

Program at a Glance

Time	Saturday, 21 August	Sunday, 22 August	Monday, 23 August		Tuesday, 24 August	Wednesday, 25 August
9:00 - 10:30	workshops	workshops	trade show	Opening Plenary Learning from the European Solar Experience	Plenary P-2 Focus on N. America	Plenary P-3 Canada's Solar Future
10:30-11:00				Break	Break	Break
11:00-12:15				Technical Sessions T-1	Technical Sessions T-4	Technical Sessions T-6
12:15-1:30				Lunch	Lunch	Closing Luncheon
1:30 - 2:45				Technical Sessions T-2	Technical Sessions T-5	Tours
2:45 - 3:15				Break	Break	
3:15 - 4:30				Technical Sessions T-3	SESCI AGM	
4:30 - 5:00						
5:00 - 6:00		Welcoming Reception				
6:00 - 7:00						
7:00 - 9:00			Banquet	Public Forum		

Detailed Program

Saturday, August 21

Workshops

09h00 – 17h00	RETScreen Workshop	CPH 1346
	CanSIA Solar-PV Workshop	DC 1302

Sunday, August 22

Workshops

09h00 – 16h00	CanSIA Solar-Thermal SDHW Workshop	DC 1302
09h00 – 17h00	RETScreen Workshop	CPH 1346
13h00 – 17h00	Solar Architecture Workshop, with Steven Strong	DC 1350
	Managing the Shift to Solar, with Janice Calnan	DC 1301
14h00 – 18h00	Photovoltaic Residential Applications and Standards	DC 1304

Monday, August 23

08h00 – 17h00 **Registration** Davis Centre

08h15 – 09h00 **Speakers' Breakfast** DC 1316

09h00 – 10h30 **Opening Plenary: Learning from the European Solar Experience**
Room DC 1350
Chair: Alfred Brunger, National Solar Test Facility, Bodycote Materials Testing Canada
Welcome remarks: Mike Collins, Conference Chair
Welcome from the University of Waterloo: President David Johnston
Guest speaker: Teun Bokhoven, President, Dutch Renewable Energy Foundation
Title of talk: The European Solar Thermal Market, The Sun in Action

10h30 – 11h00 **Refreshment Break:** Trade Show area DC 1301

11h00 – 12h15 **Technical Sessions T-1**

TE: Design Tools and Education DC 1302

Chair: Terry Hollands, University of Waterloo, Waterloo, ON

- TE-35 Park and Athienitis (Canada) *Daylight Prediction for Integrated Daylighting Control Systems with an Interior Light Sensor*
- TE-47 Thomsen (Canada) *Creating and Sustaining a Renewable Future: Necessary Steps in Education*
- TE-66 Omboli (Canada) *Towards a Renewable Energy Training Strategy in Canada: NRCan's Perspective*

PV-1: Photovoltaic Applications DC 1350

Chair: Gordon Howell, Howell Mayhew Engineering Inc., Edmonton, AB

- PV-38 Poissant, Thevenard and Turcotte (Canada) *Performance Monitoring of the Nunavut Arctic College 3.2 kWp Grid-Connected Photovoltaic System*

- PV-55 Hadlock, DeLoyde and Dhir (Canada) *Implementation of the First Student-Designed PV Array in Canada*
- PV-63 Ayoub and Henderson (Canada) *The Opportunities and Challenges of Living Off-Grid on Renewable Energy in the Yukon: Results of a Baseline Study and Integrated Design Charrette*
- PV-64 Poissant, Martel, Ayoub, Abbey, Charron, Noguchi and Dignard-Bailey (Canada) *Government Initiatives for the Integration of Distributed Generation in the Canadian Electrical Grid and Homes*

DC: Solar Energy in Developing Countries DC 1304

Chair: TBD

- DC-15 Aman, Ahmed and Islam (Bangladesh/Germany) *Solar Energy Options for the Off-Grid Areas in the LDCs*
- DC-26 Bi and Haight (Canada) *Solar Energy Utilization In Developing Rural Areas a Case Study From Hainan Province, China*

12:15 – 13h30 **LUNCH:** Trade Show area DC 1301

13h30 – 14h45 **Technical Sessions T-2**

WIN: Windows DC 1302

Chair: John Wright, University of Waterloo, Waterloo, ON

- WIN-05 Khoukhi, Maruyama, Bosi, Komiya and Behnia (Japan/Australia) *A New Simple Approach for Calculating the Optical Constants of a Clear Glass Window from 0.19 to 5 μm*
- WIN-10 Rozati (Iran) *Deposition of Indium Tin Oxide Thin Films by Spray Pyrolysis Technique*
- WIN-13 Collins (Canada) *The Importance of Indoor and Outdoor Air-Film Coefficient Measurement to Solar Calorimetry*
- WIN-30 Tasnim and Collins (Canada) *Laminar Natural Convection Heat Transfer in Windows with Between-the-Panes Venetian-Blinds*
- WIN-36 Aggarwal (Canada) *Smart Materials for Energy Optimization*

