global society. As one of the world's most multicultural cities, Russell said, Toronto is an ideal staging point to express a global engineering conference theme.

"As engineers, we are increasingly called upon to solve global issues and, a lot of times, the first step in doing this is to become more global in our thinking and attitudes," Russell told conference delegates.

The extensive conference program included workshops on energy, the environment, career planning, design competitions and presentation of NSBE awards.

NSBE has worked to become more relevant outside the US for the last 10 years. It now has a Toronto alumni extension chapter, as well as student and alumni chapters at the University of Toronto, Carleton University, McGill University and the University of Ontario Institute of Technology. Student chapters exist at several Ontario high schools.

At least three PEO members played a part in convincing NSBE to hold the 2010 convention in Toronto.

Dwayne Shirley, PhD, P.Eng., a University of Toronto engineering graduate now working with Texas Instruments Inc. in Dallas, was one of the first to propose moving the convention outside the US. A recipient of a 2009 Ontario Professional Engineers Engineering Medal in the Young Engineer category, Shirley has long emphasized role modeling and mentorship as key ingredients in promoting engineering to younger generations.

Victor Kabuga, P.Eng., a senior engineer, Ontario Power Generation (OPG), and president of NSBE's Toronto alumni extension, arranged tours of OPG facilities as part of the conference agenda.

"The NSBE is emerging as a truly global organization with a presence established in Canada, the Caribbean, Africa and Europe," Kabuga told *Engineering Dimensions*. "Five years ago, it was decided that Toronto would host NSBE's largest annual event in 2010 to substantiate and drive this movement. Toronto was deemed as the ideal location outside the US due to its proximity, infrastructure and support from its municipality and tourism board."

Kabuga suggests holding conventions outside the US will help the organization gain visibility and promote its work to engineers in other countries.

"Many in the Canadian environment do not 'get' NSBE until they witness a convention," he adds. "The involvement of these local people and local organizations, including PEO, was a highlight, as they have now shared in the experience."

PEO supported the convention by hosting a Mathletics competition for NSBE student members. Raju Chander, P.Eng., of PEO's Scarborough Chapter, along with other chapter members, organized the competition and gathered feedback from students as to the value of the exercise. Scarborough Chapter also hosted a seminar on the "how and why" of the engineering licence in Ontario.

PEO was also represented at an information booth for the five days of the conference.