Canadian Solar Industries Association

ANNUAL CONFERENCE & EXPOSITION

December 7–8, 2015 | Toronto, Ontario
Metro Toronto Convention Centre – North Building

#SolarCanada
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## Monday December 7, 2015

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<td>John Gorman, President &amp; CEO, Canadian Solar Industries Association (CanSIA): “Transformation in the Canadian Solar Industry”</td>
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<td>9:30am – 10:00am</td>
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<td>Lisa Frantzis, Senior Vice-President, Advanced Energy Economy (AEE): “Transformation to a 21st Century Electricity System in Canada”</td>
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<td>Bob Delany, MPP (Mississauga—Streetsville), Parliamentary Assistant to the Minister of Energy, Government of Ontario</td>
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<td>1:45pm – 3:00pm</td>
<td>Afternoon Breakout Sessions</td>
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<td>Market Transformation: From Procurement to Market-Based Approaches in Ontario (room 202)</td>
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<td>Project Transformation: Minimizing the Cost of Capital (room 201)</td>
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<td>Market Transformation: Monetizing Solar’s Environmental Attributes in Alberta (room 202)</td>
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<td>Project Transformation: From Development to Operations &amp; From Projects to Portfolios (room 201)</td>
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<td>4:45pm – 6:00pm</td>
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<td>SolarPalooza at the Real Sports Bar</td>
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Passes will not be available at the door. Purchase in advance to avoid disappointment.

## Tuesday December 8, 2015

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<td>Expo Hall Open (Level 300)</td>
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<td>Networking Breakfast (Room 106)</td>
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<td>Emerging Leaders for Solar Energy Annual Address (Room 106)</td>
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<td>10:45am – 11:15am</td>
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<td>Market Transformation: A New Role for the Federal Government (room 202)</td>
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<td>Project Transformation: Minimizing the Development Costs for Large Ground-Mount Solar Facilities (room 201)</td>
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<td>12:45pm – 2:00pm</td>
<td>Keynote Luncheon (Room 106)</td>
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<td>Trevor Birtch, Mayor, City of Woodstock &amp; Oxford County Councillor: “Transformation of Communities from Fossil-Fuel Dependency to 100% Renewables”</td>
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<td>Market Transformation: Solar Opportunities in Latin America (room 202)</td>
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<td>Technical Transformation: Smart Grid Integration (room 204)</td>
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<td>Project Transformation: Residential Solar Permitting in “Solar-Friendly” Municipalities (room 201)</td>
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<tr>
<td>3:30pm – 4:30pm</td>
<td>Last Chance to Visit the Expo Hall! Contest Draws Taking Place in the Reception Area – Must Be Present to Win. (Level 300)</td>
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LEARNING PODS

MONDAY, DECEMBER 7

11:15am – 12:00pm  WELCOME TO SOLAR CANADA 2015 AND INTRODUCTION TO CANSIA 8
12:00pm – 12:30pm  POWERING CLIMATE PROSPERITY: CANADA’S RENEWABLE ELECTRICITY ADVANTAGE 8
1:00pm – 1:45pm  CONNECTORS AND NEW ELECTRICAL CODE REQUIREMENTS 8
3:00pm – 3:30pm  ENERGY STORAGE GRID SERVICES: VALUE TO BE REALIZED AND CHALLENGES TO BE OVERCOME 8
4:00pm – 4:45pm  EMERGING LEADERS FOR SOLAR ENERGY (ELSE) 8

TUESDAY, DECEMBER 8

9:45am – 10:15am  PUBLIC ENGAGEMENT ON RENEWABLES AND ENVIRONMENT IN ONTARIO 14
10:15am – 10:45am  SOLAR AND CLIMATE CHANGE MITIGATION AND ADAPTATION IN THE NORTHWEST TERRITORIES 14
10:30am – 1:30pm  EXHIBITOR PROFILES: HEAR THE LATEST AND GREATEST IN SOLAR ENERGY FROM A SELECTION OF OUR EXHIBITORS 14
1:30pm – 2:30pm  A CONVERSATION WITH BUILDERS: SOLAR AND THE FUTURE OF NET ZERO ENERGY HOMES 14
3:30pm – 4:00pm  EMERGING LEADERS FOR SOLAR ENERGY (ELSE) 14

SOLAR CANADA 2015 MOBILE APP

DOWNLOAD THE SOLAR CANADA 2015 MOBILE APP BY SCANNING THE QR CODE ABOVE.

OR, ON YOUR SMART PHONE, VISIT

December 7 – 8, 2015

A Personal Message from the Premier

On behalf of the Government of Ontario, I am pleased to extend warm greetings to everyone attending the Canadian Solar Energy Conference and Trade Show, organized by the Canadian Solar Industries Association (CanSIA).