PV-2: Grid-Connection Topics DC 1350

Chair: Andreas Athienitis, Concordia University, Montreal, QC

- PV-04 Drewes (Canada) *Residential Photovoltaic Systems: A Negative Load for Utilities*
- PV-44 Egles and Voysey (Canada) *The Emergence of Canadian Grid Tie PV*
- PV-58 Howell and Robertson (Canada) *Micropower Grid-Interconnection Manual for Alberta*

14h45 – 15h15 **Refreshment Break:** Trade Show area DC 1301

15h15 – 16h30 **Technical Sessions T-3**

EE: Energy Efficiency DC 1302

Chair: Jeff Knapp, NRCAN, Ottawa, ON

- EE-14 Woods, Celeste, Dworkin and Lightstone (Canada) *Analysis of Insulating Panels for Hot Water Radiator Heating Systems*
- EE-23 Mozaffari (Sweden) *Retained Thermal Comfort and Reduced Energy Use for Residential Buildings in China by Passive Solar Design*

- EE-27 Parker, Rowlands and Scott (Canada) *Integrating 'Negawatts' to Improve Solar Project Performance: Assessing Potential Energy Savings in the Residential Sector*
- EE-42 Pasini, Athienitis, Kerby, Moussa, Lopez and Chen (Canada) *Energy Analysis for the Canadian Participation in Solar Decathlon Competition*

PV-3: Photovoltaic Components and Manufacturing DC 1350

Chair: Josef Ayoub, CETC-V, NRCan, Varennes, QC

- PV-49 Petherick, Kherani, Yeghikyan, Kostaski and Zukotynski (Canada) *Temperature Dependence of Properties of Amorphous Silicon Grown Using the DC Saddle Field Glow Discharge*
- PV-56 Johnson, Kherani and Zukotynski (Canada) *Ion Bombardment and Microcrystalline Growth in the DC Saddle Field*

18h30 – 21h00 **Banquet** SCH Festival Room

Master of Ceremonies: TBA

Guest speaker: Steven Strong, Solar Design Associates

Title of talk: Solar Electric Architecture

Tuesday, August 24

08h00 – 17h00 **Registration** Davis Centre

08h15 – 09h00 **Speakers' Breakfast** DC 1316

09h00 – 10h30 **Plenary Session: Solar Innovation & Application in North America**

Room: DC 1350

Chair: Ian Rowlands, University of Waterloo, Waterloo, ON

Guest speakers:

- Ross McCluney, Florida Solar Energy Centre, USA *Justifying Energy Efficient and Renewable Energy Technology*
- Thomas Rueckert – U.S. Department Of Energy

10h30 – 11h00 **Refreshment Break** Trade Show area DC 1301

11h00 – 12h30 **Technical Sessions T-4**

ST-1: Solar Thermal Applications DC 1302

Chair: Steve Harrison, Queen's University, Kingston, ON

- ST-34 Plesca (Moldova) *Solar Installations for Drying of Fruit*
- ST-48 McClenahan and Kokko (Canada) *Community Scale Solar Heating With Seasonal Storage*
- ST-51 Swartman and Ali (Canada) *Durham Nursing Home Solar Project A Case Study*
- ST-09 Azad and Kanan (Iran) *Solar Drying Granular Materials in Fluidized Bed*

PL: Policy, Legislation and Infrastructure DC 1304

Chair: Doug Lorriman,

- PL-03 Hadlock and Dhir (Canada) *A Case-Study of Successful Implementation of PV at the National Level*
- PL-39 Remmer (Canada) *A Discussion of the Potential for Distributed Photovoltaic Generation in Ontario*
- PL-60 Thevenard (Canada) *An Overview of IEC Standards for Non-Concentrating Photovoltaic Modules*

- PL-46 Middleton (Canada) *Art: 'Accessible, Renewable Technology'*

AD: Sustainable Buildings DC 1350

Chair: Stephen Pope, S.F. Pope Greenbuilding Consulting, Ottawa, ON

- AD-08 Simon (Canada) *Thirty Years' Tilling the Green Architecture and Planning Fields*
- AD-11 Simon and McKee (Canada) *Holistic Design: Learning from the Learning Center*
- AD-28 Boake (Canada) *LEED™: Evaluating the Impact Potential on Passive/Active Solar Buildings and Renewable Energy*
- AD-29 Boake (Canada) *LEED™: A Tool for Analysis and Comparison Canadian Building Case Studies*
- AD-22 Prochazka (Canada) *Emergent Threshold: Daylight Modelling for Sustainable Design*