Our world is increasingly focusing on ways to provide people with renewable and sustainable energy, in an effort to lower greenhouse gases and utilize affordable sources of energy, such as solar power. As a national trade association, CanSIA has played a vital role in the development of a strong, efficient, and professional Canadian solar energy industry which has helped to ensure that clean and affordable energy options remain available to our citizens.

This year’s expo offers participants the chance to explore and promote the best solar energy technologies and practices available today. It will also offer entrepreneurs, suppliers, policy-makers and industry experts an ideal opportunity to engage in meaningful discussions about the latest developments within the industry — and help Ontarians work toward securing a healthier environment, a more competitive economy and a better future for our children and grandchildren.

Please accept my sincere best wishes for an informative and productive conference.

Kathleen Wynne
Premier
WELCOME TO SOLAR CANADA 2015!

We are excited to bring you all together in Toronto for our national annual conference and exposition for the solar energy industry in Canada.

The theme for this year’s conference is ‘transformation’. In 2015, we saw continued transformation in the electricity sector as solar continued to make major in-roads to being considered a mainstream and widespread technology. We also saw transformation in the ways in which major economies, including Canada, are committing to a new approach to climate change and renewable energy across all levels of government.

The conference will examine how the Canadian solar industry can maximize the benefit of this transformation for our industry and for citizens, communities, businesses and corporations throughout our country. Detailed discussions will include: policy and market development and evolution at the federal level and at the provincial level, with emphasis on Ontario and Alberta, and at the municipal level from coast to coast; several international experts representing the International Energy Agency’s Task 14 will convene with leading Canadian utility practitioners to examine the technical solutions that enable this transition on distribution and transmission networks; and other sessions will explore the implications of this transformation on permitting and approvals, project finance, asset management and competitive procurement.

On behalf of the Canadian Solar Industries Association, we hope you find this year’s conference to be engaging and informative, and that you take advantage of everything the conference and trade show has to offer.

Over the coming two days we’ll take a timely look at transformation that is happening throughout the sector — from a transition in the utility business model to the reform of municipalities in their adoption of renewables to provincial policy transformation — we’ll discuss the range of issues facing members of the solar sector as they begin to make impacts in new Canadian marketplaces.

Over the last twenty years we have established CanSIA as the trusted voice for the Canadian solar energy industry and an effective partner for all levels of government, agencies and regulators. Solar Canada 2015 is a unique opportunity to share expertise, learn about the latest advancements in the solar industry, and network with colleagues and stakeholders. CanSIA events involve the ‘who’s-who’ in the solar industry and are an indispensable tool for solar professionals looking to network and develop business. Once again, we welcome the participation of senior politicians and industry leaders.

We’d like to take this opportunity to recognize the generous support of our sponsors, the unwavering vision of the CanSIA Board of Directors, and the hard work of the staff at CanSIA. Thank you to everyone involved.

We hope you use Solar Canada 2015 to reflect on what we can accomplish together and, more importantly, that you will take advantage of all the conference has to offer in building upon our successes.

Thank you for your support and participation. Enjoy!

John Gorman
President and CEO
Canadian Solar Industries Association

Bob Waddell
Chair, Board of Directors
Canadian Solar Industries Association
BECOME A CANSIA MEMBER!

Consider joining CanSIA as a member to stay informed, increase the visibility of your company and influence provincial and federal policies that will affect the future of the solar market in Canada.

CanSIA is the only national trade association for the Canadian solar industry, representing our members on today’s most important issues while positioning the industry for future sustained growth.

Visit www.cansia.ca/membership to view CanSIA’s Member Benefits and Services brochure or to join online today.

To discuss your membership options with us, please contact:

Lisa Hatina
Business Development and Member Relations Manager

613.736.9077 ext. 230
lhatina@cansia.ca
7:00am – 5:30pm
REGISTRATION OPEN 200 LEVEL
Badge pick-up for full delegate pass holders, Two-Day Expo Passes or Monday Expo Passes
Please Note – Tuesday Expo Pass holders cannot be picked-up before 8:00am on December 8th.
This is also your last chance to purchase SolarPalooza tickets as they will not be available at the door at the Real Sports Bar.
Tickets may sell out throughout the day so buy early to avoid disappointment.

8:00am – 9:00am NETWORKING BREAKFAST CONSTITUTION HALL (106)

9:00am – 6:00pm EXPO HALL OPEN 300 LEVEL

9:00am – 9:30am CONFERENCE OPENING CONSTITUTION HALL (106)
Transformation in the Canadian Solar Industry
John Gorman, President & CEO, Canadian Solar Industries Association (CanSIA)

9:30am – 10:00am OPENING KEYNOTE ADDRESS CONSTITUTION HALL (106)
Transformation to a 21st Century Electricity System in Canada
Lisa Frantzis, Senior Vice-President, Advanced Energy Economy (AEE), a national business association whose mission is to transform policy to ensure a more secure, clean, and affordable energy system throughout the U.S., leads an initiative to accelerate the transition to a 21st Century Electricity System. AEE activities include convening utility executives, PUC Commissioners, and advanced energy companies to develop a vision for electricity sector reform, participating in key regulatory proceedings to establish the appropriate policy frameworks to enable transition and driving toward concrete action and implementation. Lisa served as a Managing Director in Navigant Consulting’s Energy Practice since 2002, responsible for leading the renewable and distributed energy business. Prior to Navigant, she consulted at Arthur D. Little for 23 years in energy efficiency and clean energy. Over her 35 years of consulting experience, she has identified energy program options for international government agencies; determined renewable energy integration options for utility companies; developed business strategies for clean energy manufacturers; and conducted due diligence for financial firms considering clean energy investments. Lisa is currently on the Board of Directors of the New England Clean Energy Council (NECEC) and previously on the Boards of three other organizations: the American Council on Renewable Energy (ACORE), the Solar Energy Business Association of New England (SEBANE), and the Solar Electric Power Association (SEPA).

10:00am – 11:00am MORNING PLENARY SESSION CONSTITUTION HALL (106)
The Great Canadian Energy Conversation: New Momentum for the Transformation of Canada’s Electricity Future
Much has changed since Solar Canada 2014. New leadership in the Governments of Canada and Alberta and heightened collaboration throughout the rest of Canada has highlighted the importance of tackling climate change and de-carbonizing our electricity supply. This transformation will have broad implications for electricity systems across the country. Join moderator Dan Woynillowicz, Director, Policy & Partnerships, Clean Energy Canada as he brings together again good friends (sometimes good adversaries but always industry leaders) from a selection of the Canadian energy sectors for what is sure to be a lively discussion about the opportunities and challenges that lie ahead. Panelists will include:

John Gorman, President & CEO, Canadian Solar Industries Association

Robert Hornung, President, Canadian Wind Energy Association

Jacob Irving, President, Canadian Hydropower Association

Dr John Barrett, President & CEO, Canadian Nuclear Association

11:00am – 12:30pm NETWORKING BREAK AND OPPORTUNITY TO VISIT EXPO HALL 300 LEVEL Sponsored by Panasonic
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<td>11:15am – 12:00pm</td>
<td><strong>WELCOME TO SOLAR CANADA 2015 AND INTRODUCTION TO CANSIA</strong>&lt;br&gt;Solar Canada 2015 is CanSIA’s national annual conference and exposition for the solar energy industry in Canada. Attend this session to hear from Team CanSIA: who we are, what we do and how you can get involved with our policy and market development, utilities and regulatory affairs and communications activities. Topics discussed will include industry updates from across Canada and progress reports on CanSIA’s strategic projects.</td>
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<td>12:00pm – 12:30pm</td>
<td><strong>POWERING CLIMATE PROSPERITY: CANADA’S RENEWABLE ELECTRICITY ADVANTAGE</strong>&lt;br&gt;The world stands on the brink of a Golden Age of renewable electricity. Hundreds of billions of dollars are now flowing into scores of new projects, and literally millions of people around the world now work installing wind turbines and solar panels, harnessing waves and tides, and using flowing water to produce power. As a global leader in renewable electricity production, Canada already plays a leading role in this transformation. But tremendous untapped potential remains. Attend this session to hear from Dan Woynillowicz, Director, Policy &amp; Partnerships, Clean Energy Canada about the opportunity this potential holds as documented in a new report from the Canadian Council on Renewable Electricity (CanCORE).</td>
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<td>1:00pm – 1:45pm</td>
<td><strong>CONNECTORS AND NEW ELECTRICAL CODE REQUIREMENTS</strong>&lt;br&gt;The Electrical Safety Authority (ESA) is an administrative authority mandated by the Government of Ontario to enhance public electrical safety in the province. ESA’s primary activities are: identifying and targeting leading causes of electrical safety risk; ensuring compliance with regulations; promoting awareness, education and training; and collaborating with stakeholders to improve the state of electrical safety in Ontario. Attend this session to hear from Ted Olechna, P.Eng, Director Codes and Standards Support, Chief Engineer, Electrical Safety Authority about the key new safety requirements relating to solar PV including connectors and new electrical code requirements.</td>
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<td>3:00pm – 3:30pm</td>
<td><strong>ENERGY STORAGE GRID SERVICES: VALUE TO BE REALIZED AND CHALLENGES TO BE OVERCOME</strong>&lt;br&gt;Energy Storage has shown great promise in economically solving many issues within the modern and increasingly distributed electricity system. Some challenges remain to be tackled before widespread adoption can be expected. As the costs of current technologies drop and new technologies are brought to market, Energy Storage Systems will increasingly be able to compete with traditional power generation, transmission and distribution assets. Additionally, integration and operation of Energy Storage Systems will increase in complexity, allowing to use the multiple values that storage can provide. This presentation by Nicolas Muszynski, Director – Energy Storage; Renewable Energy Systems Canada Inc., will describe the main services that Energy Storage can provide and the value of each of these services. Challenges related to stacking some of these values will also be discussed.</td>
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<td>4:00pm – 4:45pm</td>
<td><strong>EMERGING LEADERS FOR SOLAR ENERGY (ELSE)</strong>&lt;br&gt;The Emerging Leaders for Solar Energy (ELSE) is a growing network of young professionals, students, and solar advocates (up to 35 yrs.), who are working with the Canadian Solar Industries Association and industry stakeholders to build a strong solar energy future across Canada. ELSE fosters Canada’s next generation of clean tech leaders, providing participants with new skills and knowledge, professional development opportunities, and connections within industry and government. Attend this session to hear from representatives of ELSE what recent activities and successes they have been engaged in and what is on the horizon for 2016.</td>
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**Technical Transformation: Solar Implications for Distribution Grids**