12:30 – 13h30 **LUNCH** DC 1301

13h30 – 14h45 **Technical Sessions T-5**

ST-2: Solar Thermal DC 1302

Chair: Doug McClenahan, CETC, NRCan, Ottawa, ON

- ST-19 Russell and Thwaites (Canada) *Field Application of Standard Day Performance Tests*
- ST-31 Harrison, Lin and Mesquita (Canada) *Integral Stagnation Temperature Control for Solar Collectors*
- ST-33 Mesquita and Harrison (Canada) *Numerical Analysis of Heat and Mass Transfer in Parallel-Plate Liquid-Desiccant Regenerators*

PV-4: Photovoltaics Modeling & Testing DC 1350

Chair: Yves Poissant, CETC-V, NRCan, Varennes, QC

- PV-07 Rowlands (Canada) *Maximising the Value of Solar Power in Restructured Electricity Markets: Two Canadian Case-Studies*
- PV-17 Hossain, Chawdhury, Sheik, Islam and Islam (Bangladesh) *A Simplified Thermal Model for the Prediction of Cell Temperature of a PV Module*
- PV-41 Athienitis, Liao, Charron, Collins, Poissant and Park (Canada) *Experimental and Numerical Results for a Building-Integrated PV Test Facility with Generation of Electricity and Heat*

14h45 – 15h15 **Refreshment Break** DC 1301

15h15 – 16h30 **SESCI Annual General Meeting of Members** DC 1302

19h00 – 21h00 **Public Forum** **Centre for International Governance Innovation**
57 Erb St. W., Waterloo

Master of Ceremonies: Mary Jane Patterson

Guest speakers:

- Gerald Van Decker, Renewability Energy Inc., Waterloo, ON
- Teun Bokhoven, President, Dutch Renewable Energy Foundation
- Milfred Hammerbacher, Spheral Solar Power, Cambridge, ON

Wednesday, August 25

- 08h15 – 09h00 **Speakers' Breakfast** DC 1316
- 09h00 – 10h30 **Plenary Session: Moving Forward—Canada's Solar Future**
Room: DC 1350
Chair: Gerald Van Decker, Renewability Energy Inc, Waterloo, ON
Guest speakers:
- Christian Vachon, Enerconcept Inc., Québec
 - Joe Thwaites, Taylor Munro Energy Systems Inc., Delta, BC
 - Mike Noble, EnerWorks Inc., ON
- 10h30 – 11h00 **Refreshment Break** DC 1301
- 11h00 – 12h15 **Technical Sessions T-6**
- HY: Hybrid Systems** DC 1350
Chair: Andrew Van Doorn, Techno-Solis Inc, St-Hubert, QC
- HY-02 Saidi and Taghirad (Iran) *Multivariable Generalized Predictive Temperature Controller Design for Yazd Solar Power Plant*
 - HY-37 Plesca (Moldova) *Solar Heat Pump System with Absorbers for Heating of Swimming Pool Water*
 - HY-40 Szymocha (Canada) *Integrated Solar Energy Systems*
 - EE-67 Gusdorf and Paul (Canada) *Southfield EnviroHome Monitoring Report*
- SR: Solar Resource Assessment** DC 1302
Chair: TBD
- SR-12 Azzam and Nigim (Canada) *Analysis of Renewable Energy Metrological Data Using MATLAB GUI Tool*
 - SR-45 Fraser (Canada) *Generalized Exergy View of Solar Energy*
 - SR-65 Kostylev and Pavlovski (Canada) *The Sun for Nova Scotia: Assessing Solar Energy Resources of the Province*
- OT: Other Renewable Energy Topics** DC 1304
Chair: Joe Thwaites, Taylor Munro Energy Systems Inc., Delta, BC
- OT-16 Yan and Leung (Hong Kong) *An Important Affecting Factor in Biodiesel Production: Intensity of Mixing*
 - OT-62 Benson (Canada) *Customer Expectations of the Canadian Solar Energy Industry— A Client's Decision Process and Support Needs*
- 12:15 – 13h30 **CLOSING LUNCH** **SCH Festival Room**
Closing Address:
Mike Collins, University of Waterloo, Waterloo, ON
Terry White, University of Waterloo, Waterloo, ON
- 14h00 – 17h00 **Solar Tours**
- Tour 1 Spheral Solar™ Power**
The tour will take you through the Spheral Solar™ Power factory in Cambridge, ON.
- Tour 2 National Solar Test Facility, Bodycote Materials Testing Canada Inc.**
The tour will take you to Canada's National Solar Test Facility in Mississauga, ON
- Tour 3 YMCA - Paradise Lake Outdoor Centre**
The tour will take you to the YMCA Outdoor Centre, located just outside of St. Clements, ON, on the edge of Paradise Lake