Room 204 – Summit

Bob Delany, MPP (Mississauga—Streetsville) is serving his fourth term representing the western Mississauga neighbourhoods of Lisiag, Meadowvale and Streetsville. At the Legislature, Bob serves as Parliamentary Assistant to the Minister of Energy. He was previously Ontario’s Chief Government Whip, and the Chair of Ontario’s Standing Committee on Finance and Economic Affairs, which is responsible for consideration of the Ontario Budget. Bob has been a resident of Mississauga for 30 years, was born and raised in Montreal and has also lived and worked in Metro Toronto and in Vancouver. Bob received his Bachelor’s Degree in physics from Concordia University in Montreal. He earned a Masters Degree in Business Administration from Simon Fraser University in British Columbia.

Michael Lyle, Vice-President, Planning, Law and Aboriginal Relations, Independent Electricity System Operator (IESO) is responsible for legal services, regulatory affairs, First Nation and Métis relations and long-term planning. Michael has extensive experience in the regulation of the electricity sector in Ontario. Previously, he was General Counsel and Vice President, Legal, Aboriginal and Regulatory Affairs at the Ontario Power Authority and has also served as counsel for the Ontario Energy Board and counsel at the Ministry of Energy. Michael obtained his law degree from the University of Toronto and also holds a BA in economics from the University of Western Ontario.

1:45pm – 3:00pm

**AFTERNOON BREAKOUT SESSIONS**

**Market Transformation: From Procurement to Market-Based Approaches in Ontario**

Room 202

In 2016, many decisions about the future of solar energy in Ontario will be made. The next iteration of the province’s Long Term Energy Plan will endeavour to achieve the province’s climate change objectives, while identifying the optimum balance of supply from sources including renewables, natural gas, nuclear and imports from other provinces with demand which is changing and becoming smarter. Policy-makers and regulators will also be designing the long-term framework for behind-the-meter solar generation and storage to enable it to thrive at grid-parity while facilitating the sustainable evolution of the province’s electricity sector. This afternoon breakout session moderated by Fidel Reijerse, President, RESCo Energy Inc. will begin with a presentation from Jason Chee-Aloy, Managing Director, Power Advisory LLC that will examine the progress that has been made against the province’s Long Term Energy Plan and how solar can contribute to the province’s future electricity demands. Panel discussion will then follow with Sam Colalillo, Manager Renewable Energy, Ontario Ministry of Energy and Co-Chair of the Ministry’s Net-Metering Working Group; and Jim MacDougall, President, Compass Renewable Energy Consulting Inc. who will speak to the current evolution in policy design for distributed solar in Ontario and Brian Hewson, Senior Manager Strategic Policy, Ontario Energy Board who will speak to how this future policy will be accommodated in the provincial regulatory framework.

**Technical Transformation: Solar Implications for Distribution Grids**

Room 204 – Summit

Today, few jurisdictions in the world meet more than 10% of their electricity needs with solar PV. However, more and more industry leaders, analysts, academics and think-tanks are queueing up behind the assertion that it will not be long before distributed solar becomes the dominant source of electricity globally. This afternoon breakout session moderated by Roland Bründlinger and Christoph Mayr, Operating Agents of the International Energy Agency’s Photovoltaic Power Systems Task 14 “High Penetration of PV Systems in Electricity Grids” will examine the technical solutions that are available to enable distribution networks to be operated efficiently when solar electricity is contributing high proportions of energy and load. Speakers will include: Markus Kraiczky of the Fraunhofer Institute for Wind Energy and Energy System Technology who will speak to how the integration of 80% of Germany’s 38 GW of Solar PV at the distribution-level has transformed their electricity system; and Christof Bucher, Photovoltaics and Distribution Project Manager, Basler and Hofmann who will speak on practical experiences with innovative approaches to manage distribution connected PV in Switzerland; and Rajiv K. Varma, Associate Professor and Hydro One Chair in Power Systems Engineering, University of Western Ontario who will speak to how Bluewater Power Distribution Corp, an electrical distribution utility with over 35,000 customers in Southwestern Ontario is working with industry and academics to understand the implications of Canada’s largest distribution-connected solar farm (80MW) on their operations.

**Project Transformation: Minimizing the Cost of Capital**

Room 201

The Canadian solar industry has reached a milestone. There is now the project development, construction and financing experience, the operating asset fleet and the broad recognition by decision-makers that solar will be a mainstream and widespread source of electricity in Canada before long. This afternoon breakout session moderated by Scott Kraag, Partner Corporate Project Finance, Torys LLP will begin with panel discussion featuring lenders including Michael Gaudet, Director – Project Finance, RBC Capital Markets; and Bruce Mackinnon, Vice President & Director, Investment Grade Credit Research, TD Asset Management on how the current and near-term project finance landscape is evolving with focus on how developers will manage their cost of and access to funds to ensure their projects and portfolios continue to see the light of day including equity, mezzanine and senior project debt financing. The panel will look at capital available in Canada in the global context and the impact that emerging technology and new climate finance mechanisms such as green bonds will have on project development and finance markets. It will also consider the changing global and Canadian political and regulatory landscape and the implications that may have for the future of financing Canadian solar projects. A discussion with developers including Laurence Goldberg, CCO/General Counsel, CarbonFree Technology and Dave Rogers President and CEO, AMP Solar Group will then follow focusing on the transformation that they expect to see in the solar industry in the coming years as our industry moves from the new-kids-on-the-block to established mainstays and what that will mean for project finance.
3:00pm – 3:30pm  AFTERNOON NETWORKING BREAK IN THE EXPO HALL  LEVEL 300

3:30pm – 4:45pm  AFTERNOON BREAKOUT SESSIONS

**Market Transformation: Monetizing Solar’s Environmental Attributes in Alberta**  Room 202
Many decisions about the future of solar energy in Alberta will be made in 2016. While the province’s policy approach and program design are still in many ways a subject of speculation, the industry dialogue to this point has ultimately focused on the degree to which mechanisms that value the environmental attributes of clean electricity could accelerate the market-share of renewables to de-carbonize and diversify the electricity sector. Mechanisms under consideration have included a combination of Renewable Energy Certificates (RECs) and/or Offsets and/or changes to the Specified Gas Emitters Regulation (SGER). This afternoon breakout session moderated by Jared Donald, President, Synergist Energy Inc. will examine and analyse the implications of each of these mechanisms when applied in a number of permutations for the economic viability of distribution- and transmission-connected solar projects in Alberta. The session will begin with a presentation from Nathan Serota, Solar Analyst, Bloomberg New Energy Finance who will describe the variety of REC program and market designs in the United States as it relates to their efficacy for solar market development. Panel discussion will then follow with Jon W. Kieran, Principal, Integrus Consulting Services Inc.; John Rilett, Director Distributed Generation, ENMAX Energy Corp.; and Paula McGarrigle, Managing Director, Solas Energy Consulting Inc. each of whom an industry leader with an intimate knowledge of developing renewable energy projects and markets and monetizing Environmental Attributes in Alberta.

**Technical Transformation: Solar Variability, Forecasting, and System Operation**  Room 204 – Summit
Until recently, electrical distribution systems were designed and operated based on the assumption of centralized generation, with the corollary that the power flow always flows from transmission system to the distribution system and from distribution substation to the end-use customers. Now with the significant advancement of variable distributed solar generation, the interactions between distribution and transmission networks have become more complex with new considerations required for system operation, control and protection. This afternoon breakout session moderated by Jacques Duchesne, Program Manager Wind Integration, Market Services, Alberta Electric System Operator (AESO) will examine how variable renewable energy resources require the adoption of new solutions and strategies which are transforming the ways in which the distribution- and the transmission-networks interact to balance supply and demand and ensure safe and reliable system operation. Speakers will include: Dave Turcotte, Project Officer – Electrical Engineering, Natural Resources Canada who has undertaken extensive research on forecasting solar generation in Canada with emphasis on timescales relevant to utilities; Kazuhiko Ogimoto, Project Professor for Energy System Integration at the University of Tokyo who will speak to the strategies employed to manage high penetrations of Solar PV and other variable generation of Japan’s transmission network; and Len Johnson, Manager Market Forecasts and Integration, Independent Electricity System Operator (IESO) who will speak to the experiences and lessons learned in Ontario and the work that is being undertaken to optimize interactions between solar and electricity-transmission and -distribution in Ontario.

**Project Transformation: From Development to Operations & From Projects to Portfolios**  Room 201  Sponsored by Powerhub
The focus and strategies of solar asset managers depends on the status of a given market. In mature solar markets such as those in Europe, asset managers are working to optimize performance at the portfolio-level. In less mature markets, asset managers are in many cases working at the project-level as they are added to growing portfolios one-by-one. This afternoon breakout session will begin with a presentation by Etienne Lecompte, CEO, Powerhub who will examine the status and progression of solar asset management in Europe, Canada and in the US with emphasis on what difference in market maturity can mean for project owners and on how the solar industry is adapting as project pipelines mature from development to operation and as individual projects are added to growing portfolios. It will look at the ways developers are taking advantage of portfolio efficiencies to better manage project development and operations in addition to the benefits and difficulties in financing solar project portfolios. A panel discussion will then follow moderated by James Pagonis, Director, Powerhub on the subject of: Moving from Developing Projects to Developing & Operating them featuring: David Oxtoby, CEO, CarbonFree Technology Inc.; John Woomert, Project Coordinator and Owner Representative, Connor, Clark & Lunn; Jim Papamanolis, Head of Legal SunEdison Canada; David Asling-Snee, Northwind Solutions; Jake Sadikman, Osler, Hoskin & Harcourt LLP; and Keith Vergien – Area Operations Manager Canada Solar & Wind, EDF Renewable Energy.

4:45pm – 6:00pm  EVENING WELCOME RECEPTION IN THE EXPO HALL  Sponsored by Carmanah
7:00pm  SOLARPALOOZA AT THE REAL SPORTS BAR
Passes will not be available at the door. Purchase in advance to avoid disappointment.
The USA will be highlighted at the world’s largest industrial trade fair, and Energy at HANNOVER MESSE will focus on Integrated Energy Systems and Mobility. As factories become intelligent, energy systems must be intelligent too.

To explore opportunities at HANNOVER MESSE, please contact Emma Sargsyan at emma.sargsyan@germanchamber.ca or call +1 (514) 844-3051 for more information.

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RES Utility-Scale Solar PV

Our global solar PV construction portfolio includes more than 290MW of ground-mounted solar:

- 80MW of feed-in-tariff (FIT) projects in Ontario
- 120MW in Colorado
- 71MW in Texas
- 10MW in California
- 6.3MW in the United Kingdom
- 5MW in France

RES Distributed Solutions

Community integrated solar, storage, and demand side management technologies that are:

- **Customer-Sited:** Controllable, competitive, and predictable power commercial and industrial clients desire
- **Grid-Connected:** Safe, reliable, and responsible power that utilities need
  ...with zero capital investment

RES Energy Storage

Our energy storage construction portfolio includes more than 77MW (47.6MWh):

- 75MW of energy storage projects constructed or under construction in Canada and the U.S.
- 2MW back-up energy storage project under construction for Puget Sound Energy in Washington

Residential Energy Systems
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Montréal, Québec, H2X 4B3, Canada
514.525.2113
InfoCanada@res-americas.com
res-americas.com
AGENDA

11:30am – 12:45pm

On October 19th, 2015 Justin Trudeau’s Liberals won a majority of the seats in the federal general election thus ending a decade of Conservative Party governance. The Liberal Party’s platform included the development of a new pan-Canadian framework to address climate change, a $2 billion Low Carbon Economy Trust to fund projects that reduce carbon pollution, collaboration with the provinces to implement a Canadian Energy Strategy, including the use of more clean, renewable electricity generation, investment of an additional $100 million per year in clean tech growth and development and efforts with the private sector to unlock venture capital, shifting subsidies from fossil fuels to new and clean technology, green bonds for community-based renewable energy projects, and clean technology procurement within government, electric vehicle charging stations, electrification of the federal vehicle fleet, energy efficiency initiatives, and exploration of opportunities for clean technology exports. This morning breakout session moderated by Mike Crawley, Executive Vice President, Development Northland Power Inc. will examine these election promises and the actions taken in the five weeks since the new government was sworn in to analyse their significance for Canada, Canadians and the Canadian solar energy industry with panelists: Vicky Sharpe, Advisory Board Member, EnerTech Capital; Dave Sawyer, Environmental Economist, Enviro Economics; and Chris Benedetti, Principal, Sussex Strategy Group.

Market Transformation: A New Role for the Federal Government Room 202

Technical Transformation: Smart Inverters and System Benefits Room 204 – Summit

Project Transformation: Minimizing the Development Costs for Large Ground-Mount Solar Facilities Room 201

12:45pm – 2:00pm

KEYNOTE LUNCHEON CONSTITUTION HALL (106) Sponsored by SunEdison

Transformation of Communities from Fossil-Fuel Dependency to 100% Renewables

On June 24 2015, a motion put forward in Oxford County to become the first municipal government in Ontario to commit to 100% renewable energy by 2050 was passed by Council. Since then, Oxford County has received global media coverage of their ambitious plans and other municipalities and renewable advocates across Canada are examining how to bring similar positive change to their own communities. This morning keynote address from Trevor Birtch, Mayor, City of Woodstock & Oxford County Councillor (and the architect of the successful motion) will describe how the Council’s commitment to this action brings great responsibility, but also great opportunity and how the commitment to 100% renewable energy is not only the right path to take for our future and our children’s future, but also the right approach for their local economy and their ability to continue to attract investment in clean, sustainable, innovative technologies.
09:45am – 10:15am  PUBLIC ENGAGEMENT ON RENEWABLES AND ENVIRONMENT IN ONTARIO
The David Suzuki Foundation (DSF) supports solar energy as a solution to many of our modern-day environmental problems. Attend this session to hear from the DSF’s Climate Change Policy Analyst Gideon Forman how the solar sector should develop its narrative to highlight its benefits for the environment, human health and employment – to better position it as a solution to the threats of climate change with the public. Forman will stress the importance of “community power” (renewables owned by individuals and co-ops) which offers citizens direct financial benefits. He’ll also suggest solar developers need to become part of popular culture – supporting such things as music festivals, bird-watching clubs, and kids’ soccer – if they want to develop deep roots in the communities they serve.

10:15am – 10:45am  SOLAR AND CLIMATE CHANGE MITIGATION AND ADAPTATION IN THE NORTHWEST TERRITORIES
The Northwest Territories (NWT) has a cold subarctic and arctic climate. The plants, animals and people living here depend on these conditions to be successful. In the NWT, climate change is happening faster than the rest of Canada. The territory is facing thawing permafrost, sea level rise, coastal erosion, melting winter roads, plants and animals moving north and difficulties accessing traditional foods. Attend this session to hear from Wade Carpenter, Alternative Energy Specialist, Public Works and Services, Government of the Northwest Territories how the NWT is accelerating the use of solar energy in the territory to mitigate and adapt to the impacts of climate change.

LEARNING POD – EXHIBITOR PROFILES
SOLAR CANADA 2015 IS THE LARGEST EXPOSITION FOR THE SOLAR ENERGY INDUSTRY IN CANADA. ATTEND THE FOLLOWING PRESENTATIONS FROM A SELECTION OF OUR EXHIBITORS TO HEAR THE LATEST AND GREATEST IN SOLAR ENERGY.

10:30am – 10:45am  Ryan Magee, Renewable Program Manager, Canadian Energy
11:15am – 11:30am  Rob Milliken, General Manager, Solar EPC Services, Carmanah Technologies
11:30am – 11:45am  Walter Buzzelli, Managing Director, Panasonic Eco Solutions Canada Inc
11:45am – 12:00pm  Peter Allen, President, Thermo Dynamics Ltd
12:00pm – 12:15pm  Dave Egles, President, HES PV
12:30pm – 12:45pm  Adam Webb, President, Sentinel Solar
12:45pm – 1:00pm  Martin Pochtaruk, President, Heliene Inc.
1:00pm – 1:15pm  Wolfgang Fritz, Ph.D., P.E., VP of Engineering and Product Development, Schletter Canada
1:15pm – 1:30pm  Suzanne Wilson, Sales Manager, Canadian Solar Solutions Inc.

1:30pm – 2:30pm  A CONVERSATION WITH BUILDERS: SOLAR AND THE FUTURE OF NET ZERO ENERGY HOMES
Net Zero Energy (NZE) homes employ enhanced energy efficiency design strategies and renewable energy technologies so that the building consumes equal to or less energy than it produces annually. Five production builders from across Canada are building five net zero communities (www.zerenergy.ca). At this session, Sonja Winkelmann, Director, Net Zero Energy Housing, Canadian Homebuilders’ Association; Candice Luck, National Project Manager, NRCan eeoEII Net Zero Energy Housing Community Demonstration; Jennifer Weatherston, Director of Innovation, Reid’s Heritage Homes; and Warren Abar, President, iSolara Solar Power – Minto Group NZE Project will share their experiences with net-zero housing including the role of solar energy in net-zero, the importance of a “turn-key” solar photovoltaic solution to achieve large scale production net zero energy homes and home labelling programs. Net Zero Energy Homes is the next frontier in the homebuilding industry and these builders are leading the way. But they can’t do it alone. Come join us for this interactive discussion to learn how the solar industry can help make NZE the future.

3:30pm – 4:00pm  EMERGING LEADERS FOR SOLAR ENERGY (ELSE)
The Emerging Leaders for Solar Energy (ELSE) is a growing network of young professionals, students, and solar advocates (up to 35 yrs.), who are working with the Canadian Solar Industries Association and industry stakeholders to build a strong solar energy future across Canada. ELSE fosters Canada’s next generation of clean tech leaders, providing participants with new skills and knowledge, professional development opportunities, and connections within industry and government. Attend this session to hear from representatives of ELSE what recent activities and successes they have been engaged in and what is on the horizon for 2016.
AFTERNOON BREAKOUT SESSIONS

Market Transformation: Solar Opportunities in Latin America  Room 202
Latin America is presently one of the world’s most attractive solar markets with excellent irradiance, major ongoing needs for expansions of generation, distribution and transmission infrastructure and high electricity costs. The “market” consists of a tremendous variety of geographic, environmental, cultural, political and economic conditions spanning jungles, deserts low and high, urban rooftops and islands. One factor unites these regions: the demand for solar energy technology, products and services from Canada throughout this market has never been higher. This breakout session moderated by Thomas J. Timmins, Chair of Global Renewables, Gowling will hear from Ontario’s International Trade Development Representatives in Brazil, Chile, and Mexico to understand the current solar opportunities in those jurisdictions in addition to the economic environment and other key information to inform business decision-making for Canadian companies and professionals considering participating in the Latin American solar market: Marcos Jose Duarte, Ontario International – Brazil International Trade Development Representative; Gabriela Esquinca, Ontario International – Mexico International Trade Development Representative; and Veronica Medina, Ontario International – Chile International Trade Development Representative.

Technical Transformation: Smart Grid Integration  Room 204 – Summit
The smart grid harnesses the power of information technologies to monitor, control, and optimize the usage of the electricity system. These efforts are designed to increase efficiency, reduce outages, integrate more renewable forms of generation, and empower consumers to more effectively control their energy use. This afternoon breakout session moderated by Ron Dizy, Managing Director, Advanced Energy Centre at MaRS will examine the role and technical considerations for solar in grid-modernization and its potential to transform the electricity sector as we know it today by connecting the dots between micro-grids, storage, electric vehicles and the internet. Speakers will include: Gerd Heilscher, Professor and Head of the Institute for Energy and Drive Technology at Ulm University of Applied Sciences; Thomas Reindl, Deputy CEO of the Solar Energy Research Institute of Singapore (SERIS); and Kazuhiko Ogimoto, Project Professor for Energy System Integration at the University of Tokyo who will each speak to the integration of solar PV into the smart-grids in their jurisdictions of Germany, Singapore and Japan; Neetika Sathe, Vice President, Corporate Development, PowerStream Inc who will speak to the progress being made in this area by Canadian utilities and the role solar and smart-grid will play in Canada’s utility-of-the-future; Mike Bourque, Director, Integrated Resource Planning, NB Power who will describe the smart-grid initiatives being undertaken in New Brunswick to shift load and improve the resilience of their electricity supply.

Project Transformation: Residential Solar Permitting in “Solar-Friendly” Municipalities  Room 201
When designed and installed by qualified professionals, Solar PV systems are as structurally and electrically safe as any other electrical appliance or piece of plant commonly found in buildings. However, as solar PV systems are still viewed in many jurisdictions across Canada as an emerging technology, there can exist processes, costs and barriers to control their deployment that could be viewed as not being fully fit for purpose (e.g. safety requirements that do not improve safety or delays due to unnecessary administration). These processes, costs and barriers create “Solar Soft Costs” and can act as a barrier to solar deployment. This afternoon breakout session moderated by Shamor Paul, Vice-President, Grasshopper Solar will begin with a presentation from Ed Knaggs, Vice President, HES PV on the current status of municipal solar soft costs across Canada and their implications for the viability of residential solar PV projects. Presentations and panel discussion will then follow with Rob McMonagle, Senior Advisor Green Economy, City of Toronto; Shannon Miedema, Acting Manager, Energy & Environment, Planning & Development, Halifax Regional Municipality; Brendan McEwen, Sustainability Manager, City of Richmond; and Graham Seaman, Director, Sustainability, City of Markham on topics including municipal best practices, how municipalities can become more “solar-friendly” and what the solar industry can do to optimize collaboration with municipal elected officials and staff to advance the market for residential solar across Canada.

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